



STATE OF CONNECTICUT

DEPARTMENT OF ENVIRONMENTAL PROTECTION
79 ELM STREET HARTFORD, CT 06106-5127



OFFICE OF ADJUDICATIONS

IN THE MATTER OF : **APPLICATION NO.192-0300**

**WATERBURY GENERATION, LLC/
FIRST LIGHT POWER RESOURCES
SERVICES, LLC** : **AUGUST 26, 2008**

PROPOSED FINAL DECISION

Waterbury Generation LLC (the applicant) has applied to the Department of Environmental Protection for a New Source Review permit to construct and operate an approximately ninety-six megawatts, simple cycle, combustion turbine, peaking facility to be located at 725 Bank Street in Waterbury. The DEP issued a tentative determination to approve the permit application and staff has prepared a revised draft permit that would authorize the proposed activities.

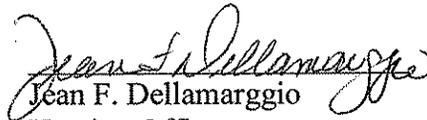
A hearing on this application was commenced on August¹ 11, 2008 and continued to August 14, 2008 in Hartford. An evening hearing was also held in Waterbury on August 12, 2008, for the purpose of receiving public comment on the application. The parties to this proceeding are the applicant, DEP staff and several intervening neighborhood groups.

The parties have filed the attached Agreed Draft Decision for my review and consideration. Regs., Conn. State Agencies §22a-3a-6(1)(3)(A). I have reviewed this submission and the record, including documentary evidence and testimony presented during the hearing by the parties; I have also considered public comments presented during the hearing.

¹ These dates are corrections to the original Proposed Final Decision, which referenced April hearing dates.

Following this review of the record and consideration of the facts and relevant law in this matter, I find that the application complies with the applicable statutes and regulations. General Statutes §22a-174; Regs., Conn. State Agencies §§22a-174-2 and 22a-174-3. Furthermore, I find that the applicant has satisfied the enhanced notification and public participation goals of the DEP Environmental Equity Policy. The parties' submission satisfactorily conveys the factual findings and legal conclusions necessary to support my conclusion. I therefore adopt their Agreed Draft Decision as my proposed final decision.

The applicant has demonstrated that the construction and operation of its proposed facility would comply with permit terms and conditions and would not adversely impact air quality. I therefore recommend issuance of the revised draft permit.


Jean F. Dellamarggio
Hearing Officer

SUMMARY

FirstLight Power Resources Services, LLC, as an agent for Waterbury Generation LLC (“WatGen” or the “Applicant”) applied to the Department of Environmental Protection (“DEP”) Bureau of Air Management for a New Source Review Permit (the “Permit”) to construct and operate an approximately 96 megawatts (“MW”) simple-cycle LMS100 PA combustion turbine generating peaking facility in the City of Waterbury at 725 Bank Street (the “Facility”). *See*, APP-1 and DEP-2 through 2F. An associated 115 kilovolt (“kV”) transmission line tap to interconnect to the electric grid, as well as the location of the Facility, has already been approved by the Connecticut Siting Council. *See*, APP-10.

DECISION

NEW SOURCE REVIEW APPLICATION

Statutory and Regulatory Background

As required by the federal Clean Air Act (CAA), the U.S. Environmental Protection Agency (EPA) has established national ambient air quality standards (NAAQS) that reflect the acceptable concentrations of specific pollutants that protect the public health and welfare. 42 USC § 7409. The NAAQS, which are based on annual and various other shorter term averaging intervals, have been established for six air pollutants known as "criteria pollutants." These are: sulfur dioxide (SO₂), particulate matter less than or equal to ten microns in diameter (PM₁₀) and less than and equal to 2.5 microns in diameter (PM_{2.5}), nitrogen dioxide (NO₂), carbon monoxide (CO), ozone (O₃), and lead (Pb). 40 CFR § 50.4 - 50.13. Connecticut has adopted regulations to require permits for stationary sources of these and other regulated air pollutants. R.C.S.A. § 22a-174-3a.

The CAA establishes a joint federal and state program to control air pollution and to protect the public health and welfare, including regulatory requirements to ensure that the ambient air quality as impacted by existing and new sources of pollution comply with the

NAAQS. Each state is required to designate air quality control regions¹ defined by the EPA and may adopt a state implementation plan (SIP) that establishes criteria pollutant emissions limitations and procedures to implement, maintain, and enforce the NAAQS for those designated regions. 42 USC § 7410(a)(2)(A)-(L).

The NAAQS are implemented, in part, through two different programs. The first is a federal program to regulate air pollution in "attainment" or "unclassifiable" areas. 42 USC §§ 7470-7479. The purpose of this program is the "prevention of significant deterioration" (PSD) of air quality in attainment areas. The program also ensures that economic growth "will occur in a manner consistent with the preservation of existing clean air resources" 42 USC § 7470. The federal regulations that implement this program call for certain pre-construction permit requirements for new major stationary sources or modifications. 42 USC §§ 7470-7492. The program also establishes PSD increments, which represent the maximum allowable increase in the concentration of certain air pollutants above baseline concentrations established under the Clean Air Act. 40 CFR § 52.21; see R.C.S.A. §22a-174-3a(k), Table 3a(k)-2.

Under the PSD regulations, major new sources and modifications must determine and use the "best available control technology" (BACT)² to minimize emissions of pollutants from a source that might otherwise exceed the applicable significance levels established by the PSD program. 42 USC § 7475(a)(4); 40 CFR § 51.21(j)(2); § 22a-174-3a(k). Applicants are also required to evaluate the impacts from the proposed source combined with other sources and

¹ Air quality control regions are designated as:

- (i) non-attainment, any area that does not meet (or that contributes to ambient air quality in a nearby area that does not meet) the national primary or secondary ambient air quality standard for the pollutant,
- (ii) attainment, any area (other than an area identified in clause (i)) that meets the national primary or secondary ambient air quality standard for the pollutant, or
- (iii) unclassifiable, any area that cannot be classified on the basis of available information as meeting or not meeting the national primary or secondary ambient air quality standard for the pollutant. 42 USC §7407(d)(1)(A).

² BACT is defined as "an emission limitation ... based upon the maximum degree of reduction for each applicable air pollutant emitted from any proposed stationary source ... which the commissioner, on a case-by-case basis, determines is achievable in accordance with section 22a-174-3a of the Regulations of Connecticut State agencies. BACT may include, without limitation, the application of production processes, work practice standards or available methods, systems, and techniques, including fuel cleaning or treatment, the use of clean fuels, or innovative techniques for the control of such air pollutant." R.C.S.A. §22a-174-1(15).

existing background ambient air quality through air dispersion modeling. To show that the new source will not cause or contribute to any air quality violation, the total concentration of any pollutant must be in compliance with the NAAQS and applicable PSD increments. 40 CFR § 52.21(m).

States, such as Connecticut that have a federally-approved SIP, have been delegated the authority to implement the PSD program. Connecticut's PSD regulations apply to major new sources with potential emission rates greater than the significant emission rate thresholds set forth in Table 3a(k)-1. R.C.S.A. § 22a-174-3a(k). The regulations that implement the Connecticut SIP, however, not only require New Source Review ("NSR") permits for major PSD sources, but also require NSR permits for minor stationary sources. Under the Connecticut SIP, any new source with potential emissions of fifteen or more tons per year (TPY) of an individual air pollutant must apply for a NSR permit and conduct a BACT review for those pollutants with potential emissions in excess of 15 TPY. R.C.S.A. §§ 22a-174-3a(a)(1) and 3a(j).

The CAA also establishes a second program designed to bring non-attainment areas into compliance as soon as practicable. 42 USC §§7410, 7501-7515. Major new sources of non-attainment pollutants, such as the ozone precursors, nitrogen oxides (NO_x) and volatile organic compounds (VOCs), must control such pollutants using the Lowest Achievable Emission Rate (LAER).³ Such major stationary sources must also obtain certified emission reduction credits (ERCs) to offset the allowable emissions increase for each individual non-attainment air pollutant that exceeds major source thresholds. R.C.S.A. § 22a-174-3a(1)(4).

³

LAER means the more stringent rate of emissions for any source based on the following:

- (A) The most stringent emissions limitation which is contained in the implementation plan of any State for such class or category of stationary source, unless the owner or operator of the proposed stationary source demonstrates that such limitations are not achievable; or
- (B) The most stringent emissions limitation which is achieved in practice by such class or category of stationary sources...In no event shall the application of the term permit a proposed new...stationary source to emit any pollutant in excess of the amount allowable under an applicable new source standard of performance.

40 CFR §51.165a(1)(xiii); R.C.S.A. §22a-174-1

FINDINGS OF FACT

Approvals From Other State Agencies

1. On May 3, 2007, the Department of Public Utility Control (“DPUC”) approved the selection of the Facility as one of four projects to provide electrical capacity under the competitive procurement process required by Section 12 of Public Act 05-1, *An Act Concerning Energy Independence* (the “EIA”). See, APP-1, APP-8A (DPUC Investigation of Measures to Reduce Federally Mandated Congestion Charges, hereinafter “FMCC Decision”), DEP-2, DPUC Decision, dated May 3, 2007, “*Recommendations on Selection of Projects in the 2006 Connecticut RFP Process*” and Testimony of James Ginnetti, Hearing Transcript, P.21-22.

2. In the FMCC Decision, the DPUC determined that the Facility “will help improve reliability and provide a foundation for fast start generation capacity which has been identified in the needs analysis.” FMCC Decision at 2. The DPUC further found that the portfolio of selected projects will provide “much needed resources to supplement Connecticut’s aging generation fleet.” *Id.*

3. The DPUC also incorporated into its decision the findings of a report prepared by its consultant, London Economics International LLC (“LEI”), which found that the four selected projects would provide Connecticut ratepayers with \$522 million in net economic benefits (in 2007 dollars) and would substantially reduce environmental emissions across New England. See, FMCC Decision, APP-1 and Testimony of James Ginnetti, Hearing Transcript, P. 21-22. Ultimately, the DPUC found that the selected projects met the criteria of Connecticut General Statutes Section 16-243m(g), which require the DPUC to “give preference to proposals that (1) result in the greatest aggregate reduction of federally mandated congestion charges...(2) make efficient use of existing sites and supply infrastructure, and (3) serve the long-term interests of ratepayers.” See, APP- 1 and FMCC Decision at 1; Conn. Gen. Stat. § 16-243m(g). On August 22, 2007, the DPUC adopted LEI’s recommendation to select the Facility, affirmed its preliminary conclusions in the FMCC Decision and authorized a capacity contract for the Facility. See, APP-1 and APP-8B.

4. WatGen filed a Petition for a Declaratory Ruling with the Connecticut Siting Council ("Council") on October 5, 2007 seeking siting approval. On April 14, 2008, the Council issued its Findings of Fact, Opinion and Decision and Order, finding that the proposed Facility would not have any substantial adverse environmental effects, and pursuant to Conn. Gen. Stat. § 16-50k(a), a Certificate of Environmental Compatibility and Public Need was not required. *See*, APP-1 and APP-10.

Air Permit Application

5. By application dated September 4, 2007, as amended by addenda dated March 4, 2008, March 18, 2008, March 27, 2008 and March 31, 2008, the Applicant applied to the Department of Environmental Protection ("DEP") Bureau of Air Management for the Permit to construct and operate the Facility. *See*, DEP-1, DEP-2, 2C, 2D, 2E and 2F. The permit application was identified by the DEP as PAMS No. 200702004.

6. On May 9, 2008, the DEP gave notice of its tentative determination to approve the NSR Permit application to construct and operate a source regulated under the Clean Air Act. *See*, DEP-1, DEP-9 and Testimony of Charmaine Molyneaux, Hearing Transcript, P. 40. The public was provided with thirty days from the May 12, 2008 date of publication in the Waterbury Republican to submit comments in writing or to request a public hearing concerning this tentative determination. *See*, DEP-1.

7. On June 5, 2008, a Request for a Public Hearing was filed by The Brooklyn Neighborhood Association, The Hopeville Neighborhood Association, The Mohawk Park Civic Club, and The Town Plot Neighborhood Association. On the same day, the Waterbury Neighborhood Council, Inc. filed a similar request. On June 10, 2008, Janice Deshais, Director of the Office of Adjudications, issued a determination that an adjudicatory hearing would take place for PAMS No. 200702004 (the "Air Permit Proceeding"). A Notice of Public Hearing was published in the Waterbury Republican on July 3, 2008, notifying the public that a site visit would take place July 22, 2008 at 10:00 a.m., that a public adjudicatory hearing would begin on August 11, 2008 in Hartford, with a public hearing in Waterbury on August 12, 2008 at 6:30 p.m. *See*, DEP-22.

8. On June 5, 2008, The Brooklyn Neighborhood Association, The Hopeville Neighborhood Association, The Mohawk Park Civic Club, The Town Plot Neighborhood Association, and the Waterbury Neighborhood Council, Inc. (the "Initial Intervenors") also filed a petition for "intervenor status" with respect to the Application for the Permit. *Id.* The Petition was deemed insufficient.

9. The Initial Intervenors, joined by the Power Without Pollution Coalition and Gilmartin Community Club, filed a Revised and Supplemented Petition for Intervenor Status on June 26, 2008.

10. On July 2, 2008, Attorney Walter A. Twachtman, Jr. submitted correspondence to Hearing Officer Jean Dellamarggio for the DEP's Office of Adjudications (the "Hearing Officer") specifying that the Initial Intervenors, along with Power Without Pollution Coalition, relied upon Conn. Gen. Stat. §§ 22a-19 and 4-177a as statutory authority supporting their petition for intervention.

11. The Revised and Supplemented Petition was again deemed insufficient.

12. On July 24, 2008, the initial Intervenors, joined by the Gilmartin Community Club and Connecticut Coalition for Environmental Justice, filed a 2nd Revised and Supplemented Petition for Intervenor Status.

13. On August 5, 2008, the Hearing Officer granted the Intervenors intervening party status in the Air Permit Proceeding pursuant to Conn. Gen. Stat. § 22a-19 and denied with prejudice such status under Conn. Gen. Stat. § 4-177a.

14. A hearing was conducted by the DEP's Office of Adjudications beginning on August 11, 2008 through August 14, 2008 during which the Intervenors were represented by counsel, specifically by Walter Twachtman, Jr., Esq.

Project Description

15. The approximately 96 MW simple-cycle combustion peaking facility will be located at 725 Bank Street in Waterbury, Connecticut. *See*, DEP-2. As required by the DPUC, the Facility will have dual fuel capability, operating predominantly on natural gas, with the

capability of utilizing ultra low sulfur distillate fuel (“ULSD”) with 0.0015% sulfur by weight, dry basis, as back-up for the equivalent of 720 hours a year operating at maximum capacity. *See*, DEP-2, APP-3 and Testimony of James Ginnetti, Hearing Transcript, P. 11-12. The unit has a maximum firing rate of 846,723 cubic feet per hour when firing natural gas and a maximum firing rate of 5,838 gal/hr when firing USLD. *See*, DEP-17R. The Facility will utilize state of the art pollution control equipment. *See*, APP-3 and Testimony of James Ginnetti, Hearing Transcript, P. 33.

16. The Facility will provide significant reliability and economic benefits to Connecticut; specifically, approximately 96 MWs of reliable, quick-start electric generating capacity. *See*, APP-1, APP-8b and Testimony of James Ginnetti, Hearing Transcript, P. 13-14. This capacity will help Connecticut meet its needs in the Forward Capacity Market (“FCM”) and Locational Forward Reserve Market (“LFRM”) and mitigate federally mandated congestion charges. *See*, APP-1. For the first ten years of operation, the Facility will operate as a peaking facility pursuant to the Master Agreement with the United Illuminating Company (“UI”). *See*, APP-1, APP-9 and Testimony of James Ginnetti, Hearing Transcript, P. 39-40. Although the Facility is expected to be called upon by ISO-New England (“ISO-NE”) before older, high air pollutant emission peaking units, under the Master Agreement, it is expected that the Facility will operate only a few hundred hours per year depending on weather conditions and load requirements. *See*, APP-1, APP-3 and Testimony of James Ginnetti, Hearing Transcript, P. 14-15. Although market conditions after ten years may result in a higher operating rate, the Facility is not expected to operate as a baseload unit in the future. *See*, APP-1 and APP-10.

17. The Facility will be the cleanest and most efficient fossil fueled peaking plant unit in Connecticut and will be called upon to operate prior to older, more polluting peaking units in the State. *See*, APP-1, APP-3, Testimony of James Ginnetti, Hearing Transcript, P. 14-15 and Testimony of Michael Anderson, Hearing Transcript, P. 97-99. As a result, the total emissions from idling electric generation units in the State will be reduced. *Id.* Since the State is part of a single air shed, the reduction of emissions from older electric generating units, including those that currently operate at low idling levels for reliability purposes, will result in an overall reduction in emissions in the State, including particulate emissions. *See*, APP-11A and 11-B, Testimony of Dr. Brown, Hearing Transcript, P. 350-352. The replacement of older, more

polluting electric generating units with new low emitting fast-start combustion turbines is consistent with the DEP's policy on High Electric Demand Days and the White Paper prepared by Northeast States for Coordinated Air Use Management ("NESCAUM"). See, APP-11A and 11-B.

18. Expressed in terms of the amount of air pollution produced per amount of electricity produced (i.e., in units of pounds of emissions per megawatt-hour of electricity produced, or lb/MW-hr), the *maximum* allowable emission rates of this Facility are much smaller than the *actual* emission rates produced by the older existing fossil fuel-fired power plants in Connecticut. See, APP-3 and Testimony of Michael Anderson, Hearing Transcript, P. 97-99. When compared to six existing power plants in Connecticut, the six existing plants actually emitted NO_x, SO₂ and CO₂ at average rates that are, respectively, 10.8, 289 and 1.6 times greater than the maximum allowable rates that those pollutants can be emitted by the Facility. *Id.* In fact, the improvement in emission rates will be even greater than indicated by the preceding multiples because the actual emission rates of the Facility will have to be less than its maximum allowable emission rates, in order to ensure compliance with those allowable rates. See, APP-3.

19. In addition, the Facility will provide certain tax benefits in that it will pay over \$3 million in sales and use taxes. See, APP-1 and Testimony of Mark Mitchell, Hearing Transcript, P. 526-527. WatGen will pay an additional \$40 million in corporate taxes to the State of Connecticut and over \$110 million in property taxes to the City of Waterbury during the forty (40) year life of the plant. See, APP-1. The Facility will also create up to 125 construction jobs. *Id.*

20. Pursuant to the Master Agreement, if the Facility does not commence commercial operation as scheduled, WatGen could be subject to liquidated damages of one hundred fifty dollars per MW (\$150/MW) per day of delay, which could trigger an "Event of Default" and potential termination of the Master Agreement if there is an unexcused delay of greater than nine (9) months. See, APP-1 and APP-9. If the Facility does not commence commercial operation on schedule, the cost savings and reliability benefits of the Facility may be lost. *Id.*

21. WatGen was required to apply for and obtain a permit to construct and operate a new stationary source of air pollution pursuant to R.C.S.A. § 22a-174-3a(a)(1)(D) because

potential emissions of PM₁₀, PM_{2.5}, VOC, NO_x and CO from the turbine are each greater than 15 TPY. *See*, DEP-1. Potential emissions mean the maximum capacity of a stationary source, including all physical and practicably enforceable operational limitations, to emit any air pollutants. *See*, R.C.S.A. § 22a-174-1(86).

Site Description

22. The Facility will be located on an approximate 2.25 acre portion of a 14.25 acre parcel owned by Ansonia Copper & Brass, Inc. at 725 Bank Street in Waterbury (the "Property") which will be leased by WatGen ("Site"). *See*, APP-10 and DEP-2. The Property is located in Waterbury's Industrial General ("IG") Zoning District. *See*, APP-10. The Site is bordered by the Naugatuck River on the east, property owned by Consolidated Rail Corporation on the west, the existing Ansonia Copper & Brass Mill to the north and Washington Avenue to the south. *Id.* The nearest residential boundary is approximately 1,000 feet to the southwest of the Site. *Id.*

23. The Facility site is a brownfield site and in conjunction with the development of the Facility, the Site is being remediated in accordance with DEP's Remediation Standard Regulations. *See*, APP-1, Testimony of James Ginnetti, Hearing Transcript, P. 15 and Testimony of Mark Mitchell, Hearing Transcript, P. 526.

The Applicant

24. WatGen is a Connecticut limited liability company with an office at 20 Church Street, Hartford, CT 06103. FirstLight Waterbury Holdings, LLC ("FLWH") owns a 98% interest in WatGen, with the remaining 2% being owned by AW Power Holdings, LLC (1.3%) and Sasco River Advisors LLC (0.7%). *See*, APP-10. Both WatGen and FLWH are indirect subsidiaries of FirstLight Power Enterprises, Inc. ("FirstLight"), an electrical generation company headquartered in Hartford, Connecticut. *See*, APP-1. FirstLight currently owns and operates approximately 1,442 MW of generation in Connecticut and Massachusetts. *See*, APP-1. In addition to developing the WatGen Project, FirstLight is also developing and will operate a 635 net MW combined cycle, natural gas fired generating facility in Rensselaer, New York owned by Empire Generating Co, LLC. *See*, APP-1.

The Application

25. The Permit application included, among other things, an executive summary, background information, a premises site plan, equipment and other information, projected air pollution emissions, and control equipment descriptions. *See*, DEP-2 through 2-F.

PSD/BACT Determinations

26. Pursuant to R.C.S.A. § 22a-174-3a(d)(3)(H), a source must incorporate Best Available Control Technology (BACT) for each regulated air pollutant whose potential emissions exceeds one of the applicable thresholds defined in R.C.S.A. § 22a-174-3a(j) and (k). *See*, DEP-1, APP-3, Testimony of Michael Anderson, Hearing Transcript, P. 148 and Testimony of Richard A. Pirolli, Hearing Transcript, P. 177. BACT is defined as an emission limitation based on the maximum degree of reduction, on a case-by-case basis, taking into account energy, environmental, and economic impacts. *Id* and DEP-2. Although the Facility is not subject to PSD, because its potential emissions are less than the applicable major source PSD thresholds, the Connecticut SIP requires a NSR Permit and BACT analysis since the potential emissions of some pollutants exceed 15 TPY. *See*, DEP-1 and APP-3.

27. The 'top down' BACT approach requires that the BACT analysis begin with identifying the Lowest Achievable Emission Rate ("LAER") and consideration of the most stringent controls available and then proceed to include progressively lesser degrees of control. *Id* and DEP-2. A 'top down' BACT analysis was required for PM_{2.5}, PM₁₀, VOC, CO, NO_x and ammonia (NH₃) in accordance with R.C.S.A. § 22a-174-3a(j)(1)(C), since individually each of these pollutants have potential proposed emissions from the turbine greater than 15 TPY. *Id*. SO_x and H₂SO₄ are not subject to BACT since individually their potential to emit is less than the 15 TPY threshold. *See*, DEP-1.

28. Although no federally enforceable emission rate for any criteria pollutant exceeds any applicable major source threshold and a LAER determination was not required, the Facility uses the most stringent control technology option for application to all pollutants subject to BACT. *See*, APP-3 and Testimony of Michael Anderson, Hearing Transcript, P. 116.

29. BACT determinations for each pollutant are presented below. *See*, DEP-1.

PM/PM₁₀/PM_{2.5} Emissions

30. Particulate matter (PM) is broken into size fractions with portions of less than or equal to 10 microns in diameter being designated as PM₁₀ and portions less than or equal to 2.5 microns in diameter being designated as PM_{2.5}. *See*, DEP-1 and APP-3.

31. Post-combustion controls, such as fabric filters, wet scrubbers, and electrostatic precipitators are impractical due to the large pressure drops associated with these units and the low concentrations of PM/PM₁₀/PM_{2.5} present in the exhaust gas. *See*, DEP-1. A review of PM emission limits for combustion turbines presented in the Environmental Protection Agency (EPA) RACT/BACT/LAER Clearinghouse shows that only good combustion techniques and low-sulfur fuel have been used as controls for PM/PM₁₀/PM_{2.5} emissions. *Id.*

32. The Department has determined that BACT for PM/PM₁₀/PM_{2.5} is the use of clean burning fuels, including natural gas and ULSD fuel as a backup fuel, and good combustion practices. *See*, DEP-1 and APP-3. These measures are considered to be the most effective means for controlling PM/PM₁₀/PM_{2.5} emissions from combustion turbines. *Id.* The BACT emission rate limitations are based on 0.0094 lbs/MMBtu for natural gas and 0.037 lbs/MMBtu for ULSD. *See*, DEP-1 and Testimony of Charmaine Molyneaux, Hearing Transcript, P. 236. These BACT emission rates reflect the sums of the predicted filterable and condensable portions of the PM. *See*, DEP-1. In addition, opacity will be limited to 10% or less utilizing a six-minute block average. *See*, DEP-1.

NO_x Emissions

33. Pursuant to R.C.S.A. § 22a-174-22 Table 22-1, applicable Reasonably Available Control Technology (RACT) limits for large combustion turbines are 55 ppm @ 15% O₂ for natural gas and 75 ppm @ 15% O₂ for distillate oil firing. *See*, DEP-1. The GE LMS100 PA turbine is also subject to EPA's New Source Performance Standards ("NSPS"), 40 CFR 60 Subpart KKKK, and its NO_x emissions limit of 15 ppm @ 15% O₂ for turbines with a maximum combustion turbine heat input at peak load in excess of 850 MMBtu/hr firing natural gas. *See*, DEP-1 and APP-3. The Facility's emission limits are well below the standards of this Subpart

and will comply with the requirements of R.C.S.A. § 22a-174-22 and Subpart KKKK. *See*, DEP-1 and APP-3.

34. Selective Catalytic Reduction (“SCR”) is an add-on NO_x control placed in the exhaust stream after the oxidation catalyst. SCR involves the injection of aqueous ammonia (NH₃) into the exhaust gas stream upstream of a catalyst bed. *See*, DEP-1, DEP-2 and APP-3. On the catalyst surface, NH₃ reacts with NO_x contained within the exhaust gas to form nitrogen gas (N₂) and water (H₂O). *Id.* SCR technology is the standard control for combustion turbines, and as catalyst manufacturers continued to improve their designs and develop new formulations, the level considered LAER has decreased, eventually reaching the present levels of 2.5 ppm @ 15% O₂ for natural gas firing in large simple-cycle turbines. *See*, DEP-1 and DEP-2.

35. Water and steam injection systems inject deionized water or steam into the combustors of a gas turbine. *Id.* This has the dual effect of lowering peak flame temperatures and enhancing performance by the large increase in volume associated with the phase change of water or superheating of steam injected to the flame zone. *Id.* The GE LMS100 PA turbine will utilize water injection when firing both natural gas and ULSD fuel to control NO_x prior to the SCR system. *Id.* and Testimony of Michael Anderson, Hearing Transcript, P. 153.

36. EM_x (formerly SCONO_x) uses a potassium carbonate-coated catalyst to oxidize CO to carbon dioxide (CO₂) and reduce NO_x to N₂ and water. *See*, DEP-1 and DEP-2. The EM_x bed preferentially absorbs sulfur compounds. *Id.* Sulfur may present a problem for natural gas-fired facilities using this technology; as such another catalyst bed is placed before the EM_x catalyst to capture the sulfur compounds. *Id.* The process operates at the exhaust of the heat recovery steam generator (“HRSG”) in combined-cycle systems where the exhaust temperature is 350 to 450°F. The potassium carbonate must be regenerated frequently with a reducing gas to remain effective. *Id.*

37. While EM_x technology has in limited applications achieved a NO_x emission rate comparable to those considered LAER at other facilities using SCR, it is not considered technically feasible for the Waterbury Generation Project. *Id.* The catalyst is susceptible to poisoning by sulfur compounds, which it adsorbs preferentially. *Id.* The EM_x system is not recommended for and is incompatible with turbines that may fire fuel oil, even as a backup fuel.

Id. In addition, the 100 percent power exhaust temperature range of the simple-cycle turbine is approximately 723 to 810°F over an ambient temperature range of -5 to 105°F. The operating temperature range for EM_x is limited to 300 to 700°F. *Id.* As such EM_x technology has had limited application of reduction of NO_x compared to other facilities using SCR, and is not considered technically feasible for Waterbury Generation's project. *Id.*

38. The Department has determined that the BACT NO_x emission rate limitation for natural gas combustion is 2.5 ppmvd @ 15% O₂ and for ULSD fuel firing is 5.9 ppmvd @ 15% O₂. *Id.* These determinations are based on the most stringent emission limitations achieved in practice for the source category. *See*, DEP-1. These levels will be achieved using good combustion practices, water injection to control NO_x when firing both ULSD fuel and natural gas, and SCR. *Id.* These limits are well below the RACT and Subpart KKKK NSPS limits. *Id.*

Ammonia Emissions

39. Ammonia (NH₃) emissions are a secondary pollutant which is present exclusively due to the use of SCR technology for NO_x control. *Id.* NH₃ is used to optimize the reduction of NO_x and the quantity of injection or reagent varies with ambient temperature and other system variables. *Id.* NH₃ is injected at greater than the stoichiometric quantity to maximize NO_x reduction. As a result, some NH₃ is emitted unreacted, which is called NH₃ slip. The amount of NH₃ slip increases from negligible amounts at the beginning of the catalyst life up to the permitted limit near the end of the catalyst life. The life span of the catalyst may last from three to six years or more. *Id.*

40. The Department has determined for this turbine that the BACT NH₃ slip emission rate for natural gas combustion is 5.0 ppmvd @ 15% O₂ and for ULSD oil firing is 5.0 ppmvd @ 15% O₂. *Id.* These limits are consistent with recent BACT determinations. *Id.*

CO and VOC Emissions

41. CO and VOC are the primary products of incomplete combustion (PICs). *Id.* These PICs are typically treated by conversion to carbon dioxide (CO₂) and water vapor by thermal and/or catalytic methods. *Id.* The top control for CO and VOC emissions from combustion turbine units is an oxidation catalyst. *See*, DEP-1 and APP-3. Exhaust gases from

the combustion turbines pass through catalyst honeycomb structures where excess oxygen in the exhaust oxidizes CO to CO₂ and water vapor. *See*, DEP-1 and DEP-2. During power operation (i.e., at turbine outputs of 50 percent load or greater), at least 91 percent of the CO will be oxidized and at least 38 percent of the VOC will also be destroyed. *Id.* A benefit of using an oxidation catalyst is the oxidation of VOC, as well as CO. *Id.* A drawback of using an oxidation catalyst is its tendency to oxidize some SO₂ to sulfur trioxide (SO₃). *Id.*

42. In some BACT determinations, good combustion practices have been cited as BACT for CO and VOC. *Id.* While some reduction can be obtained by good combustion practices, there are penalties associated with combustion modifications due to impacts on combustion efficiency with these techniques. *Id.*

43. The formation of CO and other PICs in the operation of a gas turbine results from the incomplete combustion of the fuel. *Id.* Several conditions can lead to incomplete combustion, including insufficient O₂ availability, poor air/fuel mixing, cold wall flame quenching, reduced combustion temperature, decreased combustion residence time and load reduction. *Id.* By controlling the combustion process carefully, CO emissions can be minimized. *Id.*

44. PICs from combustion turbines vary with ambient temperature. *Id.* At low temperatures, higher CO and VOC emissions result from the reduced combustion temperature and the highest emissions of these pollutants occur at the lowest ambient temperatures. *Id.* The catalyst will be placed at the location that produces optimal oxidation efficiency. *Id.*

45. The Department has determined that the BACT CO emission rate limitation for natural gas combustion is 6.0 ppmvd @ 15% O₂ and for ULSD fuel firing is 6.0 ppmvd @ 15% O₂. *See*, DEP-1. The turbine BACT VOC emission rate limitation for natural gas combustion is 4.0 ppm @ 15% O₂ and for ULSD fuel firing is 5.0 ppm @ 15% O₂. *Id.* The BACT emission rates will be achieved with good combustion practices and the use of an oxidation catalyst. *Id.*

Hazardous Air Pollutants

46. WatGen is not a major source of federally-regulated hazardous air pollutants (HAPs), because WatGen will not emit ten (10) TPY or more of any single HAP listed in Section 112(b) of the Clean Air Act, or twenty-five (25) TPY or more of any combination of HAPs. *See*, DEP-1 and APP-3. As such WatGen was not required to incorporate the Maximum Available Control Technology pursuant to 40 CFR Part 63. *Id.*

47. Maximum Allowable Stack Concentration calculations for state-regulated HAPs regulated in R.C.S.A. § 22a-174-29 have been performed and compared to expected HAP emissions from the source. *Id.* The analysis demonstrates that the actual stack concentrations will be below the calculated maximum allowable stack concentrations. *Id.*

Ambient Impact Analysis

48. In areas in attainment of the National Ambient Air Quality Standards (NAAQS) for a given criteria pollutant, prevention of significant deterioration (PSD) review is required for a new source which emits a criteria pollutant at greater than a major stationary source threshold. *Id.* Federally enforceable emission limits for the Facility for criteria pollutants do not exceed any applicable major stationary source threshold. *Id.* As such, a PSD review was not required for these pollutants. *Id.*

49. The City of Waterbury is located in a serious ozone non-attainment area as defined in R.C.S.A. § 22a-174-1(98) and a part of a designated non-attainment area for the annual PM_{2.5} standard. *See*, DEP-1. However, a violation of the annual standard for PM_{2.5} has never been measured in Waterbury. *See*, DEP-6F and Testimony of Jude Catalano, Hearing Transcript, P. 265. The non-attainment violation was measured in the New York City metropolitan area, where the Facility should not have any impact. *Id.* and Testimony of Michael Anderson, Hearing Transcript, P. 145-146.

50. Non-attainment review is required for a new source that emits NO_x, VOC, or PM_{2.5} at a rate greater than a major stationary source threshold. *See*, DEP-1. The federally enforceable emission rates for these criteria pollutants for the Facility do not exceed the

applicable major stationary source thresholds. *Id.* As such, non-attainment review was not required for these pollutants. *See*, DEP-1 and APP-3.

51. Even though PSD and non-attainment NSR requirements do not apply since the Facility is not a major stationary source, the Applicant conducted air quality dispersion modeling as required by DEP's regulations, because emissions of some pollutants will exceed fifteen (15) TPY. *See*, DEP-1 and APP-3. The Applicant used the modeling protocols approved by the DEP: the EPA's AERMOD dispersion model and the DEP's PTMTPA-CONN complex terrain screening model. *Id.*, DEP-6F and R.C.S.A. § 22a-174-3a(i).

52. The stack height for the Facility was selected by iteratively applying the EPA and DEP air quality dispersion models starting with the maximum GEP stack height and reducing the modeled stack height in each model run. *See*, APP-3 and Testimony of Michael Anderson, Hearing Transcript, P. 142-144. Based on this modeling exercise, 125 feet was selected as the stack height and air dispersion models were employed to verify that the predicted maximum concentrations complied with the ambient air quality standards. *Id.*

53. The Applicant demonstrated that the Facility's operation will not cause, prevent or interfere with the attainment or maintenance of any national or state ambient air quality standards or increments even assuming a worst-case scenario in which the facility would operate continuously utilizing ULSD fuel. *See*, APP-3, DEP-6F and Testimony of Michael Anderson, Hearing Transcript, P. 85-90. However, the Facility is expected to operate only a few hundred hours per year during its first ten years of operation and, importantly, the Draft Permit limits the maximum allowable amount of ULSD fuel use to 4.203 MM gallons per year, which is equivalent to 720 hours per year operating at the maximum ULSD fuel burning firing rate. *Id.*

54. The Facility is predicted to have an insignificant impact on air quality for all criteria pollutants, except the 24-hour average PM_{10} and the annual and 24-hour average $PM_{2.5}$ standards. *See*, DEP-6F. The impacts of PM_{10} / $PM_{2.5}$ were predicted to be above significance levels, which means that further analysis is required. *Id.* Upon further analysis, it was determined that the total impacts of all the existing and proposed sources on ambient PM_{10} / $PM_{2.5}$ concentrations were determined to be well below the applicable NAAQS. *Id.* The relevant maximum 24-hour $PM_{2.5}$ impact (i.e., the three-year average of the 8th highest value in each of

the three years) from all sources modeled, plus background, was predicted to be 31.8 micrograms per cubic meter. *See*, DEP-6F and Testimony of Jude Catalano, Hearing Transcript, P. 263. This value is below the 24-hour PM_{2.5} NAAQS of 35 micrograms per cubic meter. *Id.*

Review of Compliance History

55. The Applicant provided information on forms supplied by the DEP that demonstrate that it has not been convicted or penalized for any violation of a local, state or federal environmental law. DEP-2. The Applicant further demonstrated that it has not had any judgment entered against it for violating any environmental law and there are no outstanding orders against it issued by a state or federal administrative agency. *Id.*

56. Although the DEP Air Management Bureau did not request a Compliance History Form addressing the compliance history of WatGen's indirect parent, FirstLight Power Enterprises, Inc., or other FirstLight affiliated companies, the Applicant prepared such a form in response to the Intervenor's discovery request and submitted it as part of the record. *See*, APP-7.

Draft Permit

57. The Draft Permit specifies the state and federal statutes and regulations that govern the operation of the Facility, restrict emissions, and establish the requirements for stack testing, emissions monitoring and record keeping. The permit provides that the Applicant must conduct, maintain and operate each new source in compliance with all applicable requirements of any federal, municipal or state agency and applicable federal, state and local law. The Final Draft Permit was submitted by DEP staff as Exhibit DEP-17 Revised.

Intervenor's Position

58. In the Air Permit Proceeding, the Intervenor's alleged that the Facility would, among other things, place a "disproportionate" burden on the poor, minority community in Waterbury; that the burden was particularly of concern because of the Facility's proximity to schools, children and low income individuals; that they were concerned about the potential for increased PM_{2.5} in an area that is already non-attainment for PM_{2.5}; that a stack of 125 feet may not be protective of the health of the community; that the plant should not be allowed to run

365 days a year, 24 hours a day; and that the plant should not be allowed to burn ULSD because such fuel has a greater capacity to pollute than natural gas, there is currently no shortage of natural gas, and the use of ULSD will require a high number of diesel trucks to fill the tank.

DEP Environmental Equity Policy

59. In 1993, the DEP issued its Environmental Equity Policy, which provides, in pertinent part, that "...no segment of the population should, because of its racial or economic makeup, bear a disproportionate share of the risks and consequences of environmental pollution or be denied equal access to environmental benefits."⁴ The DEP has explained that "Environmental Justice means that all people should be treated fairly under environmental laws regardless of race, ethnicity, culture or economic status." *See*, Testimony of Mark Mitchell, Hearing Transcript, P. 528.

60. The DEP created the Environmental Equity Program in response to this policy. The Program incorporates aspects of environmental equity into DEP program development, policy-making and regulation-making activities, including: increasing public participation in the agency's decision-making process; enhancing public participation in administrative proceedings; and educating the public on DEP regulations, policies and procedures. The Department's effort to reach all segments of the population is fundamental to a fair administration of its programs and services.

61. In 2008, Public Act No. 08-94, *An Act Concerning Environmental Justice Communities and the Storage of Asbestos-containing Material*, was passed in Connecticut. *See*, INT-07. The Act, which becomes effective January 1, 2009, essentially codifies the DEP's original environmental equity policy. *Id.* It emphasizes meaningful public participation in the application process and allows municipalities to enter into "community environmental benefit agreements" with the owners of affecting facilities in order to mitigate facility impacts. *Id.*

62. Although Public Act No. 08-94 is not currently in effect and WatGen is not subject to its provisions, WatGen has voluntarily satisfied the intent of Public Act No. 08-94 by emphasizing meaningful participation in the application process, as will be described below, and

⁴ *Environmental Equity Policy*, Connecticut Department of Environmental Protection, December 17, 1993.

by voluntarily entering into a Community Benefit Agreement with the Intervenors (the “Agreement”), attached hereto as **Exhibit B**. The Intervenors’ witness, Mark Mitchell offered testimony that WatGen had satisfied the purpose of Public Act No. 08-94 by way of its efforts to seek meaningful public participation. *See*, Testimony of Mark Mitchell, Hearing Transcript, P. 524.

63. Throughout the application process, Program staff worked with the Applicant to facilitate meetings and communications to assure sufficient interaction with the community.

64. In July 2007, WatGen commenced a community outreach campaign designed to keep State and local government officials, community leaders and Waterbury residents informed about its plan to construct the Facility. *See*, APP-1 and APP-5. This outreach effort included individual meetings with Waterbury elected officials, Waterbury State legislators, Waterbury Department Heads and the Waterbury Development Corporation. *Id.* From July through October 2007, WatGen held numerous meetings with elected officials of the City of Waterbury, Waterbury state legislators, management and staff of various City of Waterbury departments and the Waterbury Development Corporation. *Id.* These meetings were held to brief relevant officials on the Facility, to identify any issues for consideration, and to solicit feedback. *Id.* A listing of twenty-eight (28) meetings attended and dates was submitted to Edith Pestana of the DEP’s Environmental Justice Program on March 25, 2008. *Id.*

65. WatGen also hosted a public meeting in Waterbury and participated in two others to discuss the Facility with interested residents and other members of the public. *See*, APP-5. Each meeting lasted approximately three hours. *Id.* In attendance at each of the meetings were FirstLight executives, including the President/CEO, Senior Vice President of Operations, Vice President of External Affairs, and the Environmental, Health and Safety Manager. *Id.*

66. On July 25, 2007, WatGen participated in a pre-application meeting with DEP staff from several divisions (DEP Permit Ombudsman Robert Hannon, Air Bureau staff and Remediation Division staff) to brief them on the Facility and confirm application requirements. *Id.*

67. On August 1, 2007, representatives for FirstLight met with Edith Pestana of the DEP's Environmental Justice Program to discuss options for effectively reaching out to local residents, government officials, and other members of the community. *Id.* With the assistance of Ms. Pestana, WatGen has conducted extensive voluntary public outreach efforts with respect to the Facility. *Id.*

68. On September 12, 2007, WatGen hosted a public information meeting and community open house at the Courtyard Marriot in Waterbury. *See*, APP-1 and APP-5. Notice of the open house was published in the Waterbury Republican-American on August 28, 2007 and again on September 5, 2007, and was also mailed to property owners abutting the Property and the proposed electrical transmission route. *See*, APP-5. The letter was also sent to the State and City of Waterbury officials. *Id.* The September 12, 2007 meeting was attended by approximately 30 individuals, including several elected officials. *See*, APP-5 for copies of the published notice, sample letters to abutters, newspaper articles, and sign-in sheet from the open house.

69. During the meeting, WatGen presented a summary of the Facility as shown in APP-5. The presentation included visual representations of the Facility, maps showing the Facility site and proposed transmission line route, and a summary of permitting requirements. *Id.* The presentation also discussed how the Facility will assist in reducing overall electric rates for consumers, will improve reliability, or provide needed fast-start generation capacity, and address the brownfield conditions at the Facility site. *Id.* The presentation also included a graph showing the Facility's emission rates, along with air quality levels in the Waterbury area both before and after the Facility comes on line. *Id.* In particular, the graphs showed that after the Facility comes on line, air quality levels for fine particulate matter (PM_{2.5}) are expected to continue to be below the National Air Ambient Quality Standards (NAAQS) established by the U.S. Environmental Protection Agency. *Id.*

70. Following the presentation, a question-and-answer session was held to ensure the public would have a chance to ask questions and voice concerns about the Facility. *Id.* The meeting concluded only when there were no further questions. Company contact lists were also distributed during the meeting for any follow-up questions or concerns. *Id.*

71. To document questions and answers from the September 12th meeting, WatGen posted information about the Facility, as well as a summary “Questions and Answers” document on a website at http://www.firstlightpower.com/generation/waterbury_generation.asp. *Id.*

72. Because not all members of interested local neighborhood groups were available for the September 12th meeting, WatGen participated in a second public outreach program organized by the Waterbury Neighborhood Council on November 18, 2007 at St. Anne’s Church in Waterbury. *Id.* and APP-1. Approximately 25 people were in attendance. *Id.*

73. WatGen again presented an overview of the Facility using the same visual aides used in the September 12th meeting. *Id.* Meeting attendees focused primarily on the location of the Facility and its relation to other industrial, commercial and residential uses in south Waterbury, and also on the visibility of the proposed stack. *Id.* At the meeting, a number of individuals expressed concern about the possibility that the stack might be 213 feet tall. *See*, APP-5. Following the meeting, WatGen sent a copy of the Viewshed Analysis Report, included in APP-5, to meeting attendees for their review. The full Air Permit application was also sent to an attendee who requested it. *Id.*

74. Because the modeling was not complete at the time the Application was filed, the Applicant originally indicated that the stack height would be no higher than 213 feet (which is the highest stack height for which the Applicant could receive credit for dispersion modeling). *Id.* However, as WatGen worked with its environmental consultants to perform rigorous air modeling analyses, the Applicant determined in its final analysis that a stack height of 125 feet was appropriate and that it would be protective of human health and the environment. *Id.*

75. On December 19, 2007, WatGen participated in a third public outreach meeting at the South Congregational Church for those members of the public who were not available for the September or November meetings. *See*, APP-1 and APP-5. The groups represented at the meeting included: the Naugatuck Valley Project, Waterbury Neighborhood Council, Town Plot Neighborhood Association, Hopeville Neighborhood Association, Gilmartin Community Club and Brooklyn Neighborhood Association. *Id.* Approximately 35 people were in attendance at this meeting. Because many attendees were Spanish-speaking, WatGen provided an interpreter. *Id.*

76. WatGen again provided an overview of the Facility as at the prior two meetings, and also updated the public on the then on-going permitting process before the Connecticut Siting Council. *See*, APP-5. WatGen encouraged all interested persons to attend the upcoming Siting Council hearing held in Waterbury on January 8, 2008. *Id.* The hearing allowed for extensive public comment by the local residents and neighborhood groups. *Id.* Approximately 60 people attended, comprised mostly of members from the public. *Id.* The hearing was extended to February 1, 2008, and was held at the New Britain offices of the Siting Council. *Id.* Members of the local community were also in attendance at the February 1, 2008 hearing. *Id.*

77. In addition, Curtis Morgan of FirstLight appeared on a televised local broadcast, hosted by Representative Noujaim, and was interviewed on local radio on three separate occasions. *See*, APP-5.

78. In response to the public feedback, WatGen enhanced the security measures and fencing at the Facility to ensure that there could be no unauthorized entry into the plant. *Id.*

79. Notice of the NSR Permit application was published in the Waterbury Republican on September 14, 2007 pursuant to the requirements of Conn. Gen. Stat. § 22a-6g. *See*, APP-5. The notice of tentative determination to approve the application was also published in the Waterbury Republican on May 12, 2008 pursuant to Conn. Gen. Stat. § 22a-6h. *See*, DEP-9 and APP-5. The Notice was also sent to Mayor Michael Jarjura. *See*, DEP-10 and APP-5. The public was provided with thirty days from the May 12, 2008 date of publication in the Waterbury Republican to submit comments in writing or to request a public hearing concerning this tentative determination. *See*, APP-5.

80. On June 5, 2008, a Request for a Public Hearing was filed. The decision to hold a hearing on an application for a minor source permit is within the discretion of the Commissioner of Environmental Protection. Because of the public interest in this application and to facilitate public participation, on June 10, 2008, Janice Deshais, Director of the Office of Adjudications, issued a determination that an adjudicatory hearing would take place for the Air Permit Proceeding, PAMS No. 200702004. A Notice of Public Hearing was published in the Waterbury Republican on July 3, 2008 and a site visit was conducted on July 22, 2008. *See*, DEP-22.

81. A Public Hearing was conducted in Waterbury on the evening of August 12, 2008. Spanish translators were provided at the hearing to aid and promote communication between the Intervenors and the Applicant, the DEP Air Bureau and the Hearing Officer.

Community Benefit Agreement

82. A copy of the executed Community Benefit Agreement (“Agreement”) is attached hereto as **Exhibit B**. By way of the Agreement and in light of the concerns about asthma and respiratory illness raised by the community and the Intervenors, WatGen has proposed and committed itself to establishing a “Community Benefit Fund,” subject to certain conditions set forth in the Agreement. The Community Benefit Fund shall be managed by a charitable trust, charitable organization, or other agreed upon tax-advantaged charitable entity into which WatGen shall donate funds in an amount agreed upon by the Parties to the Agreement, and from which projects shall be funded to reduce asthma and other respiratory illnesses, and asthma triggering conditions in the Waterbury public schools, or other public facilities around the Facility, or for other projects approved by the Community Benefit Fund to benefit the local community.

83. By way of the Agreement, WatGen has also responded to the concerns of expressed by the local community by committing to the following: (i) WatGen and the Intervenors agreed to further restrictions on the use of ULSD, as reflected in DEP-17 Revised, Part II; (ii) WatGen has agreed that it shall not modify or expand the WatGen Facility beyond its nameplate capacity or convert the Facility into a combined cycle unit; (iii) WatGen has agreed to take into consideration the Intervenors’ concerns regarding the potential for graffiti on the fence surrounding the WatGen Facility and place any protective fencing (e.g. barbed wire) in a way that it is least visible from the exterior of the fencing and consider the utilization of a chain link fence with back-up arborvitae plantings; and (iv) WatGen has agreed to designate a Community Liaison Officer as a point of contact for members of the local community, and will establish a communication plan to facilitate communications between WatGen and the local community.

CONCLUSIONS OF LAW

Jurisdiction

The Commissioner is authorized to adopt and implement regulations to control and prohibit air pollution throughout the state and to issue permits for the construction and operation of new sources of air pollution in accordance with those regulations. General Statutes § 22a-174(a) and (c). The regulations must be consistent with federal law, which requires each state to develop a plan which provides for implementation, maintenance and enforcement of the NAAQS, 42 U.S.C. § 7410(a), and to develop an acceptable procedure for implementing and enforcing federal standards of performance for new sources of air pollution. 42 USC § 7411(c). The Commissioner has promulgated §§ 22a-174-1 to 22a-174-100 of the Regulations of Connecticut State Agencies, which include permitting requirements and the enforcement of standards of performance for new sources of air pollution. Section § 22a-174-3a specifies the application procedures, criteria and standards for issuing permits to construct and operate stationary sources of air pollution.

Prior to issuing the permits to construct and operate the Facility, the Commissioner must determine that the applicable provisions of the new source review regulations have been satisfied. The Applicant must demonstrate that it has or will comply with applicable state and federal statutes and regulations, and permit terms and conditions.

Regulatory Requirements

1. New Source Permit Application

An application for a permit to construct and operate a regulated source of air pollution must include, among other things, an executive summary, background information pertaining to

the owner and/or operator of the source and other contact information, a premises site plan, technical information, emissions rates for individual air pollutants, BACT and LAER determinations (as applicable), compliance history information, an authorized signatory certification, and all application fees. R.C.S.A. § 22a-174-3a(c)(1)(A)-(L). The Applicant has provided the information specified in § 22a-174-3a(c).

2. Standards for Issuing Permits

R.C.S.A. § 22a-174-3a(h) of the Regulations of Connecticut State Agencies imposes a duty on any owner or operator of a stationary source of pollution to comply with the terms and conditions of any permit issued by the Commissioner. Further, R.C.S.A. § 22a-174-3a(d)(2) provides that a permit will not be issued unless the Commissioner determines that the owner or operator of the subject stationary source will comply with the applicable provisions of R.C.S.A. § 22a-174-3a(d)(3). The Applicant is subject to R.C.S.A. § 22a-174-3a(h) and to the following provisions of R.C.S.A. § 22a-174-3a(d)(3).

- *Construct and operate such stationary source ... in accordance with the permit, and operate such stationary source ... in accordance with all applicable and relevant emissions limitations, statutes, regulations, schedules for stack tests, and other order of the commissioner R.C.S.A. § 22a-174-3a(d)(3)(A).*

The Applicant has not objected to any of the relevant regulations or statutes that govern its application or to the terms and conditions of the Draft Permit DEP Exhibit 17-Revised. The Draft Permit specifies emissions limitations, stack testing requirements and the authority of the Commissioner to revise these conditions if necessary. The Draft Permit provides that the Applicant must construct and operate the Facility in accordance with all applicable requirements of any federal or state agency or applicable federal or state law. It is reasonable to conclude that the Applicant will construct and operate the facility in accordance with all relevant emissions limitations, stack test requirements and any other order of the commissioner.

- *Operate such stationary source ... without preventing or interfering with the attainment or maintenance of any applicable ambient air quality standards or any Prevention of Significant Deterioration increments under subsection (k) of this section. R.C.S.A. § 22a-174-3a(d)(3)(B)*

A Prevention of Significant Deterioration (“PSD”) review is required for a new source which emits any criteria pollutant at greater than a major stationary source threshold. Proposed emissions for criteria pollutants from the Facility do not exceed applicable major source thresholds. As such, PSD review is not required for these pollutants. The Applicant submitted an ambient air impact analysis using all DEP-required dispersion models and demonstrated that the Facility will not prevent or interfere with the attainment or maintenance of any applicable ambient air quality standard or any PSD increments.

- *Operate such stationary source ... without preventing or interfering with the attainment or maintenance of any {NAAQS} in any other state and without interfering with the application of the requirements in any other state's implementation plan R.C.S.A. § 22a-174-3a(d)(3)(C).*

The Applicant has complied with the requirements RCSEA §22a-174-3a(d)(3)(C) by submitting an ambient air quality analysis and demonstrating that it will operate without preventing or interfering with the attainment or maintenance of any National Ambient Air Quality Standard in any other state and without interfering with the application of the requirements in any other state’s implementation plan, adopted pursuant to section 110 of the Act.

- *Operate such stationary source ... In accordance with all applicable emissions standards and standards of performance pursuant to 40 CFR Parts 60, 61, and 63, R.C.S.A. § 22a-174-3a(d)(3)(D).*

The Applicant is subject to the requirements of R.C.S.A. § 22a-174-3a(d)(3)(D) because the proposed turbine is subject to Title 40 CFR Part 60 Subpart KKKK –Standards of Performance for Combustion Turbines. The Draft Permit incorporates the relevant sections by reference, and contains relevant emissions limitations more stringent than those contained in Subpart KKKK, and special requirements to ensure that the applicable performance standards are complied with at all times. Compliance with the terms and conditions of the permits will result in operation of the Facility in accordance with all applicable emissions standards and standards of performance pursuant to these regulations and it is reasonable to conclude that the Applicant will comply with all applicable monitoring, emissions limits, record keeping, testing and reporting requirements of 40 CFR Part 60 Subpart KKKK.

- *Install: (i) sampling ports of a size, number and location as the Commissioner may reasonably require, (ii) instrumentation to monitor and record emission and other parameter data as the Commissioner may require, and (iii) such other sampling and testing facilities as the Commissioner may require R.C.S.A. § 22a-174-3a(d)(3)(E).*

The Draft Permit includes requirements to install and operate continuous emissions monitoring systems, to perform periodic monitoring of emissions and process parameters, to conduct stack emissions testing, and to fulfill specific record keeping requirements. Compliance with these terms and conditions will result in the installation of sampling ports and monitoring instrumentation and such other sampling and testing facilities as the commissioner may require. The Applicant has complied with the requirements of R.C.S.A. § 22a-174-3a(d)(3)(E) by not objecting to the requirements proposed in the draft permit which requires CEM, stack testing and monitoring requirements and it is reasonable to conclude that the Applicant will comply with the terms and conditions of the Draft Permit.

- *As the Commissioner may require, conduct stack tests ... in accordance with subsection (e) of this section and in accordance with permit conditions and methods prescribed by the Commissioner. Such stack tests shall demonstrate, to the Commissioner's satisfaction, that the requirements of each and every applicable permit ... are being met and that such stationary source ... complies with the Regulations of Connecticut Agencies and federal requirements. R.C.S.A. § 22a-174-3a(d)(3)(F).*

The Draft Permit sets out the requirements for initial and periodic stack emissions testing that must be conducted in accordance with the provisions of R.C.S.A. § 22a-174-5 and the DEP *Source Stack Testing General Requirements*. The Permit specifies that the Commissioner has retained the right to require stack testing of any pollutant at any time to demonstrate compliance. The Applicant has complied with the requirements of R.C.S.A. § 22a-174-3a(d)(3)(F) by not objecting to the requirements proposed in the Draft Permit and it is reasonable to conclude that the Applicant will comply with the terms and conditions of the Draft Permit.

- *Pay all fees required by the Department within forty-five (45) days of receipt of a tentative determination of the Commissioner. R.C.S.A. § 22a-174-3a(d)(3)(G).*

The Applicant has paid all fees that were required at the time of issuance of the tentative

determination.

- *Incorporate [BACT] as directed by the Commissioner, for each individual air pollutant subject to, and in accordance with, subsection (j) of this section. R.C.S.A. § 22a-174-3a(3)(d)(3)(H).*

The Applicant will incorporate BACT as determined by the Commissioner for each air pollutant as required by the regulations.

- *Incorporate LAER, as directed by the Commissioner, for each individual air pollutant subject to, and in accordance with, subsection (l) of this section. R.C.S.A. § 22a-174-3a(d)(3)(I).*

Although no federally enforceable emission rate for any criteria pollutant exceeds any applicable major source threshold and a LAER determination was not required, the Facility uses the most stringent control technology option for application to all pollutants subject to BACT. The control technology selected for control of the non-attainment pollutants is equivalent to LAER.

- *Incorporate the maximum available control technology (MACT), as directed by the Commissioner, for each individual air pollutant subject to, and in accordance with, subsection (m) of this section. R.C.S.A. § 22a-174-3a(d)(3)(J).*

The Applicant is not subject to the requirements of R.C.S.A. § 22a-174-3a(d)(3)(J) since the facility is not a major source of HAPs, as such the Applicant is not required to incorporate the Maximum Available Control Technology (MACT).

- *As required by the Commissioner, install monitoring equipment and perform monitoring to demonstrate compliance with any permit provision. Such monitoring may include, but not be limited to, continuous emission monitoring (CEM). R.C.S.A. § 22a-174-3a(d)(3)(K).*

The Draft Permit requires the Applicant to install and calibrate CEM equipment for certain pollutants in accordance with applicable requirements and to monitor specific operational parameters. The Applicant is also required to maintain records of the results of these monitoring devices in order to demonstrate compliance with permit provisions. The evidence shows that the Applicant will install the CEM system and other monitoring equipment necessary to perform the

required record keeping and to demonstrate compliance with the permit provisions. The monitoring requirements include continuous emission monitors for NO_x, CO and NH₃, as well as continuous monitoring of temperature, fuel flow and turbine load.

- *Provide the Commissioner with current information regarding air pollutant emissions from such stationary source R.C.S.A. § 22a-74-3a(d)(3)(L).*

The Applicant has complied with the requirements of R.C.S.A. § 22a-174-3a(d)(3)(L) by submitting a supplemental application form indicating stack parameters.

- *Comply with any applicable maximum allowable stack concentration (MASC) or other emissions limitation of R.C.S.A. § 22a-174-29. §22a-174-3a(d)(3)(M).*

The Draft Permit specifies the requirement that HAP emissions not exceed any applicable MASCs and that the Applicant must comply with the provisions of R.C.S.A. § 22a-174-29 at all times. The Applicant is required to conduct stack emissions tests for each HAP to demonstrate compliance with MASC, which is to be calculated in accordance with R.C.S.A. § 22a-174-29, and to maintain records of HAP emissions. The Applicant will therefore comply with the applicable MASC for HAP emissions. The Applicant has complied with the requirements by of R.C.S.A. § 22a-174-3a(d)(3)(M) by submitting calculations demonstrating compliance with any applicable maximum allowable stack concentration or other emission limitation of R.C.S.A. § 22a-174-29.

- *Demonstrate that the emission limitation required of such stationary source ... for the control of any air pollutant shall not be affected by that portion of the stack height of such stationary source ... that exceeds good engineering practice stack height or by any other dispersion technique. R.C.S.A. § 22a-174-3a(d)(3)(N).*

The Applicant has complied with the requirements of R.C.S.A. § 22a-174-3a(d)(3)(N) by submitting calculations demonstrating that the required emission limitation for the control of any air pollutant shall not be affected by that portion of the stack height of such stationary source or by modifications that exceeds good engineering practice stack height or by any other dispersion technique.

- *For any source with a new unit under § 72.6(a)(3)(i), the designated representative*

shall submit a complete Acid Rain permit application governing such unit to the permitting authority at least 24 months before the later of January 1, 2000 or the date on which the unit commences operation. 40 CFR § 72.30(b)(2)(ii).

The Applicant has complied with the requirements of the Title IV Acid Rain Program requirements contained in 40 CFR Parts 72 through 78 inclusive, and the associated R.C.S.A. § 22a-174-33(e)(3) Acid Rain Program requirements by submitting a complete Acid Rain permit application.

- *The commissioner may require the applicant to publish notice of the application in media that serves the needs of the community...R.C.S.A. § 22a-174-2a(b)(2)(A)*

The Applicant has complied with the requirements of R.C.S.A. § 22a-174-2a(b)(2)(A) by publishing a notice of application in the Waterbury Republican on September 5, 2007.

- *In the event the commissioner requires compliance with subparagraph (A) of this subdivision, the applicant shall submit to the commissioner a certified copy of the notice...R.C.S.A. § 22a-174-2a(b)(2)(B)*

The Applicant has complied with the requirements of R.C.S.A. § 22a-174-2a(b)(2)(B) by submitting a Certification of Notice form - Notice of Application on September 14, 2007.

- *With respect to notice of tentative determination for any application for a permit, other than a general permit, the applicant shall comply with the requirements of section 22a-6h of the Connecticut General Statutes...R.C.S.A. § 22a-174-2a(b)(3)*

Conn. Gen. Stat. §22a-6h requires that the Commissioner shall publish or cause to be published, at the Applicant's expense, notice of the tentative determination once in a newspaper having a substantial circulation in the affected area. Pursuant to R.C.S.A. § 22a-174-2a(b)(3), the notice of tentative determination was published in the Waterbury Republican on May 12, 2008.

- *In exercising any authority to issue...any permit ... the Commissioner of Environmental Protection may consider the record of the applicant for... such permit ... the principals, and any parent company or subsidiary, of the applicant..., regarding compliance with environmental protection laws of this state, all other states and the federal government. If the commissioner finds that such record evidences a pattern or practice of noncompliance which demonstrates the applicant's unwillingness or inability to achieve and maintain compliance with the terms and conditions of the permit...for which application is being made, ... the commissioner, ... may (1) include such conditions as he deems necessary in any such permit, registration, certificate or other license, (2) deny any application for the issuance, renewal, modification or transfer of any such permit, registration, certificate or other license, or (3) revoke any such permit, registration, certificate or other license. Conn. Gen. Statute R.C.S.A. § 22a-6m*

The Applicant's compliance history does not warrant either denial of the application or imposition of special conditions under Connecticut General Statute § 22a-6m.

Alleged Unreasonable Pollution

During the Hearing, the Intervenors claimed that the Facility will result in unreasonable pollution because the emissions from the Facility would cause adverse health impacts to people who live, work, and attend school in the areas with existing high levels of air pollution. This claim formed the basis for the allegations in the Intervenors' petition to intervene as required under the provision §22a-19 of the Connecticut Environmental Protection Act (CEPA). Conn. Gen. Stat. §§ 22a-14-22a-20.

At the hearing, the Applicant presented evidence to refute Intervenors' allegations. Such evidence included a demonstration that emissions from the Facility will comply with all applicable state and federal health-based standards; that emissions from the Facility will not cause or contribute to any violations of the National Ambient Air Quality Standards, and that the operation of this Facility will actually help reduce the overall air pollution in the State since this Facility has low emission rates, and older, more polluting electric generating units will not have to operate as often once this Facility is constructed.

It is well settled that in order to prevail on their CEPA claim, the Intervenors have the burden of demonstrating that the operation of the Facility will unreasonably pollute, impair or destroy a natural resource. *Manchester Coalition v. Stockton*, 184 Conn. 51, 58-60 (1981). The term "unreasonable pollution" is not defined in Conn. Gen. Stat. § 22a-19. Historically, the courts have evaluated the strength of a CEPA claim on a case-by-case basis. Recently, however, the Connecticut Supreme Court has determined that the concept of unreasonable impairment should be evaluated in the context of the regulatory scheme designed to govern the particular conduct that is the subject of the claim. The Court held that "[w]hen ... the legislature has enacted an environmental legislative and regulatory scheme specifically designed to govern the particular conduct that is the target of the action, that scheme gives substantive content to the

meaning of the word 'unreasonable.'" *City of Waterbury v. Town of Washington*, 260 Conn. 506, 557 (2002). The Court concluded that "when there is an environmental legislative and regulatory scheme in place that specifically governs the conduct that the plaintiff claims constitutes an unreasonable impairment under CEPA, whether the conduct is unreasonable under CEPA will depend on whether it complies with that scheme." *Id.*

In this case, there is an environmental legislative and regulatory scheme in place that specifically governs the operations of the proposed project. The Intervenor's CEPA claim of unreasonable pollution or impairment must therefore be evaluated under that scheme. The emissions limits and other terms and conditions specified in the Draft Permit have been appropriately determined in accordance with state and federal regulatory requirements. In order to ensure continued operation of the Facility, the Applicant will be required to comply with those emissions limits and other permit terms and conditions. The record demonstrates that the Facility will be operated in compliance with the regulatory scheme that has been designed to govern its operations.

At the conclusion of the public hearing, the Intervenor accepted the Applicant's offer to enter into a Community Benefit Agreement that addresses the Intervenor's concerns regarding asthma and other respiratory diseases in the local community, especially within the Waterbury school system. In accordance with that Agreement, Intervenor has agreed to discontinue their opposition to the Facility, and to cooperate with the Applicant in urging immediate issuance of the Final Permit. Intervenor also agreed to waive their right to file any written exceptions with the Commissioner regarding this Proposed Final Decision, and to waive all rights to seek reconsideration, reversal, modification, or correction of this decision. Intervenor further waived all rights to appeal the Final Decision and issuance of the Final Permit. *See, Exhibit A.* In light of the Intervenor's withdrawal of its opposition, it is not necessary to address the claim of unreasonable pollution any further.

DEP Environmental Equity Policy

The concept of environmental equity means that all people should be treated consistently under environmental laws regardless of race, ethnicity, culture or economic status. As evidence

of its commitment to this principle, the DEP issued a statement on environmental equity on December 17, 1993. This Environmental Equity Policy provides in pertinent part that "...no segment of the population should, because of its racial or economic makeup, bear a disproportionate share of the risks and consequences of environmental pollution or be denied equal access to environmental benefits." The DEP created the Environmental Equity Program to incorporate these principles into aspects of its program development, policy-making and regulatory activities.

The DEP Environmental Equity Policy is, as it is titled, a policy. A policy statement is distinguished from a substantive rule of an agency, which is reflected in a law or regulation of that agency. "[A] policy statement is neither a rule nor a precedent but is merely an announcement to the public of the policy which the agency hopes to implement in future rule-makings or adjudications." *Panhandle Eastern Pipe Line Company v. Federal Energy Regulatory Commission*, 198 F. 3d 266, 269 (D.C. Cir. 1999), citing *Pacific Gas & Electric Power Commission*, 506 F.2d 33, 38 (D.C. Cir. 1974). "In other words, a policy statement has neither the force of a substantive rule adopted pursuant to rulemaking nor the binding effect of an order following an adjudication." *Id.* The DEP Environmental Equity Policy serves as a guide to assist the Department in its decision-making process.

On January 1, 2009, Public Act No. 08-94, *An Act Concerning Environmental Justice Communities and the Storage of Asbestos-containing Material* becomes effective. That Public Act emphasizes the need for meaningful public participation in the application process for certain types of projects, including certain electric generating facilities, and supports municipalities entering into "community environmental benefit agreements" with the owners of such facilities in order to mitigate facility impacts. WatGen is not subject to its provisions; however, WatGen has voluntarily satisfied the intent of Public Act No. 08-94 by emphasizing and, in fact encouraging and facilitating meaningful participation in the application process and by voluntarily entering into a Community Benefit Agreement with the Intervenors.

The record clearly demonstrates that staff understood the implications of the DEP Environmental Equity Policy and implemented Air Bureau Policies to insure that it would be implemented in this case and that its guidance would be part of the staff review of the

application. The evidence demonstrates that residents participated in the process, and sufficient actions were taken by the DEP and the Applicant to inform them of the application and the proposed permits. Staff of the Environmental Equity Program worked with the Applicant to assure that area residents were informed and had an opportunity to interact with the Applicant and DEP staff to receive information, ask questions, and provide comments at meetings and public hearings. Spanish translators have been provided to assist with the said interaction. There was sufficient interaction with the community.

R.C.S.A. § 22a-174-3a provides that the commissioner can issue a New Source Review Permit if she determines that the source will operate in compliance with all applicable emission limitations and regulatory requirements, and will not prevent or interfere with the attainment or maintenance of any applicable NAAQS or PSD increments. As the evidence has demonstrated, the proposed regulated activity that is the subject of this application will comply with all applicable standards. Accordingly, the people who live, work, play or otherwise spend time in the vicinity of the WatGen Facility will not bear a disproportionate risk or consequence of any environmental pollution.

CONCLUSION

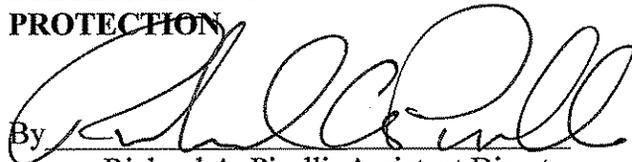
The Applicant has demonstrated by a preponderance of the evidence presented that it has complied, or will comply, with the applicable provisions of the Regulations of Connecticut State Agencies governing new sources of air pollution. The Draft Permit provides that the Applicant must conduct its operations in accordance with the relevant sections of subdivision (d) of R.C.S.A. § 22a-174-3a and the CAA. The Applicant has complied with the regulatory requirements to qualify its application as a minor source and has shown that the operation of its Facility will comply with the permit terms and conditions and will not adversely affect ambient air quality or impede attainment of any NAAQS.

AGREED TO BY:

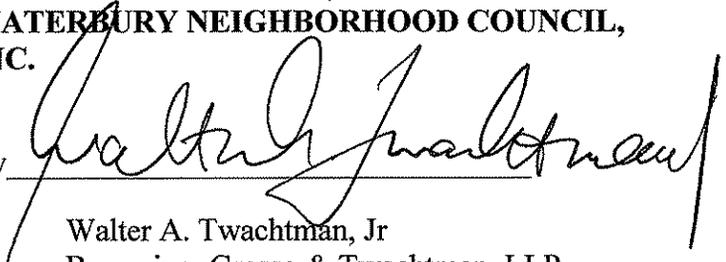
**WATERBURY GENERATION LLC, and its
Agent, FirstLight Power Resources Services,
LLC**

By 
Mark R. Sussman
Murtha Cullina LLP
CityPlace I – 185 Asylum Street
Hartford, Connecticut 06103-3469
Telephone: (860) 240-6000
Facsimile: (860) 240-6150
Its Attorneys

**DEPARTMENT OF ENVIRONMENTAL
PROTECTION**

By 
Richard A. Pirolli, Assistant Director
Engineering & Enforcement Division
Bureau of Air Management
79 Elm Street, 5th Floor
Hartford, Connecticut 06106

**THE BROOKLYN NEIGHBORHOOD
ASSOCIATION; THE HOPEVILLE
NEIGHBORHOOD ASSOCIATION; THE
MOHAWK PARK CIVIC CLUB; THE TOWN
PLOT NEIGHBORHOOD ASSOCIATION,
INC.; GILMARTIN COMMUNITY CLUB;
CONNECTICUT COALITION FOR
ENVIRONMENTAL JUSTICE; POWER
WITHOUT POLLUTION; AND THE
WATERBURY NEIGHBORHOOD COUNCIL,
INC.**

By 
Walter A. Twachtman, Jr
Boscarino, Grasso & Twachtman, LLP
628 Hebron Avenue, Building 2, Suite 301
Glastonbury, CT 06033

PARTY LIST

Waterbury Generation, LLC/First LightPower Resources Services, LLC
Proposed Final Decision on Application #200702204

Applicant

Waterbury Generation, LLC
First Light Power Resources Services, LLC
20 Church Street – 16th Floor
Hartford, Ct 06103

Represented by

Mark R. Sussman, Esq
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CityPlace I, 185 Asylum Street
Hartford, CT 06103

Department

Department of Environmental Protection
79 Elm Street
Hartford, CT 06106

Charmaine Molyneux
Gary Rose
Ric Pirolli

Intervenors

Brooklyn Neighborhood Association
Hopeville Neighborhood Association
Mohawk Park Civic Club
Town Plot Neighborhood Association
CT Coalition for Env. Justice
Power Without Pollution
Waterbury Neighborhood Council

Walter A. Twachtman, Jr., Esq.
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Exhibit A



STATE OF CONNECTICUT
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF AIR MANAGEMENT

NEW SOURCE REVIEW PERMIT
TO CONSTRUCT AND OPERATE
A STATIONARY SOURCE

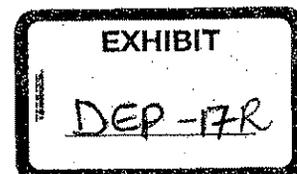
Issued pursuant to Title 22a of the Connecticut General Statutes (CGS) and Section 22a-174-3a of the Regulations of Connecticut State Agencies (RCSA).

| | |
|------------------------|--|
| Owner/Operator: | Waterbury Generation LLC |
| Address: | c/o FirstLight Power Resources Services, LLC 20 Church Street, Hartford, CT 06103 |
| Equipment Location: | 725 Bank Street, Waterbury, CT 06708 |
| Equipment Description: | GE LMS100 PA Simple Cycle Combustion Turbine |

| | |
|-----------------------------|----------|
| Town-Permit Numbers: | 192-0300 |
| Premises Number: | 0005 |
| Original Permit Issue Date: | |
| Expiration Date: | None |

Gina McCarthy
Commissioner

Date



PERMIT FOR FUEL BURNING EQUIPMENT

**STATE OF CONNECTICUT, DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF AIR MANAGEMENT**

This permit specifies necessary terms and conditions for the operation of this equipment to comply with state and federal air quality standards. The Permittee shall at all times comply with the terms and conditions stated herein.

PART I. OPERATIONAL CONDITIONS

A. General Description

Waterbury Generation, LLC operates a General Electric LMS 100 PA simple cycle combustion turbine generator. The GE LMS100 PA turbine will generate a nominal capacity of 96 megawatts of power using natural gas and ultra low sulfur distillate (ULSD) fuels and highly efficient control equipment.

B. Equipment Design Specifications

1. Turbine

- a. Maximum Fuel Firing Rate(s): 846,723 ft³/hr (gas) and 5,838 gal/hr (ULSD)
- b. Maximum Gross Heat Input (MMBTU/hr): 886.5 (gas), 802.4 (ULSD)

C. Control Equipment Design Specifications

1. Water Injection

2. Selective Catalytic Reduction (SCR)

- a. Make and Model: Haldor Topsoe - Model DNX-629 or equivalent
- b. Catalyst Type: Corrugated fiber-reinforced titanium-dioxide (TiO₂) or equivalent

3. Oxidation Catalyst

- a. Make and Model: Emerachem or equivalent
- b. Catalyst Type: ADCAT or equivalent

D. Stack Parameters

1. Minimum Stack Height (ft): 125 ft above base elevation
2. Minimum Exhaust Gas Flow Rate at 100% Load (acfm): 820,182 (gas), 780,650 (ULSD)
3. Minimum Stack Exit Temperature at 100% Load (°F): 723 (gas), 746 (ULSD)
4. Minimum Distance from Stack to Property Line (ft): 33

FIRM NAME: Waterbury Generation, LLC

EQUIPMENT LOCATION: 725 Bank Street, Waterbury, CT 06708

EQUIPMENT DESCRIPTION: GE LMS 100 PA Combustion Turbine

PERMIT FOR FUEL BURNING EQUIPMENT

STATE OF CONNECTICUT, DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF AIR MANAGEMENT

PART II. OPERATIONAL CONDITIONS

A. Turbine

1. Fuel Type(s): Natural Gas and Ultra-Low Sulfur Distillate (ULSD)
2. Maximum Natural Gas Consumption over any Consecutive Twelve (12) Month Period: 7,417 MM ft³
3. Maximum Distillate Fuel Oil Consumption over any Consecutive Twelve (12) Month Period: 4.203 MM gallons
4. Distillate Fuel Oil Sulfur Content (% by weight, dry basis): 0.0015

In addition, the turbine may only be fueled by ULSD when:

1. The interruptible natural gas supply is curtailed;
2. There is a failure of the equipment required to allow the turbine to utilize natural gas;
3. The turbine is starting up, or commissioning or testing the ULSD firing capability of the turbine;
4. There is routine maintenance of any equipment required to allow the turbine to utilize natural gas or ULSD;
5. As required, periodically to maintain an appropriate turnover of the on-site fuel oil inventory as recommended by any of the equipment manufacturers or as otherwise required by prudent utility practice; or
6. Otherwise required to comply with the requirements of the Master Agreement for Generation Projects between Waterbury Generation LLC and The United Illuminating Company, dated as of May 21, 2007, as approved by the Connecticut Department of Public Utility Control.

FIRM NAME: Waterbury Generation, LLC
EQUIPMENT LOCATION: 725 Bank Street, Waterbury, CT 06708
EQUIPMENT DESCRIPTION: GE LMS 100 PA Combustion Turbine

Town No: 192

Premises No: 0005

Permit No: 0300

Stack No: 04

PERMIT FOR FUEL BURNING EQUIPMENT

**STATE OF CONNECTICUT, DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF AIR MANAGEMENT**

**PART III. CONTINUOUS EMISSION MONITORING REQUIREMENTS AND
ASSOCIATED EMISSION LIMITS**

The Permittee shall comply with the CEM requirements as set forth in RCSA §22a-174-4, RCSA §22a-174-22, 40 CFR 60 Subpart KKKK and 40 CFR Parts 72-78, if applicable. CEM shall be required for the following pollutant/operational parameters and enforced on the following basis:

| <u>Pollutant/Operational Parameter</u> | <u>Averaging Times</u> | <u>Emission Limit</u> |
|--|----------------------------|---------------------------|
| Opacity ¹ | six minute block | 10% |
| NO _x | 4 hour rolling | See Part V |
| CO | 1 hour block | See Part V |
| NH ₃ | 1 hour block | See Part V |
| CO ₂ ² | 1 hour block | None ² |
| Temperature | continuous | None ² |
| Fuel Flow | continuous | See Part I |
| Turbine Load | continuous | See Part V |

¹ Required during ULSD firing only.

² Parameter to be monitored is not limited by conditions of this permit. Monitoring is required solely to provide basis for correction of actual exhaust gas conditions to dry conditions @ 15% O₂ by volume.

PART IV. MONITORING, RECORD KEEPING AND REPORTING REQUIREMENTS

A. Monitoring

1. The Permittee shall use a non-resettable totalizing fuel metering device or a billing meter to continuously monitor fuel feed to this permitted source.
2. The Permittee shall continuously monitor and continuously record the SCR ammonia injection rate (lb/hr), operating temperature (°F) and pressure drop (inches of water). The Permittee shall maintain these parameters within the ranges recommended by the manufacturer to achieve compliance with the emission limits in this permit.
3. The Permittee shall continuously monitor and continuously record the oxidation catalyst inlet temperature (°F). The Permittee shall maintain this parameter within the range recommended by the manufacturer to achieve compliance with the emission limits in this permit.
4. The Permittee shall inspect the SCR and oxidation catalysts once per year at a minimum or more frequently if recommended by the manufacturer. Inspection criteria will be as recommended by the manufacturer's operation and maintenance plan.

FIRM NAME: Waterbury Generation, LLC
 EQUIPMENT LOCATION: 725 Bank Street, Waterbury, CT 06708
 EQUIPMENT DESCRIPTION: GE LMS 100 PA Combustion Turbine

PERMIT FOR FUEL BURNING EQUIPMENT

STATE OF CONNECTICUT, DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF AIR MANAGEMENT

PART IV. MONITORING, RECORD KEEPING AND REPORTING REQUIREMENTS,
continued

B. Record Keeping

1. The Permittee shall make and keep records of monthly and consecutive 12 month fuel consumption (for each fuel). The consecutive 12 month fuel consumption shall be determined by adding the current month's fuel usage (for each fuel) to that of the previous 11 months. The Permittee shall make these calculations within 30 days of the end of the previous month.
2. The Permittee shall calculate and record the monthly and consecutive 12 month PM₁₀, PM_{2.5}, SO₂, NO_x, CO, and VOC emissions in units of tons. The consecutive 12 month emissions shall be determined by adding (for each pollutant) the current month's emissions to that of the previous 11 months. Such records shall include a sample calculation for each pollutant. The Permittee shall make these calculations within 30 days of the end of the previous month.
3. The Permittee shall make and keep records of start-up and shut-down events. Such records shall contain the following information:
 - a. Date of start-up or shut-down event,
 - b. Fuel being used during start-up or shutdown event,
 - c. Duration of start-up or shut-down event (hr),
 - d. Type of start-up or shut-down event as listed in Part V.C of this permit, and
 - e. Total NO_x and CO emissions emitted (lb) during the start-up or shut-down event.
4. The Permittee shall make and keep records of the emissions of this turbine during the initial shakedown period. Emissions during shakedown shall be calculated using good engineering judgment and the best data and methodology available for estimating such emissions. Emissions during shakedown shall be counted towards the source's annual emission limitation in Part V.D of this permit.

| | |
|------------------------|--------------------------------------|
| FIRM NAME: | Waterbury Generation, LLC |
| EQUIPMENT LOCATION: | 725 Bank Street, Waterbury, CT 06708 |
| EQUIPMENT DESCRIPTION: | GE LMS 100 PA Combustion Turbine |

Town No: 192

Premises No: 0005

Permit No: 0300

Stack No: 04

PERMIT FOR FUEL BURNING EQUIPMENT

STATE OF CONNECTICUT, DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF AIR MANAGEMENT

PART IV. MONITORING, RECORD KEEPING AND REPORTING REQUIREMENTS,
continued

5. The Permittee shall make and keep records of the fuel certification for each delivery of fuel from a bulk petroleum provider or a copy of the current contract with the fuel supplier supplying the fuel used by the equipment that includes the applicable sulfur content of the fuel as a condition of each shipment. The shipping receipt or contract shall include:
 - a. Date of delivery,
 - b. Name of the fuel supplier,
 - c. Type of fuel delivered,
 - d. Percentage of sulfur in such fuel, by weight, dry basis, and
 - e. The method used to determine the sulfur content of such fuel.

6. The Permittee shall record all exceedances of any emission limits or operating parameters contained in this permit. Such records shall include:
 - a. The date and time of the exceedance,
 - b. A detailed description of the exceedance, and
 - c. The duration of the exceedance.

7. The Permittee shall make and keep records of the inspection and maintenance of the SCR and oxidation catalysts. The records shall include the name of the person, the date, the results or actions and the date the catalyst is replaced.

8. The Permittee shall maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of the stationary gas turbine; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative. [40 CFR §60.7(b)]

9. The Permittee shall make and keep all records required by this permit for a period of no less than five years and shall submit such records to the commissioner upon request.

FIRM NAME: Waterbury Generation, LLC
EQUIPMENT LOCATION: 725 Bank Street, Waterbury, CT 06708
EQUIPMENT DESCRIPTION: GE LMS 100 PA Combustion Turbine

Town No: 192 Premises No: 0005 Permit No: 0300 Stack No: 04

PERMIT FOR FUEL BURNING EQUIPMENT

STATE OF CONNECTICUT, DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF AIR MANAGEMENT

PART IV. MONITORING, RECORD KEEPING AND REPORTING REQUIREMENTS,
continued

C. Reporting

1. The Permittee shall submit a report of exceedances to the Commissioner within 30 days of the end of the previous month. Such report shall include the following:
 - a. Copies of the exceedance records for the month, as recorded in
 - b. Part IV.B.6 of this permit,
 - c. An explanation of the likely causes of the exceedances, and
 - d. An explanation of remedial actions taken to correct the exceedance.

2. The Permittee shall notify the Commissioner in writing of any emergency affecting the equipment described in this permit or malfunction of the equipment described in this permit. The Permittee shall submit such notification within seven days of the emergency or malfunction. The notification shall include the following:
 - a. A description of the emergency or malfunction and a description of the circumstances surrounding the cause or likely cause of such emergency or malfunction and,
 - b. A description of all corrective actions and preventive measures taken and/or planned with respect to such emergency or malfunction and the dates of such actions and measures.

FIRM NAME: Waterbury Generation, LLC
EQUIPMENT LOCATION: 725 Bank Street, Waterbury, CT 06708
EQUIPMENT DESCRIPTION: GE LMS 100 PA Combustion Turbine

Town No: 192 Premises No: 0005 Permit No: 0300 Stack No: 04

PERMIT FOR FUEL BURNING EQUIPMENT

**STATE OF CONNECTICUT, DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF AIR MANAGEMENT**

PART V. ALLOWABLE EMISSION LIMITS

The Permittee shall not exceed the emission limits stated herein at any time as determined in accordance with the applicable averaging periods defined in Part III of this permit or as specified in an approved stack test protocol, except during periods of start-up, shut-down and malfunction. Emissions during these periods shall be counted towards the annual emission limits stated herein.

An exceedance of either (i) the emission limits in the tables below, or (ii) the emissions limits developed for this permit due to an emergency, malfunction, or cleaning shall not be deemed a "Federally Permitted Release," as that term is used in 42 U.S.C. 9601(10).

A. Steady State Natural Gas (50%-100% Load)

1. Criteria Pollutant Emission Rates

| Criteria Pollutants | ppmvd @ 15% O ₂ | lb/hr | Basis |
|--|-------------------------------|-------|-------|
| PM ₁₀ /PM _{2.5} (total) ¹ | | 8.4 | 1 |
| SO _x | | 1.72 | 1 |
| NO _x | 2.5 | 8.1 | 1 |
| VOC | 4.0 | 3.9 | 1 |
| CO | 6.0 | 11.8 | 1 |

¹Demonstration of compliance required for the filterable portion (6.0 lb/hr) only. The permittee will have one year after EPA promulgates a new Reference Method for the condensable portion to demonstrate compliance of the permit limit.

2. Hazardous Air Pollutant Emission Rates

a. The Permittee shall comply with the following limitations:

| Hazardous Air Pollutant | ppmvd @ 15% O ₂ | lb/hr | MASC* (ug/m ³) | Basis |
|-------------------------|-------------------------------|----------|-------------------------------|-------|
| Acrolein | | 5.53E-03 | 104 | 2 |
| Ammonia | 5.0 | 5.98 | 7,486 | 1 |
| Formaldehyde | | 6.29E-01 | 250 | 2 |

b. The Permittee shall not cause the emissions of this unit to exceed the Maximum Allowable Stack Concentration for any hazardous air pollutant listed in RCSCA Section 22a-174-29. [State-Only Requirement]

FIRM NAME: Waterbury Generation, LLC
 EQUIPMENT LOCATION: 725 Bank Street, Waterbury, CT 06708
 EQUIPMENT DESCRIPTION: GE LMS 100 PA Combustion Turbine

Town No: 192 Premises No: 0005 Permit No: 0300 Stack No: 04

PERMIT FOR FUEL BURNING EQUIPMENT

STATE OF CONNECTICUT, DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF AIR MANAGEMENT

PART V. ALLOWABLE EMISSION LIMITS, continued

B. Steady State ULSD (50%-100% Load)

1. Criteria Pollutant Emission Rates

| Criteria Pollutants | ppmvd @ 15% O ₂ | lb/hr | Basis |
|--|-------------------------------|----------|-------|
| PM ₁₀ /PM _{2.5} (total) ¹ | | 29.7 | 1 |
| SO _x | | 1.2 | 1 |
| NO _x | 5.9 | 19.5 | 1 |
| VOC | 5.0 | 4.8 | 1 |
| CO | 6.0 | 12.1 | 1 |
| Pb | | 1.11E-02 | 2 |

¹Demonstration of compliance required for the filterable portion (28.0 lb/hr) only. The permittee will have one year after EPA promulgates a new Reference Method for the condensable portion to demonstrate compliance of the permit limit.

2. Hazardous Air Pollutant Emission Rates

a. The Permittee shall comply with the following limitations:

| Hazardous Air Pollutant | ppmvd @ 15% O ₂ | lb/hr | MASC (ug/m ³) | Basis |
|-------------------------|-------------------------------|----------|------------------------------|-------|
| 1,3 Butadiene | | 1.27E-02 | 459,021 | 2 |
| Ammonia | 5.0 | 6.11 | 7,511 | 1 |
| Arsenic | | 2.05E-04 | 1.04 | 3 |
| Benzene | | 2.05E-04 | 0.209 | 2 |
| Beryllium | | 4.36E-02 | 3,130 | 3 |
| Cadmium | | 3.80E-03 | 8.3 | 2 |
| Chromium | | 8.71E-03 | 52 | 2 |
| Formaldehyde | | 2.22E-01 | 250 | 2 |
| Lead | | 1.11E-02 | 63 | 2 |
| Manganese | | 2.05E-04 | 417 | 3 |
| Mercury | | 9.50E-04 | 20.9 | 2 |
| Napthalene | | 2.77E-02 | 20,865 | 2 |
| Nickel | | 3.64E-03 | 104 | 2 |
| PAH | | 4.01E-03 | 2.09 | 2 |
| Selenium | | 1.98E-02 | 83 | 2 |
| Sulfuric Acid | | 1.25 | 417 | 1 |

b. The Permittee shall not cause the emissions of this unit to exceed the Maximum Allowable Stack Concentration for any hazardous air pollutant listed in RCSA Section 22a-174-29. [State-Only Requirement]

FIRM NAME: Waterbury Generation, LLC
 EQUIPMENT LOCATION: 725 Bank Street, Waterbury, CT 06708
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Town No: 192

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Permit No: 0300

Stack No: 04

PERMIT FOR FUEL BURNING EQUIPMENT

STATE OF CONNECTICUT, DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF AIR MANAGEMENT

PART V. ALLOWABLE EMISSION LIMITS, continued

3. Opacity

The Permittee shall not exceed 10% during any six minute block average as measured by 40 CFR 60, Appendix A, Reference Method 9.

C. Transient Operation (< 50% Load)

1. Natural Gas Start-up and Shut-down events

| | Type of Start-up or Shut-down event | | |
|--|-------------------------------------|----------|-------|
| | Cold Startup | Shutdown | Basis |
| Maximum Duration of Start-up or Shut-down Event (hr) | 2 | 2 | |
| NO _x * (lb/hr) | 18.1 | 23.1 | 1 |
| CO* (lb/hr) | 61.3 | 76.8 | 1 |

2. ULSD: Start-up and Shut-down events

| | Type of Start-up or Shut-down event | | |
|--|-------------------------------------|----------|-------|
| | Cold Startup | Shutdown | Basis |
| Maximum Duration of Start-up or Shut-down Event (hr) | 2 | 2 | |
| NO _x * (lb/hr) | 40.0 | 58.5 | 1 |
| CO* (lb/hr) | 67.3 | 69.2 | 1 |

* The values presented are deemed to be representative, by the manufacturer, of uncontrolled emissions during start-up and shut-down events from this turbine. These tables will be updated and amended in accordance with Part VII.D of this permit.

FIRM NAME: Waterbury Generation, LLC
 EQUIPMENT LOCATION: 725 Bank Street, Waterbury, CT 06708
 EQUIPMENT DESCRIPTION: GE LMS 100 PA Combustion Turbine

Town No: 192

Premises No: 0005

Permit No: 0300

Stack No: 04

PERMIT FOR FUEL BURNING EQUIPMENT

STATE OF CONNECTICUT, DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF AIR MANAGEMENT

PART V. ALLOWABLE EMISSION LIMITS, continued

D. Total Allowable Emissions

1. Criteria Pollutants

| Criteria Pollutants | TPY** |
|--|----------|
| PM ₁₀ /PM _{2.5} (total) ¹ | 44.3 |
| SO _x | 7.5 |
| NO _x | 39.5 |
| VOC | 17.6 |
| CO | 51.9 |
| Pb | 3.99E-03 |

¹Demonstration of compliance required for the filterable portion (34 TPY) only. The permittee will have one year after EPA promulgates a new Reference Method for the condensable portion to demonstrate compliance of the permit limit.

2. Hazardous Air Pollutants

| Hazardous Air Pollutant | TPY** |
|----------------------------|-------|
| Ammonia | 26.3 |
| Sulfuric Acid | 4.68 |

** Emission limits are combined worst case for each pollutant for this unit, using either natural gas for a maximum of 8760 hours/yr or ULSD for a maximum of 720 hours/year at maximum rated capacity or a combination thereof.

Emission limits in Part V of this permit were calculated using emission factors from the following sources:

1. Manufacturer's Data
2. AP-42, 5th Edition, Tables 3.1.3, 3.1-4 and, 3.1-5, April 2000.
3. Fuel analysis

The Permittee is not required to demonstrate compliance with the emission limits stated herein during the initial shakedown period. The shakedown period shall not extend beyond the required date for initial performance tests.

The Commissioner may require other means (e.g. stack testing) to demonstrate compliance with the above emission limits, as allowed by state or federal statute, law or regulation.

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PERMIT FOR FUEL BURNING EQUIPMENT

STATE OF CONNECTICUT, DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF AIR MANAGEMENT

PART VI. STACK EMISSION TEST REQUIREMENTS

- A. Stack testing shall be performed in accordance with the latest Emission Test Guidelines available on the DEP website:

http://www.ct.gov/dep/cwp/view.asp?a=2684&q=322076&depNav_GID=1619

Stack emission testing shall be required for the following pollutant(s):

PM₁₀/PM_{2.5} SO_x NO_x CO VOC

Hazardous Air Pollutants listed in Part V of this permit

The Permittee shall perform one set of initial stack tests on the turbine when burning natural gas and one set of initial stack tests when firing ULSD.

The Permittee shall perform stack emission testing for ammonia when firing natural gas and ULSD.

The Permittee shall only perform stack emission testing for lead and sulfuric acid when firing ULSD.

Fuel oil analysis of the ULSD may be substituted for stack emission testing for metallic HAPs while firing ULSD.

- B. The Permittee shall conduct initial stack testing within 60 days of achieving the maximum production rate, but not later than 180 days after initial start up. Test results must be submitted within forty-five (45) days after testing.

Testing being conducted pursuant to 40 CFR Part 60, the test report is to be submitted within 180 days after the initial startup date or within 60 days after reaching maximum production rate (40CFR60.8(a)).

- C. After the initial compliance stack test required in Part VI.A of this permit, testing shall be performed at least once every five years from the date of the initial compliance stack test required in Part VI.A of this permit for all pollutants listed in Part V.A with the following exceptions:

- After the initial stack test, stack testing is not required for pollutants requiring CEMs (NO_x, CO, and NH₃). The Commissioner retains the right to require stack testing of any pollutant at any time to demonstrate compliance.
- Fuel oil analysis of the ULSD may be substituted for stack testing for metallic HAPs while firing ULSD.

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EQUIPMENT LOCATION: 725 Bank Street, Waterbury, CT 06708
EQUIPMENT DESCRIPTION: GE LMS 100 PA Combustion Turbine

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PERMIT FOR FUEL BURNING EQUIPMENT

**STATE OF CONNECTICUT, DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF AIR MANAGEMENT**

PART VI. STACK EMISSION TEST REQUIREMENTS, continued

- If fuel analysis indicates a potential MASC violation, the Permittee shall conduct a stack test for the HAPS in question within 30 days from receiving the fuel analysis.

PART VII. SPECIAL REQUIREMENTS

- A. The Permittee shall operate and maintain this equipment in accordance with the manufacturer's specifications and written recommendations. The Permittee shall operate and maintain this stationary combustion turbine, air pollution control equipment, and monitoring equipment in a manner consistent with good air pollution control practices for minimizing emissions at all times including during startup, shutdown, and malfunction.
- B. The Permittee shall immediately institute shutdown of the turbine in the event a malfunction cannot be corrected within three hours.
- C. The Permittee shall operate this facility at all times in a manner so as not to violate or contribute significantly to the violation of any applicable state noise control regulations, as set forth in RCSA Sections 22a-69-1 through 22a-69-7.4. [State Only Requirement]
- D. The Permittee shall track and record emissions of NO_x and CO for all start-up and shut-down events for this turbine during the first 18 months of commercial operation. Within 60 days of the end of 18 months of commercial operation of the turbine, the Permittee shall submit a report of emissions during start-up and shut down events. If the determined start-up and shutdown emission rates are higher than the limits in Part V.B of this permit, then the Permittee shall submit an application for a permit modification to incorporate these emission rates into Part V.B of this permit. Subsequent emissions for start-up and shut-down events will be subject to said table.
- E. The Permittee shall monitor and record ammonia slip emissions, from this source during the first 36 months of commercial operation. Records shall also include catalyst degradation over time and lifecycle, ammonia emissions over time, costs for catalysts and equipment, and emerging SCR technology. This data shall be recorded and maintained on the premises and is in addition to any monitoring required under Part III of this permit. The following requirements apply:

| | |
|------------------------|--------------------------------------|
| FIRM NAME: | Waterbury Generation, LLC |
| EQUIPMENT LOCATION: | 725 Bank Street, Waterbury, CT 06708 |
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PERMIT FOR FUEL BURNING EQUIPMENT

STATE OF CONNECTICUT, DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF AIR MANAGEMENT

PART VII. SPECIAL REQUIREMENTS, continued

- 1. No later than 60 days from the last day of each calendar year of commercial operation of this source the Permittee shall submit a summary of operating data collected during the previous year, to the Commissioner. This summary report is not required to be submitted for the last year of the ammonia slip monitoring required under Part VII.E of this permit.
 - 2. No later than 120 days from the last day of the third calendar year of commercial operation of this source the Permittee shall submit a final report summarizing the results of the ammonia slip monitoring required under Part VII.E of this permit, including conclusions regarding ammonia slip emissions to the Commissioner.
 - 3. If there is a lack of data at the end of 36 months to make a good engineering determination regarding ammonia slip emissions, the ammonia slip monitoring under Part VII.E of this permit shall be extended an additional 24 months and the final report shall be submitted no later than 120 days from the last day of the fifth calendar year of commercial operation of this source.
- F. The Permittee shall comply with all applicable sections of the following New Source Performance Standard(s) at all times.

Title 40 CFR Part 60, Subpart: KKKK and A

Copies of the Code of Federal Regulations (CFR) are available online at the U.S. Government Printing Office website.

- G. The Permittee shall comply with all applicable requirements of the Federal Acid Rain Program codified in Title 40 CFR Parts 72-78, inclusive, by the deadlines set forth within the aforementioned regulation.
- H. The Permittee shall notify the Commissioner, in writing, of the commencement of construction, completion of construction and commencement of commercial operation of this source. Such written notifications shall be submitted no later than 30 days after the subject event.

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PERMIT FOR FUEL BURNING EQUIPMENT

STATE OF CONNECTICUT, DEPARTMENT OF ENVIRONMENTAL PROTECTION
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PART VIII. ADDITIONAL TERMS AND CONDITIONS

- A. This permit does not relieve the Permittee of the responsibility to conduct, maintain and operate the regulated activity in compliance with all applicable requirements of any federal, municipal or other state agency. Nothing in this permit shall relieve the Permittee of other obligations under applicable federal, state and local law.
- B. Any representative of the DEP may enter the Permittee's site in accordance with constitutional limitations at all reasonable times without prior notice, for the purposes of inspecting, monitoring and enforcing the terms and conditions of this permit and applicable state law.
- C. This permit may be revoked, suspended, modified or transferred in accordance with applicable law.
- D. This permit is subject to and in no way derogates from any present or future property rights or other rights or powers of the State of Connecticut and conveys no property rights in real estate or material, nor any exclusive privileges, and is further subject to any and all public and private rights and to any federal, state or local laws or regulations pertinent to the facility or regulated activity affected thereby. This permit shall neither create nor affect any rights of persons or municipalities who are not parties to this permit.
- E. Any document, including any notice, which is required to be submitted to the commissioner under this permit shall be signed by a duly authorized representative of the Permittee and by the person who is responsible for actually preparing such document, each of whom shall certify in writing as follows: "I have personally examined and am familiar with the information submitted in this document and all attachments thereto, and I certify that based on reasonable investigation, including my inquiry of those individuals responsible for obtaining the information, the submitted information is true, accurate and complete to the best of my knowledge and belief. I understand that any false statement made in the submitted information may be punishable as a criminal offense under section 22a-175 of the Connecticut General Statutes, under section 53a-157b of the Connecticut General Statutes, and in accordance with any applicable statute."
- F. Nothing in this permit shall affect the commissioner's authority to institute any proceeding or take any other action to prevent or abate violations of law, prevent or abate pollution, recover costs and natural resource damages, and to impose penalties for violations of law, including but not limited to violations of this or any other permit issued to the Permittee by the commissioner.

| | |
|------------------------|--------------------------------------|
| FIRM NAME: | Waterbury Generation, LLC |
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PART VIII. ADDITIONAL TERMS AND CONDITIONS: continued

- G. Within 15 days of the date the Permittee becomes aware of a change in any information submitted to the commissioner under this permit, or that any such information was inaccurate or misleading or that any relevant information was omitted, the Permittee shall submit the correct or omitted information to the commissioner.
- H. The date of submission to the commissioner of any document required by this permit shall be the date such document is received by the commissioner. The date of any notice by the commissioner under this permit, including but not limited to notice of approval or disapproval of any document or other action, shall be the date such notice is personally delivered or the date three days after it is mailed by the commissioner, whichever is earlier. Except as otherwise specified in this permit, the word "day" means calendar day. Any document or action which is required by this permit to be submitted or performed by a date which falls on a Saturday, Sunday or legal holiday shall be submitted or performed by the next business day thereafter.
- I. Any document required to be submitted to the commissioner under this permit shall, unless otherwise specified in writing by the commissioner, be directed to: Office of Director; Engineering & Enforcement Division; Bureau of Air Management; Department of Environmental Protection; 79 Elm Street, 5th Floor; Hartford, Connecticut 06106-5127.

| | |
|------------------------|--------------------------------------|
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APPENDIX A

Sec. 22a-174-4. Source monitoring, record keeping and reporting.

(a) **Definitions.** For the purposes of this section:

- (1) "Calendar quarter" means a consecutive three (3) month period (nonoverlapping) beginning on January 1, April 1, July 1 or October 1.
- (2) "Coal burning equipment" means fuel burning equipment that combusts coal.
- (3) "Gaseous, liquid or solid fuel burning equipment" means fuel burning equipment that combusts gaseous, liquid or solid fuels.
- (4) "Standby fuel burning equipment" means fuel burning equipment that is used only to provide backup heat or power.

(b) **Opacity continuous emissions monitoring (CEM).**

(1) Except as provided in subdivisions (2) and (3) of this subsection, the owner or operator of the stationary sources listed in subparagraphs (A) through (D) of this subdivision shall install opacity CEM equipment. The owner or operator shall operate and maintain installed opacity CEM equipment in accordance with subsections (c)(3) and (c)(4) of this section and retain the data generated in accordance with subsection (d) of this section:

- (A) Any coal burning equipment;
- (B) Any liquid or solid fuel burning equipment with a maximum rated heat input greater than or equal to two hundred fifty million Btu per hour (250,000,000 Btu/hr);
- (C) Any incinerator with a maximum rated input in excess of two thousand pounds per hour (2,000 lbs/hr); and
- (D) Any process source with particulate matter emissions exceeding twenty-five pounds per hour (25 lbs/hr) after the application of control equipment, when operated at maximum rated capacity.

(2) The provisions of subdivision (1)(A) of this subsection, concerning coal burning equipment, shall not apply to:

- (A) Any space heater installed in any single family home on or before May 1, 1975, provided that such space heater does not combust coal with a sulfur content greater than or equal to three-quarters of one percent (0.75%) by weight (dry basis);

APPENDIX A, continued

- (B) Any coal burning equipment in a commercial establishment in regular operation on or before May 1, 1975, provided that such coal burning equipment does not combust coal with a sulfur content greater than or equal to three-quarters of one percent (0.75%) by weight (dry basis) and coal consumption is less than seventy-five (75) tons per year; and
 - (C) Any coal burning equipment used primarily for educational or historical demonstrations or exhibits, provided that such coal burning equipment does not combust coal with a sulfur content exceeding one and one-half (1.5%) by weight (dry basis). Such coal burning equipment includes, but is not limited to, blacksmiths' forges, steam locomotives, and steamboats
- (3) The provisions of subdivision (1)(B) of this subsection, concerning gaseous, liquid or solid fuel burning equipment, shall not apply to:
- (A) Any standby fuel burning equipment operating less than one hundred sixty-eight (168) hours in a calendar year. For the purpose of this subparagraph, the term "operating" shall not include emissions testing or operating only to maintain reliability in emergency situations; and
 - (B) Turbines combusting natural gas, liquid fuel or a mixture of liquid fuel and natural gas that comply with the applicable particulate matter and opacity limitations set forth in section 22a-174-18 of the Regulations of Connecticut State Agencies without utilizing pollution control equipment.
- (4) The Commissioner may, in writing, request written documentation from the owner or operator of equipment listed in subdivisions (2) or (3) of this subsection to ascertain the applicability of subdivisions (2) or (3) of this subsection. An owner or operator shall deliver such documentation to the commissioner within thirty (30) days of receipt of such a written request.
- (5) An owner or operator that claims subsection (b)(1) of this section is not applicable by virtue of compliance with subsection (b)(2) or (b)(3) of this section shall, upon notice from the commissioner, install, operate and maintain opacity CEM equipment according to this section, and comply with subsections (c) and (d) of this section, if the commissioner finds:
- (A) Repeated noncompliance with section 22a-174-18 of the Regulations of Connecticut State Agencies has occurred;
 - (B) Noncompliance with the requirements, limitations or restrictions set forth in subdivisions (2) or (3) of this subsection has occurred;

APPENDIX A, continued

- (C) Operation of the subject source has interfered with or is likely to interfere with the attainment or maintenance of ambient air quality standards, create a health hazard or create a nuisance; or
 - (D) Monitoring equipment is technically feasible, economically feasible and needed to determine compliance with chapter 446c of the Connecticut General Statutes and regulations promulgated thereunder.
- (6) The notice provided for in subsection (b)(5) of this section shall be in the form of a permit or order and shall specify requirements for opacity CEM equipment installation and operation including a day by which such installation and operation is to commence.

(c) General opacity and gaseous CEM equipment operation and performance.

- (1) If, for a source of air pollution, the commissioner determines that opacity or gaseous CEM equipment is reasonably available, technically feasible, economically feasible and necessary for the commissioner to obtain opacity or emissions data to evaluate compliance with chapter 446c of the Connecticut General Statutes and regulations promulgated thereunder, the commissioner may require, by written notice to the owner or operator of such source, the installation and operation of CEM equipment. Such written notice shall be in the form of a regulation, permit or order and shall include requirements for installation and operation including a day by which such installation and operation is to commence.
- (2) If the commissioner determines that CEM equipment is not reasonably available for a source of air pollution, the commissioner may, by written notice, require the owner or operator of such source to comply with an alternative monitoring technique or conduct intermittent stack testing to verify the source is in compliance the chapter 446c of the Connecticut General Statutes and regulation promulgated thereunder. Such written notice shall be in the form of a regulation, permit or order and shall include the requirements for such alternative monitoring or testing including a day by which such alternative monitoring or testing is to commence.
- (3) Monitoring plan. Unless otherwise specified by permit or order of the commissioner, the owner or operator of any source for which construction commenced on or after the effective date of this amendment to this section who is required to install, operate and maintain opacity CEM equipment pursuant to subsection (b) of this section or gaseous or opacity CEM equipment pursuant to subdivision (1) of this subsection shall submit to the commissioner for approval, at least sixty (60) days before the initiation of the performance specification testing required by subdivision (4) of this subsection, a monitoring plan containing the information specified in subparagraphs (A) through (D) of this subdivision:
- (A) A brief description of the source, including, but not limited to, type of unit or process, type of fuel combusted, type or types of emission control devices, and operation parameters;

APPENDIX A, continued

- (B) A description of the monitoring equipment design, proposed monitor location and sampling site location. This description should include, but is not limited to, facility schematics and engineering drawings of the monitoring and sample probe locations, data acquisition system specifications, analytical monitoring technique and sampling system design;
- (C) An explanation of the performance specification testing to be conducted by the owner or operator as required by subdivision (4) of this subsection; and
- (D) A quality assurance plan including procedures for calibration, calibration drift determination and adjustment, preventative maintenance, data recording, calculation, audits and corrective action for monitoring system breakdowns.

(4) Performance specifications and quality assurance requirements. The owner or operator of any source required to install, operate and maintain CEM equipment pursuant to this section shall meet the following performance specifications and quality assurance requirements:

- (A) The applicable performance specifications and quality assurance requirements of 40 CFR 60 Appendices B and F, unless the source is subject to 40 CFR 75, in which case the owner or operator shall meet the applicable performance specifications and quality assurance requirements of 40 CFR 75;
- (B) For opacity CEM equipment, the following quality assurance requirements:
 - (i) Calibration shall be adjusted whenever the daily zero or upscale calibration exceeds plus/minus two percent ($\pm 2\%$) opacity;
 - (ii) Data shall be invalid for calculating data availability in accordance with subdivision (5) of this subsection if the zero or upscale calibration value exceeds either the reference zero or the upscale calibration value recorded during the most recent clear-path calibration by plus/minus two percent ($\pm 2\%$) opacity for five (5) consecutive days or plus/minus five percent ($\pm 5\%$) opacity on any single day. The period of invalid data begins with either the fifth consecutive occurrence of a drift value exceeding plus/minus two percent ($\pm 2\%$) opacity or with the last daily check preceding the single occurrence of a drift value exceeding plus/minus five percent ($\pm 5\%$) opacity. The period of invalid data shall end when a calibration drift check, conducted after corrective action, demonstrates that reliable monitoring data is being generated,
 - (iii) Quality assurance audits shall be conducted during each calendar quarter in which the source operates,

APPENDIX A, continued

- (iv) The commissioner shall be notified, in writing, no fewer than thirty (30) days prior to the initially proposed quality assurance audit, and
 - (v) Quality assurance audits shall be conducted in accordance with the procedures contained in "Performance Audit Procedures for Opacity Monitors," EPA Document No. 450/4-92/010, dated April 1992. If EPA promulgates quality assurance procedures in 40 CFR 60, Appendix F, quality assurance audits shall be conducted according to such procedures. If either EPA Document No. 450/4-92/010 or subsequently promulgated procedures in 40 CFR 60, Appendix F, as applicable, does not contain audit procedures for the opacity CEM selected by the owner or operator, the owner or operator shall, in writing, propose audit procedures to the commissioner for review and written approval at least thirty (30) days prior to the initial opacity CEM audit; and
- (C) If the results of a quality assurance audit fail to conform to the quality assurance requirements of subparagraph (B) of this subdivision, such opacity CEM data shall be deemed invalid by the commissioner, and the owner or operator will be deemed to have failed the quality assurance audit. Data collected after any failed quality assurance audit shall be invalid for calculating percent data availability in accordance with subdivision (5)(A) of this subsection.
- (5) Data availability.
- (A) The owner or operator of any source required to install, operate and maintain CEM equipment in accordance with this section shall meet the following data availability requirements on an emission limitation-specific basis:
 - (i) While the source is operating, the owner or operator shall operate required CEM equipment pursuant to section 22a-174-7(b) of the Regulations of Connecticut State Agencies, and allowable periods of missing data shall apply only to periods of deliberate shutdown allowed by section 22a-174-7(b) of the Regulations of Connecticut State Agencies, unavoidable system malfunction or as otherwise provided under this subdivision,
 - (ii) Except as provided in subparagraphs (B) and (C) of this subdivision, for opacity emissions, data shall be available for no less than ninety-five (95%) of the total operating hours of the source in any calendar quarter,
 - (iii) Except as provided in subparagraphs (B) and (C) of this subdivision, for air pollutant emissions other than opacity, data shall be available for no less than ninety percent (90%) of the total operating hours of the source in any calendar quarter, and

APPENDIX A, continued

(iv) Percent data availability shall be calculated using the following equation:

$$\% \text{ Data Availability} = \left(\frac{\text{Unit Operating Time} - \text{Monitoring Downtime}}{\text{Unit Operating Time}} \right) * 100$$

where:

Unit operating time = total hours of source operation at any level during the calendar quarter.

Monitoring downtime = total hours of source operation at any level during the calendar quarter where either no CEM equipment data was collected or the CEM equipment data was invalid. Such periods include, but are not limited to, quality assurance activities such as calibration, preventative maintenance, and calibration drift exceedances or quality assurance audits that result in invalid data.

- (B) The commissioner, in writing, may exempt the owner or operator of a source from the minimum data availability requirements of subparagraphs (A)(ii) and (A)(iv) of this subdivision if such source is equipped with properly operating opacity CEM equipment, and the source is operated less than or equal to five hundred four (504) hours in the calendar quarter.
- (C) The commissioner, in writing, may exempt the owner or operator of a source from the minimum data availability requirements of subparagraphs (A)(iii) and (A)(iv) of this subdivision if such source is equipped with properly operating gaseous CEM equipment, and the source is operated less than or equal to three hundred thirty-six (336) hours in the calendar quarter.
- (D) To obtain an exemption under subparagraphs (B) or (C) of this subdivision, the owner or operator of the source shall submit the following information to the commissioner within thirty (30) days following the last day of the calendar quarter for which the exemption is sought:
 - (i) A request for an exemption for a specified calendar quarter,
 - (ii) The actual operating hours of the source during the calendar quarter,
 - (iii) The duration of and nature of the CEM equipment breakdowns, repairs or adjustments made during the calendar quarter, and
 - (iv) The actual data availability achieved during the calendar quarter.

APPENDIX A, continued

(d) Record keeping and reporting.

(1) The commissioner may, by written notice, require the owner or operator of any source to create, maintain and submit data, records or reports of monitoring data and other information deemed necessary by the commissioner to evaluate compliance with chapter 446c of the Connecticut General Statutes and regulations promulgated thereunder. Such information shall be recorded, compiled and submitted on forms furnished or prescribed by the commissioner. The written notice shall provide the data by which such data, records or reports shall be submitted to the commissioner.

(2) Any document, data, plan, record or report required to be submitted to the commissioner by this section shall include a certification signed by a responsible corporate officer or a duly authorized representative of such officer, as those terms are defined in subdivision (2) of subsection (b) of section 22a-430-3 of the Regulations of Connecticut State Agencies, and by the individual or individuals responsible for actually preparing such document, each of whom shall examine and be familiar with the information submitted in the document and all attachments there, and shall make inquiry of those individuals responsible for obtaining the information to determine that the information is true, accurate and complete, and each of whom shall certify in writing as follows:

"I have personally examined and am familiar with the information submitted in this document and all attachments thereto, and I certify that based on reasonable investigation, including my inquiry of those individuals responsible for obtaining the information, the submitted information is true, accurate and complete to the best of my knowledge and belief. I understand that any false statement made in the submitted information may be punishable as a criminal offense under section 22a-175 of the Connecticut General Statutes or, in accordance with section 22a-6 of the Connecticut General Statutes, under section 53a-157b of the Connecticut General Statutes, and in accordance with any other applicable statute."

(3) The owner or operator of any source subject to the provisions of chapter 446c of the Connecticut General Statutes and regulated adopted thereunder shall maintain all data, document and reports required by this section in a legible and comprehensible form for at least five (5) years from the date such data, document or report is created.

(4) Each calendar quarter, the owner or operator of any opacity CEM equipment required pursuant to this section shall submit the following information to the commissioner:

- (A) The data obtained through such equipment during the preceding calendar quarter that is required to determine compliance with an emission limitation or standard;
- (B) A summary of such data;
- (C) A copy of the quality assurance audit conducted for that calendar quarter; and

APPENDIX A, continued

- (D) A summary of all corrective actions taken in response to a failed CEM equipment audit.
- (5) Submissions made to comply with subdivision (4) of this subsection shall be made no later than thirty (30) days following the end of each calendar quarter.
- (e) The commissioner may exempt an owner or operator of a source subject to this section from the requirements of this section as they apply to a particular air pollutant if such owner or operator demonstrates in writing, for the commissioner's written approval, that such source is physically incapable of violating any applicable requirement for such air pollutant set forth in chapter 446c of the Connecticut General Statutes and regulations promulgated thereunder.
- (f) Upon written notice in the form of a permit or order to an owner or operator of a source granted an exemption under subsection (e) of this section, such owner or operator shall install, operate and maintain CEM equipment in accordance with such notice if:
- (1) The commissioner determines there is repeated noncompliance with section 22a-174-18 of the Regulations of Connecticut State Agencies;
 - (2) Operation of the subject source has interfered with or is likely to interfere with the attainment or maintenance of ambient air quality standards, create a health hazard or create a nuisance; or
 - (3) The source has been altered or the operations of the source have changed such that subsection (e) of this section is no longer applicable.

Appendix B: SOURCE STACK TESTING GENERAL REQUIREMENTS

The owner/operator shall conduct stack testing within 60 days of achieving the maximum production rate, but not later than 180 days after initial start up.

Pursuant to the Regulations of Connecticut State Agencies, the owner/operator of this facility shall submit an Intent-to-Test (ITT) package consisting of an ITT form (Form AE404) and a test protocol. The test protocol shall be consistent with the Bureau's Emission Source Test Guideline specifying the test methodology to be followed and the conditions under which the process and its control equipment will be operated. The process shall be operated at a minimum of 90% of the permitted maximum rated capacity and the control equipment shall be operated as specified in this permit.

All proposed test methods shall comply with appropriate Federal test methods or methods acceptable to the Bureau. The ITT package must demonstrate compliance with applicable requirements of the Code of Federal Regulations (CFR) Title 40 Parts 51, 60 and 61. Any proposed test methods that deviate from those specified in these regulations must be approved by the Bureau prior to stack testing. All sampling ports shall be installed and located in compliance with 40 CFR Part 60 Appendix A, Method 1. Final plans showing the location of all sampling ports shall be submitted with the ITT package to the Air Bureau's Source Emission Monitoring Unit for approval prior to stack testing. Please submit an original and one copy of the ITT package to: Bureau of Air Management, Source Emission Monitoring Unit, 79 Elm Street, 5th Floor, Hartford, Connecticut 06106-5127.

An inspection of the source may be conducted to verify that appropriate instrumentation is available, and to determine the source process parameters, indicative of compliant operation, to be monitored during stack testing. Once the ITT package is approved, the owner/operator shall be notified, in writing, by the Bureau's Source Emission Monitoring Unit.

The source test must be scheduled, monitored by Bureau personnel, and completed within 60 days from the date of Bureau approval of the proposed ITT package. It is the source's responsibility to conduct preparatory testing for tuning or debugging purposes prior to the Bureau-monitored stack testing. An acceptable test report must be submitted to the Bureau within 45 days of the completion of emissions testing. For emission tests being conducted pursuant to 40 CFR Part 60, the test report is to be submitted within 180 days after the initial startup date or within 60 days after reaching maximum production rate (ref. § 60.8(a)). For those tests being conducted pursuant to 40 CFR Part 61, the test report is to be submitted within 31 days after completion of the test (ref. § 61.13(f)). The owner/operator shall respond to any test report deficiency within 15 days of notification by the Bureau.

In the event that the stack test report is unacceptable, or the tested values show that the source is not in compliance with applicable permit conditions or regulations, the owner/operator must respond to and correct any deficiencies. In the event of permit non-compliance, the owner/operator must submit to the Engineering Section an evaluation of the cause of non-compliance and the remedy to bring the source into compliance with the permit conditions.

Exhibit B

COMMUNITY BENEFIT AGREEMENT

This Community Benefit Agreement (this "Agreement") is entered into as of August 25 2008 ("Effective Date"), by and among Waterbury Generation, LLC, a Connecticut limited liability company with a principal place of business at 20 Church Street, Hartford, Connecticut (hereinafter "WatGen") and The Brooklyn Neighborhood Association, being a group of Waterbury residents who live in the neighborhood where the proposed power plant will be located; The Hopeville Neighborhood Association, being a group of Waterbury residents who live in the Hopeville section located to the southeast of Brooklyn; The Mohawk Park Civic Club, a club with dues paying members who live in the Mohawk section of Waterbury which is located southwest of the proposed power plant; The Town Plot Neighborhood Association, Inc., an association of members from the Town Plot section of Waterbury, located immediately west of the proposed power plant; Gilmartin Community Club, Inc., a club of members from the section of Waterbury located southeast of the proposed power plant; Connecticut Coalition for Environmental Justice, Inc., a Connecticut non-profit company with a place of business at 10 Jefferson St., Unit C-1, Hartford, Connecticut; Power Without Pollution Coalition, an informal association of Waterbury neighborhood groups; and The Waterbury Neighborhood Council, an informal association of interested Waterbury residents; (collectively, the "Intervenors"). WatGen and each Intervenor are each referred to herein as a "Party" or, collectively, as the "Parties". The promises contained in this Agreement represent full and mutual consideration therefore.

WITNESSETH

WHEREAS, on or about September 4, 2007, as amended by addenda dated March 4, 2008, March 18, 2008, March 27, 2008 and March 31, 2008, the Applicant applied to the

Connecticut Department of Environmental Protection (“DEP”) Bureau of Air Management for a New Source Review Permit (the “Permit”) to construct and operate an approximately 96 MW simple-cycle LMS100 PA combustion turbine generating peaking facility in the City of Waterbury at 725 Bank Street (the “Facility” or “WatGen Facility”).

WHEREAS, on April 14, 2008, the Connecticut Siting Council issued its Findings of Fact, Opinion and Decision and Order, finding that the approximately 96 MW simple-cycle LMS100 PA combustion turbine generating peaking facility and associated 115 kilovolt transmission line tap to interconnect with The Connecticut Light and Power Company’s transmission system, including all associated equipment and related site improvements (the “Project”), would not have any substantial adverse environmental effects, and pursuant to Conn. Gen. Stat. § 16-50k(a), a Certificate of Environmental Compatibility and Public Need was not required.

WHEREAS, on or about May 9, 2008, the DEP published a Notice of Tentative Determination declaring that a tentative determination to approve the Permit had been made.

WHEREAS, on or about June 5, 2008, a Request for a Public Hearing was filed with the DEP by The Brooklyn Neighborhood Association, The Hopeville Neighborhood Association, The Mohawk Park Civic Club, and The Town Plot Neighborhood Association.

WHEREAS, on or about June 5, 2008, The Brooklyn Neighborhood Association, The Hopeville Neighborhood Association, The Mohawk Park Civic Club, the Waterbury Neighborhood Council, Inc. and The Town Plot Neighborhood Association (the “initial Intervenors”) filed a petition for “intervenor status” with the DEP with respect to the Application for the Permit, which petition was deemed insufficient and the initial Intervenors, joined by the

Power Without Pollution Coalition and the Gilmartin Community Club filed a Revised and Supplemented Petition for Intervenor Status on June 26, 2008.

WHEREAS, on or about June 10, 2008, Janice Deshais, Director of the Office of Adjudications, issued a determination that an adjudicatory hearing would take place for PAMS No. 200702004 (the "Air Permit Proceeding").

WHEREAS, on July 2, 2008, Attorney Walter A. Twachtman, Jr. representing the Intervenor, submitted correspondence to the Hearing Officer for the DEP's Office of Adjudications ("Hearing Officer") specifying that the initial Intervenor, along with Power Without Pollution Coalition and the Gilmartin Community Club, relied upon Conn. Gen. Stat. §§ 22a-19 and 4-177a as statutory authority supporting their petition for intervention; however, the Revised and Supplemented Petition was also deemed insufficient.

WHEREAS on July 24, 2008, the initial Intervenor, along with the Connecticut Coalition for Environmental Justice and the Gilmartin Community Club, filed a 2nd Revised and Supplemented Petition for Intervenor Status and on or about August 5, 2008, the Intervenor were granted intervening party status in the Air Permit Proceeding pursuant to §22a-19 by the Hearing Officer from the DEP's Office of Adjudications ("Hearing Officer").

WHEREAS, a Notice of Public Hearing was published in the Waterbury Republican on July 3, 2008.

WHEREAS, a hearing was conducted by the DEP's Office of Adjudications beginning on August 11, 2008 through August 14, 2008, during which the Intervenor were represented by counsel, specifically by Walter A. Twachtman, Jr., Esq. and during which hearing the

Intervenors raised concerns regarding asthma, other respiratory illnesses and environmental justice issues.

WHEREAS, on or about August 12, 2008, a Public Hearing was conducted within the City of Waterbury during which members of the community expressed concerns about asthma and other respiratory illnesses within Waterbury.

WHEREAS, in light of the concerns raised by the community and the Intervenors, and subject to the terms and conditions set forth in this Agreement, WatGen proposed, and has agreed, to establish the Community Benefit Fund as described herein.

NOW, THEREFORE, in consideration of the mutual promises contained herein, and for other good and valuable consideration the receipt and sufficiency of which is hereby acknowledged, the Parties hereto agree for themselves, their successors and assigns as follows:

1. **Preamble.** The above recitations are true and correct, and are incorporated by reference herein.
2. **Establishment of a Community Benefit Fund.**
 - (a) Promptly following the issuance by the DEP of a final, unappealable NSR Permit in the form attached hereto as Exhibit A (the "Final Permit"), WatGen shall donate funds as set forth below into a charitable trust, charitable organization, or other agreed upon tax-advantaged charitable entity (the "Community Benefit Fund") and from which such funds shall be used to fund projects to reduce asthma and other respiratory illnesses, and asthma triggering conditions in the Waterbury public schools, or other public facilities around the Project, or for other projects approved by the Community Benefit Fund to benefit the local community.
 - (b) The Parties shall work cooperatively and in good faith to develop the governing

documents for the Community Benefit Fund and to select the independent Community Benefit Fund manager(s). The Community Benefit Fund shall not be political in nature.

(c) The Community Benefit Fund documents will establish the procedures and standards for selecting acceptable projects and distributing funds. The types of projects to be included in the Community Benefit Fund documents as projects for which funds may be used shall include the following:

- i. Annual inspection, cleaning and maintenance projects at Waterbury public schools that are designed to reduce asthma and other respiratory illnesses, and asthma triggering conditions, such as dust and mold. Preference shall be given to schools closest to the WatGen Facility;
- ii. Other projects designed to address asthma and/or other respiratory illnesses in Waterbury's South End Neighborhood, as determined by the Community Benefit Fund manager(s).
- iii. Development of a recreational resource plan for the development of recreational resources in Waterbury's South End Neighborhood; and
- iv. Provision of refresher hazardous material training for the local firefighters.

(d) The Community Benefit Fund documents shall include provisions to encourage the Community Benefit Fund manager(s) to seek and apply for additional funding as available from governmental, quasi-governmental, charitable and eleemosynary entities and institutions and other programs to increase or supplement the funds available for the purposes stated therein and

described above.

(e) On or before July 1, 2009, WatGen shall donate \$90,000.00 into the Community Benefit Fund and shall thereafter donate an additional \$90,000.00 into the Community Benefit Fund annually on or before July 1 of each year for each of the following nine years, with the final donation being made on or before July 1, 2018.

3. **Permit Issuance.** On or before August 25, 2008, the Parties, together with the DEP Air Management Bureau staff, shall submit an Agreed Draft Decision to the Hearing Officer and shall urge the DEP to immediately issue the Final Decision and the Final Permit, which Final Permit shall include the following condition in Part II.A:

In addition, the turbine may only be fueled by ULSD when:

- (i) the interruptible natural gas supply is curtailed;*
- (ii) there is a failure of the equipment required to allow the turbine to utilize natural gas;*
- (iii) the turbine is starting up, or commissioning or testing the ULSD firing capability of the turbine;*
- (iv) there is routine maintenance of any equipment required to allow the turbine to utilize natural gas or ULSD;*
- (v) as required, periodically to maintain an appropriate turnover of the on-site fuel oil inventory as recommended by any of the equipment manufacturers or as otherwise required by prudent utility practice; or*
- (vi) otherwise required to comply with the requirements of the Master Agreement for Generation Projects between Waterbury Generation LLC and The United Illuminating Company, dated as of May 21, 2007, as approved by the Connecticut Department of Public Utility Control.*

4. **Other WatGen Commitments:**

(a) WatGen shall not modify or expand the WatGen Facility beyond its nameplate capacity or convert the Facility into combined cycle unit.

(b) WatGen shall take into consideration the Intervenors' concerns regarding the potential for graffiti on the fence around the WatGen Facility, place any protective fencing (e.g. barbed wire) in a way that it is least visible from the exterior of the fencing, and consider the utilization of a chain link fence with back-up arborvitae plantings.

(c) WatGen shall designate a Community Liaison Officer as a point of contact for members of the local community. The initial Community Liaison Officer will be James Ginnetti, Vice President of External Affairs. The Community Liaison Officer shall establish a communication plan to facilitate communications between WatGen and the local community. Such plan will provide for: (i) the posting of public information regarding the WatGen Facility on its website, which information shall at a minimum, include copies of all official stack test results submitted to the DEP, links to the Energy Information Administration website which contains monthly and annual data on generation and fuel consumption, and links to the U.S. EPA Clean Air Markets website which contains data on operating hours and emissions; (ii) meeting with one representative from each of the eight Intervenors (the "Intervenor Representatives") prior to commencement of commercial operations at which WatGen will describe its Emergency Action Plan and communication plan; (iii) providing notification to the Intervenors of any application to the DPUC for approval to change ownership or control of the WatGen Facility; and (iv) the establishment of a hotline and email address through which questions or concerns can be submitted to the Community Liaison Officer. In addition, on or before 90 days after commencement of commercial operations, WatGen shall provide a tour of the WatGen Facility to the Intervenor Representatives. At the request of the Intervenor Representatives, WatGen will provide such tours on an annual basis and copies of any reports of any emergency or malfunction of the equipment described in the Final Permit that is required by the Final Permit to be

submitted to the CT DEP.

5. **Intervenors Commitments.**

The Intervenors, jointly and/or severally, on their own behalf and on behalf of their members, agree to the following:

(a) The Intervenors shall discontinue opposition to and shall cooperate with WatGen in urging immediate issuance of the Final Permit. The Intervenors will cooperate with WatGen and the DEP Air Management Bureau staff in providing an Agreed Draft Decision to the Hearing Officer as set forth in Paragraph 3 above and in taking all other steps necessary to facilitate the issuance of the Final Permit as soon as practicable.

(b) The Intervenors waive the right to file any exceptions with the Commissioner regarding the Hearing Officer's recommended final decision and/or Final Permit. The Intervenors agree to execute a letter to the Hearing Officer, to be submitted with the Agreed Draft Decision, confirming that they waive their right to file any exceptions to Hearing Officer's recommended final decision within fifteen days.

(c) The Intervenors waive the right to file a motion for reconsideration, reversal, modification or correction of the Commissioner's Final Decision.

(d) The Intervenors waive all rights to appeal the Final Decision and Issuance of the Permit.

(e) Intervenors shall not oppose WatGen in obtaining any and all other permits or government approvals required for the Project.

(f) Intervenors shall withdraw any other pending objections or requests to reopen proceedings related to the Project.

(g) Intervenors shall not take any appeals from, or otherwise challenge, the DEP's decision to issue the Final Permit or any other governmental approvals necessary to construct or operate the Project, and they further agree that if any individual files such a legal action in connection with the NSR Permit, Intervenors will support WatGen's actions to dismiss such legal action.

6. **Binding Agreement.** This Agreement shall be binding upon and shall inure to the benefit of the Parties and their respective successors, and assigns.

7. **Modification.** The Parties agree to be legally bound and hereby agree that this Agreement can be modified only by a writing signed by all Parties that recites the specific intent to modify this Agreement.

8. **Execution.** The terms of this Agreement are the product of mutual negotiation and compromise among the Parties. The meaning, effect, and terms of this Agreement have been fully explained to the Parties, and the Parties understand that this Agreement settles, bars, and waives any and all claims that the Parties have or could possibly have against each other, unless prohibited from releasing such claim by law or specifically identified herein. The Parties have reviewed this Agreement and are fully aware of their terms and conditions, and have voluntarily and without coercion or duress of any kind entered into this Agreement and the documents executed in connection with this Agreement.

9. **Advice of Counsel.** By executing this Agreement, the Parties acknowledge that they have had the opportunity to review the Agreement with counsel regarding the construction and the terms of this Agreement.

10. **Dispute Resolution.** In order to provide a prompt and economical means of resolving all disputes arising under this Agreement, the Parties agree to the following procedures

for resolving disputes. First, the Parties will confer informally and in good faith to resolve any disputes arising under the Agreement. If a resolution is not reached through the informal process described above within a reasonable time, the Parties agree to submit the dispute to mediation before an independent Mediator. The Parties shall select an independent Mediator who is mutually acceptable to them, with the requirement that the Mediator be an experienced environmental lawyer. The Mediator shall, in his or her sole discretion, establish a procedure for resolving any disputes, but shall use his or her best efforts to issue a ruling within thirty (30) days of his or her appointment. The ruling of the independent Mediator shall be enforceable in a court of competent jurisdiction, on the same terms as arbitration awards are enforceable in the Courts of the United States. Each Party shall pay its own costs of such mediation and the costs of the Mediator shall be shared equally among the Parties; provided however, that if WatGen breaches its obligation to make payments to the Community Benefit Fund, as required hereunder, the Mediator may, as part of his or her decision, award reasonable attorneys fees and costs to the prevailing party.

11. **Entire Agreement.** It is understood and agreed that this Agreement and other documents contemplated herein constitute the entire agreement between the Parties, and no oral statements or promises, and no understandings not included in this writing, shall be valid or binding.

12. **Counterparts.** This Agreement may be executed in counterparts, or any number of duplicate originals, all of which shall constitute one and the same instrument. The Parties further agree that execution of facsimile copies of this Agreement, as well as faxed signatures, shall be valid.

13. **Good Faith Covenant.** The Parties agree that their actions and dealings with

each other shall be subject to an express covenant of good faith and fair dealing. The Intervenors have entered into this Agreement on behalf of themselves, their respective members and their officers and directors. The Intervenors believe, in good faith, that this Agreement is in the best interest of the Intervenors, their members, the neighborhoods in proximity to the Facility, the residents and especially the school children who live in these neighborhoods and the City of Waterbury, but the Intervenors do not represent all residents of the City of Waterbury.

14. **Severability**. The Parties agree that if any provision of this Agreement is declared or determined to be illegal, invalid or unenforceable, the remaining parts, terms and provisions shall not be affected, and the illegal, unenforceable or invalid provision shall not apply.

15. **Headings**. The paragraph headings herein are for convenience or reference only, and shall not limit or otherwise affect in any way the meaning or interpretation of this Agreement.

16. **Effective Date**. The Effective Date shall have the meaning set forth in the Preamble.

17. **Governing Law**. This Agreement shall be governed by and construed in accordance with the domestic law of the State of Connecticut without giving effect to any choice or conflict of law provision or rule (whether of the State of Connecticut or any other jurisdiction) that would cause the application of the law of any jurisdiction other than the State of Connecticut.

18. **Time is of the Essence**. Time is of the essence of this Agreement. The donations and other commitments of WatGen in this Agreement are directly dependent upon WatGen's receipt of the Final Permit and ability to begin construction of the Project as soon as practicable.

Dated this 25th day of August, 2008.

On Behalf Waterbury Generation, LLC:

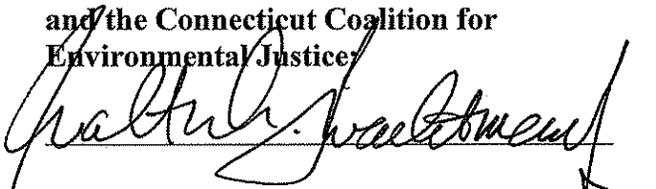


Mark R. Sussman, Esq .
Murtha Cullina LLP
CityPlace I, 185 Asylum Street
Hartford, CT 06103



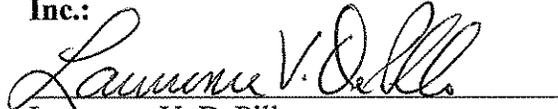
Curtis Morgan, CEO and President
Waterbury Generation, LLC
20 Church Street, 16th Floor
Hartford, CT 06103

On Behalf of The Brooklyn Neighborhood Association; The Hopeville Neighborhood Association; The Mohawk Park Civic Club; The Town Plot Neighborhood Association; Gilmartin Community Club; Power Without Pollution Coalition; The Waterbury Neighborhood Council, Inc.; and the Connecticut Coalition for Environmental Justice:



Walter A. Twachtman, Jr., Esq.
Boscarino, Grasso & Twachtman, LLP
628 Hebron Avenue, Building 2
Suite 301
Glastonbury, CT 06033

On Behalf of The Brooklyn Neighborhood Association; The Hopeville Neighborhood Association; The Mohawk Park Civic Club; The Town Plot Neighborhood Association, Inc.:



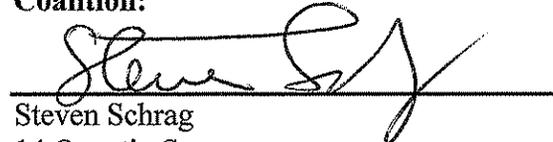
Lawrence V. DePillo
11 Steuben Street
Waterbury, CT 06708

On Behalf of the Connecticut Coalition for Environmental Justice, Inc.:



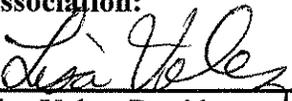
Mark Mitchell
Connecticut Coalition for Environmental Justice
P.O. Box 2022
Hartford, CT 06143

On Behalf of Gilmartin Community Club; Power Without Pollution Coalition:



Steven Schrag
14 Quentin Street
Waterbury, CT 06706

**On Behalf of Brooklyn Neighborhood
Association:**



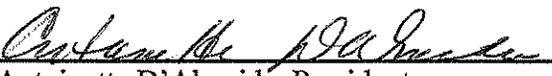
Lisa Velez, President
41 North Leonard Street
Waterbury, CT 06708

**On Behalf of Hopeville Neighborhood
Association**



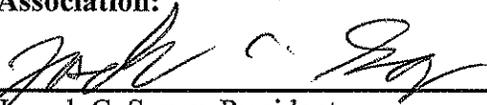
Theodore J. Derouin, Jr., Vice-President
34 Piedmont Street
Waterbury, CT 06706

On Behalf of Mohawk Park Civic Club



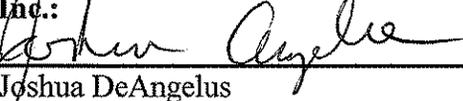
Antoinette D'Almeida, President
177 Allen Street
Waterbury, CT 06706

**On Behalf of Town Plot Neighborhood
Association:**



Joseph C. Savoy, President
168 Lucille Street Extension
Waterbury, CT 06708

**The Waterbury Neighborhood Council,
Inc.:**



Joshua DeAngelus
67 Hillside Avenue
Waterbury, CT 06710