CONTROL MEASURE APPENDIX

The U.S. Environmental Protection Agency (EPA) noted that some of the post-2002 control measures identified in the Connecticut 1997 Annual PM2.5 NAAQS Attainment Demonstration are not approved in the state implementation plan (SIP). In response, the Connecticut Department of Environmental Protection (CTDEP) is submitting the following four control measures into the SIP as measures producing directionally correct emissions reductions in support of attainment of the 1997 annual PM2.5 NAAQS:

- Control of sulfur dioxide emissions from power plants and other large stationary sources, Section 22a-174-19a of the Regulations of Connecticut State Agencies (RCSA) (*submitted in part*);
- VOC reductions from the manufacture and use of adhesives and sealants, RCSA section 22a-174-44;
- Outdoor wood burning furnace restrictions, Section 22a-174k of the Connecticut General Statutes; and
- General Permit to Construct and/or Operate a New or Existing Distributed Generation Resource.

Although the emissions reductions anticipated from the last three of these measures are not quantified for the purposes of the 1997 Annual PM2.5 NAAQS Attainment Demonstration, CTDEP notes that the VOC emissions reductions of RCSA section 22a-174-44 were included in the attainment modeling and quantified for the purposes of the Connecticut 8-Hour Ozone Attainment Demonstration, which was submitted to EPA on February 1, 2008.

With regard to RCSA section 22a-174-19a, CTDEP is requesting approval only for portions of the regulation. A version of the regulation is submitted with strikeout font to indicate those portions of the regulation that CTDEP is not submitting for approval.

Administrative Materials

For each of the four control measures identified above, the documents in this appendix demonstrate that all required state and federal procedures for public participation were followed in satisfaction of the requirements of 40 CFR 51, Appendix V, Section 2. Such documents are as follows:

A: RCSA Section 22a-174-19a (with strikeout font to indicate portions not submitted for approval into the SIP)

- A-1. Notice of public hearing
- A-2. Hearing report

B: RCSA Section 22a-174-44

- B-1. Notice of public hearing
- B-2. Certification of public hearing
- B-3. Hearing report

C: CGS Section 22a-174k

- C-1. Bill History of HB 6773, including a public hearing before the Environment Committee of the Connecticut General Assembly on March 7, 2005
- C-2. Section 1 of Public Act 05-227

D: General Permit to Construct and/or Operate a New or Existing Distributed Generation Resource

- D-1. CGS Section 22a-174(k) (*establishing the process for general permit adoption*)
- D-2. Notice of Intent to Issue A General Permit and Notice of Public Hearing
- D-3. Office of Adjudications Final Decision

RCSA Section 22a-174-19a (with strikeout font to indicate portions not submitted for approval into the SIP)

A-1. Notice of public hearing
A-2. Hearing report

Section 22a-174-19a. Control of sulfur dioxide emissions from power plants and other large stationary sources of air pollution.

(a) Definitions. For purposes of this section:

(1) "Affected state" means "affected states" as defined in section 22a-174-1 of the Regulations of Connecticut State Agencies.

(2) "Affected unit" means any emissions unit subject to the provisions of section 22a-174-22b of the Regulations of Connecticut State Agencies, the Post-2002 Nitrogen Oxides Budget Program.

(3) "Average emissions rate" means a determination of the rate of SO2 emissions, measured in pounds of SO2 per MMBtu, in any calendar quarter from either a single affected unit or from two or more affected units. Average emissions rate for a single unit is calculated by dividing the total quarterly SO2 emissions, in pounds, from such unit by the total quarterly heat input, in MMBtu, for such unit. Average emissions rate for two or more units is calculated by dividing the total quarterly SO2 emissions, in pounds, from all such units by the total quarterly heat input, in MMBtu, for all such units.

(4) "Calendar quarter" means the period of January 1 to March 31, inclusive, April 1 to June 30, inclusive, July 1 to September 30, inclusive or October 1 to December 31, inclusive.

~~(5) "Connecticut State SO2 Retirement Account" means a general allowance tracking system account established by the commissioner under 40 CFR 73.31 for the purpose of permanently holding SO2 allowances retired by the owners or operators of affected units in accordance with the provisions of subsection (d) of this section.~~

(6) "Continuous emissions monitoring system" or "CEMS" means any equipment used to sample, analyze and measure SO2 emissions to provide a permanent record of such emissions expressed in pounds per MMBtu.

(7) "Emissions unit" means "emission unit" as defined in section 22a-174-1 of the Regulations of Connecticut State Agencies.

~~(8) "Early reduction credit" means a reduction of SO2 during calendar years 1999, 2000, 2001 or 2002 below the most stringent SO2 emission rate applicable to an affected unit pursuant to subsection (h)(5)(B) of this section.~~

(9) "Generation period" means the period of time during which reductions in emissions of an air pollutant are implemented.

(10) "MMBtu" means million BTU of heat input.

~~(11) "Retire" or "retirement" when referring to SO2 allowances, means the permanent withdrawal of SO2 allowances by the Administrator from any allowance tracking system account~~

~~to the Connecticut SO2 Allowance Retirement Account in an amount equal to the number of tons of SO2 emitted by each affected unit.~~

(12) "Sulfur dioxide" or "SO2" means a gas that at standard conditions has the molecular form SO2.

(13) "Sulfur dioxide Discrete Emission Reduction Credit" or "SO2 DERC" means the reduction of one ton of sulfur dioxide at a stationary source during the generation period, which the commissioner has certified in writing as real, quantifiable, surplus, permanent, and enforceable. ~~Early reduction credits shall qualify as SO2 DERCs.~~

(14) "Title IV SO2 allowance" or "SO2 allowance" means an authorization allocated to a Title IV source by the Administrator, pursuant to Title IV of the federal Clean Air Act (42 USC 7651d, et seq.) and 40 CFR Parts 72 and 73, to emit up to one ton of SO2 during or after a specified calendar year.

(15) "Title IV source" means an affected unit that is also subject to Phase II of the acid rain control requirements set forth in Title IV of the federal Clean Air Act (42 USC 7651d, et seq.).

(b) Applicability. This section shall apply to the owner or operator of any affected unit.

(c) Sulfur dioxide emission standards and fuel sulfur limits effective on and after January 1, 2002. On and after January 1, 2002 and except as provided in subsection (f) of this section, the owner or operator of an affected unit or units shall:

(1) Combust liquid fuel, gaseous fuel or a combination of each provided that each fuel possess a fuel sulfur limit of equal to or less than 0.5 % sulfur, by weight (dry basis);

(2) Meet an average emission rate of equal to or less than 0.55 pounds SO2 per MMBtu for each calendar quarter for an affected unit at the premises; or

(3) Meet an average emission rate of equal to or less than 0.5 pounds SO2 per MMBtu calculated for each calendar quarter, if such owner or operator averages the emissions from two or more affected units at the premises.

~~**(d) Additional Emission Reduction Requirements.**~~

~~(1) No later than the following March 1, for each calendar year commencing January 1, 2002, the owner or operator of each affected unit that is also a Title IV source shall retire one SO2 allowance, rounded up to the next whole ton, for each ton of SO2 emitted in the state of Connecticut. This requirement is in addition to any other requirements imposed on the owner or operator of a Title IV source by the Administrator under 40 CFR Parts 72 and 73.~~

~~(2) The owner or operator of an affected unit shall retire the necessary amount of SO2 allowances by requesting that the Administrator transfer such allowances to the Connecticut State SO2 Retirement Account established by the commissioner pursuant to 40 CFR 73.31 and~~

~~administered by the federal Environmental Protection Agency under the provisions of 40 CFR Parts 72 and 73. The transfer of SO2 allowances in accordance with the provisions of this subdivision shall occur by March 1 for emissions occurring in the previous calendar year.~~

~~(3) Any SO2 allowance retired in accordance with the provisions of this subsection shall be an allowance originally issued by the Administrator to a Title IV source located in the state of Connecticut or in any affected state.~~

(e) Sulfur dioxide emissions standards and fuel sulfur limits effective on and after January 1, 2003. Notwithstanding the provisions of subsection (b) of this section and except as provided in subsection (f) of this section, this subsection shall apply, on and after January 1, 2003, to the owner or operator of a Title IV source that is also an affected unit or units. On and after January 1, 2003, such owner or operator shall:

(1) Combust liquid fuel, gaseous fuel or a combination of each provided that each fuel possess a fuel sulfur limit of equal to or less than 0.3 % sulfur, by weight (dry basis);

(2) Meet an average emission rate of equal to or less than 0.33 pounds SO2 per MMBtu for each calendar quarter for an affected unit at a premises;

(3) Meet an average emission rate of equal to or less than 0.3 pounds SO2 per MMBtu calculated for each calendar quarter, if such owner or operator averages the emissions from two or more affected units at a premises; or

~~(4) Meet an average emission rate equal to or less than 0.3 pounds SO2 per MMBtu calculated for each calendar quarter in accordance with the provisions of subsection (h) of this section, provided that each affected unit or units:~~

~~(A) Combusts liquid fuel, gaseous fuel or a combination of each, provided that each fuel possess a fuel sulfur limit of equal to or less than 0.5 % sulfur, by weight (dry basis), or~~

~~(B) Meets an actual quarterly average emission rate that does not exceed 0.55 pounds SO2 per MMBtu.~~

~~**(f) Compliance extension for sulfur dioxide emission standards and fuel sulfur limits.**~~

~~(1) The commissioner may authorize an extension, to expire no later than June 1, 2003, to comply with the requirements of subsection (c) or (e) of this section upon the request of an owner or operator of an affected unit provided such request is filed with the commissioner no later than 120 days before the applicable compliance date of subsection (c) or (e) of this section.~~

~~(2) Before granting or denying a request for an extension pursuant to subdivision (1) of this subsection, the commissioner shall make a finding, after consultation with the Department of Public Utility Control, to determine whether the provisions of this section will substantially impact the reliable generation or delivery of electricity to residential, commercial and industrial~~

~~users in the state. The commissioner may hold a public hearing prior to granting or denying such request for an extension.~~

~~(3) The commissioner may impose conditions and limitations by permit or order when granting a request for an extension under subdivision (1) of this subsection.~~

~~(4) Any extension authorized under subdivision (1) of this subsection shall require that the owner or operator of an affected unit, through a permit or order, comply with the requirements of subsection (c) or (e) of this subsection by reconstructing the existing affected unit, replacing the existing affected unit with a new source, or submitting to an emissions cap. The commissioner may require such emissions cap be equivalent to, or less than, the quantity of emissions that would have been emitted had the source complied with the requirements of subsection (c) or (e). Any emissions cap shall expire no later than June 1, 2003 and any reconstruction or replacement shall be completed no later than June 1, 2003.~~

~~(5) The extension provided by this subsection shall not relieve the owner or operator of an affected source of the requirements to comply with any applicable provision of this section, including subsection (d) of this section.~~

~~**(g) Fuel Emergencies.**~~

~~(1) The commissioner may suspend the requirements of subsection (c) or (e) of this section for the owner or operator of any affected unit using a low-sulfur fuel. For the purposes of this subsection, a low-sulfur fuel is any solid, liquid or gaseous fuel with a sulfur content equal to or less than 0.5% by weight, dry basis. Such suspension shall be made only when the commissioner finds that the availability of fuel that complies with such requirements is inadequate to meet the needs of residential, commercial and industrial users in this state and that such inadequate supply constitutes an emergency.~~

~~(2) The commissioner shall specify in writing the period of time for which the suspension described in subdivision (1) of this subsection shall be in effect.~~

~~(3) No later than thirty days after the termination of any suspension of fuel sulfur limits made pursuant to this subsection, the owner or operator of an affected unit or units shall report to the commissioner in writing the amount of SO2 emissions in excess of those that would have occurred had the use of compliant fuel at the affected source not been interrupted. If such excess SO2 emissions from any premises exceed fifty tons, the commissioner may require that the owner or operator of such affected unit or units offset such SO2 emissions through the use of emission reduction trading in accordance with the provisions of subsection (h) of this section.~~

~~**(h) Emissions reduction trading.**~~

~~(1) The owner or operator of an affected unit may use SO2 DERCs or SO2 allowances to comply with the applicable emission limitations set forth in subsection (e)(4) of this section pursuant to a permit or order issued by the commissioner.~~

~~(2) Such owner or operator shall retire one (1) SO2 DERC for each ton or part thereof of SO2 emitted in excess of the applicable emission limitation in subsection (e)(4) of this section. In the alternative, an owner or operator may retire four (4) SO2 allowances for each ton or part thereof of SO2 emitted in excess of the applicable emission limitation in subsection (e)(4) of this section.~~

~~(3) Any creation or use of SO2 DERCs for the purpose of this subsection shall be consistent with the provisions of 40 CFR 51, Subpart U and the U.S. Environmental Protection Agency's "Emission Trading Policy Statement," published December 4, 1986 (Federal Register, Volume 51, page 43814).~~

~~(4) The owner or operator of any affected facility using SO2 allowances as a means of compliance with the provisions of this subsection and subsection (e)(4) of this section shall ensure that such allowances were originally issued by the Administrator to a Title IV source located in the state of Connecticut or in any affected state.~~

~~(5) The owner or operator of any affected unit that reduces SO_2 emissions for the purpose of generating early reduction credits or SO_2 DERCs may request that the commissioner approve such early reduction credits or SO_2 DERCS in writing by permit or order provided that such reductions are:~~

~~(A) Real, quantifiable, surplus, permanent and enforceable; and~~

~~(B) Based on an emissions rate that is the most stringent of:~~

~~(i) 0.3 pounds SO_2 per MMBtu,~~

~~(ii) Permitted allowable emissions of the affected unit, or~~

~~(iii) The actual emissions of the affected unit.~~

(i) Record keeping.

(1) The owner or operator of an affected unit who demonstrates compliance with this section by meeting the applicable fuel sulfur limits of subsections (c)(1) or (e)(1) of this section shall make and keep records in accordance with the following:

(A) If fuel with sulfur content not exceeding an applicable fuel sulfur limit is the only fuel purchased and combusted by an affected unit, then the owner or operator shall make and keep records that demonstrate the fuel sulfur content of each shipment of fuel received; or

(B) If fuel with sulfur content above any applicable limit is blended at the premises for combustion in an affected unit or units, the owner or operator shall make and keep daily records demonstrating that all fuel combusted at the affected unit or units meets the applicable fuel sulfur limits of subsection (c)(1) or (e)(1) of this

section. Fuel sulfur analysis shall be conducted in accordance with the American Society for Testing and Material (ASTM) test method D4294 and automatic sampling equipment shall conform to ASTM test method D4177-82. (Copies of ASTM test methods D4294 and D4177-82 may be obtained from the Department of Environmental Protection, Bureau of Air Management, 79 Elm Street, 5th floor, Hartford, CT 06106-5127; (860) 424-3027).

(2) The owner or operator of an affected unit who demonstrates compliance with this section by meeting the average SO2 emission rate limits of subsections (c)(2), (c)(3), (e)(2), (e)(3) ~~or~~ ~~(e)(4)~~ of this section shall make and keep records in accordance with the following:

(A) For affected units that are also Title IV sources, hourly SO2 emission rate values determined from data measured by a CEMS in accordance with the applicable provisions of 40 CFR 75;

(B) For affected units that are not Title IV sources:

(i) hourly SO2 emission rate values determined from data measured by a CEMS in accordance with the applicable provisions of either 40 CFR Parts 60 or 75, or

(ii) if any affected unit does not have a CEMS in accordance with either 40 CFR Parts 60 or 75, then hourly SO2 emission rate values determined from data measured by a CEMS or other monitoring system; and

(C) For all affected units, quarterly facility SO2 emission rate averages, determined by dividing total quarterly SO2 emissions by total quarterly heat input values for all affected units at the facility.

(3) The owner or operator of an affected unit shall keep the records specified in subdivision (1) or (2) of this subsection at the premises for a period of five years. Such records need not be maintained for distillate oil, motor vehicle fuel, aircraft fuel, or gaseous fuel, provided such fuels have a sulfur content below 0.3% by weight (dry basis) and are the only fuels combusted at the affected unit. This exemption shall not apply when such fuels are combusted in combination with other fuels having sulfur contents above 0.3% by weight (dry basis).

(j) Reporting requirements.

(1) The owner or operator of an affected unit for which the commissioner has issued a final Title V permit shall, as part of any compliance certification pursuant to section 22a-174-33(q)(2) of the Regulations of Connecticut State Agencies, certify in writing to the commissioner compliance with the applicable provisions of this section. Such certification shall include actual quarterly SO2 emissions in tons and either average quarterly fuel sulfur content or average quarterly emission rate, whichever is applicable, for each affected unit.

(2) The owner or operator of an affected unit for which the commissioner has not issued a final Title V permit shall certify in writing to the commissioner that such owner or operator is in compliance with the applicable provisions of this section on or before March 1 of each year for the previous calendar year. Such certification shall include actual quarterly SO2 emissions in tons and either average quarterly fuel sulfur content or average quarterly emission rate, whichever is applicable, for each affected unit.

(k) Duty to comply with the most stringent standards applicable to the affected units.

(1) Notwithstanding any provision of this section to the contrary, if the owner or operator of an affected unit is subject to a more stringent emission standard or limitation imposed by order, permit or other applicable law, such owner or operator shall comply with the most stringent emission limitation or standard.

(2) Notwithstanding any provision of this section to the contrary, if the owner or operator of an affected unit is subject to additional monitoring or reporting requirements imposed by order, permit or other applicable law, such owner or operator shall comply with the additional monitoring or reporting requirements

Be it known that the foregoing:

☒ Regulations ☐ Emergency Regulations

Are:

☒ Adopted ☒ Amended as hereinabove stated ☐ Repealed

By the aforesaid agency pursuant to:

☒ Section 22a-174 of the General Statutes.

☐ Section _____ of the General Statutes, as amended by Public Act No. _____ of the ___ Public Acts.

☐ Public Act No. _____ of the Public Acts.

After publication in the Connecticut Law Journal on August 22 20 00 , of the notice of the proposal to:

☒ Adopt ☒ Amend ☐ Repeal such regulations

(If applicable): ☒ And the holding of a public hearing on 21st day of Sept 20 00

WHEREFORE, the foregoing regulations are hereby:

☒ Adopted ☒ Amended as hereinabove stated ☐ Repealed

E' ve:

☒ When filed with the Secretary of State.

(OR)

☐ The _____ day of _____ 19____.

In Witness Whereof:	DATE October 30, 2000	SIGNED *(Head of Board, Agency or Commission)*	OFFICIAL TITLE, DULY AUTHORIZED Commissioner
Approved by the Attorney General as to legal sufficiency in accordance with Sec. 4-169, as amended, C.G.S.:		SIGNED	OFFICIAL TITLE, DULY AUTHORIZED Assoc. Atty. General

11/6/00

☐ Approved

☐ Disapproved

☐ Disapproved in part, *(Indicate Section Numbers disapproved only)*

☐ Rejected without prejudice.

By the Legislative Regulation Review Committee in accordance with Sec. 4-170, as amended, of the General Statutes.	DATE	SIGNED *(Clerk of the Legislative Regulation Review Committee)*

Two certified copies received and filed, and one such copy forwarded to the Commission on Official Legal Publications in accordance with Section 4-172, as amended, of the General Statutes.

D/	SIGNED *(Secretary of the State.)*	BY

INSTRUCTIONS

1. One copy of all regulations for adoption, amendment or repeal, except emergency regulations, must be presented to the Attorney General for his determination of legal sufficiency. Section 4-169 of the General Statutes

2. Seventeen copies of all regulations for adoption, amendment or repeal, except emergency regulations, must be presented to the standing Legislative Regulation Review Committee for its approval. Section 4-170 of the General Statutes.

3. Each regulation must be in the form intended for publication and must include the appropriate regulation section number and section heading. Section 4-172 of the General Statutes.

4. Indicate by "(NEW)" in heading if new regulation. Amended regulations must contain new language in capital letters and deleted language in brackets. Section 4-170 of the General Statutes.

ADMINISTRATIVE REGULATIONS

Regulations and notices published herein, pursuant to General Statutes Sections 4-168 and 4-173, are printed exactly as submitted by the forwarding agencies. These, being official documents submitted by the responsible agencies, are consequently not subject to editing by the Commission on Official Legal Publications.

A cumulative list of effective amendments to the Regulations of Connecticut State Agencies may be found in the Connecticut Law Journal dated August 1, 2000.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

Notice of Intent to Adopt and Amend Regulations

The Commissioner of Environmental Protection hereby gives notice of a public hearing as part of a rulemaking proceeding. The purpose of this proceeding is to amend the Regulations of Connecticut State Agencies (R.C.S.A.) concerning the abatement of air pollution in accordance with Executive Order No. 19 issued by Governor John G. Rowland on May 17, 2000. By Executive Order No. 19, the Governor has directed the Department take steps to significantly reduce air pollution in the state of Connecticut.

Executive Order No. 19 directed the Commissioner of Environmental Protection to propose the adoption of regulations, in accordance with the provisions of chapter 54 of the general statutes. The proposed regulations are to limit air pollution from sixty-one emission units in the state of Connecticut. These units include power plants and other large stationary sources of air pollution. The proposed regulations are intended to reduce annual sulfur dioxide emissions by an amount at least 30 to 50% greater than current commitments through the establishment of appropriate reduction targets and the implementation of control strategies designed to protect natural resources, reduce acid deposition and further protect public health. The proposed regulations are also intended to reduce annual nitrogen oxide emissions by an amount at least 20 to 30% greater than current commitments through the establishment of appropriate reduction targets and the implementation of control strategies designed to protect natural resources, reduce acid deposition, reduce nitrogen deposition, reduce eutrophication and further protect public health.

Executive Order No. 19 further directed that any proposed regulations include the use of market-based incentives and a system of creditable emission allowances or credits to foster early, meaningful and cost-effective emission reductions. Emission reduction trading is intended to maximize the generation and use of locally created allowances or credits, to the extent practicable, and to create a net air quality benefit for the people of Connecticut.

The public hearing concerns two proposed regulations. The first is the proposed adoption of a new section, R.C.S.A section 22a-174-19a concerning Control of Sulfur Dioxide Emissions from Power Plants and Other Large Stationary Sources of Air Pollution. The second is the proposed amendment of an existing regulation, R.C.S.A. section 22a-174-22 concerning Control of Nitrogen Oxide Emissions. The proposed amendments are more fully described below.

All interested persons are invited to comment on the proposed regulations. Comments should be directed to the attention of Ellen Walton of the Department of Environmental Protection, Bureau of Air Management, Planning and Standards Division, 79 Elm Street, Hartford, Connecticut 06106-5127. In addition to submitting comments at the public hearing described below, comments may be submitted by facsimile to (860) 424-4063 or by electronic mail to ellen.walton@po.state.ct.us. All comments must be received by 5:00 PM, September 22, 2000.

R.C.S.A. section 22a-174-19a – Control of Sulfur Dioxide Emissions from Power Plants and Other Large Stationary Sources of Air Pollution. This regulation is being proposed for adoption to meet the requirements of Executive Order No. 19 as described above. The proposal contains two phases. In phase one, effective December 31, 2001, the owners and operators of fossil fuel fired power plants and large industrial sources of air pollution will be required to significantly reduce sulfur emissions by either combusting low sulfur fuel (0.50 % sulfur by weight, dry basis) or meet a facility-wide monthly average emission rate of 0.50 pounds of sulfur dioxide per million British Thermal Units of heat input. In phase two, effective December 31, 2002, the owners and operators of fossil fuel fired power plants will be required to significantly reduce sulfur emissions by either combusting low sulfur fuel (0.30 % sulfur by weight, dry basis) or meet a facility-wide monthly average emission rate of 0.30 pounds of sulfur dioxide per million British Thermal Units of heat input. Phase two provides additional flexibility in that the owners or operators of affected emission units would be authorized to use discrete emission reduction credits and/or federal acid rain allowances to comply with the more stringent standard. **The Department is also requesting comment on whether there is a demonstrated need for the proposed regulation to contain emission reduction trading provisions. Public comment on this issue will assist the Department in making a determination as to whether the final proposed rule will contain such provisions.**

The Department is also proposing to require additional emission reductions from the owners and operators of power plants that would be subject to both this proposed rule and the federal acid rain program. This provision would require the owners and operators of these sources to surrender one federal acid rain allowance for each ton of sulfur dioxide emitted in Connecticut. This proposal is consistent with the terms of the Executive Order in that it provides a market-based incentive for local air pollution reductions. As a source reduced its sulfur dioxide emissions, it would be required to surrender fewer acid rain allowances. Since acid rain allowances have a market value, there is an economic incentive to preserve these allowances by minimizing sulfur dioxide emissions.

R.C.S.A. section 22a-174-22 – Control of Nitrogen Oxide Emissions. This amendment is being proposed to meet the requirements of Executive Order No. 19 described above. This proposed amendment implements an emission rate of 0.15 pounds of NOx per million British Thermal Units of heat input for the period of October through April. This emission rate limitation will be implemented beginning October 1, 2003 on the sixty-one emission units specified in the executive order. In accordance with the executive order, these proposed amendments authorize the creation and use of NOx discrete emission reduction credits and the use of NOx allowances for compliance.

In addition to the provisions necessary to implement the executive order, this proposed amendment clarifies the emissions trading provisions and provides an alternate means of demonstrating compliance for the owner or operators of emissions units unable to meet emissions testing requirements because of inherent limitations.

In addition to accepting written comments, the Department of Environmental Protection will also hold a public hearing as described below. Due to the anticipated length of this public hearing, periodic recesses may be called at the discretion of the Hearing Officer. Persons appearing at this public hearing are requested to submit a written copy of their statement. However, oral comments will also be made a part of the hearing record and are welcome.

PUBLIC HEARING
Thursday September 21, 2000
10:00 AM – 8:00 PM, Room 2E
Legislative Office Building
300 Capitol Avenue Hartford, CT 06106

Copies of the amendments described above are available for public inspection during normal business hours and may be obtained from Ellen Walton at the Bureau of Air Management, Planning and Standards Division, 5th Floor, 79 Elm Street, Hartford, CT. Additional copies are also available for review at the Law Reference Desk of the Connecticut State Library, the Russell Public Library in Middletown, the Raymond Public Library in Montville, the Torrington Public Library, the New London Public Library, the New Haven Public Library, the Norwalk Public Library and the Bridgeport Public Library. For further information, contact Ellen Walton of the Bureau of Air Management at (860) 424-3027.

The Department of Environmental Protection supports the goals of the Americans with Disabilities Act of 1990. Any individual who needs auxiliary aids for effective communication during this public hearing or in submitting public comments should contact Betty Lirot, ADA Coordinator at (860) 424-3035 or TDD (860) 424-3333 at least one week before the public hearing.

The authority to adopt this amendment is granted by sections 22a-6 and 22a-174 of the Connecticut General Statutes (C.G.S.). This notice is required pursuant to C.G.S. sections 22a-6 and 4-168.

Arthur J. Rocque, Jr.
Commissioner

OFFICE OF HEALTH CARE ACCESS

Notice of Intent to Adopt Regulations And Notice of Public Hearing

In accordance with the provisions of subsection (a) of section 4-168 of the Connecticut General Statutes, notice is hereby given that the Office of Health Care Access, under sections 19a-643, 19a-630 and 19a-613 of the Connecticut General Statutes, proposes to adopt the following regulation entitled "Outpatient Surgical Facility" to amend sections 19a-643-10 and 19a-643-11 and to add a new section 19a-643-13, to read as follows.

Outpatient Surgical Facility

Section 1. Section 19a-643-10 of the Regulations of Connecticut State Agencies is amended by adding new subdivisions (19) through (30) to read as follows:

STATE OF CONNECTICUT
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Statement of Reasons Pursuant to Connecticut General Statutes Section 4-168(d)

HEARING REPORT

Amendment of the Regulations of Connecticut State Agencies Concerning the Adoption of Section 22a-174-19a — Control of Sulfur Dioxide Emissions from Power Plants and Other Large Stationary Sources of Air Pollution and the Revision of Section 22a-174-22 — Control of Nitrogen Oxide Emissions

Co-Hearing Officers:
Carmine DiBattista, Chief, Bureau of Air Management
Christopher James, Director, Planning & Standards Division, Bureau of Air Management

Hearing Date: September 21, 2000

TABLE OF CONENTS

I. Introduction

On August 22, 2000, the Commissioner of the Department of Environmental Protection (Department) published a notice of intent to adopt a new section into the Regulations of Connecticut State Agencies (R.C.S.A.) § 22a-174-19a (Section 19a) concerning control of sulfur dioxide (SO_2) emissions from power plants and other large stationary sources, and to amend R.C.S.A. § 22a-174-22 (Section 22) concerning control of nitrogen oxide (NO_x) emissions. Pursuant to such notice, a public hearing was held on September 21, 2000 in room 2E of the Legislative Office Building from 10 a.m. until approximately 8 p.m.

The public comment period for these proposed regulations closed on September 22, 2000 at 5 p.m. This report addresses only comments received by the close of the public comment period. The Department received a number of comments after the close of the public comment period; this report does not individually address them. However, this report addresses such comments to the extent such comments are similar to comments received before the close of the public comment period.

II. Administrative Requirements

A. Hearing Report Content

As required by Connecticut General Statutes (C.G.S.) § 4-168(d), this report describes the amendments to the R.C.S.A. as proposed for hearing; the final wording of the proposed amendments to the R.C.S.A.; a statement of the principal reasons in support of the Department's proposed action; a statement of the principal reasons in opposition of the Department's proposed action and the reasons for rejecting such comments; and a summary of all comments and responses thereto on the proposed action. Those who provided comments are identified in Attachment 1.

B. Adoption of Regulations Pertaining to Activities for which the Federal Government has Adopted Standards or Procedures

In accordance with C.G.S. § 22a-6(h), the Commissioner must clearly distinguish, at the time of the public hearing, all provisions of a proposed regulation that differ from adopted federal standards and procedures, provided: (1) such proposed regulation pertains to activities addressed by adopted federal standards and procedures; and (2) such adopted federal standards and procedures apply to persons subject to the provisions of such proposed regulation. In addition, the Commissioner must provide an explanation for all such provisions in the regulation-making record required under Title 4, Chapter 54 of the C.G.S.

In accordance with the requirements of C.G.S. § 22a-6(h), the Hearing Officers made a statement at the public hearing, which is incorporated into the administrative record for the proposed amendments to Sections 19a and 22. Such statement indicated that the requirements of Sections 19a and 22 are more stringent than any currently effective federal standard or procedure

applicable to any source of air pollution potentially subject to the proposed regulations. The Hearing Officers entered into the record a document of the Department stating:

- The proposed adoption of Section 19a involves emissions standards differing from applicable federal standards. The SO_2 emission standards set forth in Section 19a (including the emissions trading provisions) are more stringent than the following federal requirements:

    - SO_2 emission limits imposed under Title IV of the federal Clean Air Act as implemented by 40 CFR 72;
    - SO_2 emission limits imposed by federal new source performance standards for electric generating boilers and large industrial boilers set forth in 40 CFR 60 subparts D, Da, Db and Dc; and
    - On a case-by-case basis, the proposed SO_2 emission limits may be more stringent than previous permit determinations made by the DEP under the federal new source review/prevention of significant deterioration program pursuant to 40 CFR 51 and section 22a-174-3 of the R.C.S.A.

- The proposed amendment of Section 22 involves emission standards differing from applicable federal standards. The NO_x emission limits set forth in the proposed amendment to Section 22 (including the emissions trading provisions) are more stringent than the following federal requirements:

    - NO_x emission limits developed pursuant to the reasonably available control technology requirement set forth in the Clean Air Act (42 USC § 7511a(b)(1)(A)(ii)(II) and implemented in a federally enforceable Connecticut regulation;
    - NO_x emission limits imposed by federal new source performance standards for electric generating boilers and large industrial boilers set forth in 40 CFR 60 subparts D, Da, Db and Dc; and
    - On a case-by-case basis, the proposed NO_x emission limits may be more stringent than previous permit determinations made by the DEP under the federal new source review/prevention of significant deterioration program pursuant to 40 CFR 51 and section 22a-174-3 of the R.C.S.A.

The more stringent proposed provisions are necessary to implement the measures of the Governor's Executive Order No. 19 concerning emissions of the regulated pollutants to the air.

C. Summary of Executive Order No. 19

On May 17, 2000 Governor John G. Rowland issued Executive Order No. 19. The Executive Order directs the Department to adopt regulations that will limit air pollution from sixty-one large emission units in Connecticut. The Executive Order requires that, no later than May 1, 2003:

- Annual SO_2 emissions be reduced by an amount 30% to 50% greater than current commitments through the establishment of appropriate reduction targets and the

implementation of control strategies designed to protect natural resources, reduce acid deposition, and further protect public health; and

- Annual NO_x emissions from all appropriate sectors be reduced by an amount 20% to 30% greater than current commitments through the establishment of appropriate reduction targets and the implementation of control strategies designed to protect natural resources, reduce acid deposition, reduce nitrogen deposition, reduce eutrophication, and further protect public health.

In addition, the Executive Order requires that any proposed regulations:

- Include the use of market-based incentives and a system of creditable emission allowances or credits to foster early, meaningful and cost-effective emission reductions while maximizing the generation and use of locally created allowances or credits, to the extent practicable, to ensure a net air quality benefit for the people of Connecticut;

- May provide for the phase-in of fuel sulfur standards, to the extent such fuel sulfur limits are adopted as a control strategy; and

- Authorize the Department to temporarily suspend fuel sulfur requirements upon a finding that the availability of fuel which complies with such requirements is inadequate to meet the needs of commercial or industrial fuel users in this state and that such inadequate supply constitutes an emergency, provided that the Department specifies the period of time that such suspension shall be in effect.

The Executive Order also states that it is not to be construed in any way as limiting the authority of the Department to impose emission reduction requirements more stringent than those set forth within order. Nor is the order intended to limit the authority of the Department to enter into regional agreements to effectuate emission reduction requirements on a broader, regional basis.

III. Background, Summary and Text of the Proposed Regulations

A. Background

The Department is vested with the statutory authority necessary to formulate, adopt and amend regulations to control and prohibit air pollution within Connecticut. (See Conn. Gen. Stat. §§ 22a-6 and 22a-174). In addition to the existing statutory authority, the Department is also proceeding in accordance with the terms of Executive Order No. 19, described above.

Local communities throughout Connecticut and several environmental groups have called for further reductions in air pollution from large sources, such as power plants. In response the 1999 General Assembly sought the passage of legislation that would require the reduction of power plant emission emissions for NO_x and SO_2. Legislation was not enacted. Subsequently, the Governor issued Executive Order No. 19 directing the Department to issue administrative regulations to substantially reduce the amount of industrial air pollution emitted within

Connecticut. Administrative regulations are suited to address the issue because they have the force and effect of legislation, and are issued by administrative agencies, such as the Department. It is important to note that the Legislative Regulations Review Committee of the Connecticut General Assembly must approve an agency's administrative regulations before they may be implemented.

B. Development of the Proposed Regulations

Shortly after the effective date of Executive Order No. 19, the Department took steps to involve stakeholders in the development of the proposed regulations. The Department established a subcommittee of the State Implementation Plan Revision Advisory Committee (SIPRAC) to focus on the development of regulations to implement Executive Order No. 19. The subcommittee was open to all interested persons. Information from the meetings was widely distributed and all meetings were broadcast on the Connecticut Network (cable television network that covers state government).

On July 13, 2000 the subcommittee first met. At that meeting, the Executive Order and the Department's proposed regulatory approach, including the timeframe for adoption of regulations, were presented. Also at that meeting, Department staff distributed a first draft of Section 19a, and conducted a question-and-answer session on the Department's proposed approach.

The next subcommittee meeting was held on July 20, 2000. Before this meeting, on July 19, Department staff e-mailed the draft of Section 22 and a revised draft of Section 19a to each subcommittee member. At the meeting the next day, staff discussed the revisions to Section 22, subsection by subsection; conducted a question-and-answer session on the draft of Section 22; and provided a period for comment on draft Section 19a.

The final subcommittee meeting was held on August 10, 2000. On August 9, Department staff e-mailed a revised draft of Section 22 and a further revised draft of Section 19a to each subcommittee member; these drafts were very similar to the regulations ultimately proposed. At the final meeting, staff formally presented the details of revisions to Section 19a; discussed the revisions to Section 22, subsection by subsection; conducted a final question-and-answer session; and provided another period for comment on both draft regulations.

On August 17, 2000 Department staff e-mailed the public notice and the proposed regulations to each subcommittee member, five days before the public notice was published on August 22.

The Department made extraordinary efforts to involve stakeholders in the development of the proposed regulations, to keep them apprised of progress, and to make staff available for comments and questions. The Department also held a public informational meeting on the proposed regulations on September 18, 2000 at the Agriculture Experiment Station in New Haven. The meeting was held after normal business hours and provided interested persons an opportunity to question Department staff on the proposed regulations. On September 19, 2000 Department staff also attended a community meeting in Middletown to answer questions on the proposed regulations. The Department held a public hearing on September 21, 2000. The public hearing, held at the Legislative Office Building in Hartford, ran for almost ten hours so that all

interested persons could comment in full without the imposition of a time constraint. Everyone who wished to speak at the public hearing was able to do so.

C. Role of Recent Health Studies in the Development of the Proposed Regulations

As the Department developed the proposed regulations, many environmental groups notified the Department of a recent study (hereafter, the Levy Study) on the public health impacts of two large coal-fired power plants located in the commonwealth of Massachusetts. The author of the Levy Study also provided the Department with a copy. In various presentations prepared by the Department, assertions were made that the Levy Study "informed" the Department's position on the development of the proposed regulations. The Department staff did read the Levy Study and found that general assertions in the Levy Study agreed with existing positions of the Department. For example, power plant air emissions are both a regional and local problem and air emissions in general will have local health impacts. However, the Department did not, at any time, attempt to quantify the health impacts of PM_{10}, SO_2, or NO_x air emissions from Connecticut power plants in accordance with the findings of the Levy Study. The Department recognizes the existence of various reviews of the Levy Study that reach differing conclusions and call into question the methodologies and findings of the Levy Study. The Department, by issuing the proposed regulations, is not validating the merits of any particular study or viewpoint, but is stating that reducing air pollution will benefit public health. The public health related testimony is summarized later in this report.

D. Summary of the Regulations as Proposed for Public Hearing

1. Proposed Section 19a (SO_2 requirements)

- Phase 1, as of January 1, 2002, of the proposed regulation:
  - Applies to 61 units;
  - Reduces SO_2 emissions locally at each affected source;
  - Requires the use of low-sulfur fuel (i.e., fuel with a sulfur content of 0.5%) or an average emission rate of 0.5 lb/MMBtu;
  - Does not allow emissions trading as a compliance option (intra-facility averaging is allowed);
  - Adopts a market incentive requiring one SO_2 allowance[1] be retired for each ton of SO_2 emitted, in addition to Acid Rain Program requirements (which also require the retirement of one SO_2 allowance for each ton of SO_2 emitted); and
  - Reduces SO_2 emissions by approximately 18,893 tons per year (based on 1999 emissions of 41,250 tons).

- Phase 2, as of January 1, 2003, while preserving the local Phase 1 reductions, of the proposed regulations:
  - Applies to 28 units (i.e., all units subject to the federal Acid Rain Program);

[1] One federal SO_2 allowance is equivalent to one ton of emissions under the federal Acid Rain Program.

- Requires either: fuel with sulfur content of 0.3%, an average emission rate of 0.3 lb/MMBtu or the use of emissions trading to meet the 0.3 lb/MMBtu emission rate;
- Adopts a market incentive allowing intra-facility averaging and inter-facility trading whereby sources may use SO_2 DERCs[2] (one SO_2 DERC for each ton emitted) and SO_2 allowances (four SO_2 allowances for each ton emitted) for compliance;
- As a market incentive, requires each unit to retire one SO_2 allowance for each ton of SO_2 emitted, in addition to Acid Rain Program requirements (which also require the retirement of one SO_2 allowance for each ton of SO_2 emitted); and
- Creates the potential for further reductions at the local level of SO_2 emissions by approximately 8,900 tons per year (based on 1999 emissions of 41,250).

2. Proposed Section 22 (NO_x requirements)

❖ As of October 1, 2003, the proposed regulation:

- Applies to 61 units
- Requires an emission rate of 0.15 lb/MMBtu (from Oct. 1 through April 30)
- Allows sources to use NO_x DERCs and NO_x allowances[3] for compliance; and
- Reduces annual NO_x emissions by 3,483 tons per year (based on 1999 emissions).

E. Text of Proposed RCSA Section 22a-174-19a

The Regulations of Connecticut State Agencies are amended by adding a new section 22a-174-19a as follows:

(NEW)

Sec. 22a-174-19a. Control of Sulfur Dioxide Emissions from Power Plants and Other Large Stationary Sources of Air Pollution.

(a) Definitions. For purposes of this section:

(1) "Affected state" has the same meaning as the term "affected states" in Regulations of Connecticut State Agencies section 22a-174-33(a)(3).

(2) "Affected unit" means any emissions unit subject to the provisions of Regulations of Connecticut State Agencies section 22a-174-22b, the Post-2002 Nitrogen Oxides Budget Program.

(3) "Connecticut State SO_2 Retirement Account" means a general allowance tracking system account established by the commissioner under 40 CFR 73.31 for the purpose of permanently holding SO_2 allowances retired by the owners or operators of affected units in accordance with the provisions of subsection (d) of this section.

---

[2] A DERC is a discrete emission reduction credit which represents a credit received by a source for overcontrolling emissions beyond all applicable requirements. The Department retires 10% of all created DERCs to ensure a net environmental benefit from the creation and use of DERCs.

[3] A NO_x allowance is limited authorization to emit one ton of NO_x.

(4) "Continuous emissions monitoring system" or "CEMS" means any equipment used to sample, analyze and measure SO_2 emissions to provide a permanent record of such emissions expressed in pounds per MMBtu.

(5) "Emissions unit" has the same meaning as in Regulations of Connecticut State Agencies section 22a-174-33(a)(7).

(6) "Early reduction credit" means a reduction of SO_2 emissions below the most stringent SO_2 emission rate applicable to an affected unit achieved during calendar years 1999, 2000, 2001 or 2002.

(7) "Generation period" means the period of time during which reductions in emissions of an air pollutant are implemented.

(8) "Retire" or "retirement" when referring to SO_2 allowances, means the permanent withdrawal of SO_2 allowances by the Administrator from any allowance tracking system account to the Connecticut SO_2 Allowance Retirement Account in an amount equal to the number of tons of SO_2 emitted by each affected unit.

(9) "Sulfur dioxide" or "SO_2" means a gas that at standard conditions has the molecular form SO_2.

(10) "Sulfur dioxide Discrete Emission Reduction Credit" or "SO_2 DERC" means the reduction of one ton of sulfur dioxide at a stationary source during the generation period, which the commissioner has certified in writing as real, quantifiable, surplus, permanent, and enforceable pursuant to applicable federal requirements.

(11) "Title IV SO_2 allowance" or "SO_2 allowance" means an authorization allocated to a Title IV source by the Administrator, pursuant to Title IV of the federal Clean Air Act (42 USC section 7651d, et seq.) and 40 CFR Parts 72 and 73, to emit up to one ton of SO_2 during or after a specified calendar year.

(12) "Title IV source" means an affected unit that is also subject to Phase II of the acid rain control requirements set forth in Title IV of the federal Clean Air Act (42 USC section 7651d, et seq.).

(b) Applicability. This section shall apply to the owner or operator of any affected unit.

(c) Sulfur dioxide emission standards and fuel sulfur limits effective after December 31, 2001. After December 31, 2001, the owner or operator of an affected unit shall:

(1) Combust fuel with a fuel sulfur limit of equal to or less than 0.5% sulfur, by weight (dry basis); or

(2) Meet an average emissions rate of equal to or less than 0.5 pounds SO_2 per MMBtu calculated over an individual calendar month for one or more affected units at a premises.

(d) Additional Emission Reduction Requirements.

(1) For each calendar year commencing January 1, 2002, the owner or operator of each affected unit that is also a Title IV source shall retire one SO_2 allowance, rounded up to the next whole ton, for each ton of SO_2 emitted in the State of Connecticut. This requirement is in addition to any other requirements imposed on the owner or operator of a Title IV source by the Administrator under 40 CFR Parts 72 and 73.

(2) The owner or operator of an affected unit shall retire the necessary amount of SO_2 allowances by transferring such allowances to the Connecticut State SO_2 Retirement Account established by the commissioner pursuant to 40 CFR 73.31 and administered by EPA under the provisions of 40 CFR Parts 72 and 73. The transfer of SO_2 allowances in accordance with the provisions of this subdivision shall occur by March 1 of each calendar year.

(3) Any SO_2 allowance retired in accordance with the provisions of this subsection shall be an allowance originally issued by the Administrator to a Title IV source located in the state of Connecticut. If a sufficient number of such allowances are not available, allowances from any affected state may be used to comply with the provisions of this subsection.

(e) Sulfur dioxide emission standards and fuel sulfur limits effective after December 31, 2002. Notwithstanding the provisions of subsection (b) of this section and except as provided in subsection (f) of this section, this subsection shall apply, after December 31, 2002, to the owner or operator of a Title IV source that is also an affected unit. After December 31, 2002, such owner or operator shall:

(1) Combust fuel with a fuel sulfur limit of equal to or less than 0.3% sulfur, by weight (dry basis);

(2) Meet an average emissions rate or equal to or less than 0.3 pounds SO_2 per MMBtu calculated over an individual calendar month for one or more affected units at a premises; or

(3) Meet an average emissions rate equal to or less than 0.3 pounds SO_2 per MMBtu calculated over an individual calendar month in accordance with the provisions of subsection (h) of this section, provided that the actual monthly average emissions rate for the affected unit or units at a premises does not exceed 0.5 pounds SO_2 per MMBtu.

(f) Compliance extension for post-2002 sulfur dioxide emission standards and fuel sulfur limits.

(1) The commissioner may authorize up to a one year extension to comply with the requirements of subsection (e) of this section upon the request of an owner or operator of an affected unit that is also a Title IV source provided such request is filed with the commissioner no later than six months after the effective date of this section.

(2) The commissioner shall hold a public hearing prior to granting or denying such request for an extension. The commissioner shall only grant a request for an extension under this subsection upon a finding by the Department of Public Utility Control that the provisions of this section will preclude the reliable delivery of electricity to residential, commercial and industrial users in the state.

(3) The commissioner may impose conditions and limitations when granting a request for an extension under this subsection. If the owner or operator of an affected unit proves, to the satisfaction of the commissioner, that compliance with subsection (e) of this section is not technologically or economically feasible at such source, the commissioner may allow the owner or operator of an affected unit, through a permit or order, to comply with the requirements of subsection (e) of this section by reconstructing the existing affected unit, or replacing the existing affected unit with a new source. Such reconstruction or replacement shall be completed no later than June 1, 2003.

(4) Prior to the completion of any reconstruction or replacement of an affected unit under subdivision (3) of this subsection, the SO_2 emission rate from the existing affected unit not exceed the more restrictive of:

(A) The emission limitation applicable to the source on January 1, 2002; or

(B) The emission limitation of any current permit or order issued by the commissioner for such source.

(g) Fuel Emergencies.

(1) The commissioner may suspend the requirements of subsection (c)(1) or (e)(1) of this section for the owner or operator of any affected unit using a low sulfur fuel to comply with the requirements of this section. Such suspension shall only be made when the commissioner finds that the availability of fuel that complies with such requirements is inadequate to meet the needs of commercial and industrial users in this state and that such inadequate supply constitutes an emergency.

(2) The commissioner shall specify in writing the period of time for which the suspension described in subdivision (1) of this subsection shall be in effect.

(3) Upon termination of any suspension of fuel sulfur limits made pursuant to this subsection, the owner or operator of an affected unit shall calculate the amount of excess SO_2 emissions attributable to such suspension. The owner or operator of such affected unit shall report the amount of excess SO_2 emissions to the commissioner no later than thirty days after termination of the suspension. If excess SO_2 emissions from any affected unit exceed fifty tons, the commissioner may require that the owner or operator of such unit offsett such excess emissions through the use of emission reduction trading in accordance with the provisions of subsection (h) of this section.

(h) Emissions reduction trading.

(1) The owner or operator of an affected unit may use SO_2 DERCs or SO_2 allowances to comply with the applicable emission limitations set forth in subsection (e) of this section pursuant to a permit or order issued by the commissioner, provided that the monthly average emission rate for the affected unit or units at a premises does not exceed 0.5 pounds SO_2 per MMBtu;

(2) Such owner or operator shall retire one (1) SO_2 DERC for each ton or part thereof of SO_2 emitted in excess of the applicable emission limitation in subsection (e) of this section. In the alternative, an owner or operator may retire four (4) SO_2 allowances for each ton or part thereof of SO_2 emitted in excess of the applicable emission limitation in subsection (e).

(3) Any creation or use of SO_2 DERCs for the purpose of this subsection shall be consistent with the provisions of 40 CFR 51, Subpart U and the U.S. Environmental Protection Agency's "Emission Trading Policy Statement," published December 4, 1986 (Federal Register, Volume 51, page 43814).

(4) The owner or operator of any affected facility using SO_2 allowances as a means of compliance with the provisions of this subsection and subsection (e) of this section shall ensure that such allowances were originally issued by the Administrator to a Title IV source located in the state of Connecticut. If a sufficient number of such allowances are not available, allowances from any affected state may be used to comply with the provisions of this subsection.

(5) The owner or operator of any affected unit that reduces SO_2 in calendar years 1999, 2000, 2001 or 2002 may request that the commissioner approve such early reductions in writing by permit or order provided that such reductions are:

(A) Real, quantifiable, surplus and enforceable; and

(B) Based on an emissions rate that is the most stringent of:

(i) 0.3 pounds SO_2 per MMBtu,

(ii) permitted allowable emissions of the affected unit,

(iii) actual emissions of the affected unit during calendar year 1999, or

(iv) average actual emissions of the affected unit during any two (2) consecutive and representative calendar years.

(i) Record keeping.

(1) The owner or operator of an affected unit who demonstrates compliance with this section by meeting the applicable fuel

sulfur limits of subsections (c)(1) or (e)(1) of this section shall make and keep records in accordance with the following:

(A) If fuel with sulfur content not exceeding an applicable fuel sulfur limit is the only fuel purchased and combusted by an affected unit, then the owner or operator shall make and keep records that demonstrate the fuel sulfur content of each shipment of fuel received; or

(B) If fuel with sulfur content above any applicable limit is purchased or combusted by an affected unit, the owner or operator shall make and keep daily records of fuel sulfur content and any associated analysis, fuel flow totals, and monthly records of average fuel sulfur content. Fuel sulfur analysis shall be conducted in accordance with the American Society for Testing and Material (ASTM) test method D4294 and automatic sampling equipment shall conform to ASTM test method D4177-82.

(2) The owner or operator of an affected unit who demonstrates compliance with this section by meeting the average facility SO_2 emission rate limits of subsections (c)(2) or (e)(2) of this section shall make and keep records in accordance with the following:

(A) For affected units that are also Title IV sources, hourly SO_2 emission rate values determined from data measured by a CEMS in accordance with the applicable provisions of 40 CFR Part 75;

(B) For affected units that are not Title IV sources:

(i) hourly SO_2 emission rate values determined from data measured by a CEMS in accordance with the applicable provisions of either 40 CFR Part 75 or 40 CFR Part 60, or

(ii) if any affected unit does not have a CEMS in accordance with either 40 CFR Parts 60 or 75, then hourly SO_2 emission rate values determined from data measured by a CEMS or other monitoring system approved by the commissioner; and

(C) For all affected units, monthly facility SO_2 emission rate averages, determined by dividing total monthly SO_2 emissions by total monthly heat input values for all affected units at the facility.

(3) The owner or operator of an affected unit shall keep the records specified above at the premises for a period of five years. Such records need not be maintained for distillate oil, motor vehicle fuel, aircraft fuel, or gaseous fuel, provided such fuels have a sulfur content below 0.3% by weight (dry basis).

(j) Reporting requirements.

(1) The owner or operator of an affected unit for which the commissioner has issued a final Title V permit shall, as part of any compliance certification pursuant to section 22a-174-33(q)(2) of the Regulations of Connecticut State Agencies, certify in writing to the commissioner compliance with the applicable provisions of this section. Such certification shall include actual monthly SO_2 emissions in tons and either average monthly fuel sulfur content or average monthly emission rate, whichever is applicable, for each affected unit.

(2) The owner or operator of an affected unit for which the commissioner has not issued a final Title V permit shall certify in writing to the commissioner compliance with the applicable provisions of this section on or before March 1 of each year for the previous calendar year. Such certification shall include actual monthly SO_2 emissions in tons and either average monthly fuel sulfur content or average monthly emission rate, whichever is applicable, for each affected unit.

(k) Duty to comply with the most stringent standards applicable to the affected units.

(1) Notwithstanding any provision of this section to the contrary, if the owner or operator of an affected unit is subject to a more stringent emission standard or limitation imposed by order, permit or other applicable law, such owner or operator shall comply with the most stringent emission limitation or standard.

(2) Notwithstanding any provision of this section to the contrary, if the owner or operator of an affected unit is subject to a more stringent monitoring or reporting requirement imposed by order, permit or other applicable law, such owner or operator shall comply with the most stringent monitoring or reporting requirement.

Statement of Purpose: To control emissions of sulfur dioxide from power plants and other large stationary sources of air pollution in accordance with the requirements of Executive Order 19.

F. Text of Proposed RCSA Section 22a-174-22

The Regulations of Connecticut State Agencies are amended to read as follows:

Sec. 22a-174-22. Control of nitrogen oxides emissions

(a) Definitions

For purposes of this section, the following definitions shall apply:

(1) "Contract" means: (A) an agreement between a utility and a customer (or other person) to provide electricity; or (B) a change in any agreement between a utility and a customer (or other person) to provide electricity.

(2) "ELECTRICITY SUPPLIER" MEANS "ELECTRIC SUPPLIER" AS DEFINED IN SECTION 16-1(a)(30) OF THE CONNECTICUT GENERAL STATUTES, AND "MUNICIPAL ELECTRIC UTILITY" AS DEFINED IN SECTION 7-233b(8) OF THE CONNECTICUT GENERAL STATUTES.

[(2)] (3) "Emergency engine" means a stationary reciprocating engine or a turbine engine which is used as a means of providing mechanical or electrical power only during periods of testing and scheduled maintenance or during either an emergency or in accordance with a contract intended to ensure an adequate supply of electricity for use within the state of Connecticut during the loss of electrical power derived from nuclear facilities. The term does not include an engine for which the owner or operator of such engine is party to any other agreement to sell electrical power from such engine to [a utility] AN ELECTRICITY SUPPLIER, or otherwise receives any reduction in the cost of electrical power for agreeing to produce power during periods of reduced voltage or reduced power availability.

[(3)] (4) "Emergency" means an unforeseeable condition that is beyond the control of the owner or operator of an emergency engine and that:

(A) Results in an interruption of electrical power from the [utility] ELECTRICITY SUPPLIER to the [premise] PREMISES;

(B) Results in a deviation of voltage from the [utility] ELECTRICITY SUPPLIER to the [premise] PREMISES of three percent (3%) above or five percent (5%) below standard voltage in accordance with subsection (a) of section 16-11-115 of the Regulations of Connecticut State Agencies [(RCSA)];

(C) Requires an interruption of electrical power from the [utility] ELECTRICITY SUPPLIER to the [premise] PREMISES enabling the owner or operator to perform emergency repairs; or

(D) Requires operation of the emergency engine to minimize damage from fire, flood, or any other catastrophic event, natural or man-made.

[(4)] (5) "Gas" or "gaseous fuel" means natural gas, propane, or any other fuel that is in the gaseous state under standard conditions.

[(5)] (6) "gm/bk hp-hr" means grams per brake horsepower-hour.

[(6)] (7) "lb" means pound.

[(7)] (8) "MMBTU" means million BTU of heat input.

[(8)] (9) "MMBTU/hr" means million BTU of heat input per hour.

[(9)] (10) "MRC" means maximum rated capacity.

[(10)] (11) "Major stationary source of NOx" means [a premise] PREMISES with potential emissions of NOx equal to or greater than fifty (50) tons per year in a serious nonattainment area for ozone, or twenty-five (25) tons per year in a severe nonattainment area for ozone.

(12) "NOx BUDGET PROGRAM SOURCE" MEANS:

(A) A FOSSIL-FUEL-FIRED STATIONARY SOURCE THAT SERVES A GENERATOR WITH A NAMEPLATE CAPACITY OF FIFTEEN MEGAWATTS (15 MW) OR MORE; OR

(B) A FOSSIL-FUEL-FIRED BOILER OR INDIRECT HEAT EXCHANGER WITH A MAXIMUM HEAT INPUT CAPACITY OF 250 MMBTU OR MORE.

(13) "NOX DISCRETE EMISSION REDUCTION CREDIT" OR "NOX DERC" MEANS THE REDUCTION OF ONE TON OF NOX AT A SOURCE DURING A DISCRETE PERIOD OF TIME, WHICH THE COMMISSIONER HAS CERTIFIED AS REAL, QUANTIFIABLE, SURPLUS, PERMANENT, AND ENFORCEABLE.

[(11)] (14) "Other boiler" means a boiler that is not a cyclone furnace, fast-response double-furnace naval boiler, or fluidized-bed combustor.

[(12)] (15) "Other oil" means a fuel that is liquid at standard conditions and is not residual oil.

[(13)] (16) "ppmvd" means parts per million by volume on a dry basis.

[(14)] (17) ["Premise"] "PREMISES" has the same meaning as "PREMISE" IN section 22a-174-1 of the [RCSA] REGULATIONS OF CONNECTICUT STATE AGENCIES.

[(15)] (18) "Reciprocating engine" means a stationary internal combustion engine having a crankshaft turned by linearly reciprocating pistons.

[(16)] (19) "Selective noncatalytic reduction" means emission control technology [which] THAT involves the injection of a chemical reagent at high flue gas temperatures to selectively reduce NOx emissions to nitrogen and water.

[(17)] (20) "Turbine engine" means a stationary internal combustion engine [which] THAT continuously converts an air-fuel mixture into rotational mechanical energy through the use of moving vanes attached to a rotor.

[(18)"Utility" means any electric public service company as defined in section 16-1 of the General Statutes and any municipal electric utility company as defined in section 7-233b of the General Statutes.]

[(19)] (21) "Waste combustor" means an incinerator as defined in subsection 22a-174-18(c) of the REGULATIONS OF CONNECTICUT STATE AGENCIES [RCSA], a resources recovery facility as defined in section 22a-207 of the CONNECTICUT General Statutes, or a sewage

sludge incinerator. The term does not include a flare or an industrial fume incinerator.

(b) Applicability

(1) This section [shall apply] APPLIES to the owner or operator of:

(A) Any of the following sources, PROVIDED SUCH SOURCES ARE LOCATED AT A MAJOR STATIONARY SOURCE OF NOx:

[(A)] (i) [Any] A reciprocating engine [which has] WITH a maximum rated capacity of three (3) MMBTU/hr or more [and which is located at a premise that is a major stationary source of NOx];

[(B)] (ii) [Any fuel-burning] FUEL-BURNING equipment, other than a reciprocating engine, [which has] WITH a maximum rated capacity of five (5) MMBTU/hr or more [and which is located at a premise that is a major stationary source of NOx];

[(C)] (iii) [Any equipment which burns] EQUIPMENT THAT COMBUSTS fuel for heating materials and [which] THAT has a maximum rated capacity of five (5) MMBTU/hr or more [and which is located at a premise that is a major stationary source of NOx];

[(D)] (iv) [Any] A waste combustor [which has] WITH a design capacity of two thousand (2000) pounds or more of waste per hour [and which is located at a premise that is a major stationary source of NOx]; or

[(E)] (B) [Any] fuel-burning equipment, A waste combustor, or A process source [which] THAT has potential emissions of NOx in excess of the following:

(i) One hundred thirty-seven (137) pounds during any day from May 1 through September 30 of any year, [for a] IF SUCH source IS located in a severe nonattainment area for ozone; or

(ii) Two hundred seventy-four (274) pounds during any day from May 1 through September 30 of any year, [for a] IF SUCH source IS located in a serious nonattainment area for ozone.

(2) [Subdivisions (d)(2) to (d)(5)] SUBSECTIONS (d)(1) TO (d)(4), inclusive, and subsections (e) to (k) of this section shall not apply to the owner or operator of a [premise] SOURCE if the actual emissions of NOx since January 1, 1990 from [such premise] THE PREMISES AT WHICH SUCH SOURCE IS LOCATED have not exceeded twenty-five (25) tons in any calendar year [for a premise] IF SUCH PREMISES ARE LOCATED in a severe nonattainment area for ozone, or fifty (50) tons in any calendar year [for a premise] IF

SUCH PREMISES ARE LOCATED in a serious nonattainment area for ozone. Notwithstanding this provision, [subdivision (d)(2)] SUBSECTION (d)(1) through subsection (k), inclusive, of this section shall apply TO SUCH OWNER OR OPERATOR if after May 31, 1995, [such owner or operator exceeds emissions of NOx as follows] ACTUAL EMISSIONS OF NOx FROM SUCH PREMISES EXCEED THE FOLLOWING:

(A) In any calendar year: twenty-five (25) tons for [a premise] PREMISES located in a severe nonattainment area for ozone, or fifty (50) tons for [a premise] PREMISES located in a serious nonattainment area for ozone; or

(B) On any day from May 1 through September 30 of any year: one hundred thirty-seven (137) pounds for [a premise] PREMISES located in a severe nonattainment area for ozone or two hundred seventy-four (274) pounds for [a premise] PREMISES located in a serious nonattainment area for ozone.

(3) Subsections (d) through (k) of this section shall not apply to THE OWNER OR OPERATOR OF an emergency engine. In addition, the actual emissions from emergency engines operating during an emergency shall not be included in the determination of the applicability of [subparagraph] SUBSECTION (b)(2)(B) of this section.

(4) The owner or operator of an emergency engine shall not include the actual emissions from any such engine for purposes of determining applicability in accordance with [subparagraph (B) of subdivision (2)] SUBDIVISION (2)(B) of this subsection, provided such emissions result from operation in accordance with a contract with a utility operating pursuant to a permit or order which:

(A) Requires the permittee to maintain a list which identifies all sources with whom the permittee has a contract;

(B) Requires either the permittee or the owner or operator of the emergency engine to record and submit to the Commissioner data on fuel consumption and hours of operation of any emergency engine operating under such contract; and

(C) Requires the permittee to obtain NOx emission reductions to offset the NOx emissions that result from the generation of customer-contracted electricity.

(5) Notwithstanding subdivision (3) of this subsection, subsections (d) through (k) of this section shall apply to the owner or operator of an emergency engine if, after May 1, 1997, such engine operates for routine, scheduled testing or maintenance on any day for which the Commissioner has forecast that ozone levels will be "moderate to unhealthful," "unhealthful," or "very unhealthful." The Commissioner may exempt, by permit or order, the owner or operator of an emergency engine from this subdivision, if such emergency engine is unattended, the testing is automated and cannot be modified from a remote location.

(c) Exemption.

This section shall not apply to THE OWNER OR OPERATOR OF A mobile [sources] SOURCE.

(d) General requirements.

[(1) Prior to May 31, 1995, the owner or operator of any source subject to this section shall not cause or allow emissions of NOx from such source in excess of the emission limitation specified in Table 22-1 of this section. The owner or operator of any source which is not subject to an emission limitation in Table 22-1 of this section shall not cause or allow emissions of NOx from such source in excess of seven hundred (700) ppmvd.

TABLE 22-1

NOX EMISSION LIMITATIONS PRIOR TO MAY 31, 1995
(IN POUNDS PER MMBTU OF HEAT INPUT)

	GAS-FIRED	OIL-FIRED	COAL-FIRED
Turbine engine	0.9	0.9	NA
Cyclone furnace	0.9	0.9	0.9
Fast-response double-furnace Naval boiler	0.5	0.5	0.9
Other boiler, with MRC of 250 MMBTU/hr or more	0.9	0.3	0.9
Other boiler, with MRC less than 250 MMBTU/hr]	0.2	0.3	0.9

[(2)] (1) On and after May 31, 1995, the owner or operator of [any] A STATIONARY source subject to this section shall:

(A) comply with all applicable emission limitations for such source in subsection (e) of this section;

(B) comply with the provisions for multi-fuel sources in subsection (f) of this section;

(C) reduce the NOx emission rate from such source by forty percent (40%), pursuant to subsection (g) of this section, in accordance with a permit issued by the Commissioner;

(D) reconstruct [the] SUCH source, pursuant to subsection (h) of this section, in accordance with a permit issued by the Commissioner; or

(E) modify the schedule of operations at [the] SUCH source, pursuant to subsection (i) of this section, in accordance with a permit issued by the Commissioner.

(2) ON OCTOBER 1, 2003, AND DURING THE PERIOD FROM OCTOBER 1 THROUGH APRIL 30 EACH YEAR THEREAFTER, THE OWNER OR OPERATOR OF A

STATIONARY SOURCE SUBJECT TO THIS SECTION THAT IS ALSO A NOx BUDGET PROGRAM SOURCE SHALL:

(A) COMPLY WITH THE EMISSION LIMITATION IN SUBSECTION (e)(3) OF THIS SECTION;

(B) RECONSTRUCT SUCH SOURCE PURSUANT TO SUBSECTION (h) OF THIS SECTION, IN ACCORDANCE WITH A PERMIT ISSUED BY THE COMMISSIONER; OR

(C) USE NOX DERCs, OR NOX ALLOWANCES, OR BOTH, PURSUANT TO SUBSECTION (j) OF THIS SECTION, TO ACHIEVE ALL OR A PORTION OF THE NOX EMISSION REDUCTIONS REQUIRED BY THE EMISSION LIMITATION IN SUBSECTION (e)(3) OF THIS SECTION.

[(3) The owner or operator of a source subject to this section may apply in writing to the Commissioner for an extension to comply with subdivision (2) of this subsection. The Commissioner may grant such extension for a period not to exceed one (1) year, through a permit. Such permit shall meet the Administrator's requirements for "Phase-in of Controls Beyond May 1995" (Federal Register, Vol. 57, No. 228, Page 55623). The Commissioner shall submit such permit or order to the Administrator for approval in accordance with the provision of 42 U.S.C. 7401-7671q.]

[(4)] (3) The owner or operator OF A STATIONARY SOURCE SUBJECT TO THIS SECTION, in accordance with an order or permit issued by the Commissioner, may use [emission reduction trading] NOx DERCs AND NOx ALLOWANCES, pursuant to subsection (j) of this section, to achieve all or a portion of the reductions required by this section. The Commissioner shall submit such permit or order to the Administrator for approval in accordance with the provision of 42 U.S.C. 7401-7671q.

[(5)] (4) Nothing herein shall preclude the Commissioner from issuing an order to an owner or operator OF A STATIONARY SOURCE SUBJECT TO THIS SECTION to comply with the requirements of this subsection.

(e) Emission limitations.

(1) The owner or operator of a stationary source subject to this section may, in accordance with [subparagraph (A) of subdivision (d)(2)] SUBSECTION (d)(1)(A) of this section, comply with the requirements of this section by meeting applicable emission limitations specified in Table [22-2] 22-1 of this section. Emission limitations in Table [22-2] 22-1 for turbine engines that are quantified in units of ppmvd shall be corrected to fifteen percent (15%) oxygen.

(2) For any STATIONARY source for which there is no applicable emission limitation in Table [22-2] 22-1, the owner or operator of such source shall not cause or allow emissions of NOx therefrom in excess of the following:

(A) For fuel-burning equipment fired by a fuel other than those fuels cited in Table [22-2] 22-1: 0.3 pounds per MMBTU;

(B) For any waste combustor subject to the requirements of subdivision [(2)] (4) of this subsection: 0.38 pounds per MMBTU;

(C) For any waste combustor not subject to the requirements of [subparagraph (1)(B)] SUBDIVISION (2)(B) of this subsection which has a waterwall furnace: 0.38 pounds per MMBTU;

(D) For any other waste combustor: 0.33 pounds per MMBTU;

(E) For a glass melting furnace: 5.5 pounds of NOx per ton of glass produced;

(F) For a STATIONARY source, other than a glass melting furnace, [which burns] THAT COMBUSTS fuel for heating materials: 180 ppmvd, corrected to twelve percent (12%) carbon dioxide; or

(G) For any STATIONARY source not having an emission limitation in subparagraphs (A) through (F) of this subdivision: seven hundred (700) ppmvd.

(3) FOR A SOURCE SUBJECT TO THIS SECTION THAT IS ALSO A NOx BUDGET PROGRAM SOURCE: 0.15 POUNDS PER MMBTU DURING THE PERIOD FROM OCTOBER 1 THROUGH APRIL 30.

[(2)] (4) In addition to complying with the emission limitation in [subparagraph (1)(B)] SUBDIVISION (2)(B) of this subsection, by May 31, 1995 the owner or operator of any waste combustor [which] THAT combusts refuse derived fuel shall install and operate selective noncatalytic reduction or other NOx emissions control technology capable of reducing the NOx emission rate by at least thirty percent (30%) from the average emission rate in calendar year 1990 on one boiler unit at such facility. If the Commissioner determines that operations during 1990 were not representative of normal operations of the facility, the Commissioner may use another calendar period [which] THAT is more representative. In addition, actual annual average NOx emissions from other boiler units at such facility shall each not exceed 420 tons per year. The Commissioner may consider, in the same manner as for other sources, any emission reduction below 0.38 pounds per MMBTU to be eligible as surplus emissions reductions for purposes of emission reduction credits pursuant to subsection (j) of this section until May 31, 1999.

TABLE [22-2] 22-1

[NOX EMISSION LIMITATION ON AND AFTER MAY 31, 1995]

	Gas-fired	Residual-oil-fired	Other-oil-fired	Coal-fired
Turbine engine with MRC ≥ 100 MMBTU/hr	55 ppmvd	not applicable	75 ppmvd	not applicable
Turbine engine with MRC < 100 MMBTU/hr	0.90 lb/MMBTU	not applicable	0.90 lb/MMBTU	not applicable
Cyclone furnace	0.43 lb/MMBTU	0.43 lb/MMBTU	0.43 lb/MMBTU	0.43 lb/MMBTU
Fast-response double-furnace Naval boiler	0.20 lb/MMBTU	0.30 lb/MMBTU	0.30 lb/MMBTU	0.30 lb/MMBTU
Fluidized bed combustor	not applicable	not applicable	not applicable	0.29 lb/MMBTU
Other boiler	0.20 lb/MMBTU	0.25 lb/MMBTU	0.20 lb/MMBTU	0.38 lb/MMBTU
Reciprocating engine	2.5 gm/bk hp-hr	not applicable	8 gm/bk hp-hr	not applicable

(f) Multi-fuel sources.

(1) When, pursuant to [subparagraph (B) of subdivision (d)(2)] SUBSECTION (d)(1)(B) of this section, the owner or operator of a STATIONARY source SUBJECT TO THIS SECTION switches the use of fuel, converts to a new fuel, or is capable of burning two or more different fuels, such owner or operator shall comply with the requirements of this subsection.

(2) The owner or operator of a STATIONARY source that is capable of firing two or more fuels shall not cause or allow emissions of NOx from such source, in excess of the following:

(A) For fuel-burning equipment that simultaneously fires two or more different fuels: an emission limitation calculated by 1) multiplying the heat input of each fuel combusted by the emission limitation established in this section for such fuel, 2) summing those products, and 3) dividing the sum by the total heat input; or

(B) For fuel-burning equipment that is capable of interchangeably firing two or more fuels: the emission limitation in Table [22-2] 22-1 for the particular equipment and fuel used. Notwithstanding this requirement, the owner or operator of a STATIONARY source that operates exclusively on other oil or gas from May 1 through September 30 of any year and on another fuel during the remainder of the year shall not cause or allow emissions of NOx from such source in excess of 0.2 pounds per MMBTU from May 1 through September 30 and 0.29 pounds per MMBTU for the remainder of the year.

(3) The owner or operator of a STATIONARY source [which] THAT, on or after January 1, 1990, converts the fuel used at such source, shall not cause or allow emissions of NOx from such source in excess of the following:

(A) 0.29 pounds per MMBTU, when [the] SUCH source burned coal to provide more than fifty percent (50%) of its total heat input during the last full calendar year immediately prior to such conversion; or

(B) 0.225 pounds per MMBTU, if [the] SUCH source burned residual oil to provide more than fifty percent (50%) of its total heat input during the last full calendar year immediately prior to such conversion.

(g) Forty percent (40%) reduction.

(1) When the owner or operator of [any] A STATIONARY source SUBJECT TO THIS SECTION reduces the NOx emission rate from such source by forty percent (40%), as provided in [subparagraph (C) of subdivision (d)(2)] SUBSECTION (d)(1)(C) of this section, such owner or operator shall comply with the emission limitations of this section established in a permit issued by the Commissioner. Such permit shall specify such source's NOx emission limitation to be the more restrictive of:

(A) sixty percent (60%) of such source's emission rate at maximum capacity during calendar year 1990; or

(B) sixty percent (60%) of the emission limitation applicable to the source on January 1, 1990.

Such permit shall express the NOx emission limitation in the same units of measurement as the NOx emission limitation that would otherwise apply to such source in subsection (e) of this section.

(2) To determine the actual emission rate specified in [subparagraph] SUBDIVISION (1)(A) of this subsection, such owner or operator shall conduct an emission test at such source under operating conditions representative of those conditions in existence at the source in calendar year 1990, at the maximum capacity at which the source was operated during such calendar year.

(3) If the Commissioner determines that operations during calendar year 1990 were not representative of normal operations from such source, the Commissioner may use another calendar year which is more representative.

(h) Reconstruction or replacement.

(1) If the owner or operator of a STATIONARY source SUBJECT TO THIS SECTION proves, to the satisfaction of the Commissioner, that compliance with subsections (e) or (g) of this section is not technologically or economically feasible at such source, the Commissioner may allow [the] SUCH owner or operator, through a permit, to comply with this section by reconstructing [the existing] SUCH source, or replacing [the existing] SUCH source

with a new source. Such reconstruction or replacement shall be completed no later than [May 31, 1999] JUNE 1, 2003.

(2) Such permit shall require that, prior to the completion of reconstruction or replacement of such source, the NOx emission rate from [the existing] SUCH source not exceed the more restrictive of:

(A) the emission limitation applicable to the source on January 1, 1990; or

(B) the emission limitation of any current permit or order issued by the Commissioner for such source.

[(3) Such permit shall require the owner or operator, by May 31, 1995, to deposit into an escrow account an amount equal to $1,000 multiplied by the number of pounds per day of NOx emission reductions that would be needed by the existing source to achieve compliance with the emission limitations in subsection (e) of this section. The terms of such escrow account and escrow agent required by such permit shall be subject to the approval of the Commissioner. The Commissioner may require that such escrow account be established and properly insured against default at an institution authorized to operate in Connecticut by the State's Commissioner of Banking. In determining the acceptability of an escrow agent, the Commissioner shall consider the reliability and trustworthiness of the person acting as the escrow agent. The Commissioner shall also consider the escrow agent's ability to insure that any money deposited into such escrow account will be withdrawn upon written notification in accordance with such permit.

(4) After completion of such reconstruction or replacement, the owner or operator may, upon written notification by the Commissioner, withdraw funds from the escrow account in accordance with such permit described in subdivision (3) of this subsection. If the owner or operator fails to complete reconstruction or replacement by the date set forth in the permit, such owner or operator shall use such funds to acquire emission reduction credits upon written notice from the Commissioner.]

(i) Schedule modification.

(1) If the owner or operator of a STATIONARY source SUBJECT TO THIS SECTION proves to the satisfaction of the Commissioner that it is not technologically or economically feasible for such source to comply with the emission limitations in subsections (e) through (g) of this section, EXCEPT THE EMISSION LIMITATION IN SUBSECTION (e)(3) OF THIS SECTION, the Commissioner may by permit require NOx emission reductions through modifications of the schedule of NOx-emitting activities and implementation of other measures to reduce NOx emissions at such source. Such permit may include restrictions on operations on any day for which the Commissioner has forecast that ozone levels will be "moderate to unhealthful," "unhealthful," or "very unhealthful."

(2) This subsection shall only apply to the following:

(A) Oil-fired turbine engines or fast-response double-furnace Naval boilers that generate power to create simulated high-altitude atmospheres for the testing of aircraft engines; or

(B) Testing of fuel-burning equipment undergoing research and development.

(j) Emissions reduction trading.

(1) [When the] THE owner or operator of a STATIONARY source SUBJECT TO THIS SECTION [uses emission reduction trading] MAY USE NOx DERCs OR NOx ALLOWANCES OR BOTH to comply with THE APPLICABLE EMISSION LIMITATION CONTAINED IN SUBSECTION (e) OF this section[,]PURSUANT TO A PERMIT OR ORDER ISSUED BY THE COMMISSIONER. [such owner or operator shall achieve reductions in NOx emissions which, at a minimum, are equivalent to those emission reductions that would be achieved by complying with all applicable emission limitations in subsection (e) of this section. The Commissioner may allow the use of emission reduction trading through the issuance of a permit. Such permit shall require the owner or operator, by May 31, 1995, to perform emission trading or to deposit into an escrow account an amount equal to $2000 multiplied by the number of pounds per day of NOx emission reductions needed to achieve compliance with the emission limitations in subsection (e) of this section. Such order or permit also shall require the owner or operator to withdraw and use such funds to acquire ERCs upon written notice from the Commissioner. The terms of such escrow account and escrow agent required by such permit shall be subject to the approval of the Commissioner. The Commissioner shall require that such escrow account be established and properly insured against default at an institution authorized to operate in Connecticut by the State's Commissioner of Banking. In determining the acceptability of an escrow agent, the Commissioner shall consider the reliability and trustworthiness of the person acting as the escrow agent. The Commissioner shall also consider the escrow agent's ability to insure that any money deposited into such escrow account will be withdrawn upon written notification in accordance with such permit.]

(2) SUCH OWNER OR OPERATOR SHALL RETIRE ONE (1) NOx DERC OR ONE (1) NOx ALLOWANCE FOR EACH TON OF NOx EMITTED IN EXCESS OF THE APPLICABLE EMISSION LIMITATION IN SUBSECTION (e) OF THIS SECTION. [In order to comply with subdivision (j)(1) of this subsection, such] SUCH owner or operator shall conduct an emission test or submit another method acceptable to the Commissioner to estimate the [NOx emission limitation shortfall] THE NUMBER OF TONS OF NOx EMITTED IN EXCESS OF SUCH APPLICABLE EMISSION LIMITATION. Such emission test shall be conducted under operating conditions [which] THAT demonstrate the maximum emission rate of such source. Such emission test shall be certified pursuant to subsection (k) of this section.

(3) Any creation or use of [ERCs] NOx DERCs OR NOx ALLOWANCES for the purpose of this subsection shall be consistent with the

provisions of [the U.S. Environmental Protection Agency's "Economic Incentive Program Rules; Proposed Rules," published February 23, 1993 (Federal Register, Volume 58, Number 34),] 40 CFR 51, SUBPART U and the U.S. Environmental Protection Agency's "Emissions Trading Policy Statement," published December 4, 1986 (Federal Register, Volume 51, [Number 233] PAGE 43814).

(k) Emissions testing and monitoring.

(1) The owner or operator of [any] A STATIONARY source subject to an emission limitation under this section, OTHER THAN A NOx BUDGET PROGRAM SOURCE, shall conduct an emission test to demonstrate compliance with this section no later than May 31, 1995. Any such owner or operator which does not install or operate a continuous emissions monitor at such source shall also conduct emission tests at least once every five years. Compliance with the emission limitations of this section shall be determined based on the average of three (3) one-hour tests, each performed over a consecutive 60-minute period and performed in accordance with section 22a-174-5 of the [RCSA] REGULATIONS OF CONNECTICUT STATE AGENCIES. Any analysis of nitrogen content conducted as part of such emission testing shall be in accordance with Method D-3228 of the American Society for the Testing of Materials.

(2) THE OWNER OR OPERATOR OF A NOx BUDGET PROGRAM SOURCE SHALL DEMONSTRATE COMPLIANCE WITH THE EMISSION LIMITATION CONTAINED IN SUBSECTION (e)(3) NO LATER THAN MARCH 31, 2004. ANY SUCH OWNER OR OPERATOR THAT DOES NOT INSTALL OR OPERATE A CONTINUOUS EMISSIONS MONITOR AT SUCH SOURCE SHALL ALSO CONDUCT EMISSION TESTS AT LEAST ONCE IN EACH FIVE-YEAR PERIOD, WITH THE FIRST PERIOD STARTING OCTOBER 1, 2003.

[(2)] (3) The owner or operator shall demonstrate compliance with emission limitations of this section using sampling and analytical procedures approved under 40 CFR Part 60, Appendix A, or under procedures in subsection 22a-174-5(d) of the [RCSA] REGULATIONS OF CONNECTICUT STATE AGENCIES. Sampling shall be conducted when the source is at normal operating temperature and, unless allowed otherwise by the Commissioner in a permit or order, is operating at or above ninety percent (90%) of maximum rated capacity for a fuel-burning source or at or above ninety percent (90%) of design capacity for a waste combustor. Notwithstanding such requirement, any source which has operated in excess of one hundred percent (100%) of its maximum rated capacity at any time since January 1, 1990 shall be tested when the source is operating at or above ninety percent (90%) of its highest operating rate since January 1, 1990.

[(3)] (4) On and after May 31, 1995, the owner or operator of any source that emitted more than one hundred (100) tons of NOx from a single stack during any calendar year beginning January 1, 1990, shall install, calibrate, maintain, operate, and certify a continuous emissions monitor for NOx for each such stack. The owner or operator shall notify the Commissioner in writing at least thirty (30) days prior to conducting any performance or quality assurance testing of any such monitor. Any such testing shall be conducted in accordance with a testing protocol approved

by the Commissioner. Any continuous emission monitor for NOx shall be installed, calibrated and operated in accordance with the performance and quality assurance specifications contained in 40 CFR 60, Subpart A, Appendix B and Appendix F.

[(4)] (5) Unless otherwise specified by the Commissioner in a permit or order, the averaging times for the emission limitations in this section for a source that has, or is required to have, a continuous emissions monitor for NOx shall be twenty-four (24) hours, measured from midnight at the beginning of any day to midnight of the end of that day and shall include all periods of operation, including startup, shutdown, and malfunction.

[(5) The owner or operator of a source subject to this subsection may apply in writing to the Commissioner for an extension to comply with this subsection. The Commissioner may grant such extension for a period not to exceed one (1) year through a permit or order.]

(6) IF THE OWNER OR OPERATOR OF A SOURCE SUBJECT TO SUBSECTION (j)(1) OF THIS SECTION DEMONSTRATES TO THE COMMISSIONER IN WRITING THAT (A) SUCH EMISSION TEST WOULD RESULT IN ACTUAL EMISSIONS GREATER THAN THOSE EMITTED DURING ANNUAL OPERATIONS OF THE SOURCE, OR (B) SUCH EMISSION TEST IS OTHERWISE ECONOMICALLY INFEASIBLE IN LIGHT OF ANY UNIQUE CHARACTERISTICS OF THE SOURCE OR ITS MANNER OF OPERATION, THE COMMISSIONER MAY REQUIRE SUCH OWNER OR OPERATOR TO DEMONSTRATE COMPLIANCE WITH THIS SECTION THROUGH ALTERNATE MEANS. SUCH ALTERNATE MEANS SHALL BE INCORPORATED INTO A PERMIT OR ORDER AND MAY PROVIDE FOR THE USE OF EMISSION REDUCTION TRADING, IN ACCORDANCE WITH THE PROVISIONS OF SUBSECTION (j) OF THIS SECTION. CALCULATIONS RESULTING IN A FRACTIONAL EMISSION REDUCTION CREDIT REQUIREMENTS SHALL BE ROUNDED UP TO THE NEXT WHOLE TON.

(l) Reporting and record keeping.

(1) The owner or operator of [any] A STATIONARY source subject to this section, shall keep the following records:

(A) For an emergency engine, daily records of operating hours of such engine, identifying the operating hours of emergency and non-emergency use;

(B) For any [premise] PREMISES for which [subdivision] SUBSECTIONS (b)(2) or (b)(3) of this section applies, records (e.g. fuel use, continuous emissions monitoring, operating hours) to determine whether the NOx emissions from such [premise] PREMISES on any day from May 1 through September 30, inclusive, are in excess of one hundred thirty-seven (137) pounds for [a premise] PREMISES located in a severe nonattainment area for ozone or two hundred seventy-four (274) pounds for [a premise] PREMISES located in a serious nonattainment area for ozone.

(C) Monthly and annual records (e.g. fuel use, continuous emissions monitoring, operating hours) to determine whether NOx emissions from such [premise] PREMISES in any calendar year are in excess of twenty-five (25) tons for [a premise]

PREMISES located in a severe nonattainment area for ozone or fifty (50) tons for [a premise] PREMISES located in a serious nonattainment area for ozone;

(D) Records of all tune-ups, repairs, replacement of parts and other maintenance;

(E) Copies of all documents submitted to the Commissioner pursuant to this section;

(F) For any source required to install, calibrate, and operate a continuous emissions monitor for NOx under subdivision (k)(3), all charts, electronically stored data, and printed records produced by such continuous emissions monitor;

(G) Procedures for calculating NOx emission rates in (B) and (C) above;

(H) Records of the dates, times, and places of all emission testing required by this section, the persons performing the measurements, the testing methods used, the operating conditions at the time of testing, and the results of such testing;

(I) For any source required to install, calibrate, and operate a continuous emissions monitor for NOx under subdivision (k)(3) of this section, records of all performance evaluations, calibration checks and adjustments on such monitor; a record of maintenance procedures; and all data necessary to complete the quarterly reports required under subdivision (*l*)(4) of this section; and

(J) Any other records or reports required by an order or permit issued by the Commissioner pursuant to this section.

(2) Within thirty (30) days of the completion of emission tests conducted under the requirements of subdivision (k)(1) of this section, the owner or operator of such source shall submit a written report of the results of such testing to the Commissioner.

(3) Within sixty (60) days of the completion of certification tests conducted under the requirements of subdivision (k)(3) of this section, the owner or operator of such source shall submit a written report of the results of such testing to the Commissioner.

(4) The owner or operator of any source required to be equipped with a continuous emissions monitor for NOx under subdivision (k)(3) of this section shall submit to the Commissioner written quarterly reports of excess emissions and CEM malfunctions. Such reports shall be submitted to the Commissioner on or before January 30, April 30, July 30, and October 30 and shall include data for the three calendar month period ending the month before the due date of the report. For each period of excess emissions, such report shall include the date and time of commencement and

completion of such period, the magnitude and suspected cause of the excess emissions and all actions taken to correct the excess emissions. For each malfunction of the CEM system, such report shall include the date and time of when the malfunction commenced and ended, and all actions taken to correct the malfunction.

(5) The owner or operator of [any] A STATIONARY source subject to this section shall retain all records and reports produced pursuant to the requirements of this section for five (5) years. Such records and reports shall be available for inspection at reasonable hours by the Commissioner or the Administrator. Such records and reports shall be retained at the source, unless the Commissioner approves in writing the use of another location in the State.

(6) On or before April 15 of each year, the owner or operator of [any] A STATIONARY source subject to this section shall submit a report on NOx emissions from such source, on a form provided by the Commissioner.

(7) The Commissioner may use data recorded by continuous emissions monitors for NOx and any other records and reports to determine compliance with applicable requirements of this section.

(m) Compliance plans.

(1) The owner or operator of [any] A STATIONARY source [that is] subject to this section shall submit a compliance plan to the Commissioner by September 1, 1994, on forms provided by the Commissioner. Such compliance plan shall document how [the] SUCH source will comply with all applicable requirements of this section. The owner or operator of [any] A STATIONARY source [which] THAT becomes subject to this section after May 1, 1994, shall submit a compliance plan within four (4) months of the date on which [the] SUCH source becomes subject to this section.

(2) Any compliance plan submitted pursuant to this subsection 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 22a-430-3(b)(2) of the [RCSA] REGULATIONS OF CONNECTICUT STATE AGENCIES, and by the individual delegated by such officer with the responsibility of actually preparing the compliance plan. Such certification shall read as follows: "I have personally examined and am familiar with the information submitted in this [compliance plan] DOCUMENT and all attachments THERETO[.], AND I CERTIFY THAT [Based] BASED on reasonable investigation, including my inquiry of those individuals responsible for obtaining the information, [I certify that] the submitted information is true, accurate and complete to the best of my knowledge and belief. I understand that any false statement made in [this compliance plan or its attachments] THE SUBMITTED INFORMATION may be punishable as a criminal offense UNDER SECTION 22a-175 OF THE GENERAL STATUTES, UNDER SECTION 53a-157b OF THE GENERAL STATUTES, AND IN ACCORDANCE WITH ANY APPLICABLE STATUTE."

(3) If a compliance plan does not contain all measures necessary to comply with all requirements of this section, the Commissioner may notify the owner or operator of such source of the deficiency. Such owner or operator shall resubmit a revised compliance plan within thirty (30) days of receipt of such notice.

(4) NOTWITHSTANDING THE PROVISIONS OF SUBDIVISION (1) OF THIS SECTION, THE OWNER OR OPERATOR OF A NOx BUDGET PROGRAM SOURCE WHO IS SUBJECT TO A REVISED EMISSION STANDARD SHALL NOT BE REQUIRED TO SUBMIT A COMPLIANCE PLAN UNLESS THE COMMISSIONER REQUESTS SO IN WRITING.

STATEMENT OF PURPOSE: TO CONTROL EMISSONS OF NITROGEN OXIDES FROM POWER PLANTS AND OTHER LARGE SOURCES OF OF AIR POLLUTION IN ACCORDANCE WITH THE REQUIREMENTS OF EXECUTIVE ORDER NO. 19.

IV. Statement of Principal Reasons in Support of the Department's Intended Action

A majority of those who submitted comments expressed their general support of the intended action. Many of those who commented believed that further reductions of SO_2 and NO_x from power plants and other large stationary sources of air pollution will further protect the public health and environment of those living closest to the sources, for all the people of Connecticut and for our neighbors throughout New England.

The principal reasons in support of the proposed regulations are:

1. Proposed Sections 19a and 22, by requiring on-site emission reductions from the affected sources, will further protect the public health of those living in close proximity to the sources. Air pollution, while not proven to cause asthma, is known to contribute to episodes in those afflicted with the condition. While it is true that the air quality in Connecticut now meets all federal health based standards (with the exception of ground-level ozone), it is also true that in state asthma rates are increasing at an alarming rate. Until further study can determine the cause of the public health impacts associated with air pollution, the people of Connecticut reasonably expect their government to take steps to further protect them from the environmental triggers that may contribute to asthmatic episodes and other health effects.

   Section 19a embodies an innovative hybrid approach where strict on-site emission reductions are imposed on a source-by-source basis while additional increments of reductions may be achieved through emissions trading. This approach was recently publicized by Environmental Defense, a nationally recognized environmental organization, as being a viable regulatory approach to address air pollutants that raise concerns of localized health impacts and/or issues of environmental justice.[4] The Northeast States for Coordinated Air Use Management (NESCAUM) stated that the Department's approach could serve as a national and regional model to reduce power plant emissions.

[4] See from "Obstacle to Opportunity: How acid rain emissions trading is delivering cleaner air" Environmental Defense, September 2000.

2. The emission reductions anticipated in Sections 19a and 22 will further protect the environment in Connecticut and throughout New England consistent with the Eastern Canadian Premiers'/New England Governors' Acid Rain Action Plan of 1998. The additional annual SO_2 and NO_x reductions will help Connecticut and downwind New England states to:

   - Reduce nitrogen loading to Long Island Sound;
   - Reduce acidification of lakes and streams;
   - Reduce damage to trees at high elevations;
   - Reduce the decay of building materials and paints;
   - Reduce nitrates in drinking water; and
   - Reduce excessive nitrogen loading to aquatic and terrestrial ecosystems.

   As with the discussion on health effects, it is difficult to quantify the precise environmental impact or to place an economic value on such beneficial environmental impact. With this understanding, the Department should not fail to proceed in the absence of scientific certainty as to the precise environmental benefit attributable to the SO_2 and NO_x reductions set forth in the proposed regulations.

V. Statement of Principal Considerations in Opposition to the Department's Intended Action as Urged in Written or Oral Comments and the Department's Reason for Rejecting Such Considerations

A. Principal Considerations Raised in Opposition to the Proposed Regulations

The Department also received numerous comments in opposition to the policies embodied in the proposed regulations. The principal considerations in opposition to the proposed regulations are:

1. Whether public health is at issue and whether the proposed SO_2 emission reductions are necessary. Many comments were directed at discrediting the Levy Study, a recent study on the health effects of criteria air pollutants from two large coal-fired power plants in Massachusetts. Other comments indicated that air quality in Connecticut, with respect to SO_2, is 30% of the applicable federal health-based ambient air quality standard and that if the Department seeks to lower ambient levels of SO_2 or fine particulates then a regional solution should be sought.

2. The proposed regulations will:

   - Negatively impact electric system reliability by forcing early retirement of power generating units;
   - Decrease the availability of low-sulfur fuel oil and substantially increase the cost of such fuel if it is available at all;
   - Restrict fuel diversity within the regional power generating portfolio forcing power generators to increasingly rely on natural gas; and

- In combination with the previous three factors, only serve to drive up prices for energy for the power producers, businesses and consumers within Connecticut, to the detriment of the state's economy as a whole.

3. Sections 19a and 22 are not stringent enough because they do not "level the playing field" among the state's oldest power generating sources and the newest, most efficient, sources, such as gas turbines, that are subject to the most rigorous environmental standards.

4. Sections 19a and 22 should not include market-based incentives of any kind, nor should emissions trading of any kind be utilized. These provisions are but another industry loophole designed to avoid compliance with on-site emission reduction requirements.

5. Sections 19a and 22 exceed the minimum stringency levels set forth in Executive Order No. 19. The Department should reduce the proposed emission limits to be consistent with the minimum expectations of the executive order.

B. Reasons for Rejecting Considerations in Opposition to the Proposed Regulations

1. Based on all comments submitted to the Department, there is little disagreement over whether the emission reductions embodied in Sections 19a and 22 will provide a public health benefit. Rather, the comments diverge on whether the public health benefits that will be achieved are sufficient to protect public health, significant enough to justify the projected cost, or necessary given Connecticut's over-compliance with the federal NAAQS for SO_2 and NO_x.

   The current Connecticut air pollution program is built on the principle that a quality environment and quality of life is contingent upon air pollution reductions from a wide-range of source categories. The Department recognizes that various studies have grappled with determining the precise nature of public health impacts attributable to a single sector of sources. The Department is also aware of other studies and reviews of studies that reach differing conclusions. By proposing Sections 19a and 22, the Department does not validate the merits of any particular study or viewpoint, but states that a 43% reduction in SO_2 emissions and a 26% reduction in NOx emissions should certainly benefit public health.

   Given that there are known adverse health effects attributable to air pollution, the Department should not fail to proceed in the absence of scientific certainty as to the precise and quantifiable public health benefits attributable to the SO_2 and NO_x reductions implemented under Sections 19a and 22.

2. The Department took the issue of electricity reliability into account when drafting Sections 19a and 22. During the regulation development process, the Department contacted fuel suppliers who indicated there would be an adequate supply of low-sulfur fuel. In addition, there was no substantive evidence submitted to the Department demonstrating that low-sulfur fuel would be unavailable.

The Connecticut Department of Public Utility Control concluded in their testimony that Sections 19a and 22 reasonably balance environmental goals with the need to maintain adequate electric generation resources in Connecticut. (See Part VI. E. *infra*) However, if some power producers choose to retire some of the older power generating units on or before 2002, the shortfall in generation capacity will be assumed by new, highly efficient, gas turbines. Several large gas turbines have been constructed and several more are anticipated to be on line within the next few years. For example, the Department has issued construction and operating permits for 2650 MW of new electricity generating capacity since 1997.

The goals of fuel diversity and environmental protection are not mutually exclusive. The Department believes an adequate supply of low-sulfur fuel will be available during the implementation of the first phase of Section 19a. The Department is proposing to include greater flexibility in the final proposed regulation. These provisions, described below, ensure that implementation of the new requirements will not adversely affect the reliability of the electricity supply for Connecticut and allow affected sources time to develop compliance strategies. The Department is proposing to amend Section 19a as follows:

- Broaden the compliance extension provisions of subsection (f) to cover the first phase of the planned SO_2 emission reductions effective on January 1, 2002. This compliance extension is available when the Commissioner finds (after consulting with the DPUC) there to be a substantial impact on the reliable generation or delivery of electricity to residential, commercial and industrial users in the state. The commissioner may then, by permit or order, require compliance by:
  - Reconstruction of the affected source by June 1, 2003,
  - Replacement of the affected source by June 1, 2003, or
  - Impose an emissions cap to ensure local emission reductions until such time that the source demonstrates compliance (no later than June 1, 2003);
- Maintain the suspension of fuel sulfur limits in time of emergency as set forth in subsection (g) and require the source to calculate the excess SO_2 emissions attributable to the suspension and to offset any SO_2 emissions (exceeding 50 tons) through emissions trading provisions of subsection (h); and
- Maintain compliance flexibility by allowing sources to install air pollution control equipment in lieu of combusting low-sulfur fuel or switching to natural gas.

3. Some commentors that criticized the regulations for failing to level the regulatory playing field between old and new power generating sources. This was never the intent of the regulations. Sections 19a and 22, based on Executive Order 19 and the Department's existing statutory authority, are intended to reduce levels of air pollution within Connecticut so as to further protect public health and the environment. It is not the Department's intent to level the regulatory requirements among varying sources by imposing emission standards on older fossil fuel plants based on what a new plant would emit. Nor is it the Department's intent to increase costs on older plants to the point where they are no longer viable. However, the Department realizes that economic forces within the newly competitive power production market will favor those who produce power most efficiently and at least cost. The Department also recognizes that the use of market-based incentives allow the setting of more stringent standards such as those in the proposed regulations.

4. Sections 19a and 22 contain several forms of market-based incentives. These incentives include provisions to generate and use on-site excess emission reductions as a compliance tool (also known as Discrete Emission Reduction Credits or "DERCs"); the use of allowances from regional emission cap programs; and incentives to reduce emissions by placing added costs on air pollution within Connecticut (SO_2 allowance retirement in accordance with Section 19a(d)). Market based incentives are provided in the proposed regulations for two reasons. First, Executive Order No. 19 mandates the use of such incentives within the proposed regulations. Second, the Department's own experience is that market-based incentives provide greater more cost-effective emission reductions than could be required under a traditional command and control regulation.

5. It is true that the SO_2 emissions standards in proposed regulations are more stringent than the reductions called for in the Executive Order. However, the order clearly states that it is not to be construed in any way as limiting the authority of the Department to adopt emission standards that are more stringent than those set forth within order. As stated earlier, the inclusion of market-based incentives allow the setting of more stringent standards such as those in the proposed regulations.

VI. General Comments on Proposed Sections 22a-174-19a and 22a-174-22

The Department received numerous comments on the proposed regulations. While not addressing specific provisions of the proposed regulations, many comments were directed at larger policy issues and implications raised by the proposed regulations. As such, this report will address general comments separate from comments that were directed at specific provisions of the proposed regulations.

General comments have been grouped into four topical areas: public health concerns; environmental protection concerns; reliability of electric service resulting from implementation of the proposed regulations; and the inclusion of market based incentives, such as the use of discrete emission reduction credits and marketable allowances. Due to the large volume of comments concerning the use of market-based incentives, this report separately addresses comments supporting the use of market-based incentives and comments opposing the use of market-based incentives.

A. General Comments on the Public Health Implications of the Proposed Regulations

The Department received public-health-related testimony in support of the proposed regulations from the Connecticut Department of Public Health; a Sc.D. toxicologist on behalf of the Northeast States for Coordinated Air Use Management; a pulmonary physician representing the American Lung Association of Connecticut; a public health physician representing the Connecticut Coalition for Environmental Justice; and a physician representing Physicians for Social Responsibility. Other comments from industry challenged the need for further protecting human health. This report briefly summarizes the public health testimony below.

1. Connecticut Department of Public Health (DPH)

The DPH indicated their support of the Department's proposal. The DPH stated that the proposed regulations would result in a substantial reduction in the tons of SO_2 emissions in Connecticut. The DPH indicated that reductions in air pollution are beneficial for public health because epidemiological and toxicological evidence suggest that exposure to elevated levels of combustion pollutants can lead to numerous adverse health effects, ranging from respiratory symptoms to premature death.

2. Northeast States for Coordinated Air Use Management (NESCAUM) by David R. Brown, Sc.D.

Dr. David Brown, a public health toxicologist, provided a public health perspective on the Department's proposed regulations indicating that regulations that reduce human exposures to particulates, sulfates and NO_x will improve public health. Dr. Brown also acknowledged that Connecticut, by virtue of its small size and geographic location, is also affected by transported air pollution from other states. Therefore, Connecticut must address risks from both sources within Connecticut and transported air pollution.

Dr. Brown provided summary information on air contaminants and the characteristics of the physiological response to these contaminants. First, Dr. Brown noted that irritant gases have been quantitatively linked to local mortality. In addition, the public health effects of these contaminants appear to be greater in the Northeast region of the United States (possibly attributable to differences in the types of particulate pollutants and higher background concentrations due to air pollution transport). Dr. Brown also noted that secondary pollutants (including fine particulates) change as they are transported and can increase in toxicity by absorbing other irritant pollutants during transport. This led Dr. Brown to conclude that the health outcomes and impacts on local populations living near power plants are due to a combination of nearby emissions and transported "background" emissions. With respect to the characteristics of the physiological responses to the various air contaminants, Dr. Brown noted that there are both acute short-term health impacts and reactions, such as asthma attacks, and long-term chronic health impacts, such as cardiopulmonary disease.

Dr. Brown noted that reducing short-term pollutant concentrations near a source would reduce the risk associated with acute reactions such as asthma and lung disease. To reduce the risk associated with long-term reactions such as cardiopulmonary disease, it is necessary in addition to reduce the level of background transported pollutants.

Based on the above, Dr. Brown indicated his belief that the Department's proposed regulations are based on sound public health policy. The first phase of proposed Section 19a will provide timely reductions in the local levels of SO_2 and the second phase will address, in part, the difficult background/transport issue while providing an incentive for additional local reductions.

3. American Lung Association of Connecticut by Thomas Godar, M.D.

Dr. Thomas Godar, formerly the chief of the pulmonary department of Saint Francis Hospital Medical Center, provided public health related testimony on behalf of the American Lung Association of Connecticut. Dr. Godar stated that given the current level of knowledge on the health effects of air pollution, there is no reason to delay imposing more stringent emission standards on power plants in Connecticut.

Dr. Godar spoke of an alarming increase in the incidence of asthma over the past twenty years (rates have doubled and approximately 8% of the general public are afflicted with asthma). More importantly, Dr. Godar noted that a recent University of Connecticut study found that 15% of Hispanic children in Hartford suffer from asthma. In general, the highest asthma rates are clustered in urban areas. While noting that air pollution is not proven to cause asthma, Dr. Godar indicated that elevated levels of air pollution are proven to trigger asthma in individuals who are predisposed to the condition. Dr. Godar also noted that children who suffer from childhood respiratory disease (even if outgrown) are two the three times more likely to develop chronic obstructive pulmonary disease as an adult.

4. Connecticut Coalition for Environmental Justice by Mark Mitchell, M.D., MPH, FACPM

Dr. Mark Mitchell, a public health physician specializing in environmental health, provided public health testimony on behalf of the Connecticut Coalition for Environmental Justice.

Dr. Mitchell indicated that although asthma is not a reportable condition, various findings suggest that there are very high rates of asthma in several Connecticut cities (as high as 25% in New Haven with several neighborhoods in Bridgeport reporting similar rates). Dr. Mitchell also noted that the largest power plants in Connecticut are located in Bridgeport and New Haven. Dr. Mitchell conceded that although power plants have not been proven to *cause* asthma, the air pollution emitted by these plants has been proven to cause asthma attacks in people who already have asthma.

Based on concerns of environmental equity and environmental justice, Dr. Mitchell advocated stringent emission controls be placed on power plants located in urban areas because larger numbers of low income people and people of color are located in such areas.

5. Jonathan Levy, lead author of "Estimated Public Health Impacts of Criteria Pollutant Air Emissions from the Salem Harbor and Brayton Point Power Plants"

Dr. Jonathan Levy, a Research Fellow in the Department of Environmental Health at Harvard School of Public Health and lead author of a recent analysis on the public health impacts of criteria air pollutants from two coal-fired power plants in the commonwealth of Massachusetts, provided public health testimony to the Department.

Dr. Levy discussed his study's findings and indicated that given the proximity of Connecticut to Massachusetts the findings would be quantitatively similar. Dr. Levy also discussed the implications of his study for the Department's proposed regulations. These implications are summarized as follows:

- Power plant emissions represent a regional public health issue with local health implications. The pollutants in question travel long distances, but the individuals living near the power plants are at greater risk for adverse health outcomes, even for secondary pollutants. Therefore, emission reductions outside of Connecticut can benefit public health within Connecticut.

- However, according to his analysis, emission reductions at power plants with close proximity to high-risk sub-populations would yield the greater public health benefits.

- Emissions trading programs have the potential to reduce compliance costs while providing public health benefits as long as such credits are based on real reductions.

- The Department should consider adopting a primary particulate matter (PM_{10}) standard of 0.01 pounds/MMBtu of PM.

Dr. Levy concluded by stating that extrapolating the Massachusetts study to Connecticut implies that the proposed regulations would yield real and quantifiable public health benefits for the state and the region.

6. NRG Energy, Inc. Reports and Reviews of the Levy Study

NRG Energy, Inc., (NRG) a major producer of electric energy and the owner of several of the facilities affected by the Department's proposed regulations did not submit public health testimony, *per se*, but NRG did submit a number of written reports and reviews of the Levy Study. These reports, noted in the order presented in NRG's written comments, are:

- The Levy Study and Its Shortcomings, (no author identified). A fact sheet that raises five issues with the Levy Study and provides a graphic showing a decrease of SO_2 emissions within the Northeastern region of the United States over the past twenty years as asthma rates have increased.

- Commentary on the Levy et al. Report, by George Hidy, Roger McClellan, and Steven Reynolds (Envair/Aerochem for NRG Energy, Inc. August 2000). This report raises a number of technical issues with the Levy Study relating to the reliability of results that stem from the combination of three models in the risk assessment, air quality and health hazard function, and economic valuation.

- Commentary on the Levy et al. Report, by Douglas G. Smith, Sc.D. (ENSR Corporation Risk Assessment Department for NRG Energy, Inc. August 2000). This report, prepared to evaluate the utility of the Levy Report in the context of whether the Massachusetts DEP should consider it important within the context of the MADEP power plant rulemaking,

raises five issues pertaining to the implications of the Levy Study on regulations proposed by the MA DEP.

- Preliminary Review of the Health Impacts Projected in the Levy and Spengler Report: *"Estimated public health impacts of criteria pollutant air emissions from the Salem Harbor and Brayton Point power plants"*, by Edmund Crouch, Ph.D., Laura Green, Ph.D., DABT, Peter Valberg, Ph.D., Steve Zemba, Ph.D. (Cambridge Environmental Inc., July 20, 2000). This report identifies a number of flaws and omissions within the Levy Study. The authors believe that their findings render the health impacts within the Levy Report seriously compromised with regard to use in any rulemaking activity.

7. Wisvest-Connecticut, LLC

Wisvest-Connecticut, LLC (Wisvest) questioned the public health basis for the proposed regulations given that monitored levels of SO_2 indicate that Connecticut's air quality is far better than the SO_2 NAAQS. Wisvest noted that the SO_2 NAAQS is established based on extensive health research and data and is designed to be protective of public health, including the most sensitive populations such as children, the elderly and asthmatics — with a margin of safety.

8. Earth Tech Inc., by Richard J. Londergan, Ph.D.

Dr. Richard Londergan, on behalf of Wisvest-Connecticut, LLC (Wisvest), examined the relationship between SO_2 emissions from the Bridgeport Harbor and New Haven Harbor Stations owned by Wisvest and monitored concentrations of SO_2 and fine-particle sulfates. Dr. Londergan's testimony generally concluded "local air quality measurements show little if any influence of major point sources" of pollutants and that "ambient SO_2 and fine-particle sulfates are dominated by regional transport." Specifically, Dr. Londergan presented four key findings:

- Ambient monitoring indicates that sources in Connecticut do not contribute to either an SO_2 or fine-particle sulfates air quality "problem." Ambient SO_2 concentrations are approximately 75% below the annual and twenty-four-hour SO_2 NAAQS;
- Reductions in SO_2 emissions from major point sources in Connecticut are unlikely to significantly improve air quality;
- Ambient concentrations of SO_2 in urban areas is primarily the product of regional pollutant transport and fuel oil combustion during the heating season; and
- Measured fine-particle sulfate concentrations in southern New England are primarily the product of regional pollutant transport.

9. Cambridge Environmental Inc. by Peter Valberg, Ph.D.

Dr. Peter Valberg, at the request of Wisvest-Connecticut LLC, reviewed the Levy Study and submitted a report containing his findings and conclusions to the Department. Dr. Valberg indicated that the emissions from the two power plants modeled in the Levy Study contribute a

small amount — about 1 percent — to total ambient PM_{10} levels. The rest comes from many other sources, including dust, mobile sources, and upwind power plants. Dr. Valberg notes that the total emissions from the two Wisvest facilities are approximately 25% of those from the power plants modeled in the Levy Study.

Dr. Valberg's written comments explain that air quality in Connecticut, as monitored by the Department, is quite good. Dr. Valberg submitted charts demonstrating that ambient levels of PM_{10}, NO_2, and SO_2 in Bridgeport are well below the federal health-based NAAQS and even below the national average of monitored levels of this pollutant. Dr. Valberg also submitted air quality data for New Haven showing that ambient levels are below the NAAQS for PM_{10}, NO_2, and SO_2, and only slightly above, yet approaching, national averages.

Dr. Valberg also submitted the following comments on asthma attacks:

- Although there has been an increase in asthma prevalence over the past twenty to thirty years, the rise has occurred during a period of time when concentrations of air pollutants in outdoor air have been decreasing;

- Geographical variations in asthma hospitalization rates show sharp differences that cannot be attributed to differences in air pollution;

- The clinical literature on asthma in children does not identify outdoor PM_{10} as a key element in asthma prevalence or asthma attacks; and

- Asthmatics show little or no response during voluntary exposure to much higher levels of air particulate than are characteristic of the outdoor environment.

Dr. Valberg concludes by stating that, based on actual data measured in Connecticut, air quality is very good, and the SO_2, NO_2, and particulate levels are well below NAAQS set to protect public health.

10. Physicians for Social Responsibility by Jefferson H. Dickey, M.D.

Dr. Jefferson Dickey, on behalf of the group Physicians for Social Responsibility, submitted a paper entitled "No Room to Breathe: Health Effects of Criteria Air Pollutants from Power Plants." The paper purports to be a review of one hundred twenty-nine recent medical studies on this topic. The paper concludes that the author's review of medical literature finds that air pollutants emitted by power plants cause many and serious adverse health effects.

11. Pfizer, Inc. by William D. Huhn

Pfizer, Inc. (Pfizer) commented that the potential health impacts of large boiler emissions should be assessed relative to the NAAQS, which is protective of public health with an ample margin of safety. Pfizer believes that any study evaluating the impact of criteria air pollutants on public health should discuss the results relative to the NAAQS since the primary NAAQS define the level of air quality necessary to protect public health with an adequate margin of safety. (See 40

CFR 50.2(d)). Given the enormous disparity in ambient concentrations that the federal government has established as protective of human health and the environment, and the ambient concentrations determined by the Levy Study as "unhealthy," Pfizer believes the Department should reevaluate its consideration of the Levy Study as it relates to the proposed regulations.

In view of the potential significant costs associated with the regulatory proposal, impact on electric reliability and natural gas supplies for the general public, as well as industry in Connecticut, Pfizer recommends that the Department carefully evaluate the Levy Study to ascertain that its conclusions are valid. Pfizer suggests that the Department seek the assistance of the DPH in evaluating the Levy Study and its use as a basis for significant policy decisions by the State.

B. Department's Response to General Comments on the Public Health Implications of the Proposed Regulations

Based on all comments submitted to the Department, there is little disagreement over whether the proposed regulations will provide a public health benefit. Rather the comments diverge on whether the public health benefits that will be achieved by the Department's proposal are sufficient to protect public health or unnecessary given Connecticut's overcompliance with the federal SO_2 and NO_x NAAQS.

In the absence of scientific certainty as to the precise public health benefit attributable to the SO_2 reductions set forth in the proposed regulations, the Department should:

- Work towards establishing a regional program to further reduce the impact of transported primary and secondary sulfate air pollution;
- Continue the petition process, begun in 1999, requesting the United States EPA to set a more stringent secondary NAAQS for SO_2; and
- Continue to monitor, along with the public health community, the quality of life and the environment within Connecticut in order to ascertain whether the proposed regulations, if and when implemented, in conjunction with other air pollution control initiatives produce measurable benefits. Further encourage such monitoring throughout the Northeast.

C. General Comments on the Environmental Benefits of the Proposed Regulations

1. United States Environmental Protection Agency (EPA) Region 1

The EPA strongly commended the Department for proposing the present regulations. The EPA noted that federal and state requirements have achieved substantial reductions of SO_2 and NO_x. As a result of several programs, including the federal Acid Rain Program, the 1995 Connecticut NO_x RACT program, and the 1999 NO_x Budget Program, Connecticut power plants reduced SO_2 emissions by 21% and NO_x emissions by more than 50% between 1990 and 1999.

Nevertheless, the EPA noted, the Department's decision to set even more stringent emission standards for power plants makes sound environmental sense. After taking the emission reductions from the 1990s into account, power plants still emit approximately 74% of the SO_2 and 11% of the NO_x in Connecticut. The additional annual SO_2 and NO_x reductions will help Connecticut and downwind New England states to:

- Reduce acidification of lakes and streams;
- Reduce damage to trees at high elevations;
- Reduce the decay of building materials and paints;
- Reduce nitrates in drinking water;
- Reduce excessive pollutant loading to aquatic and terrestrial ecosystems;
- Reduce ambient concentrations of nitrogen dioxide; and
- Reduce particulate matter (sulfates and nitrates) that contribute to visibility degradation and impact public health.

2. Northeast States for Coordinated Air Use Management

NESCAUM written comments submitted to the Department emphasize NESCAUM's support for the proposed year-round NO_x reduction requirements. Existing regional and national NO_x reduction programs seek to address the role of NO_x emissions in the formation of smog and therefore only require compliance during the five summer months. As such, these efforts fail to address the year-round NO_x contribution to fine particle formation, acid deposition, water eutrophication, and other environmental impacts. NESCAUM believes that the Department's proposal to extend similar levels of NO_x control to beyond the summer months represents a significant and laudable new step.

3. Clean Air Task Force ecosystem consultant, Ellen Baum

Ms. Baum submitted comments indicating that the proposed SO_2 and NO_x emission reductions contained in the proposed regulations will contribute to improvements in ecological systems and visibility in Connecticut and throughout New England and the Canadian Maritimes. With respect to Connecticut, Ms. Baum indicated that year-round nitrogen controls would benefit Long Island Sound. With respect to ecological systems outside of Connecticut, Ms. Baum indicated that the emission reductions from the proposed regulations would limit nitrogen deposition, acid deposition, and improve visibility. Ms. Baum also acknowledged Connecticut's commitment to further reduce acid deposition through the New England Governors' / Eastern Canadian Premiers' 1998 Acid Rain Action Plan.

D. Department's Response to Environmental Protection Testimony

The United States EPA, NESCAUM and the ecosystem consultant agree that the emission reductions anticipated from the implementation of the proposed regulations will benefit the environment. As with the discussion on health effects, it is difficult to quantify the precise environmental impact or to place an economic value on such beneficial environmental impact. With this understanding, the Department should not fail to proceed in the absence of scientific certainty as to the precise environmental benefit attributable to the SO_2 and NO_x reductions set

forth in the proposed regulations. In addition, the recommendations for further action consistent with the response to general public health-related testimony also apply in this instance. To reiterate such recommendations, the Department should:

- Work towards establishing a regional program to further reduce the impact of transported primary and secondary sulfate air pollution;

- Continue the petition process, begun in 1999, requesting the United States EPA to set a more stringent secondary NAAQS for SO_2; and

- Continue to monitor, along with the public health community, the quality of life and the environment within Connecticut in order to ascertain whether the proposed regulations, if and when implemented, in conjunction with other air pollution control initiatives produce measurable benefits. Further encourage such monitoring throughout the Northeast.

E. General Comments on the Implications of the Proposed Regulations with respect to Reliability of Electric Service in Connecticut and Associated Costs

1. Connecticut Department of Public Utility Control

The Connecticut Department of Public Utility Control (DPUC) submitted comments on the proposed regulations limited to assessing the possible effect the proposed regulations could have on the provision and price of electric service. The DPUC concluded that the proposed regulations reasonably balance environmental goals with the need to maintain adequate electric generation resources in Connecticut.

The DPUC analysis took into consideration how the proposed regulations might effect the reliability of electric service in Connecticut and throughout New England. In performing its analysis, the DPUC reviewed installed generation capacity; peak demand; transmission capacity and imported power; reserve margins (excess generating capacity, including imported power); new generation and new transmission; and regional load reduction policies designed to reduce the likelihood of summer capacity shortages. Secondly, the DPUC analyzed the impact of an extreme scenario in which the proposed regulations cause all of the state's older power plants to shut down by 2002. This analysis showed that even if these power plants shut down, sufficient generation capacity would remain, including the necessary reserve margins required by NEPOOL and ISO New England. However, this scenario possibly presents a short-term reliability issue in Fairfield County during 2002. Finally, the DPUC performed initial investigation into the availability and cost of fuel oil meeting the low-sulfur requirement. DPUC stated their belief that such fuel will be readily available at modestly higher prices and that such increased costs are not likely to materially affect retail prices of electricity.

2. NRG Energy, Inc.

NRG did not state that implementation of the proposed regulations is likely to cause reliability problems. However, NRG provided information that Connecticut is only marginally able to produce enough power to meet current demands and barely able to meet projected demands in

the next few years without relying on imported power. Based on DPUC information, NRG indicated that in-state reserves are approximately 2.8% of peak demand and that imported power increases the reserve margin to 33%.

NRG also stated that ISO New England, the nonprofit organization responsible for operating the region's power grid, recommends the use of interruptible rates until a sufficient amount of new generation comes on line. Interruptible rates encourage large industrial users of power to reduce electricity usage when supplies are tight as insurance against "brownouts" or the involuntary disconnection of other customers. NRG states that ISO New England has warned that the uncertainty of new power plant construction coupled with the possible early retirement of existing older plants due to increased environmental regulation could result in New England prematurely losing a substantial percentage of its power generating resources.

NRG also commissioned a consultant to perform a brief study to forecast prices for West Texas Intermediate crude oil and residual fuels on the East Coast (specifically, No. 6 0.3% sulfur low-pour, No. 6 0.3% sulfur high-pour, No. 6 0.7% sulfur and No. 6 1.0% sulfur). The study provided general background information on residual fuel oil and sulfur content, domestic production of low-sulfur fuels on the East Coast, other refinery sources of low-sulfur fuel oil, imported sources of low-sulfur fuel oil, price history, key trends driving price (including seasonality of demand), and commentary on "risks and surprises" (i.e., independent events that can cause the price of crude oil to either increase or decrease). Several scenarios are discussed in the report including, differing (unidentified) rates of low-sulfur fuel consumption by NRG, national economic forecasts (both up and down), base crude oil price forecasts (both up and down), and the potential impact of sulfur control regulations being contemplated in the commonwealth of Massachusetts.

NRG's report also noted that the market size for 0.3% sulfur fuel oil on the East Coast has declined over the last twenty years. During that time, domestic production of low-sulfur fuel has increased while the amount of imported low-sulfur oil has decreased. The report focused on price but, with respect to supply, did not indicate that there is an insufficient supply of low-sulfur oil. The report did note certain events that could affect supply levels (and therefore effect price) such as catastrophic disruption in production (e.g., war, natural disaster, etc.) at any of the several oil refineries around the world. On the other hand, the report indicated that refiners could also invest in new equipment to produce greater quantities of low-sulfur fuel given the market indications in the Northeast. Demand, which also affects price, could be affected by a number of factors such as prolonged cold winter weather. Swings in supply or demand will affect price.

The report concludes that the incremental demand represented by two of four NRG use scenarios would likely only have a modest impact on price

NRG offers an alternative proposal that utilizes fuel diversity and the use of emissions trading programs to ensure reliability. NRG's alternative proposal is discussed later in this report.

3. NOVARCO, Ltd. by Craig Poler

Mr. Poler, an oil trader with NOVARCO, Ltd., provided testimony at the Department's public hearing on the cost and availability of 0.5% sulfur by weight and 0.3% sulfur by weight fuel oil. Mr. Poler indicated that supplies of 0.5% sulfur fuel oil are tight and that 0.3% sulfur fuel is not available (at any price) as of mid-September 2000. Given that 0.5% sulfur fuel is not naturally occurring and must be blended using 0.3% sulfur with 0.7% sulfur or 1.0% sulfur fuel, Mr. Poler indicated that limited availability of 0.3% sulfur fuel will also limit the availability of 0.5% sulfur fuel.

Mr. Poler did not offer comment as to how long the current shortage will last. Mr. Poler did submit various charts and graphs demonstrating five year price differentials between the low-sulfur fuel oils and 1.0% sulfur fuel oil at New York Harbor's Cargo Platt's terminal. The data submitted by Mr. Poler showed a high price differential of 6.25 $/bbl (with average price differentials of 1.00 – 2.00 $/bbl) for 0.5% sulfur fuel oil. For 0.3% sulfur fuel (high pour), Mr. Poler's data showed a high price differential of 11.75 $/bbl (with average price differentials of 1.00 – 3.00 $/bbl). For 0.3% sulfur fuel (low pour), Mr. Poler's data showed a high price differential of 12.50 $/bbl (with average price differentials of 2.00 – 4.00 $/bbl). The price data offered no additional insight as to availability. However, higher prices are generally indicative of short supply.

Mr. Poler also offered some price data on natural gas. Mr. Poler also compared the price of natural gas to that of fuel oil based on the energy content of both fuels. Mr. Poler indicated that, based on current price levels, the cost of natural gas is equivalent to paying $40 per barrel of oil. This testimony was offered to show the price impact of requiring power plants to switch to natural gas, assuming that the necessary amount of gas could be brought to market. Mr. Poler also pointed out that supplies of natural gas are down and price is substantially up.

4. Wisvest-Connecticut, LLC

Wisvest indicated in their written comments that if the proposed regulations force certain Connecticut power generators to shut down, there is a question as to whether the grid in Connecticut can import sufficient power to replace that lost from displaced units. Wisvest also noted that "market reports" suggest that the fuels (0.5% sulfur by weight and 0.3% sulfur by weight residual fuel oil) are not available at any price.

5. Clean Air Task Force and Coalition for Clean Air by David Marshall

The Clean Air Task Force (CATF) and Coalition for Clean Air (CCA) submitted written comments touching on several issues raised in oral testimony at the Department's public hearing. CATF/CCA noted that with respect to fuel price and availability, the power generators offered no evidence that they would be unable to procure low-sulfur fuel in 2002 and beyond. CATF/CCA noted that the only testimony produced by power generators was an oil trader (see NOVARCO comments above) who claimed, without any real support, that supplies of 0.3% sulfur, by weight, fuel oil were presently uncertain.

CATF/CCA reiterated the testimony of DPUC that low-sulfur fuels to meet the regulations should be available in ample supply at slightly higher prices.

CATF/CCA submitted data from the US Energy Information Administration indicating that in 1998 power producers in 20 states burned fuel oil averaging about 0.3% sulfur. CATF/CCA indicated that the fuels markets (NY Mercantile Exchange) predict crude oil prices to drop significantly by the end of 2003 (as well as natural gas prices).

With respect to reliability of electric supply CATF/CCA indicated that with the influx of new natural gas plants in Connecticut, older power generating resources would most likely not be needed within several years. CATF/CCA again reiterated DPUC testimony that the reserve power margin in Connecticut this past summer was more than 33%.

6. Conservation Law Foundation

The Conservation Law Foundation (CLF) stated in their comments that in the event that some or all of the existing older power plants retire over the next few years, the construction and operation of new gas turbine plants would preclude a capacity shortfall and attendant system reliability problems. The CLF offered a hypothetical scenario in which all of Connecticut's older power plants retired shortly after 2003. The CLF asserts such an event would not negatively impact reliability because the combined capacity of the older power plants (approximately 2,700 MW) would have already been offset by new generation (approximately 2,900 MW) that has been approved but is not yet constructed and operating.

The CLF is also confident that the proposed regulations would not affect the system reliability of the New England region. The CLF notes that ISO New England has reported that more than 60 projects have completed applications for a total of more than 15,700 MW of new capacity, with 10,500 MW of capacity expected to be completed and on-line by the summer of 2003. Peak demand in New England is expected to increase to about 24,500 MW by 2003 indicating that the new generation could adequately offset the retirements of some older power plants.

The CLF also addressed concerns raised about system reliability in Fairfield County. The CLF notes that no specific study or analysis can be cited to support the assertion that implementation of the proposed regulations would lead to a system reliability problem in Fairfield County. First, the CLF notes there is a new 520 MW plant operating in Bridgeport and a 544 MW plant now under construction in Milford. Second, the CLF concedes that even if there is some risk that the retirement of older power plants in Fairfield County would lead to system reliability problems, then it is the responsibility of the transmission and distribution companies to study the situation in cooperation with ISO New England and recommend the most effective solutions, such as new generation and enhancing transmission and distribution capabilities.

7. Pfizer Inc. by William D. Huhn

Pfizer Inc. (Pfizer) commented that the potential impacts of the proposed regulations on fuel availability, fuel costs, and the local economy should be carefully evaluated. Pfizer's inquiries of suppliers indicate that 0.7% and 0.3% sulfur fuels are commercially available at cost premiums.

Suppliers do not have supplies of 0.5% sulfur fuels and would be forced to blend current supplies of 0.7% and 0.3% to achieve this limit. Blending activities and separate storage for 0.5% fuel oil will create additional expenses.

Pfizer recommends the Department carefully evaluate the economic impact of the proposed regulations on Connecticut business and the general public. Pfizer indicated their concern that the proposed regulations will cause a sudden increase in demand of low-sulfur fuel and natural gas (to comply with the NO_x regulation). As such, Pfizer believes that most industry and power producers will opt to consume natural gas. This increased demand and dependence on a single energy source will create significant risks for industry, power producers, small business, and residential consumers, all of which will compete for scarce supplies. Pfizer also recommends that the Department review whether the potential availability and price increases would create a competitive disadvantage for Connecticut businesses.

8. Competitive Power Coalition of New England, Inc. by Neal B. Costello

Mr. Costello testified that the proposed regulations would threaten fuel diversity by effectively eliminating the use of coal and oil, and move Connecticut towards the precarious use of a single fuel source. In addition, vital power plants would retire prematurely, instituting reliance on more expensive electricity generated out of Connecticut by dirtier power plants. Transmission constraints may induce blackouts. Connecticut will be placed at a competitive disadvantage and jobs will be lost. In essence, the proposed regulations would impose a hidden energy tax on the residential, commercial, and industrial customers.

F. Department's Response to General Comments on the Implications of the Proposed Regulations with Respect to Reliability of Electric Service in Connecticut and Associated Costs

1. Electric System Reliability

DPUC concluded in their testimony that the proposed regulations reasonably balance environmental goals with the need to maintain adequate electric generation resources in Connecticut.

However, DPUC noted in a caveat to their testimony that, in the extreme event that all older power plants chose to shut down as of January 1, 2002 rather than comply with the new requirements, there is a possibility of short-term reliability problems in Fairfield County. This information was countered by additional DPUC testimony outlining the amount of anticipated new generation capacity now being installed in Connecticut and throughout New England. Additionally, the DPUC testimony indicated that low-sulfur fuels would be available at modestly higher prices. This testimony alleviates the concerns that the older power plants would be shut down before 2002.

2. Fuel Availability and Cost

The majority of comments from the power producers concerned the price and availability of 0.3% sulfur, by weight, fuel at the present time. It is important to note that phase 2 of Section 19a provides for the use of 0.3% sulfur, by weight, fuel oil as one of several options for compliance.

The Department received no testimony or written comments conclusively demonstrating that 0.5% sulfur, by weight, fuel would be unavailable on and after January 1, 2002. However, testimony provided by a fuels trader as well as unspecified 'market reports' referenced by Wisvest in their written comments indicate that supplies of 0.5% sulfur, by weight, are tight and that 0.3% sulfur, by weight, fuel oil is not available (as of mid-September 2000) at any price. A clarification of the term "tight" was requested at the public hearing. A more informed clarification was not provided.

The Department could not independently verify such claims. However, if it is true that such fuel is not available, the proposed regulations provide for a compliance extension, and specific waiver of the fuel sulfur requirements during periods of fuel emergencies. Additionally, sources unwilling to risk fuel oil price fluctuations are afforded the regulatory flexibility to install control technology or to use emissions trading beginning January 1, 2003 as a means of compliance with the requirements of proposed Section 19a. In addition, DPUC stated its belief that low-sulfur fuel will be readily available at modestly higher prices and that such increased costs are not likely to materially affect the retail prices of electricity.

NRG fuels analysis showed incremental demand represented by NRG use scenarios would likely only have a modest impact on price.

The Department should amend certain provisions of Section 19 in order to provide the Department with the flexibility to address concerns of electric service reliability in Fairfield County and throughout the state. These provisions, described below, ensure that implementation of the new requirements will not adversely affect the reliability of the electricity supply for Connecticut and allow affected sources time to develop compliance strategies. The Department is proposing to amend Section 19a as follows:

- Broaden the compliance extension provisions of subsection (f) to cover the first phase of the planned SO_2 emission reductions effective on January 1, 2002. This compliance extension is available when the Commissioner finds (after consulting with the DPUC) there to be a substantial impact on the reliable generation or delivery of electricity to residential, commercial and industrial users in the state. The commissioner may then, by permit or order, require compliance by:
  - Reconstruction of the affected source by June 1, 2003,
  - Replacement of the affected source by June 1, 2003, or
  - Impose an emissions cap to ensure local emission reductions until such time that the source demonstrates compliance (no later than June 1, 2003);
- Maintain the suspension of fuel sulfur limits in time of emergency as set forth in subsection (g) and require the source to calculate the excess SO_2 emissions

attributable to the suspension and to offset any SO_2 emissions (exceeding 50 tons) through emissions trading provisions of subsection (h); and

- Maintain compliance flexibility by allowing sources to install air pollution control equipment in lieu of combusting low-sulfur fuel or switching to natural gas.

3. Fuel Diversity Issues

The goals of fuel diversity and environmental protection are not mutually exclusive. The Department believes, based on contact with a major oil refiner while developing the proposed regulations, that there will be an adequate supply of low-sulfur fuel to meet the first phase of the proposed SO_2 regulation. The Department need not make a finding that there will be a sufficient supply of 0.3%, by weight, fuel oil for phase 2 of Section 19a because there are a variety of available compliance options. However, affected sources are not required to use any particular fuel and may indeed choose to install air pollution control equipment in lieu of being too reliant on any one particular fuel, such a natural gas or low-sulfur fuel oil.

G. General Comments in Support of the Use of Market-based Incentives in the Proposed Regulations

1. Northeast States for Coordinated Air Use Management (NESCAUM) by Jason Grumet

NESCAUM is a nonprofit association of eight Northeastern state air pollution control agencies, including the Connecticut Department of Environmental Protection Bureau of Air Management. NESCAUM has helped to advance innovative regulatory approaches, including market-based mechanisms and emissions trading programs. These approaches have formed the basis for many of the most important pollution control initiatives of the last decade and have produced (or will produce) substantial emission reductions throughout the eastern United States, including Connecticut. These programs, which include the federal Acid Rain Program, the Ozone Transport Commission's NO_x Budget Program, and the EPA's recent twenty-two-state NO_x SIP Call, will lower ambient levels of ozone, fine particulate matter, and acid rain precursors throughout the Northeast. As an additional benefit, these programs are likely to lead to reductions in mercury and carbon dioxide emissions, which, like NO_x and SO_2, are predominantly emitted from large coal-fired power plants.

At the same time, NESCAUM recognizes that these programs to date have not adequately addressed the concerns of local communities in the immediate vicinity of the large emission sources — some of which continue to lack modern emission control technology. Whether this inadequacy is the result of program design or whether it reflects that the national and regional emission caps are simply not strict enough to require the necessary plant modifications is immaterial to most local residents. The fact remains that in addition to regional programs, communities must have assurances that local facilities achieve timely reductions.

Designing a regulatory program that achieves both regional and local pollution reductions at an acceptable level is a substantial challenge. NESCAUM believes that the Department's proposed rules meet this challenge and provide a model for resolving the national debate over how to gain

the benefits of market-based approaches while ensuring that no local community is placed in jeopardy. NESCAUM also notes:

- Phase 1 of the proposed regulations would substantially reduce sulfate emissions at all major emission sources in Connecticut.

- The proposed regulations go significantly beyond the existing federal Acid Rain Program by requiring a two-for-one retirement of allowances.

- The first phase of the program is followed closely by a second phase aimed at cutting emission rates by another 40% and allowing these reductions to be met through emissions trading with other Connecticut sources or by retiring federal allowances from outside the state at a four-to-one ratio. However, no affected Connecticut source will be allowed to emit in excess of the Phase 1 limits.

- The hybrid approach, in which source-by-source emission reductions precede a second tier of tradable reductions, is perhaps the most far-reaching aspect of the Department's proposed regulations. On one hand, the proposal addresses local concerns by ensuring that all plants meet stringent minimum control requirements. On the other hand, the proposal takes advantage of the unique features of market-based cap and trade programs to leverage substantial additional reductions. By providing the flexibility to maximize emission reductions where they can be achieved most cost effectively, such programs can reduce the overall cost of complying with the regulations thus enabling greater reductions.

- The emissions trading provisions included in the Department's proposed regulations are therefore significant in a larger context. Besides making it possible to achieve an unprecedented tightening of overall control levels statewide, they signal Connecticut's continued participation in, and commitment to, regional and national control efforts.

- The importance of regional and national efforts to achieving healthy air in Connecticut cannot by overemphasized. Transported emissions from outside Connecticut contribute significantly to our air quality problems; indeed total emissions of SO_2 and NO_x within the state pale in comparison to emissions released upwind of its borders. NESCAUM conducted a study[5] concluding that between 25% and 40% of the Northeast's smog problem during the worst summertime episodes originates outside of the Northeast.

NESCAUM believes that the Department's proposed regulations represent a significant achievement for public health and environmental protection in the State of Connecticut. Moreover, by addressing both the local and regional causes of air pollution in the state, the proposed regulations provide a model for other states and for Congress to consider in the ongoing efforts to achieve clean air.

[5] "The Costs of Ozone Transport: Achieving Clean Air in the East," NESCAUM, July 1998.

2. Northeast States for Coordinated Air Use Management (NESCAUM) by David Brown, Sc.D.

In addition to policy-based comments provided by Jason Grumet, NESCAUM also submitted testimony and comments based on considerations of public health. In his written and oral testimony, Dr. Brown, a public health toxicologist, supported the inclusion of market-based incentives in the proposed regulations, including the use of discrete emission reduction credits (DERCs) generated within Connecticut and the use of regional allowances. Dr. Brown indicated that market-based incentives would help in achieving reductions in the background concentrations of air pollution for Connecticut and New England.

3. Jonathan Levy, lead author of "Estimated Public Health Impacts of Criteria Pollutant Air Emissions from the Salem Harbor and Brayton Point Power Plants"

Dr. Jonathan Levy, a Research Fellow in the Department of Environmental Health at Harvard School of Public Health and lead author of a recent analysis on the public health impacts of criteria air pollutants from two coal-fired power plants in the commonwealth of Massachusetts, provided comments pertaining to the use of market-based incentives in the proposed regulations.

Dr. Levy noted that the use of market-based incentives have been mandated for the proposed regulations, and emissions trading programs have the potential to reduce compliance costs while providing public health benefits. However, emissions trading programs must be structured carefully and explicitly to ensure substantial public health benefits in local communities, Connecticut as a whole, and across New England. Dr. Levy notes:

- With respect to SO_2, the proposed regulations address these concerns by requiring local reductions down to 0.5 lb/MMBtu and emissions trading to meet 0.3 lb/MMBtu level.

- The "affected state" provision is critical and should be maintained in the final regulations to ensure that Connecticut would receive benefits from any emission reductions.

- The existence of excess allowances could imply that no real reductions have taken place at the affected sources outside of Connecticut. If this is the case, the Department should consider strengthening the site-specific reduction requirements or modify the proposed regulations to ensure that emissions trading is allowed only when real emission reductions are demonstrated at the facility from which the credits were purchased.

4. Connecticut Business and Industry Association (CBIA)

The CBIA strongly supports the use of market-based incentives and encourages the Department to expand the regional opportunities for affected facilities to meet the new sulfur emission requirements through emissions trading and that the phase-in for mandatory use of low-sulfur fuels be extended by an additional eighteen to twenty-four months.

The CBIA notes that the 1990 Clean Air Act Amendments introduced the use of market-based approaches for improving air quality by allowing sources to meet stringent new requirements through the use of emissions trading. These programs have resulted in unprecedented levels of SO_2 and NO_x reductions throughout the United States. During phase I of the federal Acid Rain Program:

- Power plants reduced SO_2 emissions 22% below required levels, yielding 7.3 million tons of additional reductions;

- When taking into account all phase I allowances, actual emissions of SO_2 were 30% below required levels, represented by 11.6 million unused allowances.

The CBIA noted that the national environmental benefits associated with the use of market-based incentives have also been experienced in Connecticut. Since a significant amount of air pollution is imported into Connecticut from upwind sources, impressive reductions in upwind sources achieved through the use of market-based incentives reduces the level of air pollution transported into Connecticut. In addition, Connecticut's own emissions trading program, implemented in 1995, has already resulted in the elimination of 5,000 tons of NO_x emissions. The CBIA believes that equally impressive results can be expected for the reduction of SO_2 if the Department adopts a broader SO_2 trading program.

5. Wisvest-Connecticut LLC (Wisvest)

Wisvest made three points in response to the Department's solicitation in the notice of intent to adopt and amend regulations for additional comment on whether there is a demonstrated need that the proposed regulations contain emissions trading provisions.

- The Governor's Executive Order No. 19 (the basis of the proposed regulations) states that "any regulations adopted pursuant to this Order shall include the use of market-based incentives and a system of creditable emission allowances or credits."

- The Department is on record as supporting the use of market-based incentives. Department staff have stated in presentations that emissions trading:
  - Allows for more stringent standards,
  - Results in total emissions (or average emission rates) below the intended standard,
  - Encourages new, innovative pollution controls, and
  - Provides a cost-effective compliance option to regulated sources.

- National environmental groups support emissions trading. In their report, *From Obstacle to Opportunity: How Acid Rain Emissions Trading is Delivering Cleaner Air* (September 2000), Environmental Defense[6] (formally the Environmental Defense Fund) notes the superior results achieved by the federal Acid Rain Program. (Hereafter, the ED emissions trading

[6] Environmental Defense is a leading national, New York based nonprofit organization, representing 300,000 members. Environmental Defense links science, economics, and law to create innovative, equitable and economically viable solutions to today's environmental problems.

report) Specifically, Environmental Defense notes the following with respect to the federal Acid Rain Program (as submitted into the record by Wisvest):

- The first phase led power plants to reduce SO_2 emissions 22% below the levels required, resulting in 7.3 million tons of extra emission reductions;
- Reconciling the first phase reductions to take into account "extension allowances" for the installation of certain technology, actual emissions were 30% lower than the legally authorized level, resulting in 11.6 million unused allowances; and
- Reductions in sulfate deposition have been observed in geographic areas affected by the atmospheric transport of sulfur.

Wisvest reiterated the testimony of Richard Londergan indicating that ambient levels of SO_2 and NO_x are well under the NAAQS set by the US EPA. Indeed, the Department's own data shows that concentrations of NO_x and SO_2 in the immediate vicinity of Wisvest facilities in New Haven and Bridgeport (as well as throughout Connecticut) are dramatically better than the NAAQS, which are set to protect public health. Based on this information, Wisvest concludes that the Department should not be concerned with reducing primary pollutants, such as NO_x and SO_2, but rather with reducing secondary pollutants, which are formed at significant distances from the point of release (i.e., sulfates, nitrates and ozone). Wisvest concludes that since market-based programs are proven to produce superior environmental performance at the lowest practicable cost, the Department should not only maintain the current market-based provisions, but also expand the use of emissions trading temporally and geographically.

6. NRG Energy, Inc. (NRG) statement of R.K. Raufer, Ph.D., P.E.

NRG submitted with their written comments, a statement by R.K. Raufer on the benefits of emissions trading programs. Since NRG's comments are a summary of Dr. Raufer's comments and Dr. Raufer submitted comments on behalf of NRG, this report will address NRG's general comments by addressing the specific comments raised by Dr. Raufer. In his report, Dr. Raufer notes that emissions trading programs:

- Allow government to focus on the tasks of setting environmental goals, rather than micro-managing the stack-by-stack pollution reductions;
- Are economically efficient, achieving comparable levels of pollution control for lower costs;
- Allow policy makers to set more stringent standards based on the economic efficiency of compliance; and
- Provide facilities with a strong incentive to reduce pollution by putting costs on every additional ton of pollution.

Dr. Raufer notes that proposed Section 19a would restrict the SO_2 market in a number of ways:

- Proposed Section 19a requires each affected Title IV source to retire one SO_2 allowance for every ton of SO_2 emitted in Connecticut;

- Retired allowances must come from Connecticut sources first;

- If there are insufficient number of Connecticut allowances, then those from nearby "affected states" can be used;

- The affected units may use SO_2 DERCs or SO_2 allowances to comply with the proposed emission limits, but SO_2 DERCs must be certified by the Department — indicating that only "early reduction credits" or SO_2 allowances could be employed;

- "Early reduction credits" can only be created until 2002; and

- If SO_2 allowances are used to meet the proposed emission limits, they must be retired on a four-to-one basis.

Dr. Raufer concludes that the emissions trading provisions proposed by the Department are not always consistent with the economic efficiencies associated with market-based incentive regulatory programs. Dr. Raufer stated:

- Proposed Section 19a, by requiring the retirement of additional SO_2 allowances for every ton of SO_2 emitted in Connecticut, will not change emission source provisions associated with the NAAQS, will only slightly reduce national SO_2 emissions, and will likely have significant costs;

- Proposed Section 19a, by placing additional market constraints on the size of the market (i.e., "affected states" provisions), is unlikely to have much benefit in terms of reducing "hot spots" or improving East Coast health benefits, and is likely to increase costs and minimize the economic efficiency advantages of a broader, unconstrained marketplace;

- Proposed Section 19a, by providing for the use of SO_2 DERCs, displays the characteristics of earlier EPA emissions trading programs that were "hobbled" by regulatory constraints. The regulatory constraints on the creation and use of SO_2 DERCs in proposed § 19a further restrict the economic efficiencies of an open market;

- Proposed Section 19a gives sources flexibility in using two market-based instruments (SO_2 DERCs and SO_2 allowances) for compliance, but then discourages the use of SO_2 allowances, the larger and most liquid instrument, by requiring a four-to-one retirement ratio. The basis for this ratio is not clear, and seems only to result in high costs with few corresponding benefits; and

- With respect to NO_x, the environmental goal of Section 22 does not match the emission reduction requirements. Dr. Raufer indicates that if Section 22 is intended to address the longer term environmental impacts of nitrogen deposition, then a broader seasonal emissions constraint, rather than a daily emissions constraint imposed under the existing requirements of Section 22, would be a more efficient means to meet the same environmental goals.

Dr. Raufer did not dispute or argue against the stringent environmental standards set by the Department. His report suggests only that market approaches are particularly useful in making environmental regulations less costly and more efficient; efficiency can be turned into more stringent standards; broader emissions trading works better; and localized restrictions on markets are likely to have high costs.

7. Cantor Fitzgerald Environmental Brokerage Services by Andrew Kruger

The comments provided by Mr. Kruger support the portions of the proposed regulations related to emissions trading. Based on the Department's solicitation in the notice of intent to adopt and amend regulations for additional comment on whether there is a demonstrated need that the proposed regulations contain emissions trading provisions, Mr. Kruger submitted the additional comments:

- The federal Acid Rain Program has led to national SO_2 emission reductions from approximately twenty million tons in 1980 to ten million tons in 2000, with millions of additional SO_2 allowances banked, unused, and out of the air;

- The OTC NO_x Budget Program establishes a regional cap-and-trade program to reduce NO_x emissions in the Northeast. This program reduced the 1990 NO_x emissions from 417,000 tons to 175,000 tons in 1999;

- In Connecticut, the NO_x RACT program has produced emission decreases of approximately 5,000 tons of NO_x (1990 baseline of 11,000 tons of NO_x). These are emission reductions that are unused, after all trades are complete.

Given all that has occurred, the Department is proposing regulations that will require sources to retire two SO_2 allowances per ton of actual emissions. If a source trades emission reductions to comply with the 0.3 lbs/MMBtu standard, it must use either four SO_2 allowances or one SO_2 DERC, per ton of actual emissions. These additional sulfur reductions are in addition to almost ten million tons of SO_2 reductions that have already occurred in the United States.

Carefully crafted rules, such as those currently proposed by the Department, protect the environment and provide compliance flexibility for sources. Emissions trading is not about "buying one's way out of compliance"; it is about getting paid for making reductions beyond what is required by law. Additional emission reductions beyond those required by law occur by the hands of a corporation, not the Department. Mr. Kruger also submitted as part of his testimony a copy of *From Obstacle to Opportunity: How Acid Rain Emissions Trading is Delivering Cleaner Air*, (Environmental Defense, September 2000).

8. Pratt & Whitney, a United Technologies Company (P&W)

P&W stated their support of emission reduction credits as a viable and proven method for achieving environmental goals. P&W believes that EPA and the Department have demonstrated that market-based systems using DERCs have resulted in overall greater emission reductions than would have been reached without such systems.

Additionally, the use of DERCs is vital for sources for which no technically feasible options exist for compliance.

9. Pfizer Inc. by William D. Huhn

Pfizer Inc. (Pfizer) commented that compliance with the proposed NO_x emission reduction requirements through flexible emissions trading provisions is mandated by the Executive Order and is both a scientifically and economically sound means to achieve the required emission reductions.

Emissions trading is recognized nationally and internationally as an effective and proven method for providing cleaner air in an economically sound manner. Since there is no compelling evidence that NO_x emissions cause significant local adverse health impacts, Pfizer fully supports the Department's plan to allow emissions trading to comply with the proposed NO_x emission reductions.

10. The Clean Energy Group by Michael Bradley

Members of the Clean Energy Group[7] (CEG) submitted comments strongly in favor of the use of emissions trading as the most appropriate and cost-effective mechanism for achieving air quality goals. The CEG indicated that emissions trading programs direct capital to the least-cost emissions control opportunities, and promote the use of innovative compliance options.

11. Connecticut Resources Recovery Authority (CRRA)

CRRA indicated their strong support of the use of emissions trading as a compliance option. This statement of support extended to both the proposed NO_x and SO_2 regulations. Market-based incentives provide facilities with the flexibility to achieve substantial and cost-effective NO_x and SO_2 reductions.

12. Northeast Utilities Generating Services by William J. Nadeau

Mr. Nadeau indicated strong support of the use of emissions trading as a feasible manner to economically reduce emissions of NO_x and SO_2 and to maintain a reliable electricity supply. Mr. Nadeau cited the NO_x RACT program, the federal Acid Rain Program, and the NO_x Budget Program as proven examples of the benefits of emissions trading.

13. Capitol District Energy Center (CDEC) by Brian O'Rourke

Mr. O'Rourke noted the strong support of CDEC for a NO_x cap-and-trade program to implement non-ozone season NO_x reductions. Such a program would achieve the environmental goal while providing operational flexibility and economic viability for CDEC.

---

[7] The members of the Clean Energy Group are Consolidated Edison, Inc., KesSpan Energy, Niagra Mohawk Power Corporation, Northeast Utilities, PG&E National Energy Group, Public Service Enterprise Group Incorporated and Sempra Energy.

14. International Brotherhood of Electrical Workers Local 420 (IBEW)

IBEW indicated strong support of the use of emissions trading as a reasonable approach to local and regional emission reductions. The use of emissions trading would achieve the environmental goal while ensuring that the power plants do not close and jobs are not lost.

H. General Comments in Opposition to the Use of Market-based Incentives in the Proposed Regulations

1. Comments of Senator Edith Prague (19th District)

As a member of the legislative Clean Air workgroup, Senator Prague indicated that she is impressed by the SO_2 emission reductions generated by the first phase of the proposed regulation. However, she is concerned by the inclusion of emissions reduction trading in the second phase of the proposed regulation. Senator Prague provided for the record in this matter an Office of Legal Research (OLR) report entitled "Pros and Cons of Air Emissions Credit Trading" (August 10, 2000).

Senator Prague, in reading from the OLR report, stated that the principal argument against trading programs is that they do not guarantee that improvements to air quality occur in the areas that are most affected by air pollution. Some of the existing trading programs, such as the federal Acid Rain Program for SO_2, allow trades over a very large region. While such programs do improve air quality in the aggregate, they do not necessarily reduce emissions at sources that make the greatest contribution to local air pollution and its resulting health problems.

Environmentalists have argued that trading programs would not guarantee that people living near such plants would experience improvements in air quality that would improve their health. Senator Prague noted that the rise of asthma is of great concern to all. In response to reliability discussion of DPUC, Senator Prague offered that most people would likely choose clean air and take minor inconveniences associated with electric system reliability in stride.

Senator Prague concluded that she is opposed to the emissions trading program set out in the second phase of the proposed regulations.

2. Clean Air Task Force/Connecticut Coalition for Clean Air (CATF/CCCA)

One set of written comments submitted on behalf of the CATF by David Marshall stated that regulatory flexibility is to be commended and encouraged if it does not sacrifice real environmental benefits. Mr. Marshall cautioned that given the amount of "excess" SO_2 allowances under the federal Acid Rain Program, proposed Section 19a will not actually reduce Connecticut SO_2 emission rates below the phase 1 level of 0.5 lb/MMBtu. CATF believes this is a serious flaw in the proposed regulations that can only be corrected by eliminating or further

restricting the use of federal SO_2 allowances for purposes of complying with the proposed regulation.

Other written comments submitted on behalf of the CCCA by Brooke Suter stated that since the inception of the CCCA, their goals have been the reduction of SO_2 by achieving an emission rate of 0.3 lbs/MMBtu on an annual, plant-by-plant basis, without the use of emissions trading by 2003 for all of Connecticut's fossil fuel power plants built prior to 1977. The CCCA remains dedicated to meeting these policy goals and opposed to the use of emissions trading as a means of meeting on-site pollution reductions.

The CCCA is opposed to emissions trading for the following reasons:

- To achieve maximum public health and environmental benefits, Connecticut's older power plants should not be allowed to meet tighter emission standards through emissions trading but should be required to meet emission rates applicable to newly built power plants; and

- The CCCA believes that since the power plants are not held to modern sulfur standards, the use of market-based incentives will allow the older power plants to emit excessive amounts of SO_2 with the associated impacts on public health and the environment.

3. Conservation Law Foundation (CLF)

The CLF stated that if the goal of the Department is to clean up older power plants to modern standards then the proposed regulations do not go far enough. The CLF recommended that the use of market-based incentives be terminated after January 1, 2003. The CLF believes that sufficient SO_2 allowances exist in the states of Massachusetts, Rhode Island, New York, and New Jersey to allow sources to comply with the proposed phase 2 SO_2 standard (0.3 lb/MMBtu) using only SO_2 DERCs and SO_2 allowances without making any further reductions on site. The CLF also stated that the proposed standards, if met without the use of SO_2 DERCs or SO_2 allowances, would serve to even the regulatory burden on old and new units competing in the newly deregulated electricity marketplace.

4. Connecticut Coalition for Environmental Justice (CCEJ)

The CCEJ expressed concern about the provisions of the proposed regulations that allow emissions trading. The CCEJ believes that if these provisions are implemented, then the full amount of local SO_2 and NO_x reductions intended by the proposed regulations will not occur. CCEJ also expressed concern over, and opposition against, any facility averaging that would allow a source to average emissions over a period longer than one month.

5. American Lung Association of Connecticut (ALA-CT)

Based on public health and environmental justice concerns, the ALA-CT is opposed to emissions trading and emissions averaging between power plants. The ALA-CT believes that all plants must be cleaned up equally and on site so as to correct any disproportionate local impact.

6. Sierra Club – Connecticut Chapter

The Sierra Club stated their understanding that the proposed regulations must contain market-based incentives due to the requirements of Executive Order No. 19. However, the Sierra Club does not believe that emissions trading should be used as a substitute for cleaning up the older power plants. The Sierra Club stated their belief that the NO_x and second phase SO_2 emission reductions will be only "paper" reductions and their preference to see real and immediate reductions at the facility level.

I. Miscellaneous Comments Opposed to the Use of Market-based Incentives

The Department received numerous written comments in the form of electronic mail (over 150 messages), petitions (six with combined signatures of over 1,100), postcards (approximately 50), form letters, and other written statements from hundreds of Connecticut residents who are strongly opposed to the use of emissions trading in the proposed regulations. The comments echo the same theme and may be summarized as follows:

- "Pollution reduction trading does no good for people or the environment, it does not take into account the health problems caused by the power plants and is a sham";
- "Any regulations that allow the power plants to avoid meeting modern air pollution standards on-site are unacceptable and fail to address the real health problems suffered by people who live nearest the power plants. The most troublesome of these localized impacts are asthma attacks, especially among school children, and premature death among the elderly";
- "Pollution credit trading is nothing more than an extension of the same loophole the proposed regulations were supposed to close";
- "I want WISVEST out of my neighborhood or in compliance with the federal Clean Air Act of 1977 now. . .no exemptions, no more delays, no exceptions and definitely no more trading to avoid coming into compliance";
- Pollution credit trading will not reduce emissions of SO_2 and NO_x;
- Fairfield County already suffers from daily rush hour automobile emissions at a level higher that the rest of the state and should not be subjected to the additional emissions of 2 power plants;
- Pollution credit trading is wrong and immoral;
- The health of local residents near the power plants should come before the bottom line of the power plants;
- Pollution credit trading is the wrong approach to achieving clean air and is backwards to the way the problem should be addressed (plants that pollute most should be cleaned up first); and
- The proposed regulations do nothing to require the power plants to clean up air quality.

The written comments express extreme distrust in the concept of emissions trading and urge the Department to require strict command-and-control emission reductions on a plant-by-plant basis.

J. Response to Comments on the Use of Market-based Incentives in the Proposed Regulations

By far, the role of market-based incentives and use of emissions trading through national, regional and local mechanisms contained in the proposed regulations generated the greatest volume of comment.

Supporters of market-based incentives point out:

- The Governor's Executive Order No. 19, which is the executive basis for the proposed regulations, specifically directs the Department to include market-based incentives in the proposed regulations;

- The Department is on record as a historical proponent of market-based incentives and emissions trading programs; and

- Most importantly, the Department's own data on the NO_x RACT and NO_x Budget programs show that emissions trading programs work and yield superior environmental benefits at reduced costs to industry and the general public; and

- NESCAUM believes that the Department's proposed regulations represent a significant achievement for public health and environmental protection in the State of Connecticut. Moreover, by addressing both the local and regional causes of air pollution in the state, the proposed regulations provide a model for other states and for Congress to consider in the ongoing efforts to achieve clean air.

The Department also received public health testimony indicating that emissions trading programs provide public health benefits by reducing background concentrations of air pollutants in the ambient air. This is due to the greater environmental benefit (i.e., early compliance and overall greater reductions in emissions than required by law) being distributed through a region based on the overcompliance of certain facilities. Regardless, some comments recognized that emissions trading programs have not adequately addressed the concerns of local communities in which the large emission sources are located and that these communities are demanding assurances that local sources will reduce emissions.

The Department's proposed regulations would provide **substantial local reductions** while also providing economic incentives for power plants to make even greater, cost-effective, emission reductions. For example, the proposed regulations:

- Are implemented in two phases. The first phase requires on-site emission reductions and the second phase seeks to use market-based incentives to achieve even greater reductions.

- In the first phase, the proposed regulations require local, on-site, emission reductions of approximately 19,000 tons of SO_2 (out of 1999 baseline emissions of 41,250 tons).

- The local emission reductions occur at the facility and may not be met through the use of pollution reduction credits.

- In addition, the first phase requires that affected sources must surrender an additional SO_2 allowance for every ton of SO_2 emitted in Connecticut — an economic incentive that adds to the cost of emitting pollution in Connecticut thereby providing an incentive to further reduce pollution levels.

- The second phase of the proposed regulation contains additional emission reduction requirements that can be met through market-based incentives. The second phase also presents the possibility of further reducing in-state emissions by another 9,000 tons and continues the requirement that affected sources must surrender an additional SO_2 allowance for every ton of SO_2 emitted in Connecticut.

- To the extent that sources in Connecticut overcontrol their emissions (below the emissions rate of 0.3 lbs/MMBtu), they will generate SO_2 DERCs that could be used to offset emissions (greater than 0.3 lbs/MMBtu but below 0.5 lbs/MMBtu) elsewhere in Connecticut. It is important to note that under current policy the Department retires 10% of created DERCs, ensuring a net environmental benefit from the use of DERCs for compliance.

- If sources use SO_2 allowances (obtained through the federal Acid Rain Program from sources in Connecticut, New York, Massachusetts, Rhode Island, New Jersey), they must retire four SO_2 allowances for every ton of excess emissions in Connecticut, while maintaining the on-site reductions implemented under the first phase of proposed Section 19a.

Some comments, particularly those of NRG/Dr. Raufer, asserted that the Department's regulatory restriction of the markets serve only to increase costs and do not ensure local health benefits. Likewise, Wisvest submitted a report entitled *From Obstacle to Opportunity: How Acid Rain Emissions Trading is Delivering Cleaner Air* (Environmental Defense, September 2000 (hereafter the ED Report)), which supports broad market-based incentives to achieve national air pollution reduction goals.

The Department's regulatory restriction of the markets may slightly increase costs. Even if the increased demand in SO_2 allowances resulting from Section 19a increases the price of SO_2 allowances, the relative size of the Connecticut market (65,000 allowances) compared to the relative size of the national market (10,000,000 allowances) will not significantly increase costs.

With respect to the assertion that the proposed regulations will not ensure a local health benefit, the Department points to the ED Report. This report concludes that the restriction of emissions trading programs may be appropriate in the context of pollutants that threaten human health or raise environmental justice concerns. The ED Report suggests a specific policy option for pollutants like SO_2, which may directly affect people within short distances of the sources and continue to threaten human health through transport and formation of secondary pollutants (i.e., sulfates). This policy option is a program "designed to impose certain emission limitation requirements on a strict source-by-source basis while requiring additional increments of reductions that may be achieved through emissions trading." ED Report, page 38. The program

described by ED in their September 2000 report is consistent with the program developed by the Department earlier this summer.

Opponents of emissions trading view it as the continuation of a perceived loophole in federal and state air pollution control requirements. Many comments received demonstrate a general belief that power plants and other large sources of air pollution have operated unregulated in Connecticut. These comments reflect a possible misunderstanding of Connecticut's air program and its long history of requiring power plants to meet emission limits that are more stringent than their federal counterparts. Current Connecticut emission standards are some of the most stringent standards in the United States, and the proposed NO_x and SO_2 standards will be the most stringent standards ever imposed on such sources. Despite this, opponents of emissions trading view it as a "pay to pollute" scheme that does not protect public health, especially in the communities in which larger sources are located. Opponents also point out that given the large number of banked SO_2 allowances in the federal Acid Rain Program, proposed Section 19a, even by implementing a four-to-one ratio, will not yield cleaner air, locally or regionally.

The comments from the opponents of the use of SO_2 allowances in the proposed Section 19a reflect a possible misunderstanding of four issues:

- "Banked" SO_2 allowances represent real emission reductions. These SO_2 allowances are part of a total federal emissions cap on SO_2 emissions, which is set at a level 50% below 1980 emission levels (representing a national reduction in SO_2 emissions from twenty million tons to ten million tons). "Banked" SO_2 allowances represent reductions in SO_2 beyond the requirements of the federal Acid Rain Program.

- Section 19a, as proposed, limits the geographic area from where such allowances may be taken for compliance within the Connecticut program. Whereas the federal acid rain program is national in scope, SO_2 allowances to be used for purposes of compliance with proposed Section 19a must originate from sources located in Connecticut, New York, New Jersey, Massachusetts or Rhode Island.

- If all Connecticut sources used ***only*** SO_2 allowances to comply with the second phase of proposed Section 19a, approximately 36,000 additional SO_2 allowances would be retired per year. This is a significant number in terms of average annual Connecticut SO_2 emissions, but this is not an inordinate burden on the availability of such allowances given that there are approximately 500,000 SO_2 allowances allocated to sources within the four affected states.

- Regardless, the use of SO_2 allowances at a four-to-one ratio is, of and by itself and in conjunction with the other requirements proposed Section 19a, a market-based incentive to reduce SO_2 emissions in Connecticut. Four SO_2 allowances have an economic value. When deciding how much to reduce SO_2 emissions in Connecticut (beyond phase 1 requirements), a source must consider the aggregate cost of the four SO_2 allowances, the phase 1 site specific emission reductions, and the additional requirement to retire two SO_2 allowances for every ton of SO_2 emitted in Connecticut. The conclusion of this analysis may be that it is more economical to meet the 0.3 lbs/MMBTU limit than to use SO_2 allowances.

K. Hearing Officers' Recommendation

The Department's proposed regulations would provide **substantial local reductions** while also providing economic incentives for sources to make even greater, cost-effective emission reductions. The Department's analysis indicates that phase 1 of proposed Section 19a will reduce local, in-state SO_2 emissions from 41,250 tons to 22,513 tons by the end of 2002. The use of market-based incentives could reduce SO_2 emissions by an additional 8,949 tons by the end of 2003.

The Department's approach is consistent with public-health-related testimony received on the proposed regulations. Specifically, background concentrations of air pollution that are too high are associated with adverse health effects and emissions trading programs help reduce background ambient concentrations of air pollutants and associated negative health impacts.

The Department's approach is also consistent with an approach suggested by Environmental Defense, a national environmental advocacy group. Environmental Defense suggests that imposing emission limitations on a strict source-by-source basis while requiring additional reductions that may be achieved through emissions trading is a considered approach to addressing pollutants like SO_2, which may directly affect people within short distances of the sources and continue to threaten human health through transport and, no less important, the formation of secondary pollutants (i.e., sulfates).

Members of industry who seek flexibility in the implementation of the proposed regulations also support the Department's approach. The choice of low-sulfur fuel, the construction and operation of control technology, facility averaging, and emissions trading using either DERCs or SO_2 allowances provide considerable flexibility. In addition, the proposed regulations, consistent with the testimony of Dr. Raufer, provide facilities with a strong incentive to reduce pollution by putting costs on every additional ton of SO_2 pollution emitted in Connecticut.

Based on the comments submitted, the Department should continue to provide flexibility in the implementation of emission standards while ensuring achievement of the on-site emission reductions required under phase 1 of proposed Section 19a. The Department should also maintain the market-based incentives contained in phase 2 of proposed Section 19a, which requires additional reductions of SO_2 beginning in 2003.

If the proposed regulations are implemented, the Department should audit the creation and use of market-based incentives to ensure that emission reductions continue to occur in the areas where the emission sources are located.

VII. Summary of Specific Comments on Proposed RCSA Section 22a-174-19a

A. General Comments

1. Comment regarding the extent SO_2 emission reductions

Comment: The Department should not implement further reductions of SO_2 emissions beyond the present limit of 1.1 lbs/MMBTU.

Commentor submitting this comment: Wisvest

Response: As stated in Part VI of this report, the Department has determined that the general benefits to public health and the environment anticipated by the proposed regulation sufficiently justify reductions of SO_2 emissions beyond 1.1 lbs/MMBTU. In addition, the reductions of SO_2 are consistent with the policy contained in the New England Governors' /Eastern Canadian Premiers' Acid Rain Action Plan of 1998.

Comment: The Department should not implement reductions of SO_2 emissions beyond the requirements of Executive Order No. 19.

Commentor submitting this comment: Pfizer

Response: As stated in Part VI of this report, the Department has determined that the general benefits to public health and the environment anticipated by the proposed regulation sufficiently justify reductions of SO_2 emissions beyond the minimum requirements of Executive Order No. 19. In addition, the SO_2 reductions are consistent with the policy contained in the New England Governors' /Eastern Canadian Premiers, Acid Rain Action Plan of 1998.

The Executive Order clearly states that it is not to be construed in any way as limiting the authority of the Department to adopt emission standards that are more stringent than those set forth within order. As stated elsewhere in this report, the inclusion of market-based incentives, which are supported by industry, allow the setting of more stringent standards such as those in the proposed regulations.

2. Comment regarding a regional approach

Comment: If the Department pursues further SO_2 reduction, the Department should implement a regional program to reduce emissions of SO_2 from large stationary sources. Such a program should reduce regional SO_2 emissions by half through a cap-and-trade system across the Ozone Transport Region.

Commentors submitting this comment: Wisvest; Pfizer; Competitive Power Coalition; The Clean Energy Group

Response: The Department should pursue the implementation of a regional program within a geographic area consistent with air quality modeling. Such a program should maintain the protection of public health as a high priority. The Acid Rain Program, a national program devised to reduce acid deposition, has demonstrated the environmental benefits of a large-scale, cap-and-trade program to reduce SO_2 emissions. Connecticut's own experience with the NO_x Budget Program has proved the efficacy and efficiency of a cap-and trade program to implement emission reductions.

B. Definitions — 22a-174-19a(a)

1. Comment regarding the definition of "early reduction credit" — (a)(6)

Comment: The definition of "early reduction credit" could be understood to mean emission reduction credit is earned through reductions made beyond the emission rate applicable to the source at the time the emission reduction is made, rather than the emission rates specified in subsection (h)(5)(B).

Commentor submitting this comment: EPA

Response: The Department should revise the definition of "early reduction credit" to read as follows:

> (a)(6) "Early reduction credit" means a reduction of SO_2 emissions during calendar years 1999, 2000, 2001, or 2002 below the most stringent SO_2 emission rate applicable to an affected unit pursuant to subsection (h)(5)(B) of this section.

2. Comment regarding the definition of "generation period" — (a)(7)

Comment: The definition of "generation period" should be revised to clarify that the generation period extends past 2002 and that a source can generate SO_2 DERCs past 2002.

Commentor submitting this comment: NRG

Response: The Department has addressed the concern raised by this comment in the definition of "early reduction credit." It is the intent of the Department to allow the creation and use of SO_2 DERCs beyond 2002 as a compliance mechanism for the second phase emission reduction requirements.

3. Comment regarding the definition of "SO_2 DERC" — (a)(10)

Comment: The definition of "SO_2 DERC" states that an SO_2 DERC will be ". . . enforceable pursuant to applicable federal requirements." SO_2 DERCs will be Connecticut-specific credits.

The federal requirements referred to and the level of federal review of SO_2 DERC generation should be clarified.

Commentor submitting this comment: Wisvest

Response: The Department does not intend to submit administrative orders concerning the creation and use of SO_2 DERCs to EPA for their review and approval absent an applicable federal requirement to do so.

In accordance with this comment, the Department should revise the definition of "SO_2 DERC" to remove the phrase, "pursuant to applicable federal requirements."

Comment: The definition of "sulfur dioxide Discrete Emission Reduction Credit" or "SO_2 DERC" does not clearly state the intent that an "early reduction credit" may be used as an SO_2 DERC under subsections (h)(1) and (h)(2) to meet an applicable emission limit under subsection (e).

The following sentence should be added as the last sentence of subsection (a)(10): "Early reduction credits meeting subsection (a)(6) can be used as SO_2 DERCs."

Commentor submitting this comment: EPA

Response: The Department should revise subsection (a)(10) by adding the additional sentence, "Early reduction credits shall qualify as SO_2 DERCs."

C. Applicability — 22a-174-19a(b)

1. Comment regarding the applicability of Section 19a to peaking units

Comment: Section 19a would apply to peaking units, which is a unit with a three-year average annual capacity factor no greater than ten percent, with the capacity factor of any one year no greater than twenty percent. Peaking units, despite their minimal emissions, are critical in times of high customer electrical demand or times of unplanned outages of large generating units.

In consideration of the minimal emissions from peaking units, the Department should revise Section 19a to exclude peaking units. This exemption would also provide another compliance option to the owners' units, by decreasing a unit's operations (and its emissions) rather than installing costly controls or purchasing high priced fuel.

Commentor submitting this comment: NRG

Response: The Department established the applicability of Section 19a to conform with the applicability criteria of the Post-2002 NO_x Budget Program. The applicability criteria are: 1) a fossil-fuel-fired stationary source that serves a generator with a nameplate capacity of fifteen

megawatts or more, and 2) a fossil-fuel-fired boiler or indirect heat exchanger with a maximum heat input capacity of 250 MMBTU or more.

The applicability criteria are based on the potential emissions from these sources, not on mass emissions attributable to the historic operations of these sources. Peaking units have low SO_2 emissions attributable to their infrequent and limited operations. However, they retain the potential to be used to a greater extent and thus to emit more SO_2.

This instance illustrates the utility of an emissions trading program in implementing emission limits on a wider group of sources, or emission limits that would otherwise be technologically or economically infeasible. Peaking units, as any other units subject to Section 19a, may use SO_2 DERCs and SO_2 allowances to comply. These SO_2 DERCs and SO_2 allowances provide an alternative and cost-effective means of compliance for peaking units. Since peaking units generally comprise a portion of a total portfolio of base load and intermediate units, the SO_2 DERCs and SO_2 allowances necessary for peaking units may be cost-effectively generated within that portfolio, avoiding many of the transactional costs attributable to emissions trading.

The Department should not revise Section 19a to exclude peaking units.

D. Sulfur Dioxide Emission Standards and Fuel Sulfur Limits Effective After December 31, 2001 — 22a-174-19a(c)

1. Comment regarding means of implementation of the first phase of SO_2 emission reductions

Comment: The Department has overlooked viable means of implementing the first phase of SO_2 emission reductions. The following two alternatives would achieve the goal of Executive Order No. 19, provide the same level of environmental benefit as Section 19a as proposed, and incorporate several relevant considerations.

Alternative #1

For each facility in a portfolio, require a thirty percent decrease in annual SO_2 emissions (in tons) from a baseline period. In addition, require the portfolio to meet an annual emission rate of 0.5 lbs/MMBTU. Allow for the use of SO_2 DERCs and SO_2 allowances to meet the 0.5 lbs/MMBTU emission rate.

This alternative would require the revision of subsection (a) to add the terms "baseline period" and "portfolio." "Baseline period" should be defined as "the two highest years of operation between and including 1997 through 1999." "Portfolio" should be defined as "a group of affected units operating under common ownership."

Alternative #2

For each facility in a portfolio, set an annual SO_2 tonnage cap based on an emission rate of 0.5 lbs/MMBTU multiplied by the facility's heat input (in MMBTU) during the baseline period. The cap could be exceeded, only in an emergency situation (such as inadequate fuel supply or loss of a base load generating unit), through the use of SO_2 DERCs and SO_2 allowances.

This alternative would require the revision of subsection (a) to add the terms "baseline period" and "portfolio" and their definitions as detailed in the summary of Alternative #1.

To incorporate these two compliance options, the Department should revise subsection (c) as follows:

(1) Meet an SO_2 emissions tonnage cap over a portfolio calculated as the emission rate of 0.5 lb/MMBTU times the heat input for the baseline period for the sources covered in the cap divided by 2000; or

(2) Meet a portfolio emission rate of 0.5 lb/MMBTU in accordance with the provisions of subsection (h) of this section, provided that each premise in the portfolio achieves an actual SO_2 tonnage reduction equal to 30% of its SO_2 emissions in the baseline period; or

(3) The provisions of paragraph (3) can be exceeded in the case of an emergency situation such as the loss of generating capacity or inadequate fuel supply.

Commentor submitting this comment: NRG

Response: The Department appreciates the concepts embodied in the alternative approaches proposed by NRG. Although these are viable options, equivalent overall reductions are not ensured by NRG's alternative approach. The Department should not adopt the alternative approaches at this time as this could significantly delay the public health and environmental protection goals embodied in the proposed regulations.

2. Comments regarding the implementation date

Comment: For the sake of clarity, subsection (c) should be revised to read: "*Beginning* December 31, 2001, ..."

Commentor submitting this comment: Connecticut Coalition for Clean Air

Response: The Department should revise subsection (c) to read: "On and after January 1, 2002, ..."

Comment: In the interest of preserving fuel diversity, subsection (c) should be revised to implement the first phase of SO_2 emission reductions in 2003 or 2005.

Commentor submitting this comment: Competitive Power Coalition

Response: The Department drafted Section 19a so that the issue of fuel diversity is ultimately left to the sources subject to Section 19a. In the first phase of SO_2 emission reductions, Section 19a does not require the use of low-sulfur fuel. Rather, the use of facility averaging and the installation and operation of post-combustion emissions controls are alternatives to the use of low-sulfur fuel.

Since the issue of fuel diversity has little to do with the implementation date of the proposed regulations, the Department should not defer or delay the implementation date of this proposed regulation.

Comment: To provide the market with more time to adjust to the significant increase in demand for low-sulfur fuel, subsection (c) should be revised to begin the implementation of the first phase of SO_2 emission reductions from July 1, 2003 to January 1, 2004.

Commentor submitting this comment: Competitive Power Coalition

Response: The previous response addresses the Competitive Power Coalition's comment.

3. Comment regarding the statement of source obligation — (c)(1)

Comment: Subsection (c)(1) currently provides that the owner or operator of an affected unit shall "combust fuel with a sulfur limit . . . ." This should be revised to read "combust fuel *or a combination of fuels* with a sulfur limit . . . ."

In addition, subsection (c)(1) should be revised to state the method by which the weighted-average fuel sulfur content of a combination of fuels is to be measured. A suggested method is to average such combinations of fuels based on the proportion of heat input into the unit.

Further, the Department should clarify that the fuel sulfur limitation in subsection (c)(1) is based on an annual average.

Commentor submitting this comment: Wisvest

Response: The intent of the proposed regulation is to ensure that all fuel combusted at a source is at, or below, the applicable fuel sulfur limit (0.5% or 0.3%). As such the Department should clarify subsection (c) as follows:

"On and after January 1, 2002 and except as provided in subsection (f) and (g) of this section, the owner or operator of an affected unit or units shall:

(1) Combust liquid fuel, gaseous fuel or a combination of each provided that each fuel possess a fuel sulfur limit of equal to or less than 0.5% sulfur, by weight (dry basis);
(2) Meet an average emission rate of equal to or less than 0.55 pounds SO_2 per MMBtu for each calendar quarter for an affected unit at a premises; or
(3) Meet an average emission rate of equal to or less than 0.5 pounds SO_2 per MMBtu calculated for each calendar quarter, if such owner or operator averages the emissions from two or more affected units at a premises."

The Department has reviewed the request that averaging times be calculated on an annual basis because Executive Order 19 requires annual emission reductions. The Department should amend the referenced averaging period within Section 19a to allow quarterly averaging. A longer averaging time will ensure that local environmental goals are met while providing additional flexibility to sources for compliance purposes.

In accordance with this comment, the Department should adopt the following definition of calendar quarter:

> "(a)(3) "Calendar quarter" means the period of January 1 through March 31, April 1 through June 30, July 1 through September 30 or October 1 through December 31."

This averaging period should be inserted throughout Section 19a.

4. Comments regarding the 0.5% fuel sulfur limit — (c)(1)

Comment: Executive Order No. 19 calls for the Department to propose regulations that "reduce annual sulfur dioxide emissions by an amount 30 to 50% greater than current commitments." The current state commitment is a fuel sulfur standard of 1%. A first-phase reduction to 0.7% fuel sulfur would represent a 30% reduction. The 0.7% standard would also more closely follow the markets for residual fuel oil, since 0.7% is a standard grade and 0.5% is not. An additional benefit would be the maintenance of fuel diversity, which is necessary for a stable and affordable supply of electricity. Subsection (c)(1) should be revised to require a fuel sulfur limit of 0.7%.

Commentor submitting this comment: Wisvest; Pfizer

Response: The Department should not revise the proposed regulation based on this recommendation. This comment has been addressed earlier in this report. See response to comment in Part VII A 1.

Comment: The emissions from new gas-fired power plants are much lower than the proposed requirements for coal-fired power plants.

In the interest of establishing a level playing for all power plants in New England, the Department should revise subsection (c) to require more stringent emission limits for coal-fired power plants.

Commentors submitting this comment: American National Power; David M. Brown; Conservation Law Foundation

Response: The Department's function is not to "level the playing field" among different units in a competitive electricity generating market. The viability of the competitive electricity generating market will be a function of the participating units employing different technology, diverse fuels, and various control technologies.

The goal of the proposed regulations is to reduce emissions of SO_2 and NO_x in a fuel neutral manner and to improve public health and the environment as a result.

The Department should not revise subsection (c) to require more stringent emission limits for coal-fired power plants.

5. Comments regarding the 0.5 lbs/MMBTU emission limit — (c)(2)

Comment: To be consistent with the suggested change to the fuel sulfur limit, subsection (c)(2) should be revised to require an emission rate of 0.7 lbs/MMBTU.

In addition, subsection (c)(2) provides that the SO_2 emission rate shall be averaged over an individual calendar month. Executive Order No. 19 requires annual reductions of SO_2. A monthly averaging period would eliminate the use of seasonal fuel switching as a compliance option. Also, a monthly averaging period would not take into consideration the lengthy maintenance outages typical of large utility plants.

Subsection (c)(2) restricts the emission averaging option to be restricted to "one or more units at a premises." In consideration of the regional scope of the effects of the resulting emissions and concurrent lack of local effects, subsection (c)(2) should be revised to provide for emissions averaging among all units under common ownership in Connecticut.

Commentor submitting this comment: Wisvest

Response: The Department has already addressed the first two portions of this comment. See response to comments 3 and 4 above.

With respect to the recommended change to (c)(2), the Department should not allow emissions averaging across all units under common ownership. The Department received testimony indicating if local health impacts from a particular air pollutant are suspected, the prudent regulatory approach is to combine strict emission limitations on a source by source basis while providing economic incentive (including emissions trading) to leverage greater emission reductions. See page 38 of the ED Report submitted into the record by Wisvest.

6. Comments regarding the averaging period for the 0.5 lbs/MMBTU emission limit — (c)(2)

Comment: Subsection (c)(2) provides that the SO_2 emission rate shall be averaged over an individual calendar month. Executive Order No. 19 requires annual reductions of SO_2. A monthly averaging period would eliminate the use of seasonal fuel switching as a compliance option. Also, a monthly averaging period would not take into consideration the lengthy maintenance outages typical of large utility plants.

Subsection (c)(2) should be revised to provide for annual averaging.

Commentors submitting this comment: Wisvest; Competitive Power Coalition

Response: The Department should not revise the proposed regulation in accordance with this recommendation. See response to comment 3 above.

Comment: The body responds to average concentrations of an air pollutant and peaks in concentrations. To better protect public health, subsection (c)(2) should be revised to provide for daily averaging.

Commentor submitting this comment: Connecticut Coalition for Environmental Justice

Response: The Department has determined that daily averaging is not practically or technically feasible. The Department has addressed the averaging issue in response to comment 3 above.

Comment: A monthly averaging period is unnecessary to yield the environmental benefits of the 0.5 lbs/MMBTU emission limit. A calendar year average allows fuel diversity and aids in maintaining a reliable electricity supply.

Subsection (c)(2) should be revised to read: "Meet an average emissions rate of equal to or less than 0.5 pounds SO_2 per MMBTU calculated over an individual calendar year for one or more affected units at a premise or for a portfolio."

Commentor submitting this comment: NRG

Response: The Department has addressed the SO_2 averaging issue in response to comment 3 above.

E. Additional Emission Reduction Requirements — 22a-174-19a(d)

1. Comments regarding the required retirement of SO_2 allowances — (d)(1)

Comment: Subsection (d)(1) requires the retirement of one SO_2 allowance, the currency of the federal Acid Rain Program, for each ton of SO_2 emitted, in addition to any requirements imposed under 40 CFR parts 72 and 73. This essentially exacts a two-for-one penalty for each ton of SO_2 emitted.

This is poor environmental policy. First, it does not establish market-based *incentives*, which are required under Executive Order No. 19, but *disincentives*. Second, since the retirement of SO_2 allowances is based on actual emissions in Connecticut, regional emissions will rise as state emissions decrease. If Sections 19a and 22 force all Acid Rain Program sources in Connecticut to cease operations, regional SO_2 emissions will revert to the current level, with no net environmental benefit.

This would also violate the federal Acid Rain Program. Under 40 CFR section 72.72(a), the following state actions violate federal law: 1) prohibitions, inconsistent with the Acid Rain Program, on the acquisition or transfer of SO_2 allowances by an Acid Rain Program source; and 2) restrictions, inconsistent with the Acid Rain Program, on a source's ability to sell or otherwise obligate its SO_2 allowances.

This limit on state authority was deemed "*necessary* to ensure that a national allowance market has an opportunity to develop" and that sources can comply with the Acid Rain Program "in the most cost-effective manner possible." See 58 Fed. Reg. 3614 (January 11, 1993) (emphasis added). The EPA recognized that an allowance market would likely fail if states had the ability to restrict the transfer of allowances. See 58 Fed. Reg. 3615.

Under this proposal, Connecticut will restrict a source's ability to effectively transfer SO_2 allowances as contemplated by the Acid Rain Program

In addition, this proposal raises issues of constitutional law. By attempting to regulate the national SO_2 allowance market, proposed Section 19a may violate the Commerce Clause of the U.S. Constitution.

Commentor submitting this comment: Wisvest

Response: Wisvest indicated that Section 19a violates the federal Acid Rain Program by prohibiting the acquisition and transfer of SO_2 allowances by an Acid Rain Program source and restricting the source's ability to sell or otherwise obligate its SO_2 allowances.

The Department disagrees with the conclusion of Wisvest. First, the Clean Air Act expressly reserves the authority of the states to regulate air emissions. See 42 U.S.C. section 7416, Retention of State Authority . Second, nothing in Title IVA of the Clean Air Act (42 U.S.C. section 7651, et seq.) expressly preempts further state regulation of Acid Rain Program sources. Third, the federal regulations that implement the Acid Rain Program state ". . . the provisions of

the acid rain program shall not be construed in any manner to preclude any State from adopting and enforcing any other air quality requirement. . . that is not less stringent than, and does not alter, any requirement applicable to an affected unit or affected source under the acid rain program. . ." Nothing in Section 19a affects the manner in which an Acid Rain Program source complies with the Acid Rain Program. Rather, the state program imposes requirements that are in addition to the Acid Rain Program requirements. The Department chose to provide flexibility to the affected sources by allowing the use of an existing tool (i.e., federal SO_2 allowances) as a compliance mechanism and market-based incentive in Sections 19a(d) and (h).

Wisvest indicated that Section 19a might violate the Commerce Clause of the United States Constitution by attempting to regulate national SO_2 markets.

Wisvest does not clearly state the impact of Section 19a on the national SO_2 markets. Presumably, Wisvest is concerned that Section 19a would somehow increase the cost of a national SO_2 allowance to such a degree that it would effectuate a restriction on interstate commerce.

The Department believes that this concern is without merit and based on a fundamental misunderstanding of the regulatory intent of the proposal. First, the regulatory program is one of general application that evenly addresses all similar sources within Connecticut. Second, Section 19a is based on a legitimate state interest to further protect the public health and environment for the benefit of all the people of Connecticut. Third, Section 19a does not benefit in-state businesses to the detriment of out-of-state businesses. Fourth, Section 19a, by imposing a higher value on the emissions of SO_2 emitted within Connecticut, do not restrict or interfere with interstate commerce. Even if the increased demand in SO_2 allowances resulting from Section 19a increases the price of SO_2 allowances, the relative size of the Connecticut market (65,000 allowances) compared to the relative size of the national market (10,000,000 allowances) cannot be deemed such an excessive burden on interstate commerce.

In support of the Department's position it should be noted that the Commerce Clause, on its face, is a grant of power to Congress and not a restriction on state regulation. This fact notwithstanding, the United States Supreme Court has consistently upheld state law, based on a legitimate state interest in protecting the health and welfare of its citizenry, that does not discriminate against interstate commerce or operate to disrupt its required uniformity. Even in cases where state laws are shown to impose a burden on interstate commerce, the Court has upheld state requirements where the burden on interstate commerce is slight and the objective of the state requirement is legitimate.

If the Department found that the federal Acid Rain Program and constitutional concerns of Wisvest were valid, Section 19a would need to be stripped of any inference or reference to federal SO_2 allowances. This would severely limit the flexibility now offered by Section 19a by restricting the use of market-based incentives solely to the generation and use of SO_2 DERCs.

In order to recognize the role of EPA in the retirement of allowances pursuant to subsection (d) of Section 19a, the Department should revise subsection (d)(1) and (d)(2) as follows:

(1) No later than the following March 1, for each calendar year commencing January 1, 2002, the owner or operator of each affected unit that is also a Title IV source shall retire one SO_2 allowance, rounded up to the next whole ton, for each ton of SO_2 emitted in the State of Connecticut. This requirement is in addition to any other requirements imposed on the owner or operator of a Title IV source by the Administrator under 40 CFR Parts 72 and 73.

(2) The owner or operator of an affected unit shall retire the necessary amount of SO_2 allowances by requesting that the Administrator transfer such allowances to the Connecticut State SO_2 Retirement Account established by the commissioner pursuant to 40 CFR 73.31 and administered by EPA under the provisions of 40 CFR Parts 72 and 73. The transfer of SO_2 allowances in accordance with the provisions of this subdivision shall occur by March 1 for emissions occurring in the previous calendar year.

Comment: The limitation of the use of SO_2 allowances will encourage a gradual deterioration in the operation of the SO_2 allowance market towards command-and-control regulation. The many environmental and economic benefits obtained through emissions trading will not be realized.

Commentor submitting this comment: The Clean Energy Group

Response: The limitation of the use of SO_2 allowances will not induce a gradual deterioration of the SO_2 allowance market; the use of SO_2 allowances will remain a compliance option as viable as the use of SO_2 DERCs, the combustion of low-sulfur fuel, and the installation of emissions controls.

Comment: Subsection (d) does not provide any market-based incentive to Acid Rain Program sources. Subsection (d) should be deleted.

Commentor submitting this comment: NRG

Response: The Department should not delete subsection (d) from Section 19a as recommended. This provision does, in fact, provided an economic incentive for sources to further reduce SO_2 emissions within Connecticut by requiring such sources to retire an additional SO_2 allowance (in addition to the SO_2 allowance surrendered to EPA under the federal Acid Rain Program) for each ton of SO_2 emitted in Connecticut. By adding additional costs to each ton of air pollution emitted in Connecticut, subsection (d) provides an economic incentive to further reduce air pollution. This requirement is also consistent with Executive Order 19, which directs the development of market based incentives for this proposed regulation.

2. Comments regarding the geographic restriction on the use of SO_2 allowances — (d)(3)

Comment: Subsection (d)(3) restricts the SO_2 allowances available for compliance with proposed subsection (d)(1) to those allocated to an Acid Rain Program source in Connecticut. Only if a sufficient quantity of these SO_2 allowances are "not available" may SO_2 allowances from Acid Rain Program sources outside Connecticut be used for compliance.

Subsection (d)(3) should be revised to allow for the use of SO_2 allowances issued to any Acid Rain Program source in the Ozone Transport Region. This would be consistent with the need for regional reductions of SO_2, and would be the first step towards a Connecticut plan with applicability to a broader region.

If this suggested change is not made, the Department should revise subsection (d)(3) to clarify the meaning of "not available."

Commentor submitting this comment: Wisvest

Response: The Department should amend the geographic restrictions on the use of SO_2 allowances in subsection (d)(3) as follows:

> (3) Any SO_2 allowance retired in accordance with the provisions of this subsection shall be an allowance originally issued by the Administrator to a Title IV source located in the state of Connecticut or in any affected state.

By amending subsection (d)(3) as described above, the definition of "not available" is no longer at issue.

The Department should consider expanding the geographical scope of emissions trading, while continuing to ensure local emission reductions in Connecticut, at such time that a regional approach to further reducing SO_2 emissions is implemented.

Comment: Should the Department not delete all of subsection (d), it should revise subsection (d)(3) to allow for the use of SO_2 allowances allocated to any Acid Rain Program source.

Subsection (d)(3) should be revised to read: "Any SO_2 allowance retired in accordance with the provisions of this subsection shall be an allowance originally allocated to a Title IV source."

Commentor submitting this comment: NRG

Response: The Department should not delete subsection (d). The Department has recommended revising subsection (d)(3) to authorize the use of allowances from Connecticut and any other affected state. See response above.

F. Sulfur Dioxide Emission Standards and Fuel Sulfur Limits Effective After December 31, 2002 — 22a-174-19a(e)

1. Comment regarding means of implementation of the second phase of SO_2 emission reductions

Comment: The Department has overlooked viable means of implementing the first phase of SO_2 emission reductions. The following two alternatives would achieve the goal of Executive Order No. 19, provide the same level of environmental benefit as Section 19a as proposed, and incorporate several relevant considerations.

Alternative #1

For each facility in a portfolio, require a fifty percent decrease in annual SO_2 emissions (in tons) from a baseline period. In addition, require the portfolio to meet an annual emission rate of 0.3 lbs/MMBTU. Allow for the use of SO_2 DERCs and SO_2 allowances to meet the 0.5 lbs/MMBTU emission rate.

This alternative would require the revision of subsection (a) to add the terms "baseline period" and "portfolio." "Baseline period" should be defined as "the two highest years of operation between and including 1997 through 1999." "Portfolio" should be defined as "a group of affected units operating under common ownership."

Alternative #2

For each facility in a portfolio, set an annual SO_2 tonnage cap based on an emission rate of 0.3 lbs/MMBTU multiplied by the facility's heat input (in MMBTU) during the baseline period. The cap could be exceeded, only in an emergency situation (such as inadequate fuel supply or loss of a base load generating unit), through the use of SO_2 DERCs and SO_2 allowances.

This alternative would require the revision of subsection (a) to add the terms "baseline period" and "portfolio" and their definitions as detailed in the summary of Alternative #1.

To incorporate these two compliance options, the Department should revise subsection (e) as follows:

(1) Meet an SO_2 emissions tonnage cap over a portfolio calculated as the emission rate of 0.3 lb/MMBTU times the heat input for the baseline period for the sources covered in the cap divided by 2000; or

(2) Meet a portfolio emission rate of 0.3 lb/MMBTU in accordance with the provisions of subsection (h) of this section, provided that each premise in the portfolio achieves an actual SO_2 tonnage reduction equal to 50% of its SO_2 emissions in the baseline period; or

(3) The provisions of paragraph (3) can be exceeded in the case of an emergency situation such as the loss of generating capacity or inadequate fuel supply.

Commentor submitting this comment: NRG

Response: The Department appreciates the concepts embodied in the alternative approaches proposed by NRG. Although these are viable options, equivalent overall reductions are not ensured by NRG's alternative approach. The Department should not adopt the alternative approaches at this time as this could significantly delay the public health and environmental protection goals embodied in the proposed regulations.

2. Comments regarding the implementation date of further SO_2 reductions

Comment: For the sake of clarity, subsection (e) should be revised to read: "*Beginning* December 31, 2002 . . . ."

Commentor submitting this comment: Connecticut Coalition for Clean Air

Response: The Department should revise subsection (e) to read: "On and after January 1, 2003, ..."

Comment: Subsection (e) proposes to implement a further phase of SO_2 reductions one year after the initial phase. To allow sufficient time for the development of a regional SO_2 cap-and-trade program, subsection (e) should be revised to establish the implementation date of the second phase as no earlier than January 1, 2005.

Commentor submitting this comment: Wisvest

Response: The Executive Order requires the implementation of emission reductions no later than May 1, 2003. The Department should not defer implementation of the emission reduction requirements past this date. While the Department would welcome regional participation in a program similar to that established in the proposed regulations, the Department cannot ensure that such a program will be developed. The Department recognizes that cap-and-trade programs are suited in instances where a pollution control program is designed to reduce regional air pollution. However in the case of SO_2, the Department is developing a hybrid approach to require reductions at both the local and regional level.

Comment: After the implementation of the first phase of SO_2 emission reductions (at a suggested 0.7% fuel sulfur limit), the Department should allow at least one full year of data gathering and evaluation before considering the second phase of SO_2 reductions.

Commentor submitting this comment: Pfizer

Response: After the implementation of the first phase of SO_2 emission reductions, the Department will continue to monitor ambient concentrations of SO_2 and sulfate particles, and evaluate the impact of such emission reductions on ambient concentrations of all pollutants of concern.

During this time, however, the Department should have the second phase of reductions prepared for implementation. The Department should not revise Section 19a to suspend the implementation of the second phase of SO_2 emission reductions pending monitoring and evaluation of ambient concentrations. As with any air pollution control program, the Department should measure the performance of the program relative to the environmental goals.

Comment: In the interest of preserving fuel diversity, subsection (e) should be revised to implement the second phase of SO_2 emission reductions in 2007 or 2010.

Commentor submitting this comment: Competitive Power Coalition

Response: As stated previously, the Department drafted proposed Section 19a so that the issue of fuel diversity is ultimately left to the sources subject to Section 19a. In the second phase of SO_2 emission reductions, just as in the first phase, Section 19a does not require the use of low-sulfur fuel. Rather, the use of SO_2 allowances, SO_2 DERCs, and the installation and operation of post-combustion emissions controls are alternatives to the use of low-sulfur fuel.

3. Comment regarding the statement of source obligation — (e)(1)

Comment: Subsection (e)(1) currently provides that the owner or operator of an affected unit shall "combust fuel with a sulfur limit . . . ." This should be revised to read "combust fuel *or a combination of fuels* with a sulfur limit . . . ."

In addition, the Department should clarify that the fuel sulfur limitation in subsection (e)(1) is based on an annual average.

Commentor submitting this comment: Wisvest

Response: The intent of the proposed regulation is to ensure that, on average, all fuel combusted at a source be below the applicable fuel sulfur limit. As such the Department should amend the proposed rule to adopt the proposed change to (e)(1).

To clarify the intent of the Department, consistent with the provisions of this comment, subsection (e)(1) should be revised to read as follows,

"Notwithstanding the provisions of subsection (b) of this section and except as provided in subsection (f) of this section, this subsection shall apply, on and after January 1, 2003, to the

owner or operator of a Title IV source that is also an affected unit or units. On and after January 1, 2003, such owner or operator shall:

(1) Combust liquid fuel, gaseous fuel or a combination of each provided that each fuel possess a fuel sulfur limit of equal to or less than 0.3 % sulfur, by weight (dry basis);
(2) Meet an average emission rate of equal to or less than 0.33 pounds SO_2 per MMBtu for each calendar quarter for an affected unit at a premises;
(3) Meet an average emission rate of equal to or less than 0.3 pounds SO_2 per MMBtu calculated for each calendar quarter, if such owner or operator averages the emissions from two or more affected units at a premises; or
(4) Meet an average emission rate equal to or less than 0.3 pounds SO_2 per MMBtu calculated for each calendar quarter in accordance with the provisions of subsection (h) of this section, provided that each affected unit or units:
   (A) Combusts liquid fuel, gaseous fuel or a combination of each provided that each fuel possess a fuel sulfur limit of equal to or less than 0.5 % sulfur, by weight (dry basis), or
   (B) Meets an actual quarterly average emission rate that does not exceed 0.55 pounds SO_2 per MMBtu."

The Department has reviewed the request that averaging times be calculated on an annual basis because Executive Order 19 requires annual emission reductions. The Department should amend the referenced averaging period within Section 19a to allow quarterly averaging. A longer averaging time will ensure that local health and environmental goals are met while providing additional flexibility to sources for compliance purposes.

4. Comments regarding the 0.3% fuel sulfur limit — (e)(1)

Comment: Executive Order No. 19 calls for the Department to propose regulations that "reduce annual sulfur dioxide emissions by an amount 30 to 50% greater than current commitments." The current state commitment is a fuel sulfur standard of 1%. A second-phase reduction to 0.5% fuel sulfur would represent a 50% reduction. This is consistent with the upper bound of reductions in Executive Order No. 19 and the agreement of the New England governors and eastern Canadian premiers to reduce regional SO_2 emissions by 50%.

In addition, other than natural gas, there is great uncertainty about the future cost and availability of fuels with a 0.3% sulfur content. A fuel sulfur limit of 0.3% may push Connecticut irretrievably towards an overdependence on a single fuel.

Commentor submitting this comment: Wisvest

Response: Executive Order No. 19 establishes minimum SO_2 emission reduction requirements of 30%, and explicitly provides that it does not restrict the Department from requiring greater emission reductions.

As discussed previously, fuel diversity is an issue ultimately left to the sources subject to Section 19a. The combustion of low-sulfur fuel is one viable option of many, including the installation

of post-combustion emissions controls, facility averaging, and the use of SO_2 allowances and SO_2 DERCs.

The Department should not revise subsection (e)(1) to require a 0.5% fuel sulfur requirement.

Comment: The emissions from new gas-fired power plants are much lower than the proposed requirements for coal-fired power plants.

In the interest of establishing a level playing for all power plants in New England, the Department should revise subsection (e) to require more stringent emission limits for coal-fired power plants.

Commentors submitting this comment: American National Power; David M. Brown; Conservation Law Foundation

Response: As discussed previously, the Department's function is not to "level the playing field" among different units in a competitive electricity generating market. The viability of the competitive electricity generating market will be a function of the participating units employing different technology, diverse fuels, and various control technologies.

The goal of the proposed regulations is to reduce emissions of SO_2 and NO_x in a fuel neutral manner and to improve public health and the environment as a result.

The Department should not revise subsection (e) to require more stringent emission limits for coal-fired power plants.

5. Comment regarding the 0.3 lbs/MMBTU emission limit — (e)(2)

Comment: To be consistent with the suggested change to the fuel sulfur limit, subsection (e)(2) should be revised to require an emission rate of 0.5 lbs/MMBTU.

In addition, subsection (e)(2) provides that the SO_2 emission rate shall be averaged over an individual calendar month. Executive Order No. 19 requires annual reductions of SO_2. A monthly averaging period would eliminate the use of seasonal fuel switching as a compliance option. Also, a monthly averaging period would not take into consideration the lengthy maintenance outages typical of large utility plants.

Commentors submitting this comment: Wisvest; Competitive Power Coalition; NRG

Response: There is no need for consistency with the recommended change in the proposed emission rate because the Department has not proposed to change such rate. With respect to the averaging period issue, the Department has addressed this concern. See response to comment 3, above.

6. Comments regarding the averaging period for the 0.5 lbs/MMBTU emission limit — (e)(2)

Comment: A monthly averaging period is unnecessary to yield the environmental benefits of the 0.3 lbs/MMBTU emission limit. A calendar year average allows fuel diversity and aids in maintaining a reliable electricity supply.

Subsection (e)(2) should be revised to read: "Meet an average emissions rate of equal to or less than 0.3 pounds SO_2 per MMBTU calculated over an individual calendar year for one or more affected units at a premise or for a portfolio."

Commentor submitting this comment: NRG

Response: With respect to the averaging period issue, the Department has addressed this concern. See response to comment 3, above.

Comment: The body responds to average concentrations of an air pollutant and peaks in concentrations. To better protect public health, subsection (e)(2) should be revised to provide for daily averaging.

Commentor submitting this comment: Connecticut Coalition for Environmental Justice

Response: The Department has proposed to adopt a quarterly averaging period. The Department anticipates that the stringency of the proposed emission rates will prevent the peak concentrations from exceeding 0.55 pounds SO_2 per MMBtu. For more information on the averaging period issue, see response to comment 3, above.

7. Comment regarding the 0.3 lbs/MMBTU emission limit — (e)(3)

Comment: To be consistent with the suggested changes to the fuel sulfur limit and average emission rate, subsection (e)(3) should be revised to reference emission rates of 0.5 lbs/MMBTU and 0.7 lbs/MMBTU.

In addition, subsection (e)(3) should be revised to provide that a source that complied with the first phase SO_2 emission reductions by combusting low-sulfur fuel may comply with subsection (e)(3) through emissions trading pursuant to subsection (h).

Commentor submitting this comment: Wisvest

Response: The Department has not proposed to change this rate.

The ability to use SO_2 allowances and SO_2 DERCs for compliance with the second phase of SO_2 emission reductions is dependent upon whether a source complied with the first phase. A means of compliance with the first phase is the combustion of low-sulfur fuel, which subsection (e)(3)

does not mention. Subsection (e)(3) is renumbered to subsection (e)(4) in accordance with an earlier comment.

The Department should revise subsection (e)(4) to read:

> Meet an average emission rate equal to or less than 0.3 pounds SO_2 per MMBtu calculated for each calendar quarter in accordance with the provisions of subsection (h) of this section, provided that each affected unit or units:
>
> (A) Combusts liquid fuel, gaseous fuel or a combination of each provided that each fuel possess a fuel sulfur limit of equal to or less than 0.5 % sulfur, by weight (dry basis), or
>
> (B) Meets an actual quarterly average emission rate that does not exceed 0.55 pounds SO2 per MMBtu.

G. Compliance Extension for Post-2002 Sulfur Dioxide Emission Standards and Fuel Sulfur Limits — 22a-174-19a(f)

1. Comment regarding the wording of the provision for extension — (f)(1)

Comment: For the sake of clarity, the phrase "a one year extension" should read "one one-year extension."

Commentor submitting this comment: Connecticut Coalition for Clean Air

Response: The Department should clarify that it intended such extension to be a single event lasting in duration up to one year.

2. Comment regarding the deadline for requesting a one-year extension — (f)(1)

Comment: Subsection (f)(1) provides that an owner of an affected unit that is also an Acid Rain Program source may request, within six months of the effective date of Section 19a, a one-year extension to comply with the requirements of subsection (e). This extension option appears to apply only to the owner of a source who decides to switch fuels to natural gas or to install emissions controls. Despite the best efforts of such an owner, unforeseen events, may preclude the source from meeting the implementation date. Possible events include delays in the delivery of equipment; permitting delays; lack of skilled workers; inability to schedule the required outage time with ISO-New England; and acts of God.

Subsection (f)(1) should be revised to provide for such instances by reading: "In the case of a delay beyond the control of the affected source's owner or operator, the owner or operator can apply to the Commissioner for an extension of the implementation date of subsection (e)

provided that the owner or operator documents that (i) the project was initiated within a timely manner, and (ii) the project has been delayed despite the best efforts of the affected unit's owner or operator."

Commentor submitting this comment: NRG

Response: The Department has reconsidered the provisions of subsection (f) and proposes to revise this subsection as follows:

(1) The commissioner may authorize an extension, to expire no later than June 1, 2003, to comply with the requirements of subsection (c) or (e) of this section upon the request of an owner or operator of an affected unit provided such request is filed with the commissioner no later than 120 days before the applicable compliance date of subsection (c) or (e) of this section.

(2) Before granting or denying a request for an extension pursuant to subdivision (1) of this subsection, the commissioner shall make a finding, after consultation with the Department of Public Utility Control, to determine whether the provisions of this section will substantially impact the reliable generation or delivery of electricity to residential, commercial and industrial users in the state. The commissioner may hold a public hearing prior to granting or denying such request for an extension.

(3) The commissioner may impose conditions and limitations by permit or order when granting a request for an extension under this subsection.

(4) Any extension authorized under subdivision (1) of this subsection shall require that the owner or operator of an affected unit, through a permit or order, comply with the requirements of subsection (c) or (e) of this subsection by reconstructing the existing affected unit, replacing the existing affected unit with a new source, or submitting to an emissions cap. The commissioner may require such emissions cap be equivalent to, or less than, the quantity of emissions that would have been emitted had the source complied with the requirements of subsection (c) or (e). Any emissions cap shall expire no later than June 1, 2003 and any reconstruction or replacement shall be completed no later than June 1, 2003.

(5) The extension provided by this subsection shall not relieve the owner or operator of an affected source of the requirements to comply with any applicable provision of this section, including subsection (d) of this section.

3. Comment regarding the finding of the DPUC — (f)(2)

Comment: Subsection (f)(2) provides that the commissioner shall grant the request for extension only upon a finding by the Department of Public Utility Control that provisions of Section 19a "will preclude the reliable delivery of electricity to residential, commercial, and industrial users in the state."

The Department should clarify whether the owner of the source has the responsibility to obtain the finding from the DPUC before filing the request, or the Department after receiving the request. In addition, the Department should clarify the form in which the finding will be issued.

Commentor submitting this comment: NRG

Response: The owner or operator of an affected unit will be required to seek such extension from the Commissioner of Environmental Protection. The Commissioner will consult with the DPUC before acting on a request for an extension pursuant to subsection (f). See the revised language in the previous response.

4. Comments regarding reconstruction or replacement — (f)(3)

Comment: Subsection (f)(3) does not provide a sufficient description of reconstruction or replacement. The Department should include a duplicate of Section 22(h) in Section 19a.

Commentor submitting this comment: NRG

Response: There is no need to duplicate the provisions of Section 22(h) in Section 19a(f). The elements of an acceptable proposal for reconstruction or replacement will be determined in accordance with applicable law.

Comment: Subsection (f)(3) proposes a deadline of June 1, 2003, for the reconstruction or replacement of a unit to comply with the emission reduction requirements of subsection (e). For consistency with the suggested revision to subsection (e) to establish the compliance date no earlier than January 1, 2005, subsection (f)(3) should be revised to establish the deadline for reconstruction or replacement as before January 1, 2005.

Commentor submitting this comment: Wisvest

Response: As stated earlier in this report, the Department is not recommending that Section 19a be revised to extend the compliance dates of subsection (c) or (e). Therefore, the Department need not revise subsection (f)(3) in accordance with this comment. For additional proposed changes to subsection (f), refer to comment 2 above.

Comment: Subsection (f)(3) provides that the owner of a source that wishes to reconstruct or replace the source must complete the reconstruction or replacement by June 1, 2003. Assuming the owner files an application for reconstruction or replacement as soon as possible — the effective date of revised Section 19a — he still may not be able to complete reconstruction or replacement by June 1, 2003, given the time involved in permit application review, draft permit issuance, draft permit review, public hearing, and construction.

The Department should revise subsection (f)(3) to provide that the date by which reconstruction or replacement must be completed will be as negotiated with the commissioner. The last sentence of subsection (f)(3) should read: "Such reconstruction or replacement shall be completed no later than the date specified in the order or permit for the reconstruction or replacement of the affected unit."

Commentor submitting this comment: NRG

Response: The Department should not amend subsection (f)(3) in accordance with this recommendation. The time frame established in subsection (f)(3) provides an adequate margin of time to complete a reconstruction or replacement project if the owner or operator commits to such action upon the adoption of Section 19a.

H. Fuel Emergencies — 22a-174-19a(g)

1. Comments regarding the suspension of low-sulfur fuel requirements — (g)(1)

Comment: Low-sulfur fuel encompasses low-sulfur oil and natural gas, and the users of such low-sulfur fuels include residential, commercial, industrial users. Accordingly, the last sentence of subsection (g)(1) should read: ". . . the availability of fuel that complies with such requirements is inadequate to meet the needs of residential, commercial, and/or industrial users in this state and that such inadequate supply constitutes an emergency."

Commentor submitting this comment: NRG

Response: The Department should amend subsection (g)(1) as follows:

"The commissioner may suspend the requirements of subsection (c)(1) or (e)(1) of this section for the owner or operator of any affected unit using a low sulfur fuel. Such suspension shall be made only when the commissioner finds that the availability of fuel that complies with such requirements is inadequate to meet the needs of residential, commercial and industrial users in this state and that such inadequate supply constitutes an emergency."

Comment: The provision in subsection (g) for the suspension of the fuel sulfur limit provides excessive flexibility and should be deleted. If not, then the Department should require that all emissions attributable to the suspension be offset by the retirement of SO_2 DERCs or SO_2 allowances under subsection (h).

Commentor submitting this comment: Clean Air Task Force

Response: The Department believes that subsection (g) provides adequate flexibility in the event of a fuel emergency. The provisions of subsection (g) mirror the provisions of C.G.S. section 16a-21a. Since its adoption, C.G.S. section 16a-21a has been used once, in February 2000, to

provide a thirty-six-hour suspension when supplies of compliant 0.3% low-sulfur residential heating oil were not available.

In addition, subsection (g)(3) requires the owner or operator of an affected unit to calculate the amount of excess SO_2 emissions attributable to any limited suspension of the fuel sulfur standard. If excess emissions exceed fifty tons, the Department is authorized to require such excess emissions be offset through the emission trading provisions of subsection (h) of this section.

To clarify the intent of the Department and in response to this comment, subsection (g)(3) should be revised as follows:

"No later than thirty days after the termination of any suspension of fuel sulfur limits made pursuant to this subsection, the owner or operator of an affected unit or units shall report to the commissioner in writing the amount of SO_2 emissions in excess of those that would have occurred had the use of compliant fuel at the affected source not been interrupted. If such excess SO_2 emissions from any premises exceed fifty tons, the commissioner may require that the owner or operator of such affected unit or units offset such SO_2 emissions through the use of emission reduction trading in accordance with the provisions of subsection (h) of this section."

Comment: The provision in subsection (g) for the suspension of the fuel sulfur limit should be further restricted. Subsection (g) should require that the owner of a source that requests a suspension prove the lack of availability of low-sulfur fuel on a weekly basis. In addition, subsection (g) should provide that if the lack of availability is projected to last longer than one month, the owner subject to the suspension must prepare a plan, subject to public review, of how the facility will meet the standard as expeditiously as possible.

Commentor submitting this comment: Connecticut Coalition for Clean Air

Response: Refer to the response above for a discussion the restriction of the fuel emergencies provision within Section 19a. The Department should revise (g)(3) to address the averaging time concern consistent with the Department's response in Part VII.D.3 of this report.

I. Emissions Reduction Trading — 22a-174-19a(h)

1. Comment regarding the referenced emission rate and averaging period — (h)(1)

Comment: Consistent with prior suggested revisions regarding annual emissions averaging and the fuel sulfur limit and SO_2 emission limit after December 31, 2001, the reference to monthly average emission rate should be changed to a calendar year average and the reference to 0.5 lbs/MMBTU should be changed to "0.7 lbs/MMBTU."

Commentor submitting this comment: Wisvest

Response: The Department should not revise the proposed regulation as recommended by this comment. Please refer to earlier responses in this report that address the issue of applicable emission rates and averaging periods.

2. Comment regarding the referenced average emission rate — (h)(1)

Comment: Consistent with prior suggested revisions regarding annual emissions averaging, the last sentence of subsection (h)(1) should read: ". . . provided that the *calendar year* average emission rate for the affected unit or units at a premises does not exceed 0.5 pounds SO_2 per MMBTU."

Commentor submitting this comment: NRG

Response: The Department should not revise the proposed regulation as recommended by this comment. Please refer to earlier responses in this report that address the issue of averaging periods. In accordance with an earlier comment, a cross-reference contained in subsection (h)(1) should be revised from (e)(3) to (e)(4).

3. Comments regarding the geographic restriction on and trading ratio of SO_2 allowances — (h)(2)

Comment: Subsection (h)(2) should be revised to provide for the use of SO_2 allowances from any source within the Ozone Transport Region. Such use would be consistent with a regional program of SO_2 emission reductions.

In addition, the trading ratio of SO_2 allowances should be changed from four-to-one to two-to-one. This is consistent with the prior suggested revision to the fuel sulfur limit and emissions limit in subsection (e) to 0.5% and 0.5 lbs/MMBTU respectively.

Commentors submitting this comment: Wisvest; Competitive Power Coalition; CRRA; CBIA

Response: At such time that a regional program is implemented to further limit SO_2 emissions consistent with the approach set forth in the proposed regulations, the Department should consider extending the region from which the use of SO_2 allowances would be authorized and also consider changing the trading ratio set forth in subsection (h). At this time, however, the proposed regulation embodies a state program only. As such, the Department should neither extend the geographic region nor reduce the trading ratio as recommended by this comment.

Comment: Subsection (h)(2) would impose an increased financial burden on in-state generating sources, while improvement in Connecticut's air quality is uncertain. Rather than implement subsection (h)(2), the Department should explore regional or national strategies for reducing SO_2 emissions.

Commentor submitting this comment: The Clean Energy Group

Response: The Department does not believe that subsection (h)(2) imposes an unreasonable financial burden on in-state generating sources. Any potential increased cost is a possible indication of the value of an SO_2 DERC. As such, this provision provides further market-based incentives for in-state emission reductions throughout the second phase of Section 19a.

The Department should continue to explore and seek to develop a regional approach to SO_2 reductions similar to the very successful regional NO_x control programs. Reducing upwind emissions will assist in reducing background concentrations of primary and secondary pollutants thereby further protecting public health and the environment within Connecticut. In addition, the Department should ensure that participation in a regional program preserves the emission reductions achieved by the first phase of Section 19a.

Comment: There will be no environmental difference between an SO_2 DERC generated within Connecticut and an SO_2 allowance allocated by the Administrator.

Accordingly, the last sentence of subsection (h)(2) should be revised to read: "In the alternative, an owner or operator may retire *one (1) SO_2 allowance* for each ton or part thereof of SO_2 emitted in excess of the applicable emissions limitation in subsection (e)."

Commentor submitting this comment: NRG

Response: The generation and use of SO_2 DERCs are more beneficial to Connecticut's air quality than the use of SO_2 allowances. An SO_2 DERC represents excess emission reductions in Connecticut, while an SO_2 allowance represents an emission reduction anywhere in the United States. An additional benefit of SO_2 DERCs is the retirement of ten percent of the DERCs upon their creation, which ensures a net environmental benefit. There are no such retirement provisions applicable to SO_2 allowances.

The Department should not revise subsection (h)(2) to alter the SO_2 allowance use ratio to 1:1. In accordance with an earlier comment, two cross-references contained in subsection (h)(2) should be revised from (e)(3) to (e)(4).

4. Comment regarding the requirement to use SO_2 allowances allocated to Connecticut sources first — (h)(4)

Comment: Subsection (h)(4) provides that, if a source uses SO_2 allowances for compliance, it must first use SO_2 allowances allocated to Connecticut sources. The Department should consider this requirement in relation to the number of SO_2 allowances Acid Rain Program sources must use for compliance with Title IV, the two-for-one retirement requirement in subsection (d), and the potential availability of SO_2 DERCs.

The availability of SO_2 DERCs is unknown, and the availability of SO_2 allowances will be severely limited if the Department requires the additional retirement of SO_2 allowances under subsection (d). This will require Connecticut sources to purchase SO_2 allowances from surrounding states, and inflate SO_2 allowance prices. Sources in surrounding states will realize a financial windfall from the sale of SO_2 allowances to Connecticut sources and the ability to purchase needed SO_2 allowances at prices lower than the sale price to Connecticut sources.

To avoid this problem, the Department should delete subsection (h)(4).

Commentor submitting this comment: NRG

Response: The Department should revise subsection (h)(4) to allow the use of SO_2 allowances from Connecticut or any affected state. Given that the highest possible demand for SO_2 allowances for compliance with the second phase of SO_2 emission reductions is a maximum of 36,000 tons, the available pool of SO_2 allowances in the affected states (approximately 121,000) would be sufficient to meet the increased demand. Given the amount of available allowances, the increased demand should not significantly affect market prices for SO_2 allowances in the short term.

The Department should amend subsection (h)(4) as follows:

> (4) The owner or operator of any affected facility using SO_2 allowances as a means of compliance with the provisions of this subsection and subsection (e)(4) of this section shall ensure that such allowances were originally issued by the Administrator to a Title IV source located in the state of Connecticut or in any affected state.

This language also contains a correction to the internal cross-reference from (e)(3) to (e)(4).

5. Comment regarding the definition of the phrase "not available" — (h)(4)

Comment: Subsection (d)(3) should be revised to clarify the meaning of "not available."

Commentor submitting this comment: Wisvest

Response: This comment is addressed earlier in this report.

6. Comments regarding SO_2 DERC generation and use — (h)(5)

Comment: Subsection (h)(5) briefly discusses the generation and use of SO_2 DERCs, which may be used for compliance with the emission limits in subsection (e). However, subsection (h)(5) does not provide sufficient detail of the generation and use processes. For example, subsection (h)(5) does not specify whether generation is based on hourly, daily, monthly, or annual SO_2 emission rate or emissions. Currently, NO_x DERCs are generated and used through trading agreements and orders, which are based on policy, not regulation.

The Department should revise subsection (h)(5) to provide the detail of SO_2 DERC generation and use, or commit to adopting a separate regulation.

Commentor submitting this comment: NRG

Response: The Department established the current trading agreement and order process in 1995 to implement its NO_x RACT program in 1995. The Department developed the process as a temporary compliance measure, unsure of the need for and benefits of emissions trading. Its experience over the past five years has verified the ability of emissions trading to produce a superior environmental and economic result. The current trading agreement and order system, though resource intensive, has successfully supplied the emissions trading system. However, the Department recognizes the benefits to establishing the keystone principles and procedures of emissions trading into a regulation.

The Department should pursue the development and adoption of an emission reduction credit generation regulation. However, the adoption of this regulation is not necessary for the implementation of the proposed regulations and the Department will not commit to a date certain by which such a regulation will be adopted.

The Department should clarify the intent of subsection (h)(5)(A) as follows:

> "(A) Real, quantifiable, surplus, permanent and enforceable; and"

Comment: The requirements applicable to the generation of early reduction credits are identical to the generation of SO_2 DERCs after 2002.

Consistent with suggested revisions to subsections (a)(6) and (a)(10) above, subsection (h)(5) should be revised to more clearly state how an affected unit may generate SO_2 DERCs. Subsection (h)(5) should read: "The owner or operator of any affected unit that reduces SO_2 *that meets the following* may request that the commissioner approve such reductions *as SO_2 DERCs* in writing by permit or order provided that such reductions are:"

Commentor submitting this comment: EPA

Response: The Department should revise subsection (h)(5) in accordance with this comment.

7. Comment regarding the generation of SO_2 DERCs past 2002 — (h)(6)

Comment: Section 19a should be revised to strengthen the market-based incentives that encourage sources to reduce emissions beyond those required. New subsection (h)(6) should be added to allow the generation of SO_2 DERCs beyond 2002.

Commentor submitting this comment: NRG

Response: The Department intended that the creation and use of SO_2 DERCs be an ongoing compliance option for the emission reduction requirement set forth in subsection (e) of Section 19a. The Department should make appropriate revisions to the definition of "early reduction credit" and "SO_2 DERC" to ensure that this intent is carried through into the body of the proposed regulation.

J. Record Keeping — 22a-174-19a(i)

1. Comment regarding the exemption of certain fuels from record keeping requirements — (i)(3)

Comment: Subsection (i)(3) proposes to exempt distillate oil, motor vehicle fuel, aircraft fuel, or gaseous fuel with sulfur contents below 0.3% from record keeping requirements. Subsection (i)(3) should be revised to provide that this exemption is not applicable to an owner or operator of a source that combusted such fuels in combination with other fuels having sulfur contents above 0.3%.

Commentor submitting this comment: Wisvest

Response: The Department should revise subsection (i)(3) in accordance with this recommendation as follows:

> The owner or operator of an affected unit shall keep the records specified above at the premises for a period of five years. Such records need not be maintained for distillate oil, motor vehicle fuel, aircraft fuel, or gaseous fuel, provided that such fuels have a sulfur content below 0.3% by weight (dry basis) and are the only fuels combusted at the affected unit. This exemption shall not apply when such fuels are combusted in combination with other fuels having sulfur contents above 0.3% by weight (dry basis).

K. Reporting Requirements — 22a-174-19a(j)

1. Comments regarding the reporting requirements under an annual average — (j)(1) and (2)

Comment: Should the Department revise proposed Section 19a to require an annual average rather than a monthly average, subsections (j)(1) and (2) should be revised to change the references to monthly SO_2 emissions, fuel sulfur content, and emission rate to annual SO_2 emissions, fuel sulfur content, and emission rate, respectively.

Commentor submitting this comment: Wisvest

Response: The Department should revise subsection (j)(1) and (2) to reflect quarterly averaging. This is consistent with previous recommendations by the Department in response to several comments addressed earlier in Part VII.D.3. of this report.

Comment: Should the Department revise proposed Section 19a to require an annual average rather than a monthly average, the last sentence of both subsections (j)(1) and (2) should be revised to read: "Such certification shall include actual *calendar year* SO_2 emissions in tons and either average monthly fuel sulfur content or *calendar year* emission rate, whichever is applicable, for each affected unit."

Commentor submitting this comment: NRG

Response: See response above.

Comment: Should the Department revise Section 19a to implement a portfolio tonnage cap under subsections (c) and (e), the following paragraph should be added to establish the reporting requirements:

> The owner or operator of an affected unit for which the commissioner has issued a final Title V permit shall, as part of any compliance certification pursuant to section 22a-174-33(q)(2) of the Regulations of Connecticut State Agencies, certify in writing to the commissioner compliance with the applicable provisions of this section. Such certification shall include actual calendar year SO_2 emissions in tons for the affected units at the site, total SO_2 emissions in tons for all affected units in the portfolio, and total SO_2 emissions in tons allowed under the portfolio's emission cap. The owner or operator of an affected unit for which the commissioner has not issued a final Title V permit shall certify in writing to the commissioner compliance with the applicable provisions of this section on or before March 1 of each year for the previous calendar year. Such certification shall include actual calendar year SO_2 emissions in tons for the affected units at the site, total SO_2 emissions in tons for all affected units in the portfolio, and total SO_2 emissions in tons allowed under the portfolio's emission cap.

Commentor submitting this comment: NRG

Response: Since the proposed revision on which this comment is based has not been adopted in this report, the Department should not further revise Section 19a based on this comment.

Comment: Should the Department revise Section 19a to implement a portfolio average emission rate under subsections (c) and (e), the following paragraph should be added to establish the reporting requirements:

> The owner or operator of an affected unit for which the commissioner has issued a final Title V permit shall, as part of any compliance certification pursuant to section 22a-174-33(q)(2) of the Regulations of Connecticut State Agencies, certify in writing to the commissioner compliance with the applicable provisions of this section. Such certification shall include actual calendar year SO_2

emissions in tons for the affected units at the site, total SO_2 emissions in tons for all affected units in the portfolio, and calendar year average SO_2 emission rate for the portfolio. The owner or operator of an affected unit for which the commissioner has not issued a final Title V permit shall certify in writing to the commissioner compliance with the applicable provisions of this section on or before March 1 of each year for the previous calendar year. Such certification shall include actual calendar year SO_2 emissions in tons for the affected units at the site, total SO_2 emissions in tons for all affected units in the portfolio, and calendar year average SO_2 emission rate for the portfolio.

Commentor submitting this comment: NRG

Response: Since the proposed revision on which this comment is based has not been adopted in this report, the Department should not further revise Section 19a based on this comment.

VIII. Summary of Specific Comments on Proposed RCSA Section 22a-174-22

A. General Comments

1. Comment regarding the justification of non-ozone season NO_x reductions

Comment: The Department should not implement a non-ozone season NO_x emission limit. The reductions attributable to the implementation of such a limit are not scientifically justified, either in the context of the protection of public health or of nitrogen deposition to Long Island Sound. The Department should assess the possible benefit to public health or Long Island Sound before implementing a non-ozone season NO_x limit.

Commentor submitting this comment: Pfizer

Response: As stated in Part VI of this report, the Department has determined that the general benefits to public health and the environment anticipated by the proposed regulation sufficiently justify non-ozone season NO_x limits. In addition, the reductions are consistent with the policy agreed upon as part of the New England Governors/Eastern Canadian Premiers Acid Rain Action Plan of 1998.

2. Comment regarding a regional approach

Comment: The Department should pursue the implementation of non-ozone season NO_x reductions regionally, most beneficially across the twenty-two-state NO_x SIP Call region. Such reductions should be accomplished through a cap-and-trade system implementing an emissions budget parallel to the ozone season budget. Emissions trading from the ozone season to the non-ozone season budget should be permitted.

Commentors submitting this comment: Wisvest; Pfizer; Capitol District Energy Center; Competitive Power Coalition; The Clean Energy Group

Response: The Department should pursue the implementation of a regional, non-ozone season budget through a cap-and-trade system. The Ozone Transport Assessment Group process, which served as a foundation of the NO_x SIP Call, demonstrated the environmental benefits of a regional program of NO_x reductions. Connecticut's own experience has proved the efficacy and efficiency of a cap-and-trade program to implement those reductions. Any issue of inter-season emissions trading will need to be addressed concurrently with the development of a non-ozone season emissions cap.

B. Definitions — 22a-174-22(a)

1. Comment regarding the definition of "NO_x Budget Program source" — (a)(12)

Comment: The definition of "NO_x Budget Program source" should be revised to exclude a source that is exempted from the Post-2002 NO_x Budget Program under RCSA section 22a-174-22b(d). (Section 22b(d) provides that a source that obtains a federally enforceable permit limiting its emissions of NO_x to twenty-five tons or less from May through September is exempt from section 22b(d).)

Commentor submitting this comment: Wisvest

Response: The Department views the obligations under Section 22 and Section 22b (the Post-2002 NO_x Budget Program) as distinct. Accordingly, Section 22 defines the sources subject to the non-ozone season NO_x reduction requirements by stating the key applicability criteria of Section 22b. Therefore, the exemption of sources provided in Section 22b does not apply to sources subject to Section 22.

The Department should not revise Section 22 to exclude a source that is exempted from the Post-2002 NO_x Budget Program under Section 22b(d).

C. Applicability — 22a-174-22(b)

1. Comment regarding the applicability of Section 22 to municipal waste combustors — (b)(1)

Comment: Executive Order No. 19 is not applicable to municipal waste combustors (MWCs). The Department has established emission limitations for NO_x and other pollutants for MWCs in RCSA section 22a-174-38. Accordingly, references to MWCs in Section 22 are confusing.

The Department should remove references to MWCs from subsections (e)(2)(B), (C), and (D) by adding the following language to each: "For any waste combustors not subject to section 22a-174-38, but subject to the requirements of . . . ."

Commentor submitting this comment: CRRA

Response: It is true that neither Executive Order No. 19 nor the proposed revisions to Section 22 address MWCs. It is also true that Section 38 implements NO_x emission limits for MWCs more stringent than existing Section 22. The Department's aim in proposing revisions to Section 22 is the implementation of non-ozone season emission limits on units other than MWCs.

The Department should defer consideration of this comment until such time that Section 22 is further revised.

D. General Requirements — 22a-174-22(d)

1. Comment regarding the statement of source obligations from October 1 through April 30 — (d)(2)

Comment: The statement of source obligations from October 1 through April 30 should be clarified to read "During the period from October 1, 2003 through April 30, 2004, and during the period from October 1 through April 30 each year thereafter . . . ."

Commentor submitting this comment: Wisvest

Response: The Department should revise subsection (d)(2) as recommended.

2. Comment regarding the effective date of the 0.15 lbs/MMBTU standard — (d)(2)

Comment: The implementation of the 0.15 lbs/MMBTU standard beginning October 1, 2003, will require the conversion from coal and oil to natural gas. The potential ramifications of the reliance on a single fuel, including higher electricity prices and blackouts, have prompted ISO-New England and other industry organizations to commission studies to assess the full impact. In the interest of fuel diversity, subsection (d)(2) should be revised to set a compliance date of 2007.

Commentor submitting this comment: Competitive Power Coalition

Response: The Department established the October 1, 2003, compliance date to complement the implementation of the Post-2002 NO_x Budget Program, which begins on May 1, 2003. The Post-2002 NO_x Budget Program will implement a NO_x budget in Connecticut in conjunction with the EPA's NO_x SIP Call. This budget is set in units of tons of NO_x, but is roughly based on an emission rate of 0.15 lbs/MMBTU. A key component of the Post-2002 NO_x Budget Program

and the NO_x SIP Call is the ability to acquire NO_x allowances from other participating sources. This ability to trade NO_x allowances is a supplement to the traditional means of limiting emissions of combustion control, fuel switching, and the installation of emissions controls.

The Department has similarly established the non-ozone season emission limit. Although the proposed revisions do not establish a non-ozone season budget (this is recommended — see the response to Commentors Wisvest; Pfizer; Capitol District Energy Center; Competitive Power Coalition above), they do provide for cost-effective and flexible NO_x DERC and NO_x allowance trading for compliance. Emissions trading is just as critical a component of the non-ozone season emission limit as of the Post-2002 NO_x Budget Program. As a compliance alternative, emissions trading negates the necessity of fuel switching from coal and oil to natural gas.

The Department's implementation of the NO_x Budget Program in 1999 has demonstrated the efficacy of a cap-and-trade program in reducing NO_x emission rates and mass emissions. From May through September 1990, NO_x Budget Program sources emitted 11,130 tons of NO_x with an average emission rate of 0.365 lbs/MMBTU. From May through September 1999, NO_x Budget Program sources emitted 5,830 tons of NO_x with an average emission rate of 0.163 lbs/MMBTU.

The Department should not revise subsection (d)(2) to require a compliance date of 2007.

3. Comment regarding means of compliance with the 0.15 lbs/MMBTU standard — (d)(2)

Comment: The Department has overlooked viable means of compliance with the 0.15 lbs/MMBTU non-ozone season standard. The following three alternatives would achieve the goal of Executive Order No. 19, provide the same level of environmental benefit as Section 22 as proposed, and incorporate several relevant considerations.

Alternative #1

For each facility in a portfolio, set an annual NO_x tonnage cap based on an emission rate of 0.15 lbs/MMBTU multiplied by the facility's heat input (in MMBTU) during the baseline period. The cap could be exceeded, only in an emergency situation (such as inadequate fuel supply or loss of a base load generating unit), through the use of NO_x DERCs and NO_x allowances.
This alternative would require the revision of subsection (a) to add the terms "baseline period" and "portfolio." "Baseline period" should be defined as "the two highest years of operation between and including 1997 through 1999." "Portfolio" should be defined as "a group of affected units operating under common ownership."

Alternative #2

For each facility in a portfolio, require a twenty-five percent decrease in annual NO_x emissions (in tons) from a baseline period. In addition, require the portfolio to meet a non-ozone season emission rate of 0.15 lbs/MMBTU, averaged over the non-ozone season. Allow for the use of NO_x DERCs and NO_x allowances to meet the non-ozone season emission rate.

This alternative would require the revision of subsection (a) to add the terms "baseline period" and "portfolio" and their definitions as detailed in the summary of Alternative #1.

Alternative #3

Allow sources to limit operations to meet the non-ozone season emission limit of 0.15 lbs/MMBTU. Subsection (d)(1)(E) and subsection (i) provide that a source may modify its schedule of operations to comply with the ozone season emission limit, if that source can prove that compliance with the ozone season emission limit is technologically or economically infeasible. However, Section 22 explicitly prohibits schedule modification as a means of compliance with the non-ozone season emission limit.

This alternative would require the deletion of " . . . except the emission limitation in subsection (i)(1) of this section . . . ." It would also require the addition of new subparagraph (i)(2)(C): " NO_x Budget Program sources during the non-ozone season only."

To incorporate these three options, the Department should revise subsection (d)(2) as follows:

(D) Meet a NO_x emissions tonnage cap over a portfolio calculated as the emission rate of 0.15 lb/MMBTU times the heat input for the baseline period for the sources covered in the cap divided by 2000; or

(E) Meet a portfolio emission rate of 0.15 lb/MMBTU in accordance with the provisions of subsection (e)(3) of this section, provided that each premise in the portfolio achieves an actual NO_x tonnage reduction equal to 25% of its NO_x emissions in the baseline period; or

(F) Modify the schedule of operation at the source, pursuant to subsection (I) of this section, in accordance with an order issued by the Commissioner.

(G) The provisions of paragraph (D) can be exceeded in the case of an emergency situation.

Commentor submitting this comment: NRG

Response: The Department has consistently demonstrated a commitment to achieving environmental objectives while providing sources maximum operational flexibility. This commitment is reflected in the implementation of the non-ozone season emission limit through Section 22. Sources may meet the emission limit by making combustion modifications, switching fuels, or installing post-combustion controls. In addition, sources may retire NO_x DERCs from the NO_x RACT program and NO_x allowances from the NO_x Budget Program for compliance. These provisions create the basis and opportunity for the implementation of a non-ozone season NO_x budget, as recommended in this hearing report.

NRG's proposal would revise this system from the implementation of a uniform emission limit with universal compliance options to the implementation of a source-by-source cap. This would

diverge from the consistent development from NO_x RACT to a non-ozone season cap-and-trade system.

Proposed Section 22 is a further development of the regulatory system established with NO_x RACT. This system meets or exceeds established environmental objectives while providing sources considerable operational flexibility. The result is cleaner air at a lower economic cost. To deviate from the development of this system to a more individualized system of source caps would delay the ultimate implementation of a uniform non-ozone season cap-and-trade program. The Department should not revise Section 22 to incorporate the suggested alternatives.

4. Comment regarding the use of NO_x DERCs and NO_x allowances for compliance — (d)(3)

Comment: Subsection (d)(3) currently provides that the owner or operator of a source may use NO_x DERCs and NO_x allowances for compliance. Subsection (d)(3) should be revised to be consistent with subsection (j)(1), which provides that NO_x DERCs, NO_x allowances, or a combination of both, may be used for compliance.

Commentor submitting this comment: Wisvest

Response: The Department should revise subsection (d)(3) to read "may use NO_x DERCs or NO_x allowances or both, pursuant to subsection (j) of this section . . . ."

5. Comment regarding the submission to the Administrator of a permit or order providing for the use of NO_x DERCs and NO_x allowances for compliance — (d)(3)

Comment: Subsection (d)(3) currently provides that the Commissioner shall submit a permit or order that provides for the use of NO_x allowances and NO_x DERCs for compliance to the EPA Administrator for approval. The approval process for such permits and orders is lengthy, and may not be necessary for non-ozone season emissions trading.

Commentor submitting this comment: Wisvest

Response: It is necessary to obtain the approval of the Administrator of a permit or order providing for emissions trading for compliance with NO_x RACT, but not with an emission limit more stringent than NO_x RACT.

Since the approval of the Administrator is unnecessary for a permit or order providing for emissions trading for compliance with the non-ozone season limit, the Department should revise the last sentence of subsection (d)(3) to read: "The commissioner shall submit a permit or order providing for the use of NO_x DERCs and NO_x allowances to achieve all or a portion of the reductions required under this section, except the emission limitation in subsection (e)(3) of this

section, to the Administrator for approval in accordance with the provision of 42 U.S.C. sections 7401-7671q."

E. Emission Limitations — 22a-174-22(e)

1. Comment regarding the applicability of the 0.15 lbs/MMBtu emission limit to peaking units — (e)(3)

Comment: The proposed 0.15 lbs/MMBtu non-ozone emission limit in subsection (e)(3) would apply to peaking units, which is a unit with a three-year average annual capacity factor no greater than ten percent, with the capacity factor of any one year to no greater than twenty percent. Peaking units, despite their minimal emissions, are critical in times of high customer electrical demand or times of unplanned outages of large generating units.

In consideration of the minimal emissions from peaking units, the Department should revise Section 22 to exclude peaking units. The following should be added: "Subsection (e)(3) of this section shall not apply to the owner or operator of a source if the source meets the definition of a peaking unit. If the source exceeds the annual standards for a peaking unit then, the source shall be subject to subsection (e)(3), if applicable starting October 1 of the following year."

Commentor submitting this comment: NRG

Response: The Department established the applicability of the non-ozone season emission limit to conform with the applicability criteria of the Post-2002 NO_x Budget Program. The applicability criteria are: 1) a fossil-fuel-fired stationary source that serves a generator with a nameplate capacity of fifteen megawatts or more, and 2) a fossil-fuel-fired boiler or indirect heat exchanger with a maximum heat input capacity of 250 MMBTU or more.

The applicability criteria are based on the potential NO_x emissions from these sources, not on mass emissions attributable to the historic operations of these sources. Peaking units may have low annual NO_x emissions attributable to their infrequent and limited operations. However, they retain the potential to be used to a greater extent and thus emit more NO_x.

This instance illustrates the utility of an emissions trading program in implementing emission limits on a wider group of sources, or emission limits that would otherwise be technologically or economically infeasible. Peaking units, as any other units subject to the non-ozone season emission limit, may use NO_x DERCs and NO_x allowances to comply. These NO_x DERCs and NO_x allowances provide an alternative and cost-effective means of compliance for peaking units. Since peaking units generally comprise a portion of a total portfolio of base load and intermediate units, the NO_x DERCs and NO_x allowances necessary for peaking units may be cost-effectively generated within that portfolio, avoiding many of the transactional costs attributable to emissions trading.

The Department should not revise Section 22 to exclude peaking units from the non-ozone season emission limit.

2. Comment regarding the applicability of the 0.15 lbs/MMBTU emission limit to low-usage research and development facilities — (e)(3)

Comment: The proposed 0.15 lbs/MMBTU non-ozone emission limit in subsection (e)(3) would apply to research and development facilities with low total NO_x emissions.

In consideration of the minimal emissions from these units, the Department should revise Section 22 to exclude low-usage research and development facilities. The Department should define a low-usage research and development facility in subsection (a) as "a unit that has a three-year average annual capacity factor no greater than ten percent, with no one year in the three-year period greater than twenty percent that is used primarily for research and development. In addition, the following provision should be added: "Subsection (e)(3) of this section shall not apply to the owner or operator of a source if the source meets the definition of a "low-usage research and development facility." If the source exceeds the annual standards for a "low-usage research and development facility" then, the source shall be subject to subsection (e)(3), if applicable starting October 1 of the following year."

Commentor submitting this comment: P&W

Response: The Department established the applicability of the non-ozone season emission limit to confirm with the applicability criteria of the Post-2002 NO_x Budget Program. The applicability criteria are: 1) a fossil-fuel-fired stationary source that serves a generator with a nameplate capacity of fifteen megawatts or more, and 2) a fossil-fuel-fired boiler or indirect heat exchanger with a maximum heat input capacity of 250 MMBTU or more.

The applicability criteria are based on the potential NO_x emissions from these sources, not on mass emissions attributable to the historic operations of these sources. Low-usage research and development facilities have low NO_x emissions attributable to their infrequent and limited operations, but they retain the potential to be used to a greater extent and thus emit more NO_x.

This instance illustrates the utility of an emissions trading program in implementing emission limits on a wider group of sources, or emission limits that would otherwise be technologically or economically infeasible. Low-usage research and development facilities, as any other units subject to the non-ozone season emission limit, may use NO_x DERCs and NO_x allowances to comply. These NO_x DERCs and NO_x allowances provide an alternative and cost-effective means of compliance for these units.

The Department should not revise Section 22 to exclude low-usage research and development facilities from the non-ozone season emission limit.

3. Comment regarding the applicability of the 0.15 lbs/MMBtu emission limit to fast response double furnace naval boilers — (e)(3)

Comment: The proposed 0.15 lbs/MMBtu non-ozone emission limit in subsection (e)(3) would apply to fast response double furnace naval boilers.

In consideration of the technological infeasibility of fast response double furnace naval boilers to meet an emission rate of 0.15 lbs/MMBtu, the Department should revise Section 22 to exclude these units. The following provision should be added: "Subsection (e)(3) of this section shall not apply to the owner or operator of a source that is a fast response double furnace naval boiler."

Commentor submitting this comment: P&W

Response: Please see the response to Commentor P&W above.

4. **Comment regarding the applicability of the 0.15 lbs/MMBtu emission limit to municipal waste combustors — (e)(3)**

Comment: In December 2000, municipal waste combustors (MWCs) must comply with annual emission standards for NO_x and other pollutants, as promulgated in RCSA section 22a-174-38. The emissions limits for NO_x represent the current Maximum Achievable Control Technology for MWCs.

The Department should clarify, either in Section 22 or in the public record, that the non-ozone season NO_x emission limit does not apply to MWCs subject RCSA section 22a-174-38.

Commentor submitting this comment: BRRFOC

Response: As indicated earlier in this report, the proposed revisions do not apply to MWCs subject to RCSA section 22a-174-38.

5. **Comment regarding the 0.15 lbs/MMBtu emission limit in relation to the New Source Performance Standards — (e)(3)**

Comment: The proposed NO_x limit of 0.15 lbs/MMBTU penalizes existing industrial boilers by requiring the control of emissions equivalent to the federal New Source Performance Standard (NSPS) for electric utility boilers. The 0.15 lbs/MMBTU limit is significantly more stringent than the NSPS for industrial boilers, which is 0.20 lbs/MMBTU. The EPA recognizes that a higher NO_x limit for industrial boilers is justified in consideration of the load fluctuations inherent in industrial operations and the associated difficulty of controlling NO_x emissions.

Section 22 should be revised to establish the non-ozone season NO_x emission limit as the NSPS applicable to the source category to which a particular source belongs.

Commentor submitting this comment: Pfizer

Response: The Department recognizes the stringency of the proposed non-ozone season limitation in relation to the existing NSPS applicable to industrial boilers. This is but one of many justifications for the incorporation of emissions trading into Section 22.

One of the many cited benefits of emissions trading is that it allows the limitation of emissions to a greater degree than would be possible using traditional source-by-source regulation. In this context, emissions trading allows for the implementation of an emission limitation which certain units cannot technologically or economically achieve through combustion controls.

The key to the implementation of such an emission limitation is an ample opportunity to acquire emission reductions for compliance from other sources. Under Section 22, there will be ample opportunity. Many sources — of varied type, size, age, and level of control — will be able to reduce emissions and generate NO_x DERCs.

Ample opportunity to acquire emission reductions is ensured by allowing the use of NO_x allowances for compliance. Beginning in 2003, NO_x allowances from sources in as many as twenty-two states, also of varied type, size, age, and level of control, will be available. The availability of a large number of sources of NO_x DERCs and NO_x allowances will also act to keep the price of NO_x DERCs and NO_x allowances reasonable.

The Department should not revise Section 22 even though the 0.15 lbs/MMBTU emission limit is more stringent than the applicable NSPS or industrial boilers.

6. Comment regarding the 0.15 lbs/MMBTU emission limit in relation to the Lowest Achievable Emission Rate — (e)(3)

Comment: The proposed 0.15 lbs/MMBTU non-ozone emission limit in subsection (e)(3) could be more stringent than the current Lowest Achievable Emission Rate (LAER) for a source as established through a source-specific permit determination. This would force the use of emissions trading and increase the operating costs of a unit that already meets the lowest possible emission rate.

The Department should revise Section 22 to exclude sources that are subject to LAER. The following should be added: "Subsection (e)(3) of this section shall not apply to the owner or operator of a source if the source meets the Lowest Achievable Emission Rate (LAER) for the source. If the LAER standard for the source changes to a lower rate then the source shall be subject to subsection (e)(3), if applicable, starting October 1 of the following year."

Commentors submitting this comment: NRG; P&W

Response: The Department recognizes the stringency of the proposed non-ozone season limitation in relation to the current LAER standards. This is but one of many justifications for the incorporation of emissions trading into Section 22.
One of the many cited benefits of emissions trading is that it allows the limitation of emissions to a greater degree than would be possible using traditional source-by-source regulation. In this context, it allows for the implementation of an emission limitation which certain units cannot technologically achieve through combustion controls. The key to the implementation of such an emission limitation is an ample opportunity to acquire emission reductions for compliance from other sources. Under Section 22, there will be ample opportunity. Many sources — of varied

type, size, age, and level of control — will be able to reduce emissions and generate NO_x DERCs.

Opportunity is ensured by allowing the use of NO_x allowances for compliance. Beginning in 2003, NO_x allowances from sources in as many as twenty-two states — also of varied type, size, age, and level of control — will be available. The large number of sources of NO_x DERCs and NO_x allowances will also act to keep the price of NO_x DERCs and NO_x allowances reasonable.

The Department should not revise Section 22 to provide that the non-ozone season NO_x emission limit shall apply to a source subject to a LAER standard more stringent than 0.15 lbs/MMBTU.

7. Comment regarding the stringency of the 0.15 lbs/MMBTU emission limit — (e)(3)

Comment: The emissions from new gas-fired power plants are much lower than the proposed requirements for coal-fired power plants.

In the interest of establishing a level playing field for all power plants in New England, the Department should revise subsection (e)(3) to require more stringent emission limits for coal-fired power plants.

Commentors submitting this comment: American National Power; David M. Brown
Response: As stated earlier in this report, the Department's function is not to "level the playing field" among different units in a competitive electricity generating market. The viability of the competitive electricity generating market will be a function of the participating units employing different technology, diverse fuels, and various control technologies.

The goal of the proposed regulations is to reduce emissions of SO_2 and NO_x in a fuel neutral manner and to improve public health and the environment as a result.

The Department should not revise subsection (e)(3) to require more stringent NO_x emission limits for coal-fired power plants.

F. Reconstruction and Replacement — 22a-174-22(h)

1. Comment regarding the deadline for reconstruction or replacement — (h)(1)

Comment: Subsection (h)(1) provides that the owner of a source that wishes to reconstruct or replace the source must complete the reconstruction or replacement by June 1, 2003. Assuming the owner files an application for reconstruction or replacement as soon as possible — the effective date of revised Section 22 — he still may not be able to complete reconstruction or replacement by June 1, 2003, given the time involved in permit application review, draft permit issuance, draft permit review, public hearing, and construction.

The Department should revise subsection (h)(1) to provide that the date by which reconstruction or replacement must be completed will be as negotiated with the commissioner. The last sentence of subsection (h)(1) should read: "Such reconstruction or replacement shall be completed no later than the date specified in the order or permit for the reconstruction or replacement of the affected unit."

Commentor submitting this comment: NRG

Response: Subsection (h) was originally drafted to provide the owner of a source who could not technologically or economically comply with NO_x RACT to reconstruct or replace the source. Subsection (h)(1) provided a four-year extension, to May 31, 1999, for the construction or replacement in accordance with a permit issued by the Commissioner.

The date for compliance with the non-ozone season emission limit is October 1, 2003. As proposed, revised subsection (h)(1) sets a deadline for reconstruction or replacement of June 1, 2003, *earlier* than the compliance date — a result incongruous with the original intent of subsection (h).

Since subsection (h) no longer fulfills its original purpose, the Department should delete subsection (h) in its entirety. This will not foreclose reconstruction or replacement as an option to meet the non-ozone season limit.

In accordance with this recommendation, the Department should renumber the following subsections and change cross-reference accordingly. In addition, the Department should delete subsection (d)(1)(D), which references the reconstruction and replacement provisions in subsection (h).

G. Schedule Modification — 22a-174-22(i)

1. Comment regarding the use of schedule modification as a compliance option for the non-ozone season emission limit — (i)(1)

Comment: Subsection (d)(1)(E) and subsection (i) provide that a source may modify its schedule of operations to comply with the ozone season emission limit, if that source can prove that compliance with the ozone season emission limit is technologically or economically infeasible. However, Section 22 explicitly prohibits schedule modification as a means of compliance with the non-ozone season emission limit.

The Department should revise subsection (i)(1) to allow sources to limit operations to meet the non-ozone season emission limit of 0.15 lbs/MMBTU by deleting " . . . except the emission limitation in subsection (i)(1) of this section . . . ."

Commentor submitting this comment: P&W

Response: Schedule modification during the ozone season is provided to allow sources to cease operations on days on which air quality is forecasted to be unhealthful. The non-ozone season NO_x limit is proposed not to reduce ozone concentrations, but to reduce total nitrogen loading. Therefore, schedule modification is not an appropriate compliance option.

2. **Comment regarding the use of schedule modification by fuel burning equipment used in training operations to comply with Section 22 emission limits — (i)(2)**

Comment: The Department of the Navy operates a 900 kilowatt emergency diesel engine at the Naval Submarine Base in New London. This engine is used exclusively for the purpose of training Navy personnel in the operation of emergency generators as installed on submarines. This engine does not generate electricity and typically does not operate under a load. As a result, this engine does not significantly impact the environment, emitting on average only 1.15 tons of NO_x per year.

The options for compliance with Section 22 include the installation of emission controls, reconstruction or replacement, and emissions trading. Since this unit must simulate the emergency generators aboard submarines, the installation of emission controls, reconstruction, and replacement are not viable options. The Navy currently uses emissions trading for compliance under a trading order and agreement, the drafting and implementation of which consumes large amounts of time and resources.

Currently, subsection (i)(2) allows two types of units, units that create simulated high-altitude atmospheres for the testing of aircraft engines and units undergoing research and development, to comply with Section 22 by modifying their schedule of operations. The Department should revise subsection (i)(2) to allow fuel burning equipment used in training operations to modify their schedule of operations to comply with Section 22.

Commentor submitting this comment: Department of the Navy

Response: Schedule modification is a viable compliance option for an ozone season NO_x emission limit when a source has limited compliance alternatives and the environmental impact of allowing schedule modification is minimal.

In this instance, the Department of the Navy operates a small (900-kilowatt) emergency diesel engine with a sole, critical purpose: the training of Navy personnel in the operation of emergency generators as installed on submarines. Since the engine must simulate the emergency engines installed on submarines, reconstruction and replacement are not viable options. The installation of controls on such a small unit that operates sporadically, does not generate electricity and typically does not operate under a load would be technologically and economically infeasible. The only compliance option is emissions trading.

This engine emits on average only 1.15 tons of NO_x per year. Schedule modification would have minimal environmental impact, and may in fact have a more beneficial environmental impact.

Schedule modification would prohibit the engine from operating when it would have the greatest negative impact on air quality: the days when air quality is forecasted to be "moderate" or a worse classification. Prohibiting the engine's operation on these days could have a more beneficial environmental impact than requiring the use of emissions trading.

The Department should add new subsection (i)(2)(C) to read: "Combustion-ignition reciprocating engines used exclusively for the training of personnel in the operation and maintenance of such engines aboard submarines."

H. Emissions Reduction Trading — 22a-174-22(j)

1. Comment regarding the detail of NO_x DERC generation and use — (j)(3)

Comment: Subsection (j)(3) briefly discusses the generation and use of NO_x DERCs, which may be used for compliance with the ozone season and non-ozone season emission limits. However, subsection (j)(3) does not provide sufficient detail of the generation and use processes. Currently, NO_x DERCs are generated and used through trading agreements and orders, which are based on policy, not regulation.

The Department should revise subsection (j)(3) to provide the detail of NO_x DERC generation and use, or commit to adopting a separate regulation.

Commentor submitting this comment: NRG
Response: The Department established the current trading agreement and order process in 1995 to implement its NO_x RACT program in 1995. The Department developed the process as a temporary compliance measure, unsure of the need for and benefits of emissions reduction trading. Its experience over the past five years has verified the ability of emissions reduction trading to produce a superior environmental and economic result. The current trading agreement and order system, though resource intensive, has successfully supplied the emissions reduction trading system. However, the Department recognizes the benefits to establishing the keystone principles and procedures of emissions reduction trading into a regulation.

The Department should pursue the development and adoption of an emissions reduction credit generation regulation. However, the Department cannot and should not commit to a date certain by which such a regulation will be adopted.

Comment: Subsection (j) has been revised to provide for the use of NO_x allowances to meet the emission limits in subsection (e). Both section 22a-174-22a of the RCSA, the NO_x Budget Program, and section 22a-174-22b of the RCSA, the Post-2002 NO_x Budget Program, have restrictions on the use of NO_x allowances to meet the emission limits in subsection (e). See Sections 22a(f)(4) and 22b(i)(5).

These requirements should be specifically acknowledged in Section 22 itself. The following sentence should be added as the last sentence of subsection (j)(3): "The use of NO_x allowances

pursuant to this subsection shall also be consistent with the requirements in subsection (f)(4) of 22a-174-22a, 'The Nitrogen Oxides (NO_x) Budget Program' and subsection (i)(5) of 22a-174-22b, 'The Post-2002 Nitrogen Oxides (NO_x) Budget Program.'"

Commentor submitting this comment: EPA

Response: The Department should add the following sentence as the last sentence of subsection (j)(3): "The use of NO_x allowances pursuant to this subsection shall also be consistent with the provisions of section 22a-174-22a(f)(4) and section 22a-174-22b(i)(5) of the Regulations of Connecticut State Agencies."

I. Emissions Testing and Monitoring — 22a-174-22(k)

1. Comment regarding the averaging time of the non-ozone season NO_x limit — (k)(5)

Comment: Subsection (k)(5) establishes the averaging time for any emission limit in Section 22 as twenty-four hours for any source with a continuous emissions monitoring system (CEMS) for NO_x. Unlike the ozone season, there is no concern in the non-ozone season with NO_x emission spikes and the resulting increase in ozone concentrations.

The Department should provide for seasonal averaging during the non-ozone season. This would maintain the environmental benefit of the 0.15 lbs/MMBTU limit, provide additional operational flexibility to sources, and simplify the NO_x DERC generation and use calculations. The following sentence should be added as the final sentence of subsection (k)(5): "For sources required to comply with the emission standard of subsection (e)(3), the averaging time for the emission limit shall be from October 1 through April 30."

Commentor submitting this comment: NRG

Response: The prime concern during the non-ozone season is the total emissions of NO_x. Averaging the 0.15 lbs/MMBTU emission limit across the non-ozone season will not impair the limit's environmental benefit. This conclusion is consistent with the recommendation above to implement the non-ozone season emission limit through a NO_x emissions budget, as the ozone season NO_x limit is implemented. The resulting increase in operational flexibility and decrease in complexity of NO_x DERC generation and use calculations are welcome coincident benefits.

This averaging period will establish a regulatory system very similar to that of the ozone season NO_x budget: the concurrent application of the 0.15 lbs/MMBTU emission limit with a seasonal averaging period, and an applicable NO_x RACT emission limit with a 24-hour averaging period. NO_x DERC and NO_x allowance trading are available for compliance with both emission limits.

The Department should revise subsection (k)(5) to read:

(5) Unless otherwise specified by the commissioner in a permit or order, the averaging times for the following emission limitations shall be applicable to a source that has or is required to have a continuous emissions monitor for NO_x:

(A) For the emissions limitation in subsection (e)(3), the period from October 1 through April 30, including all periods of operation, including startup, shutdown, and malfunction; and

(B) For any other emission limitation contained in this section, twenty-four (24) hours, measured from midnight at the beginning of any day to midnight of the end of that day, including all periods of operation, including startup, shutdown, and malfunction.

Comment: For enforceability of the emission limit in subsection (e)(3), the Department must specify an averaging time, such as daily, weekly, or monthly.

Commentor submitting this comment: EPA

Response: See the response to Commentor NRG above.

2. Comment concerning alternate monitoring methods — (k)(6)

Comment: Subsection (k)(6) provides that a source may use alternate monitoring methods to demonstrate compliance with an emission limit. The Department should provide specific criteria by which alternate monitoring methods will be evaluated.

Commentor submitting this comment: EPA

Response: In the interest of not restricting the alternate methods available, the Department should not revise (k)(6) to provide specific criteria by which alternate monitoring methods will be evaluated.

J. Emissions Testing and Monitoring — 22a-174-22(k)

1. Comment concerning compliance plans — (m)(3)

Comment: Subsection (m)(3) provides that, notwithstanding subsection (m)(1), a NO_x Budget Program source subject to a revised emission standard shall not be required to submit a compliance plan unless the Commissioner requires.

The Department should revise Section 22 to explain where information provided by a compliance plan would be found.

Commentor submitting this comment: EPA

Response: Section 22 requires the submittal of compliance plans as part of the implementation of NO_x RACT. The Department required the submittal of compliance plans by September 1, 1994, well before the implementation date of May 31, 1995, to ensure that sources would be able to comply with NO_x RACT upon its implementation.

The implementation of the non-ozone season limit in subsection (e)(3) is an entirely different situation. The non-ozone emission limit will be implemented on October 1, 2003, well after the implementation of NO_x RACT, the first great reduction in NO_x emission rates. It will also be implemented after the implementation of two phases of the NO_x Budget Program, on May 1, 1999 and May 1, 2003. In short, the implementation of the non-ozone season limit is less onerous than the implementation of NO_x RACT. It is a continuation of the implementation of the ozone season limit, and there is sufficient flexibility in compliance to not require Departmental oversight of the intended means of compliance.

The Department should not revise Section 22 to explain where information provided by a compliance plan would be found. These documents are public records unless otherwise protected by state FOI provisions.

IX. Additional Comments of the Hearing Officers

The Department should make the following technical corrections to the proposed regulations:

A. Section 19a

1. Subsection (a)

Add new subsection (a)(3) to define "average emissions rate" as follows:

"Average emissions rate" means a determination of the rate of SO_2 emissions, measured in pounds of SO_2 per MMBtu, in any calendar quarter from either a single affected unit or from two or more affected units. Average emissions rate for a single unit is calculated by dividing the total quarterly SO_2 emissions, in pounds, from such unit by the total quarterly heat input, in MMBtu, for such unit. Average emissions rate for two or more units is calculated by dividing the total quarterly SO_2 emissions, in pounds, from all such units by the total quarterly heat input, in MMBtu, for all such units.

2. Subsection (h)

Amend subsection (h)(1) to delete the phrase ", provided that the average emission rate for the affected unit or units at a premises does not exceed 0.55 pounds SO2 per MMBtu in each calendar quarter."

3. Subsection (i)

Amend subsection (i)(1)(B) to read: *"If fuel with sulfur content above any applicable limit is blended at the premises for combustion in an affected unit or units, the owner or operator shall make and keep daily records demonstrating that all fuel combusted at the affected unit or units meets the applicable fuel sulfur limits of subsection (c)(1) or (e)(1) of this section. Fuel sulfur analysis shall be conducted in accordance with the American Society for Testing and Material (ASTM) test method D4294 and automatic sampling equipment shall conform to ASTM test method D4177-82."*

Amend subsection (i)(2) to read: *"The owner or operator of an affected unit who demonstrates compliance with this section by meeting the average SO_2 emission rate limits of subsections (c)(2), (c)(3), (e)(2), (e)(3) or (e)(4) of this section shall make and keep records in accordance with the following:"*

4. Subsection (j)

Amend subsection (j)(2) as follows: *"The owner or operator of an affected unit for which the commissioner has not issued a final Title V permit shall certify in writing to the commissioner that such owner or operator is in compliance with the applicable provisions of this section on or before March 1 of each year for the previous calendar year. Such certification shall include actual quarterly SO_2 emissions in tons and either average quarterly fuel sulfur content or average quarterly emission rate, whichever is applicable, for each affected unit.*

B. Section 22

1. Subsection (b)

Amend subsection (b)(2) to read: *"Subsections (d) through (k), inclusive, of this section . . . ."*

2. Subsection (d)

Amend subsection (d)(1)(E) to read: *"File a permit application to modify the schedule . . . ."*

3. Subsection (j)

Amend subsection (j)(2) to read: *"Such owner or operator shall retire one (1) NO_x DERC or one (1) NO_x allowance for each ton of NOx emitted in excess of the applicable emission limitation in subsection (e) of this section, as calculated pursuant to a permit or order issued by the commissioner."*

4. Subsection (k)

In subsection (k)(1), delete the phrase "other than a NO_x Budget Program source."

Delete proposed subsection (k)(2), and renumber the following subdivisions accordingly.

In renumbered subsection (k)(5), delete the phrase "subsection (j)(1) of this section" and replace it with the phrase "subdivision (1) of this subsection."

5. Subsection (m)

Amend subsection (m)(4) to read: "*. . . the owner or operator of a NO_x Budget Program source who is subject to a revised emission standard shall not be required to submit a revised compliance plan unless . . . .*"

X. Final Wording of the Proposed Regulations

A. The Regulations of Connecticut State Agencies are amended by adding a new section 22a-174-19a as follows:

(NEW)

Sec. 22a-174-19a. Control of Sulfur Dioxide Emissions from Power Plants and Other Large Stationary Sources of Air Pollution.

(a) Definitions. For purposes of this section:

(1) "Affected state" has the same meaning as the term "affected states" in Regulations of Connecticut State Agencies section 22a-174-33(a)(3).

(2) "Affected unit" means any emissions unit subject to the provisions of Regulations of Connecticut State Agencies section 22a-174-22b, the Post-2002 Nitrogen Oxides Budget Program.

(3) "Average emissions rate" means a determination of the rate of SO_2 emissions, measured in pounds of SO_2 per MMBtu, in any calendar quarter from either a single affected unit or from two or more affected units. Average emissions rate for a single unit is calculated by dividing the total quarterly SO_2 emissions, in pounds, from such unit by the total quarterly heat input, in MMBtu, for such unit. Average emissions rate for two or more units is calculated by dividing the total quarterly SO_2 emissions, in pounds, from all such units by the total quarterly heat input, in MMBtu, for all such units.

(4) "Calendar quarter" means the period of January 1 through March 31, April 1 through June 30, July 1 through September 30 or October 1 through December 31.

(5) "Connecticut State SO_2 Retirement Account" means a general allowance tracking system account established by the commissioner under 40 CFR 73.31 for the purpose of permanently holding SO_2 allowances retired by the owners or operators of affected units in accordance with the provisions of subsection (d) of this section.

(6) "Continuous emissions monitoring system" or "CEMS" means any equipment used to sample, analyze and measure SO_2 emissions to provide a permanent record of such emissions expressed in pounds per MMBtu.

(7) "Emissions unit" has the same meaning as in Regulations of Connecticut State Agencies section 22a-174-33(a)(7).

(8) "Early reduction credit" means a reduction of SO_2 during calendar years 1999, 2000, 2001 or 2002 below the most stringent SO_2 emission rate applicable to an affected unit pursuant to subsection (h)(5)(B) of this section.

(9) "Generation period" means the period of time during which reductions in emissions of an air pollutant are implemented.

(10) "Retire" or "retirement" when referring to SO_2 allowances, means the permanent withdrawal of SO_2 allowances by the Administrator from any allowance tracking system account to the Connecticut SO_2 Allowance Retirement Account in an amount equal to the number of tons of SO_2 emitted by each affected unit."

(11) "Sulfur dioxide" or "SO_2" means a gas that at standard conditions has the molecular form SO_2.

(12) "Sulfur dioxide Discrete Emission Reduction Credit" or "SO_2 DERC" means the reduction of one ton of sulfur dioxide at a stationary source during the generation period, which the commissioner has certified in writing as real, quantifiable, surplus, permanent, and enforceable. Early reduction credits shall qualify as SO_2 DERCs.

(13) "Title IV SO_2 allowance" or "SO_2 allowance" means an authorization allocated to a Title IV source by the Administrator, pursuant to Title IV of the federal Clean Air Act (42 USC section 7651d, et seq.) and 40 CFR Parts 72 and 73, to emit up to one ton of SO_2 during or after a specified calendar year.

(14) "Title IV source" means an affected unit that is also subject to Phase II of the acid rain control requirements set forth in Title IV of the federal Clean Air Act (42 USC section 7651d, et seq.).

(b) Applicability. This section shall apply to the owner or operator of any affected unit.

(c) Sulfur dioxide emission standards and fuel sulfur limits effective on and after January 1, 2002. On and after January 1, 2002 and except as provided in subsection (f) of this section, the owner or operator of an affected unit or units shall:

(1) Combust liquid fuel, gaseous fuel or a combination of each provided that each fuel possess a fuel sulfur limit of equal to or less than 0.5 % sulfur, by weight (dry basis);

(2) Meet an average emission rate of equal to or less than 0.55 pounds SO_2 per MMBtu for each calendar quarter for an affected unit at a premises; or

(3) Meet an average emission rate of equal to or less than 0.5 pounds SO_2 per MMBtu calculated for each calendar quarter, if such owner or operator averages the emissions from two or more affected units at a premises.

(d) Additional Emission Reduction Requirements.

(1) No later than the following March 1, for each calendar year commencing January 1, 2002, the owner or operator of each affected unit that is also a Title IV source shall retire one SO_2 allowance, rounded up to the next whole ton, for each ton of SO_2 emitted in the State of Connecticut. This requirement is in addition to any other requirements imposed on the owner or operator of a Title IV source by the Administrator under 40 CFR Parts 72 and 73.

(2) The owner or operator of an affected unit shall retire the necessary amount of SO_2 allowances by requesting that the Administrator transfer such allowances to the Connecticut State SO_2 Retirement Account established by the commissioner pursuant to 40 CFR 73.31 and administered by EPA under the provisions of 40 CFR Parts 72 and 73. The transfer of SO_2 allowances in accordance with the provisions of this subdivision shall occur by March 1 for emissions occurring in the previous calendar year.

(3) Any SO_2 allowance retired in accordance with the provisions of this subsection shall be an allowance originally issued by the Administrator to a Title IV source located in the state of Connecticut or in any affected state.

(e) Sulfur dioxide emission standards and fuel sulfur limits effective on and after January 1, 2003. Notwithstanding the provisions of subsection (b) of this section and except as provided in subsection (f) of this section, this subsection shall apply, on and after January 1, 2003, to the owner or operator of a Title IV source that is also an affected unit or units. On and after January 1, 2003, such owner or operator shall:

(1) Combust liquid fuel, gaseous fuel or a combination of each provided that each fuel possess a fuel sulfur limit of equal to or less than 0.3 % sulfur, by weight (dry basis);

(2) Meet an average emission rate of equal to or less than 0.33 pounds SO_2 per MMBtu for each calendar quarter for an affected unit at a premises;

(3) Meet an average emission rate of equal to or less than 0.3 pounds SO_2 per MMBtu calculated for each calendar quarter, if such owner or operator averages the emissions from two or more affected units at a premises; or

(4) Meet an average emission rate equal to or less than 0.3 pounds SO_2 per MMBtu calculated for each calendar quarter in accordance with the provisions of subsection (h) of this section, provided that each affected unit or units:

(A) Combusts liquid fuel, gaseous fuel or a combination of each provided that each fuel possess a fuel sulfur limit of

equal to or less than 0.5 % sulfur, by weight (dry basis), or

(B) Meets an actual quarterly average emission rate that does not exceed 0.55 pounds SO_2 per MMBtu.

(f) Compliance extension for sulfur dioxide emission standards and fuel sulfur limits.

(1) The commissioner may authorize an extension, to expire no later than June 1, 2003, to comply with the requirements of subsection (c) or (e) of this section upon the request of an owner or operator of an affected unit provided such request is filed with the commissioner no later than 120 days before the applicable compliance date of subsection (c) or (e) of this section.

(2) Before granting or denying a request for an extension pursuant to subdivision (1) of this subsection, the commissioner shall make a finding, after consultation with the Department of Public Utility Control, to determine whether the provisions of this section will substantially impact the reliable generation or delivery of electricity to residential, commercial and industrial users in the state. The commissioner may hold a public hearing prior to granting or denying such request for an extension.

(3) The commissioner may impose conditions and limitations by permit or order when granting a request for an extension under this subsection.

(4) Any extension authorized under subdivision (1) of this subsection shall require that the owner or operator of an affected unit, through a permit or order, comply with the requirements of subsection (c) or (e) of this subsection by reconstructing the existing affected unit, replacing the existing affected unit with a new source, or submitting to an emissions cap. The commissioner may require such emissions cap be equivalent to, or less than, the quantity of emissions that would have been emitted had the source complied with the requirements of subsection (c) or (e). Any emissions cap shall expire no later than June 1, 2003 and any reconstruction or replacement shall be completed no later than June 1, 2003.

(5) The extension provided by this subsection shall not relieve the owner or operator of an affected source of the requirements to comply with any applicable provision of this section, including subsection (d) of this section.

(g) Fuel Emergencies.

(1) The commissioner may suspend the requirements of subsection (c)(1) or (e)(1) of this section for the owner or operator of any affected unit using a low-sulfur fuel. Such suspension shall be made only when the commissioner finds that the availability of fuel that complies with such requirements is inadequate to meet the needs of residential, commercial and industrial users in this state and that such inadequate supply constitutes an emergency.

(2) The commissioner shall specify in writing the period of time for which the suspension described in subdivision (1) of this subsection shall be in effect.

(3) No later than thirty days after the termination of any suspension of fuel sulfur limits made pursuant to this subsection, the owner or operator of an affected unit or units shall report to the commissioner in writing the amount of SO_2 emissions in excess of those that would have occurred had the use of compliant fuel at the affected source not been interrupted. If such excess SO_2 emissions from any premises exceed fifty tons, the commissioner may require that the owner or operator of such affected unit or units offset such SO_2 emissions through the use of emission reduction trading in accordance with the provisions of subsection (h) of this section.

(h) Emissions reduction trading.

(1) The owner or operator of an affected unit may use SO_2 DERCs or SO_2 allowances to comply with the applicable emission limitations set forth in subsection (e)(4) of this section pursuant to a permit or order issued by the commissioner.

(2) Such owner or operator shall retire one (1) SO_2 DERC for each ton or part thereof of SO_2 emitted in excess of the applicable emission limitation in subsection (e)(4) of this section. In the alternative, an owner or operator may retire four (4) SO_2 allowances for each ton or part thereof of SO_2 emitted in excess of the applicable emission limitation in subsection (e)(4) of this section.

(3) Any creation or use of SO_2 DERCs for the purpose of this subsection shall be consistent with the provisions of 40 CFR 51, Subpart U and the U.S. Environmental Protection Agency's "Emission Trading Policy Statement," published December 4, 1986 (Federal Register, Volume 51, page 43814).

(4) The owner or operator of any affected facility using SO_2 allowances as a means of compliance with the provisions of this subsection and subsection (e)(4) of this section shall ensure that such allowances were originally issued by the Administrator to a Title IV source located in the state of Connecticut or in any affected state.

(5) The owner or operator of any affected unit that reduces SO_2 emissions for the purpose of generating early reduction credits or SO_2 DERCs may request that the commissioner approve such early reductions in writing by permit or order provided that such reductions are:

(A) Real, quantifiable, surplus, permanent and enforceable; and

(B) Based on an emissions rate that is the most stringent of:

(i) 0.3 pounds SO_2 per MMBtu, or

(ii) permitted allowable emissions of the affected unit.

(i) Record keeping.

(1) The owner or operator of an affected unit who demonstrates compliance with this section by meeting the applicable fuel sulfur limits of subsections (c)(1) or (e)(1) of this section shall make and keep records in accordance with the following:

(A) If fuel with sulfur content not exceeding an applicable fuel sulfur limit is the only fuel purchased and combusted by an affected unit, then the owner or operator shall make and keep records that demonstrate the fuel sulfur content of each shipment of fuel received; or

(B) If fuel with sulfur content above any applicable limit is blended at the premises for combustion in an affected unit or units, the owner or operator shall make and keep daily records demonstrating that all fuel combusted at the affected unit or units meets the applicable fuel sulfur limits of subsection (c)(1) or (e)(1) of this section. Fuel sulfur analysis shall be conducted in accordance with the American Society for Testing and Material (ASTM) test method D4294 and automatic sampling equipment shall conform to ASTM test method D4177-82.

(2) The owner or operator of an affected unit who demonstrates compliance with this section by meeting the average SO_2 emission rate limits of subsections (c)(2), (c)(3), (e)(2), (e)(3) or (e)(4) of this section shall make and keep records in accordance with the following:

(A) For affected units that are also Title IV sources, hourly SO_2 emission rate values determined from data measured by a CEMS in accordance with the applicable provisions of 40 CFR Part 75;

(B) For affected units that are not Title IV sources:

(i) hourly SO_2 emission rate values determined from data measured by a CEMS in accordance with the applicable provisions of either 40 CFR Part 75 or 40 CFR Part 60, or

(ii) if any affected unit does not have a CEMS in accordance with either 40 CFR Parts 60 or 75, then hourly SO_2 emission rate values determined from data measured by a CEMS or other monitoring system approved by the commissioner; and

(C) For all affected units, quarterly facility SO_2 emission rate averages, determined by dividing total quarterly SO_2 emissions by total quarterly heat input values for all affected units at the facility.

(3) The owner or operator of an affected unit shall keep the records specified above at the premises for a period of five years. Such records need not be maintained for distillate oil, motor vehicle fuel, aircraft fuel, or gaseous fuel, provided such fuels have a

sulfur content below 0.3% by weight (dry basis) and are the only fuels combusted at the affected unit. This exemption shall not apply when such fuels are combusted in combination with other fuels having sulfur contents above 0.3% by weight (dry basis).

(j) Reporting requirements.

(1) The owner or operator of an affected unit for which the commissioner has issued a final Title V permit shall, as part of any compliance certification pursuant to section 22a-174-33(q)(2) of the Regulations of Connecticut State Agencies, certify in writing to the commissioner compliance with the applicable provisions of this section. Such certification shall include actual quarterly SO_2 emissions in tons and either average quarterly fuel sulfur content or average quarterly emission rate, whichever is applicable, for each affected unit.

(2) The owner or operator of an affected unit for which the commissioner has not issued a final Title V permit shall certify in writing to the commissioner that such owner or operator is in compliance with the applicable provisions of this section on or before March 1 of each year for the previous calendar year. Such certification shall include actual quarterly SO_2 emissions in tons and either average quarterly fuel sulfur content or average quarterly emission rate, whichever is applicable, for each affected unit.

(k) Duty to comply with the most stringent standards applicable to the affected units.

(1) Notwithstanding any provision of this section to the contrary, if the owner or operator of an affected unit is subject to a more stringent emission standard or limitation imposed by order, permit or other applicable law, such owner or operator shall comply with the most stringent emission limitation or standard.

(2) Notwithstanding any provision of this section to the contrary, if the owner or operator of an affected unit is subject to additional monitoring or reporting requirements imposed by order, permit or other applicable law, such owner or operator shall comply with the additional monitoring or reporting requirements.

Statement of Purpose: To control emissions of sulfur dioxide from power plants and other large stationary sources of air pollution in accordance with the requirements of Executive Order 19.

B. Section 22a-174-22 of the Regulations of Connecticut State Agencies are amended as follows:

Sec. 22a-174-22. Control of nitrogen oxides emissions

(a) Definitions

For purposes of this section, the following definitions shall apply:

(1) "Contract" means: (A) an agreement between a utility and a customer (or other person) to provide electricity; or (B) a change in any agreement between a utility and a customer (or other person) to provide electricity.

(2) "ELECTRICITY SUPPLIER" MEANS "ELECTRIC SUPPLIER" AS DEFINED IN SECTION 16-1(a)(30) OF THE CONNECTICUT GENERAL STATUTES, AND "MUNICIPAL ELECTRIC UTILITY" AS DEFINED IN SECTION 7-233b(8) OF THE CONNECTICUT GENERAL STATUTES.

[(2)] (3) "Emergency engine" means a stationary reciprocating engine or a turbine engine which is used as a means of providing mechanical or electrical power only during periods of testing and scheduled maintenance or during either an emergency or in accordance with a contract intended to ensure an adequate supply of electricity for use within the state of Connecticut during the loss of electrical power derived from nuclear facilities. The term does not include an engine for which the owner or operator of such engine is party to any other agreement to sell electrical power from such engine to [a utility] AN ELECTRICITY SUPPLIER, or otherwise receives any reduction in the cost of electrical power for agreeing to produce power during periods of reduced voltage or reduced power availability.

[(3)] (4) "Emergency" means an unforeseeable condition that is beyond the control of the owner or operator of an emergency engine and that:

(A) Results in an interruption of electrical power from the [utility] ELECTRICITY SUPPLIER to the [premise] PREMISES;

(B) Results in a deviation of voltage from the [utility] ELECTRICITY SUPPLIER to the [premise] PREMISES of three percent (3%) above or five percent (5%) below standard voltage in accordance with subsection (a) of section 16-11-115 of the Regulations of Connecticut State Agencies [(RCSA)];

(C) Requires an interruption of electrical power from the [utility] ELECTRICITY SUPPLIER to the [premise] PREMISES enabling the owner or operator to perform emergency repairs; or

(D) Requires operation of the emergency engine to minimize damage from fire, flood, or any other catastrophic event, natural or man-made.

[(4)] (5) "Gas" or "gaseous fuel" means natural gas, propane, or any other fuel that is in the gaseous state under standard conditions.

[(5)] (6) "gm/bk hp-hr" means grams per brake horsepower-hour.

[(6)] (7) "lb" means pound.

[(7)] (8) "MMBTU" means million BTU of heat input.

[(8)] (9) "MMBTU/hr" means million BTU of heat input per hour.

[(9)] (10) "MRC" means maximum rated capacity.

[(10)] (11) "Major stationary source of NOx" means [a premise] PREMISES with potential emissions of NOx equal to or greater than fifty (50) tons per year in a serious nonattainment area for ozone, or twenty-five (25) tons per year in a severe nonattainment area for ozone.

(12) "NOx BUDGET PROGRAM SOURCE" MEANS:

(A) A FOSSIL-FUEL-FIRED STATIONARY SOURCE THAT SERVES A GENERATOR WITH A NAMEPLATE CAPACITY OF FIFTEEN MEGAWATTS (15 MW) OR MORE; OR

(B) A FOSSIL-FUEL-FIRED BOILER OR INDIRECT HEAT EXCHANGER WITH A MAXIMUM HEAT INPUT CAPACITY OF 250 MMBTU OR MORE.

(13) "NOX DISCRETE EMISSION REDUCTION CREDIT" OR "NOX DERC" MEANS THE REDUCTION OF ONE TON OF NOX AT A SOURCE DURING A DISCRETE PERIOD OF TIME, WHICH THE COMMISSIONER HAS CERTIFIED AS REAL, QUANTIFIABLE, SURPLUS, PERMANENT, AND ENFORCEABLE.

[(11)] (14) "Other boiler" means a boiler that is not a cyclone furnace, fast-response double-furnace naval boiler, or fluidized-bed combustor.

[(12)] (15) "Other oil" means a fuel that is liquid at standard conditions and is not residual oil.

[(13)] (16) "ppmvd" means parts per million by volume on a dry basis.

[(14)] (17) ["Premise"] "PREMISES" has the same meaning as "PREMISE" IN section 22a-174-1 of the [RCSA] REGULATIONS OF CONNECTICUT STATE AGENCIES.

[(15)] (18) "Reciprocating engine" means a stationary internal combustion engine having a crankshaft turned by linearly reciprocating pistons.

[(16)] (19) "Selective noncatalytic reduction" means emission control technology [which] THAT involves the injection of a chemical reagent at high flue gas temperatures to selectively reduce NOx emissions to nitrogen and water.

[(17)] (20) "Turbine engine" means a stationary internal combustion engine [which] THAT continuously converts an air-fuel mixture into rotational mechanical energy through the use of moving vanes attached to a rotor.

[(18)"Utility" means any electric public service company as defined in section 16-1 of the General Statutes and any municipal electric utility company as defined in section 7-233b of the General Statutes.]

[(19)] (21) "Waste combustor" means an incinerator as defined in subsection 22a-174-18(c) of the REGULATIONS OF CONNECTICUT STATE AGENCIES [RCSA], a resources recovery facility as defined in section 22a-207 of the CONNECTICUT General Statutes, or a sewage sludge incinerator. The term does not include a flare or an industrial fume incinerator.

(b) Applicability

(1) This section [shall apply] APPLIES to the owner or operator of:

(A) Any of the following sources, PROVIDED SUCH SOURCES ARE LOCATED AT A MAJOR STATIONARY SOURCE OF NOx:

[(A)] (i) [Any] A reciprocating engine [which has] WITH a maximum rated capacity of three (3) MMBTU/hr or more [and which is located at a premise that is a major stationary source of NOx];

[(B)] (ii) [Any fuel-burning] FUEL-BURNING equipment, other than a reciprocating engine, [which has] WITH a maximum rated capacity of five (5) MMBTU/hr or more [and which is located at a premise that is a major stationary source of NOx];

[(C)] (iii) [Any equipment which burns] EQUIPMENT THAT COMBUSTS fuel for heating materials and [which] THAT has a maximum rated capacity of five (5) MMBTU/hr or more [and which is located at a premise that is a major stationary source of NOx];

[(D)] (iv) [Any] A waste combustor [which has] WITH a design capacity of two thousand (2000) pounds or more of waste per hour [and which is located at a premise that is a major stationary source of NOx]; or

[(E)] (B) [Any] fuel-burning equipment, A waste combustor, or A process source [which] THAT has potential emissions of NOx in excess of the following:

(i) One hundred thirty-seven (137) pounds during any day from May 1 through September 30 of any year, [for a] IF SUCH source IS located in a severe nonattainment area for ozone; or

(ii) Two hundred seventy-four (274) pounds during any day from May 1 through September 30 of any year, [for a] IF SUCH source IS located in a serious nonattainment area for ozone.

(2) [Subdivisions (d)(2) to (d)(5)] SUBSECTIONS (d)[, inclusive, and subsections (e) to] THROUGH (k), INCLUSIVE, of this section shall not apply to the owner or operator of a [premise] SOURCE if the actual emissions of NOx since January 1, 1990 from [such premise] THE PREMISES AT WHICH SUCH SOURCE IS LOCATED have not exceeded twenty-five (25) tons in any calendar year [for a premise] IF SUCH PREMISES ARE LOCATED in a severe nonattainment area for ozone, or fifty (50) tons in any calendar year [for a premise] IF SUCH PREMISES ARE LOCATED in a serious nonattainment area for ozone. Notwithstanding this provision, [subdivision (d)(2)] SUBSECTION (d) through subsection (k), inclusive, of this section shall apply TO SUCH OWNER OR OPERATOR if after May 31, 1995, [such owner or operator exceeds emissions of NOx as follows] ACTUAL EMISSIONS OF NOx FROM SUCH PREMISES EXCEED THE FOLLOWING:

(A) In any calendar year: twenty-five (25) tons for [a premise] PREMISES located in a severe nonattainment area for ozone, or fifty (50) tons for [a premise] PREMISES located in a serious nonattainment area for ozone; or

(B) On any day from May 1 through September 30 of any year: one hundred thirty-seven (137) pounds for [a premise] PREMISES located in a severe nonattainment area for ozone or two hundred seventy-four (274) pounds for [a premise] PREMISES located in a serious nonattainment area for ozone.

(3) Subsections (d) through (k) of this section shall not apply to THE OWNER OR OPERATOR OF an emergency engine. In addition, the actual emissions from emergency engines operating during an emergency shall not be included in the determination of the applicability of [subparagraph] SUBSECTION (b)(2)(B) of this section.

(4) The owner or operator of an emergency engine shall not include the actual emissions from any such engine for purposes of determining applicability in accordance with [subparagraph (B) of subdivision (2)] SUBSECTION (b)(2)(B) of this subsection, provided such emissions result from operation in accordance with a contract with a utility operating pursuant to a permit or order which:

(A) Requires the permittee to maintain a list which identifies all sources with whom the permittee has a contract;

(B) Requires either the permitee or the owner or operator of the emergency engine to record and submit to the Commissioner data on fuel consumption and hours of operation of any emergency engine operating under such contract; and

(C) Requires the permittee to obtain NOx emission reductions to offset the NOx emissions that result from the generation of customer-contracted electricity.

(6) Notwithstanding subdivision (3) of this subsection, subsections (d) through (k) of this section shall apply to the owner or operator of an emergency engine if, after May 1, 1997, such engine operates for routine, scheduled testing or maintenance on any day for which the Commissioner has forecast that ozone levels will be "moderate to unhealthful," "unhealthful," or "very unhealthful." The Commissioner may exempt, by permit or order, the owner or operator of an emergency engine from this subdivision, if such emergency engine is unattended, the testing is automated and cannot be modified from a remote location.

(c) Exemption.

This section shall not apply to THE OWNER OR OPERATOR OF A mobile [sources] SOURCE.

(d) General requirements.

[(1) Prior to May 31, 1995, the owner or operator of any source subject to this section shall not cause or allow emissions of NOx from such source in excess of the emission limitation specified in Table 22-1 of this section. The owner or operator of any source which is not subject to an emission limitation in Table 22-1 of this section shall not cause or allow emissions of NOx from such source in excess of seven hundred (700) ppmvd.

TABLE 22-1

NOX EMISSION LIMITATIONS PRIOR TO MAY 31, 1995
(IN POUNDS PER MMBTU OF HEAT INPUT)

	GAS-FIRED	OIL-FIRED	COAL-FIRED
Turbine engine	0.9	0.9	NA
Cyclone furnace	0.9	0.9	0.9
Fast-response double-furnace Naval boiler	0.5	0.5	0.9
Other boiler, with MRC of 250 MMBTU/hr or more	0.9	0.3	0.9
Other boiler, with MRC less than 250 MMBTU/hr]	0.2	0.3	0.9

[(2)] (1) On and after May 31, 1995, the owner or operator of [any] A STATIONARY source subject to this section shall:

(A) comply with all applicable emission limitations for such source in subsection (e) of this section;

(B) comply with the provisions for multi-fuel sources in subsection (f) of this section;

(C) reduce the NOx emission rate from such source by forty percent (40%), pursuant to subsection (g) of this section, in accordance with a permit issued by the Commissioner;

(D) [reconstruct the source, pursuant to subsection (h) of this section, in accordance with a permit issued by the Commissioner; or

(E)] FILE A PERMIT APPLICATION TO modify the schedule of operations at [the] SUCH source, pursuant to subsection (i) of this section, in accordance with a permit issued by the Commissioner.

(2) ON OCTOBER 1, 2003, AND DURING THE PERIOD FROM OCTOBER 1 THROUGH APRIL 30 EACH YEAR THEREAFTER, THE OWNER OR OPERATOR OF A STATIONARY SOURCE SUBJECT TO THIS SECTION THAT IS ALSO A NOx BUDGET PROGRAM SOURCE SHALL:

(A) COMPLY WITH THE EMISSION LIMITATION IN SUBSECTION (e)(3) OF THIS SECTION; OR

(B) USE NOX DERCs, OR NOX ALLOWANCES, OR BOTH, PURSUANT TO SUBSECTION (j) OF THIS SECTION, TO ACHIEVE ALL OR A PORTION OF THE NOX EMISSION REDUCTIONS REQUIRED BY THE EMISSION LIMITATION IN SUBSECTION (e)(3) OF THIS SECTION.

[(3) The owner or operator of a source subject to this section may apply in writing to the Commissioner for an extension to comply with subdivision (2) of this subsection. The Commissioner may grant such extension for a period not to exceed one (1) year, through a permit. Such permit shall meet the Administrator's requirements for "Phase-in of Controls Beyond May 1995" (Federal Register, Vol. 57, No. 228, Page 55623). The commissioner shall submit a permit or order providing for the use of NOx DERCs and NOx allowances to achieve all or a portion of the reductions required under this section, except the emission limitation in subsection (e)(3) of this section, to the Administrator for approval in accordance with the provision of 42 U.S.C. 7401-7671q.

[(4)] (3) The owner or operator OF A STATIONARY SOURCE SUBJECT TO THIS SECTION, in accordance with an order or permit issued by the Commissioner, may use [emission reduction trading] NOx DERCs AND NOx ALLOWANCES, pursuant to subsection (j) of this section, to achieve all or a portion of the reductions required by this section. The Commissioner shall submit such permit or order to the Administrator for approval in accordance with the provision of 42 U.S.C. 7401-7671q.

[(5)] (4) Nothing herein shall preclude the Commissioner from issuing an order to an owner or operator OF A STATIONARY SOURCE SUBJECT TO THIS SECTION to comply with the requirements of this subsection.

(e) Emission limitations.

(1) The owner or operator of a stationary source subject to this section may, in accordance with [subparagraph (A) of subdivision (d)(2)] SUBSECTION (d)(1)(A) of this section, comply with the requirements of this section by meeting applicable emission limitations specified in Table [22-2] 22-1 of this section. Emission limitations in Table [22-2] 22-1 for turbine engines that are quantified in units of ppmvd shall be corrected to fifteen percent (15%) oxygen.

(2) For any STATIONARY source for which there is no applicable emission limitation in Table [22-2] 22-1, the owner or operator of such source shall not cause or allow emissions of NOx therefrom in excess of the following:

(A) For fuel-burning equipment fired by a fuel other than those fuels cited in Table [22-2] 22-1: 0.3 pounds per MMBTU;

(B) For any waste combustor subject to the requirements of subdivision [(2)] (4) of this subsection: 0.38 pounds per MMBTU;

(C) For any waste combustor not subject to the requirements of [subparagraph (1)(B)] SUBDIVISION (2)(B) of this subsection which has a waterwall furnace: 0.38 pounds per MMBTU;

(D) For any other waste combustor: 0.33 pounds per MMBTU;

(E) For a glass melting furnace: 5.5 pounds of NOx per ton of glass produced;

(F) For a STATIONARY source, other than a glass melting furnace, [which burns] THAT COMBUSTS fuel for heating materials: 180 ppmvd, corrected to twelve percent (12%) carbon dioxide; or

(G) For any STATIONARY source not having an emission limitation in subparagraphs (A) through (F) of this subdivision: seven hundred (700) ppmvd.

(3) FOR A SOURCE SUBJECT TO THIS SECTION THAT IS ALSO A NOx BUDGET PROGRAM SOURCE: 0.15 POUNDS PER MMBTU DURING THE PERIOD FROM OCTOBER 1 THROUGH APRIL 30.

[(2)] (4) In addition to complying with the emission limitation in [subparagraph (1)(B)] SUBDIVISION (2)(B) of this subsection, by May 31, 1995 the owner or operator of any waste combustor [which] THAT combusts refuse derived fuel shall install and operate selective noncatalytic reduction or other NOx emissions control technology capable of reducing the NOx emission rate by at least thirty percent (30%) from the average emission rate in calendar year 1990 on one boiler unit at such facility. If the Commissioner determines that operations during 1990 were not representative of normal operations of the facility, the Commissioner may use another calendar period [which] THAT is more representative. In addition, actual annual average NOx emissions

from other boiler units at such facility shall each not exceed 420 tons per year. The Commissioner may consider, in the same manner as for other sources, any emission reduction below 0.38 pounds per MMBTU to be eligible as surplus emissions reductions for purposes of emission reduction credits pursuant to subsection (j) of this section until May 31, 1999.

TABLE [22-2] 22-1
[NOX EMISSION LIMITATION ON AND AFTER MAY 31, 1995]

	Gas-fired	**Residual-oil-fired**	**Other-oil-fired**	**Coal-fired**
Turbine engine with MRC ≥ 100 MMBTU/hr	55 ppmvd	not applicable	75 ppmvd	not applicable
Turbine engine with MRC < 100 MMBTU/hr	0.90 lb/MMBTU	not applicable	0.90 lb/MMBTU	not applicable
Cyclone furnace	0.43 lb/MMBTU	0.43 lb/MMBTU	0.43 lb/MMBTU	0.43 lb/MMBTU
Fast-response double-furnace Naval boiler	0.20 lb/MMBTU	0.30 lb/MMBTU	0.30 lb/MMBTU	0.30 lb/MMBTU
Fluidized bed combustor	not applicable	not applicable	not applicable	0.29 lb/MMBTU
Other boiler	0.20 lb/MMBTU	0.25 lb/MMBTU	0.20 lb/MMBTU	0.38 lb/MMBTU
Reciprocating engine	2.5 gm/bk hp-hr	not applicable	8 gm/bk hp-hr	not applicable

(f) Multi-fuel sources.

(1) When, pursuant to [subparagraph (B) of subdivision (d)(2)] SUBSECTION (d)(1)(B) of this section, the owner or operator of a STATIONARY source SUBJECT TO THIS SECTION switches the use of fuel, converts to a new fuel, or is capable of burning two or more different fuels, such owner or operator shall comply with the requirements of this subsection.

(2) The owner or operator of a STATIONARY source that is capable of firing two or more fuels shall not cause or allow emissions of NOx from such source, in excess of the following:

(A) For fuel-burning equipment that simultaneously fires two or more different fuels: an emission limitation calculated by 1) multiplying the heat input of each fuel combusted by the emission limitation established in this section for such fuel, 2) summing those products, and 3) dividing the sum by the total heat input; or

(B) For fuel-burning equipment that is capable of interchangeably firing two or more fuels: the emission limitation in Table [22-2] 22-1 for the particular equipment and fuel used. Notwithstanding this requirement, the owner or operator of a STATIONARY source that operates

exclusively on other oil or gas from May 1 through September 30 of any year and on another fuel during the remainder of the year shall not cause or allow emissions of NOx from such source in excess of 0.2 pounds per MMBTU from May 1 through September 30 and 0.29 pounds per MMBTU for the remainder of the year.

(3) The owner or operator of a STATIONARY source [which] THAT, on or after January 1, 1990, converts the fuel used at such source, shall not cause or allow emissions of NOx from such source in excess of the following:

(A) 0.29 pounds per MMBTU, when [the] SUCH source burned coal to provide more than fifty percent (50%) of its total heat input during the last full calendar year immediately prior to such conversion; or

(B) 0.225 pounds per MMBTU, if [the] SUCH source burned residual oil to provide more than fifty percent (50%) of its total heat input during the last full calendar year immediately prior to such conversion.

(g) Forty percent (40%) reduction.

(1) When the owner or operator of [any] A STATIONARY source SUBJECT TO THIS SECTION reduces the NOx emission rate from such source by forty percent (40%), as provided in [subparagraph (C) of subdivision (d)(2)] SUBSECTION (d)(1)(C) of this section, such owner or operator shall comply with the emission limitations of this section established in a permit issued by the Commissioner. Such permit shall specify such source's NOx emission limitation to be the more restrictive of:

(A) sixty percent (60%) of such source's emission rate at maximum capacity during calendar year 1990; or

(B) sixty percent (60%) of the emission limitation applicable to the source on January 1, 1990.

Such permit shall express the NOx emission limitation in the same units of measurement as the NOx emission limitation that would otherwise apply to such source in subsection (e) of this section.

(2) To determine the actual emission rate specified in [subparagraph] SUBDIVISION (1)(A) of this subsection, such owner or operator shall conduct an emission test at such source under operating conditions representative of those conditions in existence at the source in calendar year 1990, at the maximum capacity at which the source was operated during such calendar year.

(3) If the Commissioner determines that operations during calendar year 1990 were not representative of normal operations from such source, the Commissioner may use another calendar year which is more representative.

(h) Reconstruction or replacement. REPEALED.

[(1) If the owner or operator of a source proves, to the satisfaction of the Commissioner, that compliance with subsections (e) or (g) of this section is not technologically or economically feasible at such source, the Commissioner may allow the owner or operator, through a permit, to comply with this section by reconstructing the existing source, or replacing the existing source with a new source. Such reconstruction or replacement shall be completed no later than May 31, 1999.

(2) Such permit shall require that, prior to the completion of reconstruction or replacement of such source, the NOx emission rate from the existing source not exceed the more restrictive of:

(A) the emission limitation applicable to the source on January 1, 1990; or

(B) the emission limitation of any current permit or order issued by the Commissioner for such source.

(3) Such permit shall require the owner or operator, by May 31, 1995, to deposit into an escrow account an amount equal to $1,000 multiplied by the number of pounds per day of NOx emission reductions that would be needed by the existing source to achieve compliance with the emission limitations in subsection (e) of this section. The terms of such escrow account and escrow agent required by such permit shall be subject to the approval of the Commissioner. The Commissioner may require that such escrow account be established and properly insured against default at an institution authorized to operate in Connecticut by the State's Commissioner of Banking. In determining the acceptability of an escrow agent, the Commissioner shall consider the reliability and trustworthiness of the person acting as the escrow agent. The Commissioner shall also consider the escrow agent's ability to insure that any money deposited into such escrow account will be withdrawn upon written notification in accordance with such permit.

(4) After completion of such reconstruction or replacement, the owner or operator may, upon written notification by the Commissioner, withdraw funds from the escrow account in accordance with such permit described in subdivision (3) of this subsection. If the owner or operator fails to complete reconstruction or replacement by the date set forth in the permit, such owner or operator shall use such funds to acquire emission reduction credits upon written notice from the Commissioner.]

(i) Schedule modification.

(1) If the owner or operator of a STATIONARY source SUBJECT TO THIS SECTION proves to the satisfaction of the Commissioner that it is not technologically or economically feasible for such source to comply with the emission limitations in subsections (e) through (g) of this section, EXCEPT THE EMISSION LIMITATION IN SUBSECTION (e)(3) OF THIS SECTION, the Commissioner may by permit require NOx emission reductions through modifications of the schedule of

NOx-emitting activities and implementation of other measures to reduce NOx emissions at such source. Such permit may include restrictions on operations on any day for which the Commissioner has forecast that ozone levels will be "moderate to unhealthful," "unhealthful," or "very unhealthful."

(2) This subsection shall only apply to the following:

(A) Oil-fired turbine engines or fast-response double-furnace Naval boilers that generate power to create simulated high-altitude atmospheres for the testing of aircraft engines; [or]

(B) Testing of fuel-burning equipment undergoing research and development[.]; OR

(C) COMPRESSION-IGNITION RECIPROCATING ENGINES USED EXCLUSIVELY FOR THE TRAINING PERSONNEL IN THE OPERATION AND MAINTENANCE OF SUCH ENGINES ABOARD SUBMARINES.

(j) Emissions reduction trading.

(1) [When the] THE owner or operator of a STATIONARY source SUBJECT TO THIS SECTION [uses emission reduction trading] MAY USE NOx DERCs OR NOx ALLOWANCES OR BOTH to comply with THE APPLICABLE EMISSION LIMITATION CONTAINED IN SUBSECTION (e) OF this section[,]PURSUANT TO A PERMIT OR ORDER ISSUED BY THE COMMISSIONER. [such owner or operator shall achieve reductions in NOx emissions which, at a minimum, are equivalent to those emission reductions that would be achieved by complying with all applicable emission limitations in subsection (e) of this section. The Commissioner may allow the use of emission reduction trading through the issuance of a permit. Such permit shall require the owner or operator, by May 31, 1995, to perform emission trading or to deposit into an escrow account an amount equal to $2000 multiplied by the number of pounds per day of NOx emission reductions needed to achieve compliance with the emission limitations in subsection (e) of this section. Such order or permit also shall require the owner or operator to withdraw and use such funds to acquire ERCs upon written notice from the Commissioner. The terms of such escrow account and escrow agent required by such permit shall be subject to the approval of the Commissioner. The Commissioner shall require that such escrow account be established and properly insured against default at an institution authorized to operate in Connecticut by the State's Commissioner of Banking. In determining the acceptability of an escrow agent, the Commissioner shall consider the reliability and trustworthiness of the person acting as the escrow agent. The Commissioner shall also consider the escrow agent's ability to insure that any money deposited into such escrow account will be withdrawn upon written notification in accordance with such permit.]

(2) SUCH OWNER OR OPERATOR SHALL RETIRE ONE (1) NOx DERC OR ONE (1) NOx ALLOWANCE FOR EACH TON OF NOx EMITTED IN EXCESS OF THE APPLICABLE EMISSION LIMITATION IN SUBSECTION (e) OF THIS SECTION, AS CALCULATED PURSUANT TO A PERMIT OR ORDER ISSUED BY THE

COMMISSIONER. [In order to comply with subdivision (j)(1) of this subsection, such] SUCH owner or operator shall conduct an emission test or submit another method acceptable to the Commissioner to estimate the [NOx emission limitation shortfall] THE NUMBER OF TONS OF NOx EMITTED IN EXCESS OF SUCH APPLICABLE EMISSION LIMITATION. Such emission test shall be conducted under operating conditions [which] THAT demonstrate the maximum emission rate of such source. Such emission test shall be certified pursuant to subsection (k) of this section.

(3) Any creation or use of [ERCs] NOx DERCs OR NOx ALLOWANCES for the purpose of this subsection shall be consistent with the provisions of [the U.S. Environmental Protection Agency's "Economic Incentive Program Rules; Proposed Rules," published February 23, 1993 (Federal Register, Volume 58, Number 34),] 40 CFR 51, SUBPART U and the U.S. Environmental Protection Agency's "Emissions Trading Policy Statement," published December 4, 1986 (Federal Register, Volume 51, [Number 233] PAGE 43814). THE USE OF NOx ALLOWANCES PURSUANT TO THIS SUBSECTION SHALL ALSO BE CONSISTENT WITH THE PROVISIONS OF SECTION 22a-174-22a(f)(4) AND SECTION 22a-174-22b(i)(5) OF THE REGULATIONS OF CONNECTICUT STATE AGENCIES.

(k) Emissions testing and monitoring.

(1) The owner or operator of [any] A STATIONARY source subject to an emission limitation under this section shall conduct an emission test to demonstrate compliance with this section no later than May 31, 1995. Any such owner or operator [which] THAT does not install or operate a continuous emissions monitor at such source shall also conduct emission tests at least once every five years. Compliance with the emission limitations of this section shall be determined based on the average of three (3) one-hour tests, each performed over a consecutive 60-minute period and performed in accordance with section 22a-174-5 of the [RCSA] REGULATIONS OF CONNECTICUT STATE AGENCIES. Any analysis of nitrogen content conducted as part of such emission testing shall be in accordance with Method D-3228 of the American Society for the Testing of Materials.

(2) The owner or operator shall demonstrate compliance with emission limitations of this section using sampling and analytical procedures approved under 40 CFR Part 60, Appendix A, or under procedures in subsection 22a-174-5(d) of the [RCSA] REGULATIONS OF CONNECTICUT STATE AGENCIES. Sampling shall be conducted when the source is at normal operating temperature and, unless allowed otherwise by the Commissioner in a permit or order, is operating at or above ninety percent (90%) of maximum rated capacity for a fuel-burning source or at or above ninety percent (90%) of design capacity for a waste combustor. Notwithstanding such requirement, any source which has operated in excess of one hundred percent (100%) of its maximum rated capacity at any time since January 1, 1990 shall be tested when the source is operating at or above ninety percent (90%) of its highest operating rate since January 1, 1990.

(3) On and after May 31, 1995, the owner or operator of any source that emitted more than one hundred (100) tons of NOx from a single stack during any calendar year beginning January 1, 1990, shall install, calibrate, maintain, operate, and certify a continuous emissions monitor for NOx for each such stack. The owner or operator shall notify the Commissioner in writing at least thirty (30) days prior to conducting any performance or quality assurance testing of any such monitor. Any such testing shall be conducted in accordance with a testing protocol approved by the Commissioner. Any continuous emission monitor for NOx shall be installed, calibrated and operated in accordance with the performance and quality assurance specifications contained in 40 CFR 60, Subpart A, Appendix B and Appendix F.

(4) [Unless otherwise specified by the Commissioner in a permit or order, the averaging times for the emission limitations in this section for a source that has, or is required to have, a continuous emissions monitor for NOx shall be twenty-four (24) hours, measured from midnight at the beginning of any day to midnight of the end of that day and shall include all periods of operation, including startup, shutdown, and malfunction.] UNLESS OTHERWISE SPECIFIED BY THE COMMISSIONER IN A PERMIT OR ORDER, THE AVERAGING TIMES FOR THE FOLLOWING EMISSION LIMITATIONS SHALL BE APPLICABLE TO A SOURCE THAT HAS OR IS REQUIRED TO HAVE A CONTINUOUS EMISSIONS MONITOR FOR NOX:

(A) FOR THE EMISSIONS LIMITATION IN SUBSECTION (e)(3), THE PERIOD FROM OCTOBER 1 THROUGH APRIL 30, INCLUDING ALL PERIODS OF OPERATION, INCLUDING STARTUP, SHUTDOWN, AND MALFUNCTION; AND

(B) FOR ANY OTHER EMISSION LIMITATION CONTAINED IN THIS SECTION, TWENTY-FOUR (24) HOURS, MEASURED FROM MIDNIGHT AT THE BEGINNING OF ANY DAY TO MIDNIGHT OF THE END OF THAT DAY, INCLUDING ALL PERIODS OF OPERATION, INCLUDING STARTUP, SHUTDOWN, AND MALFUNCTION.

[(5) The owner or operator of a source subject to this subsection may apply in writing to the Commissioner for an extension to comply with this subsection. The Commissioner may grant such extension for a period not to exceed one (1) year through a permit or order.]

(5) IF THE OWNER OR OPERATOR OF A SOURCE SUBJECT TO SUBDIVISION (1) OF THIS SUBSECTION DEMONSTRATES TO THE COMMISSIONER IN WRITING THAT (A) SUCH EMISSION TEST WOULD RESULT IN ACTUAL EMISSIONS GREATER THAN THOSE EMITTED DURING ANNUAL OPERATIONS OF THE SOURCE, OR (B) SUCH EMISSION TEST IS OTHERWISE ECONOMICALLY INFEASIBLE IN LIGHT OF ANY UNIQUE CHARACTERISTICS OF THE SOURCE OR ITS MANNER OF OPERATION, THE COMMISSIONER MAY REQUIRE SUCH OWNER OR OPERATOR TO DEMONSTRATE COMPLIANCE WITH THIS SECTION THROUGH ALTERNATE MEANS. SUCH ALTERNATE MEANS SHALL BE INCORPORATED INTO A PERMIT OR ORDER AND MAY PROVIDE FOR THE USE OF EMISSION REDUCTION TRADING, IN ACCORDANCE WITH THE PROVISIONS OF SUBSECTION (j) OF THIS SECTION. CALCULATIONS RESULTING IN A FRACTIONAL EMISSION REDUCTION CREDIT REQUIREMENTS SHALL BE ROUNDED UP TO THE NEXT WHOLE TON.

(l) Reporting and record keeping.

(1) The owner or operator of [any] A STATIONARY source subject to this section, shall keep the following records:

(A) For an emergency engine, daily records of operating hours of such engine, identifying the operating hours of emergency and non-emergency use;

(B) For any [premise] PREMISES for which [subdivision] SUBSECTIONS (b)(2) or (b)(3) of this section applies, records (e.g. fuel use, continuous emissions monitoring, operating hours) to determine whether the NOx emissions from such [premise] PREMISES on any day from May 1 through September 30, inclusive, are in excess of one hundred thirty-seven (137) pounds for [a premise] PREMISES located in a severe nonattainment area for ozone or two hundred seventy-four (274) pounds for [a premise] PREMISES located in a serious nonattainment area for ozone.

(C) Monthly and annual records (e.g. fuel use, continuous emissions monitoring, operating hours) to determine whether NOx emissions from such [premise] PREMISES in any calendar year are in excess of twenty-five (25) tons for [a premise] PREMISES located in a severe nonattainment area for ozone or fifty (50) tons for [a premise] PREMISES located in a serious nonattainment area for ozone;

(D) Records of all tune-ups, repairs, replacement of parts and other maintenance;

(E) Copies of all documents submitted to the Commissioner pursuant to this section;

(F) For any source required to install, calibrate, and operate a continuous emissions monitor for NOx under subdivision (k)(3), all charts, electronically stored data, and printed records produced by such continuous emissions monitor;

(G) Procedures for calculating NOx emission rates in (B) and (C) above;

(H) Records of the dates, times, and places of all emission testing required by this section, the persons performing the measurements, the testing methods used, the operating conditions at the time of testing, and the results of such testing;

(I) For any source required to install, calibrate, and operate a continuous emissions monitor for NOx under subdivision (k)(3) of this section, records of all performance evaluations, calibration checks and adjustments on such monitor; a record of maintenance procedures; and all data necessary to complete the quarterly reports required under subdivision (*l*)(4) of this section; and

(J) Any other records or reports required by an order or permit issued by the Commissioner pursuant to this section.

(2) Within thirty (30) days of the completion of emission tests conducted under the requirements of subdivision (k)(1) of this section, the owner or operator of such source shall submit a written report of the results of such testing to the Commissioner.

(3) Within sixty (60) days of the completion of certification tests conducted under the requirements of subdivision (k)(3) of this section, the owner or operator of such source shall submit a written report of the results of such testing to the Commissioner.

(4) The owner or operator of any source required to be equipped with a continuous emissions monitor for NOx under subdivision (k)(3) of this section shall submit to the Commissioner written quarterly reports of excess emissions and CEM malfunctions. Such reports shall be submitted to the Commissioner on or before January 30, April 30, July 30, and October 30 and shall include data for the three calendar month period ending the month before the due date of the report. For each period of excess emissions, such report shall include the date and time of commencement and completion of such period, the magnitude and suspected cause of the excess emissions and all actions taken to correct the excess emissions. For each malfunction of the CEM system, such report shall include the date and time of when the malfunction commenced and ended, and all actions taken to correct the malfunction.

(5) The owner or operator of [any] A STATIONARY source subject to this section shall retain all records and reports produced pursuant to the requirements of this section for five (5) years. Such records and reports shall be available for inspection at reasonable hours by the Commissioner or the Administrator. Such records and reports shall be retained at the source, unless the Commissioner approves in writing the use of another location in the State.

(6) On or before April 15 of each year, the owner or operator of [any] A STATIONARY source subject to this section shall submit a report on NOx emissions from such source, on a form provided by the Commissioner.

(7) The Commissioner may use data recorded by continuous emissions monitors for NOx and any other records and reports to determine compliance with applicable requirements of this section.

(m) Compliance plans.

(1) The owner or operator of [any] A STATIONARY source [that is] subject to this section shall submit a compliance plan to the Commissioner by September 1, 1994, on forms provided by the Commissioner. Such compliance plan shall document how [the] SUCH source will comply with all applicable requirements of this section. The owner or operator of [any] A STATIONARY source [which] THAT becomes subject to this section after May 1, 1994,

shall submit a compliance plan within four (4) months of the date on which [the] SUCH source becomes subject to this section.

(2) Any compliance plan submitted pursuant to this subsection 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 22a-430-3(b)(2) of the [RCSA] REGULATIONS OF CONNECTICUT STATE AGENCIES, and by the individual delegated by such officer with the responsibility of actually preparing the compliance plan. Such certification shall read as follows: "I have personally examined and am familiar with the information submitted in this [compliance plan] DOCUMENT and all attachments THERETO[.], AND I CERTIFY THAT [Based] BASED on reasonable investigation, including my inquiry of those individuals responsible for obtaining the information, [I certify that] the submitted information is true, accurate and complete to the best of my knowledge and belief. I understand that any false statement made in [this compliance plan or its attachments] THE SUBMITTED INFORMATION may be punishable as a criminal offense UNDER SECTION 22a-175 OF THE GENERAL STATUTES, UNDER SECTION 53a-157b OF THE GENERAL STATUTES, AND IN ACCORDANCE WITH ANY APPLICABLE STATUTE."

(3) If a compliance plan does not contain all measures necessary to comply with all requirements of this section, the Commissioner may notify the owner or operator of such source of the deficiency. Such owner or operator shall resubmit a revised compliance plan within thirty (30) days of receipt of such notice.

(4) NOTWITHSTANDING THE PROVISIONS OF SUBDIVISION (1) OF THIS SECTION, THE OWNER OR OPERATOR OF A NOx BUDGET PROGRAM SOURCE WHO IS SUBJECT TO A REVISED EMISSION STANDARD SHALL NOT BE REQUIRED TO SUBMIT A REVISED COMPLIANCE PLAN UNLESS THE COMMISSIONER REQUESTS SO IN WRITING.

STATEMENT OF PURPOSE: TO CONTROL EMISSONS OF NITROGEN OXIDES FROM POWER PLANTS AND OTHER LARGE SOURCES OF AIR POLLUTION IN ACCORDANCE WITH THE REQUIREMENTS OF EXECUTIVE ORDER NO. 19.

XI. Conclusion

Based upon the comments submitted by interested parties and addressed in this Hearing Report, we recommend the proposed final regulation, as contained herein, be submitted by the Commissioner of Environmental Protection for approval by the Attorney General and the Legislative Regulations Review Committee.

Carmine DiBattista
Hearing Officer

10/17/00
Date

Christopher James
Hearing Officer

17 Oct 2000
Date

Attachment 1 — List of Commentors

Donald Downes
Commissioner
Department of Public Utility Control
10 Franklin Square
New Britain, CT 06051

Senator Edith Prague
Room 3800
Legislative Office Building
Hartford, CT 06106

Bryan K. Riley
Vice President
NRG North America
Blaymore I
1606 Carmody Court Suite 400
Sewickley, PA 15143

Andy Kruger
Vice President
Cantor Fitzgerald
19 Old Kings Highway, South
Darien, CT 06820

Cindy Karlic-Smith
NRG Energy, Inc.
P.O. Box 1001
1866 River Rd.
Middletown, CT 06457

Dr. Mark Mitchell, President
Connecticut Coalition for
Environmental Justice
P.O. Box 2022
Hartford, CT 06145-2022

Richard Kennelly
Conservation Law Foundation
62 Summer St.
Boston, MA 02110-1016

Rev. Tom Carr
First Baptist Church
100 Main St.
West Hartford, CT 06107

David Marshall
Clean Air Task Force
10 Bridge St.
Henniker, NH 03342

Miguel Garcia
Ametco, LLC
P.O. Box 310008
Newington, CT 06111

Sister Suzanne Brazauskas
Collaborative Center for Justice, Inc
141 Washington St.
Hartford, CT 06106-4406

Craig Poller
Novarco Ltd.
711 Westchester Ave.
White Plains, NY 10604

Michael G. Lauzier
Director of Development and Government
Relations
American Lung Association of Connecticut
45 Ash St.
East Hartford, CT 06108-3272

Eric Brown
Connecticut Business & Industry
Association
350 Church St.
Hartford, CT 06103-1126

Ellen Baum
Clean Air Task Force
269 White Rd.
Bowdoinham, ME 04008

David Schoengold
MSB Energy Associates, Inc.
7507 Hubbard Ave., Suite 200
Middleton, WI 53562-3135

Roger K. Raufer, Ph.D., P.E.
Depart. of City & Regional Planning
University of Pennsylvania
127 Meyerson Hall
210 South 34th St.
Philadelphia, PA 19104-6311

Mimam Bergamini
St. James Episcopal Church
80 Wethersfield Ave.
Hartford, CT 06114

Neal Costello
Competitive Power Coalition of
New England, Inc.
9 Park St., Suite 500
Boston, MA 02108

Tom Kirk
Wisvest Connecticut, LLC
12 Progress Dr., 2nd Floor
Shelton, CT 06484

Brooks Campion
Robinson & Cole
280 Trumbull St.
Hartford, CT 06106

Frank Gorke
Toxics Action Center
198 Park Rd.
West Hartford, CT 06119

James S. Romanski
Pratt & Whitney
400 Main St.
M/S 124-26
East Hartford, CT 06108

Joanne Luppi
Middlesex Clean Air Association
205 Thompson Hill Rd.
Portland, CT 06480

Teresa Eickel
ECO Justice
28 Vance St. Apt. 2
New Britain, CT 06052

Lisa Espinosa
31 South Highland St.
West Hartford, CT 06119-1826

Tom McCormick
123 Richmond Ln.
Hartford, CT 19104-6311

Melinda Shilansky
35 Revere Dr. Apt 3
Bloomfield, CT 06002

Jaime Viola
911 Talcott Glen Rd.
Farmington, CT 06032

Ruth Clancy
Clean Water Action
76 Sunset Blvd
Wethersfield, CT 06109

David Brown
65 Bulkley Ave.
Westport, CT 06880

Theresa R. Bowneau
35 Salem Court Apt. D
Glastonbury, CT 06033

Thomas Godar, M.D.
St. Francis Hospital and Medical Center
114 Woodland St.
Hartford, CT 06105-1299

Anne M. Cagnina
36 Vanderbilt Ave.
Rowayton, CT 06853

Mindy S. Lubber
Regional Administrator
U.S. EPA Region 1
1 Congress St., Suite 1100
Boston, MA 02114-2023

James Lynn
32 Flying Cloud Rd.
Stamford, CT 06902

Joseph Carilli
Chairman
Bristol Resource Recovery
Facility Operating Committee
43 Enterprise Dr.
Bristol, CT 06010

Mark Sussman
Murtha Cullina LLP
CityPlace I
185 Asylum St.
Hartford, CT 06103-3469

William J. Nadeau
Vice President and Chief Operating Officer
Northeast Generation Services
273 Dividend Rd.
Rocky Hill, CT 06067

Sierra Club
118 Oak St.
Hartford, CT 06106

Peter Valberg
Cambridge Environmental
58 Charles St.
Cambridge, MA 02141

Gina M. Carano
123C Woodland Drive
Uncasville, CT 06382-1510

William D. Huhn
Legal Division
Pfizer Inc.
Eastern Point Rd.
Groton, CT 06340

Roger Ludwig
19 Eamily Blvd
Bridgeport, CT 06605

Jane Edgerton
P.O. Box 105
Rowayton, CT 06853

Mrs. Malcolm Edgerton
P.O. Box 105
Rowayton, CT 06853

Jennifer Klein
399 Fountain St.
New Haven, CT 06515

James Berger
399 Fountain St.
New Haven, CT 06515

Daniel Dziedzic
204 Sargeant St.
Hartford, CT 06106

Stacy Prince
5 Little Ln.
Westport, CT 06880

Christie's Service
161 Cross Highway
Westport, CT 06880

Harold Panciera
17 West St.
Middletown, CT 06457

Andrew Stackpole
Environmental Director
Department of the Navy
Naval Submarine Base New London
Groton, CT 06349-5000

Dave Damer
Environmental Affairs Manager
Wisvest Connecticut, LLC
12 Progress Drive 2nd Floor
Shelton, CT 06484

Richard J. Londergan, Ph.D.
Senior Program Director
Earth Tech
196 Baker Ave.
Concord, MA 01742-2167

Hanna Noel
200 Galloping Hill Rd.
Fairfield, CT 06430

Brooke Suter
Connecticut Coalition for Clean Air
198 Park Rd.
West Hartford, CT 06119

Willard R. Pope, Esq.
Hinckley, Allen and Snyder
28 State St.
Boston, MA 02109

Kate Miller
345 Boston Rd.
Middletown, CT 06457

Marci J. Swede, Ph.D
181 Elizabeth Ln
Middletown, CT 06457

Barbara Toomey
411 Millbrook Rd.
Middletown, CT 06457

Judith Miller, Ph.D.
38 Ridge Acres Rd.
Branford, CT 06405

Jennifer Hawkins and Marc Italia
55 Grand St.
Middletown, CT 06457

Rebecca MacLachlan
35 Clover St.
Middletown, CT 06457

Chris Van Atten
The Clean Energy Group
47 Junction Square Drive
Concord, MA 01742

David Brown
35 Clover St.
Middletown, CT 06457

Candy Mark
15 Chestnut Hill Terrace
Glastonbury, CT 06033

Ana Perez-Girones
Wesleyan University
Wesleyan Station
Middletown, CT 06459

Richard Evans
112 Gorham Rd.
Fairfield, CT 06430

Judith Papp
1197 Valley Rd.
New Canaan, CT 06840

Chris Montgomery
97 Margarite Rd.
Middletown, CT 06457

John C. Hall
1 Yellow Pine Circle
Middletown, CT 06457

Sally McMahon
478 High St.
Fairfield, CT 06430

Lenny Moitoso
24A Durant Ave.
Bethel, CT 06801

Philip L. Sevetson
142 Timber Trail
East Hartford, CT 06118-3560

Heather Conley
236 Alewife Ln.
Suffield, CT 06078

Thomas Wells
42 North Main St.
East Hampton, CT 06424

David Lazar
93 Cranston Ave.
Shelton, CT 06484

Steve Byrne
41 Palamar Drive
Fairfield, CT 06432

Carrie Pensanti
76 Fairview Ave.
Stratford, CT 06614

Blakeley Crevoiserat
235 Chestnut Hill Rd.
Glastonbury, CT 06033

Greg Garb
785 Unquowa Rd.
Fairfield, CT 06430

Nicolina Shopis
141 Springer Rd.
Fairfield, CT 06430

Blanche Natali
53 Westwood Rd.
Fairfield, CT 06430

Chris Varcoe
85 Forest Drive
Sandy Hook, CT 06482

Merry Joy Wilcox
138 Wolcott Hill Rd.
Wethersfield, CT 06109

Judy Ridikoff
209 Hunyadi Ave.
Fairfield, CT 06430

Alvin Epstein
8 Marvin St.
Norwalk, CT 06855

Mr. Mark Giorgetti
157 Bear Swamp Rd.
East Hampton, CT 06424

Erika Cebulski
11 Greenlawn Drive
Fairfield, CT 06432

Barbara Tuozzoli
1395 Fairfield Woods Rd.
Fairfield, CT 06432

Charles Giardino
36 Attawanhood Trail
Hebron, CT 06231

James Clark
303 Lake Rd.
Andover, CT 06232

Debra Glover
25 Forest Glen Rd.
Old Saybrook, CT 06475

Jason Grumet
Northeast States for
Coordinated Air Use Management
129 Portland St.
Boston, MA 02114

Steve Jackson
International Brotherhood of
Electrical Workers Local 420
550 Wolcott St.
Waterbury, CT 06705

Brian O'Rourke
Plant Manager
Coastal Technology Inc.
490 Capitol Ave.
Hartford, CT 06106-1307

Mark Bobman
Bristol Resource Recovery
Facility Operating Committee
43 Enterprise Drive
Bristol, CT 06010

Judi Rand
77 Breezy Corner Rd.
Portland, CT 06480

Silvia Hines
25 Richmond Ave.
New Haven, CT 06515

Ellery Plotkin
70 Woodbine Ln.
Fairfield, CT 06432

Mary Lou Fleissner
Department of Public Health
410 Capitol Ave.
Hartford, CT 06134-0308

Kathy Graff
Department of Public Health
410 Capitol Ave.
Hartford, CT 06134-0308

Jeanne C. Dilworth
192 Thompson Hill Rd.
Portland, CT 06480

Theresa D. Supple
92 Middle Haddam Rd.
Portland, CT 06480

Alison L. Johnson
108 Camp St.
Middletown, CT 06457

Justus J. Addiss
108 Camp St.
Middletown, CT 06457

Jeanie Graustein
Environmental Justice Coordinator
Office of Urban Affairs of the Archdiocese of Hartford
81 Saltonstall Ave.
New Haven, CT 06513

Michael S. Madigan
President
Bell Island Improvement Association, Inc.
P.O. Box 123
Rowayton, CT 06853

Kate Tepper
135 Partrick Ave.
Norwalk, CT 06851

Jon Levy, Sc.D
Harvard School of Public Health
Building 1, 1308C
665 Huntington Ave.
Boston, MA 02115

Alice Schumacher
Affiliated Clinical Therapists
770 Saybrook Rd., Bldg B
Middletown, CT 06457-4739

Arthur Wood
Coventry, CT

Mr. Joseph Havlicek
City of Middletown
P.O. Box 1300
Municipal Building
245 DeKoven Drive
Middletown, CT 06457-1300

Sona Shah
811 Wilbur Cross Highway
Berlin, CT 06037

Zachary Maura
1489 Kensington Rd.
Kensington, CT 06037

Jessica Rodriguez
5 Florence St
Hartford, CT 06120

Gabriel Cardona
19 Elmhurst Circle
West Hartford, CT 06110

Elaine Moran
711 Wolcott Hill Rd.
Wethersfield, CT 06109

Brian Billez
55 Judge Ln.
South Windsor, CT 06074

Andy Semyanlo
5 Strong Rd.
West Granby, CT 06090

Faig Tofig
25 Alderson Ave.
Plainville CT 06062

Nathan Walsh
7 Vincent Drive
Simsbury, CT 06070

Bianca Rehmes
23 Allen St
Enfield, CT 06082

Anna Casteupouska
29 Cranston Ave.
Wethersfield, CT 06109

Michael Charles Norhn
13 Hill Farm Rd.
Bloomfield, CT 06002

Magdi Kovacs
91 Fairview Drive
Wethersfield, CT 06109

Serita Heath
6 Jonathan Place
Bloomfield, CT 06002

Craig D'Alesamdra
109 Brandon Rd.
East Hartford, CT 06118

Agnes Muskus
20 Edgewood Rd.
Wethersfield, CT 06109

Garret Gorado
89 Depauw Circle
East Hartford, CT 06108

Maegan Lunklater
131 Baldwin Drive
Middletown, CT 06457

Heather D. Oliver
32 Philip Henry Circle
Windsor, CT 06095

Peter Darrajjati
26 Linver St.
Bristol, CT 06010

Michaela Adams
25 Bretton Rd. 2nd floor
West Hartford, CT 06119

Kyraki Karanbenas
310 Tremont St.
Newington, CT 06111

Ania Klukowski
10 Somerset Drive
Avon, CT 06001

Christina Monsalve
51 Natick St.
Hartford, CT 06106

Kyle Alger
749 Farmington Ave. Apt. 4E
West Hartford, CT 06119

Carolina Villauzar
80 Follybrook Blvd
Wethersfield, CT 06109

Kadijak Caud
105 Greathill Rd.
East Hartford, CT 06108

Angelique M. Rovaldi
32 Bragg St
East Hartford, CT 06108

Dawn Richmond
370 Halladay Drive
West Suffield, CT 06093

Sarah Richards
33 Avonside
Avon CT 06001

Michael Hill
36 Hemlock Ln.
Avon, CT 06001

Anne Lanning
103 Cliffside Drive
Manchester, CT 06040

Steve Santos
251 Marlborough St.
Newington, CT 06111

Marla D'Amato
53 Oakmoor Drive
Vernon, CT 06066

Krupa Bhatt
245 White St.
Hartford, CT 06106

Tiffany Drake
75 Dillon Rd. Apt B2
Hartford, CT 06112

Trisha Sullivan
834 Pleasant Valley Rd.
South Windsor, CT 06074

Brian Patterson
120 Wood Pond Rd.
South Windsor, CT 06074

Leah Nicholas
47 Kenwood Rd.
Wethersfield, CT 06109

Mike Mensah
322 A Park Ave.
East Hartford, CT 06108

Mohsin Sheh
62 Flida Court
East Hartford, CT 06108

Catherine Nitchke
111 Loomis Drive
West Hartford, CT 06107

Katie Sofriy
55 Iroquois Rd.
West Hartford, CT 06117

Jahdiel Cruz
27 Grafton St
Hartford, CT 06106

Kisconyi Teddy
187 Abbotsford Ave.
West Hartford, CT 06110

Marlow Daley
448 Granby St.
Hartford, CT 06112

Ava Loi Anderson
18 Bellflower Rd.
Windsor, CT 06095

Casey Jaylour
17 Mitchell Place
West Hartford, CT 06119

Layce Tassmarc
466 W. Middle Turnpike
Manchester, CT 06040

Stacey Rossignol
41 Glennwood Drive
Plainville, CT 06062

Francisco Borrero
63 Elm St. Apt. 503
Manchester, CT 06040

Kharkrngo
15 Dobson Drive
East Hartford, CT 06118

Michelle Costa
59 Davenport Rd.
West Hartford, CT 06110

Francs Palin
51 Kimberly Ln.
East Hartford, CT 06108

Mary Frederickson
121 Lorraine St.
Manchester, CT 06040

Zalman Nakhmousky
53 Walnut St
Unionville, CT 06085

Beashe Ba
13 Blue Hills Ave.
Hartford, CT 06112

Sara DiPietra
189 Coles Rd.
Cromwell, CT 06416

Pooja Lala
87 Christine Drive
Southington, CT 06489

Amy McKeon
154 Stockingsbrook Rd.
Berlin, CT 06037

Christina Rampelli
138 S. Center St.
Windsor Locks, CT 06096

Stephen Carrier
109 Kenyon St.
Hartford, CT 06105

Monaon Rodriquez
30 Preston St.
Hartford, CT 06110

Gale Cardona
19 Elmhurst Circle
West Hartford, CT 06110

Ms. Herbert
108C McKee St.
Manchester, CT 06040

Tyler Zenterz
1094 Blue Hills Ave.
Bloomfield, CT 06002

Itzel Anaya
186 Lawrence St.
Hartford, CT 06106

Karin Oygard
P.O. Box 62
Coventry, CT 06238

Melissa Sestilli
1053 Old Turnpike Rd.
Plantsville, CT 06479

Syrma Falcon
46 Dickerman Ave.
Wolcott, CT 06096

Leslie Willainson
1980 Tomlinson Ave.
Plainville, CT 06062

Oliver Davis
20 Simsbury Rd.
West Granby, CT 06090

Patrick Curtis
408 South St.
New Britain, CT 06051

Edmond Xhinitiku
29 Center St.
Bristol, CT 06010

Urszula Tymoszczuk
45 Bissell Court
South Windsor, CT 06074

Rachael McMann
853 Old Hartford Rd.
Colchester, CT 06415

Paul A. Sloane
22 Aiken St.
Norwalk, CT 06851

Robert Lucas Ph.D.
8 Outer Rd.
Norwalk, CT 06854

Alex Woolford
15 Shagbark Rd.
Norwalk, CT 06840

Amy Jimenez
26 Splitrock Rd.
Norwalk, CT 06854

Karen Wolfskehl
74 Rowayton Ave.
Norwalk, CT 06853

Joseph Lasker
20 Dock Rd.
Norwalk, CT 06854

Marny Smith
25 Witch Ln.
Norwalk, CT 06853

Christina Orsi Lirot
91 Witch Ln.
Norwalk, CT 06853

Sandra Slink
11 Hilltop Rd. Wilson Point
Norwalk, CT 06854

Mary Louise McColpin
61 Bluff Ave.
Norwalk, CT 06853

June Klopfer
36 Burchard Ln.
Norwalk, CT 06853

Ruth Goodley
2 Burwell St.
Norwalk, CT 06854

James H. Hess
34 Frances Ave.
Norwalk, CT 06854

Christine Remy
11 Girard St.
Norwalk, CT 06850

Robert Remy
11 Girard St.
Norwalk, CT 06850
Paul Bassler
522 Belden Hill Rd.
Norwalk, CT 06850

Thomas Case
35 Blue Mountain Rd.
Norwalk, CT 06851

Alison Tamsucci
3 Outer Rd.
Norwalk, CT 06854

Anne M. Cagnuna
36 Vanderbilt Ave.
Norwalk, CT 06854

John Dixon
55 Elmwood Rd.
New Haven, CT 06515

Martin Mador
130 Highland Ave.
Hamden, CT 06518

Gaianne Jenkins
4 Pearl St #2
New Haven, CT 06511

Joanne Sciulli
425 West Rock Ave.
New Haven, CT 06515

Wendy Hamilton
15 Orange St.
New Haven, CT 06510

Barclay Satterfield
370 Temple St.
P.O. Box 204622
New Haven, CT 06520

Heather Gilbert
106 Martin St.
West Haven, CT 06516

Raisa Rexer
P.O. Box 206460
New Haven, CT 06520

Judith Joffe-Block
P.O. Box 200201
New Haven, CT 06520

Kelly Levin
P.O. Box 206851
New Haven, CT 06520

Aaron Goode
P.O. Box 201307
New Haven, CT 06520

Will Durbin
P.O. Box 203860
New Haven, CT 06520

Olivia Billett
P.O. Box 200511
New Haven, CT 06520

Katherine Lo
P.O. Box 200297
New Haven, CT 06520

Laura Ouellette
P.O. Box 315
New Haven, CT 06520

Lily Sendroff
496 Whitney Ave. #4C
New Haven, CT 06511

Susan Martinez Sendroff
496 Whitney Ave. #4C
New Haven, CT 06511

Adam Sendroff
496 Whitney Ave. #4C
New Haven, CT 06511

Kevin Barone
200 Prospect Ave.
Shelton, CT 06484

Matt Brackwieck
324 High St.
Milford, CT 06460

Joyce Pietrowski
11 Spindrift Ln.
Milford, CT 06460

David Young
81 Acorn St.
Bridgeport, CT 06606

Ms. Lillian Burg
285 Maplewood Ave., Apt 7H
Bridgeport, CT 06505

Noelle Angers
295 Linwood Ave.
Bridgeport, CT 06604

Evelyn Gearing
73 Worth St.
Bridgeport, CT 06604

M.C. Rossi
106 Arlington St.
Bridgeport, CT 06606

Jim Wellington
626 Huntington Rd.
Stratford, CT 06614

Diane McKenna
35 Seabreeze Drive
Stratford, CT 06614

Mrs. Nancy Slais
444 Curtis Ave.
Stratford, CT 06615

John W. Slais
444 Curtis Ave.
Stratford, CT 06615

Michael Quinn
115 Short Beach Rd. Apt. 110
Stratford, CT 06615

Kathleen Quinn
115 Short Beach Rd. Apt. 110
Stratford, CT 06615

Jennifer Siciliano
305 Loveland Rd.
Stamford, CT 06905

James C. Lynn
32 Flying Cloud Rd.
Stamford, CT 06902

Pia Cannon
96 Witch Ln.
Rowayton, CT 06853

Karen Larocque
5 Dancing Bear Rd.
Rowayton, CT 06853

Elizabeth Holden
14 Drum Rd.
Rowayton, CT 06853

Tammy Langalis
11 Indian Spring Rd.
Rowayton, CT 06853

Ann Purcell
57 Bluff Ave.
Rowayton, CT 06853

Jean P. Parker
12 Green Beech Drive
Rowayton, CT 06853

Ann Martin DiLeone
34 Rowayton Ave.
Rowayton, CT 06853

Sarah Duffy
23 Westmere
Rowayton, CT 06853

H.J. Cloetzner
13 Yarmouth Rd.
Rowayton, CT 06853

Rebecca MacLachan
35 Clover St
Middletown, CT 06457

Mary Ann Berjeron
154 Markham St.
Middletown, CT 06457

Eric Huhn
412 Arbutus St
Middletown, CT 06457

Sandra Kopell
412 Arbutus St
Middletown, CT 06457

Chris Montgomery
97 Margarite Rd.
Middletown, CT 06457

Eric Mosher
36 Highland Terrace
Middletown, CT 06457

Tina Lapointe
30 Falcon Terrace
Middletown, CT 06457

Robert Lawson
38 Flacon Terrace
Middletown, CT 06457

Corina Tennant-Moore
222 Church St. 5370
Middletown, CT 06459

Mary Hoyt
24 Clover St.
Middletown, CT 06457

Brian Stewart
27 Summit Place
Middletown, CT 06457

Lisa Simmons
72 Burr Ave.
Middletown, CT 06457

Ruth Montgomery
97 Margarite Rd
Middletown, CT 06457

Lewis Lukens
46 Pine St.
Middletown, CT 06457

Aaron Paige
222 Church St. P.O. Box 5017
Middletown, CT 06457

David Brown
35 Clover St.
Middletown, CT 06457

Lisa Schuerholz-Winters
31 Countryside Ln.
Middletown, CT 06457

Jean Orr
11 Hamlin Court
Middletown, CT 06457

William Pinch
118 High St.
Middletown, CT 06457

Bob Rentejanes
345 Boston Rd.
Middletown, CT 06457

Raymond Hurlburt
797 Washington St
Middletown, CT 06457

Lisa Herman
400 High St.
Middletown, CT 06457

Shane Feirstein
400 High St.
Middletown, CT 06457

Laurie Rubinow
90 Annette Place
Middletown, CT 06457

Elizabeth Hurlburt
797 Washington St.
Middletown, CT 06457

Therese Nivison
59 Hickory Circle
Middletown, CT 06457

Vincent Maruffi
116 South Main St. Apt 206
Middletown, CT 06457

Stephan Allison
12 Frazier Ave.
Middletown, CT 06457

Stanley Bysiewicz
South Plumb Rd.
Middletown, CT 06457

Sari Rosenblatt
148 Clover St.
Middletown, CT 06457

Steven Nivison
59 Hickory Circle
Middletown, CT 06457

Carolyn Shaw
111 Bretton Rd.
Middletown, CT 06457

Ellen Luksons
46 Pine St
Middletown, CT 06457

Alison Johnson
108 Camp St.
Middletown, CT 06457

Irene Makuch
113 Hubbard St
Middletown, CT 06455

Dawn Adams
24 Flintlock Dr
Durham, CT 06422

Blakeley Crevoiserat
235 Chestnut Hill Rd.
Glastonbury, CT 06033

David Oehl
52 Sima Rd.
Higganum, CT 06441

Michael Ray
220 Thayer Rd.
Higganum, CT 06441

Rene Smith
45 Chany Pion Hill Rd.
East Hampton, CT 06424

Dolores Tedford
164 Falls Rd.
Moodus, CT 06469

Teri Prestash
2 West Drive
East Hampton, CT 06424

Donna Otake
38 Deerfield Ln.
Portland, CT 06480

Sari Rosenbaum
351 William St
Portland, CT 06480

Andy Bauer
256 Old Marlborough Turnpike
Portland, CT 06480

Lynn Caffery
13 Palmer Rd.
Portland, CT 06480

Mr. and Mrs. Joseph Lastrina
2 Earl St.
Portland, CT 06480

Jean Kelsey
299 Cox Rd.
Portland, CT 06480

Marion Anderson
25 Coe Ave.
Portland, CT 06480

Barbara Chapman
170 Great Hill Rd.
Portland, CT 06480

Phyllis Clark
204 Thompson Hill Rd.
Portland, CT 06480

Fran Schoell
245 Thompson Hill Rd.
Portland, CT 06480

Cathy Glasson
7 Wilcox Ln.
Portland, CT 06480

Vittorio Lancia
311 Main St. #5
Portland, CT 06480

Judi Rand
77 Breezy Corner Rd.
Portland, CT 06480

Joanne Luppi
205 Thompson Hill Rd.
Portland, CT 06480

John LeShane
P.O. Box 850
98 South Rd.
Portland, CT 06480

Terry Supple
92 Middle Haddam Rd.
Portland, CT 06480

Theresa Cleary
11 Birch Tree Hill
Portland, CT 06480

Thomas Keser
58 Freestone Ave.
Portland, CT 06480

William Caffery
13 Palmer Rd.
Portland, CT 06480

Marie Keser
78 William St.
Portland, CT 06480

Kathy Dill
161 Penfield Hill
Portland, CT 06480

Lawrence Harder
34 Thompson Hill Rd.
Portland, CT 06480

Drusilla Harder
34 Thompson Hill Rd.
Portland, CT 06480

Marlyn Hall
146 Ames Hollow Rd.
Portland, CT 06480

Ellen Roman
14 Covell Hill Rd.
Portland, CT 06480

Michael Cleary
11 Birch Tree Hill
Portland, CT 06480

Dan Troph
61 Blue Ridge Rd.
Wilton, CT 06897

Kelly Pyers
67 School House Rd.
Wallingford, CT 06492

Susan Alzner
2121 Durham Rd.
Madison, CT 06443

Howard Brown
26 Valley Court
Branford, CT 06405

Jennifer Beaumont
P.O. Box 26
Hadlyme, CT 06439

David Bedell
148 Summer St.
New Canaan, CT 06840

Edward Shatas
89 Glenview Rd.
Meriden, CT 06450

Henry Oseep
81 Saunders St.
East Hartford, CT 06108

David Yih
87 Crescent St. B-1
Hartford, CT 60106

Miriam Bergamini
80 Wethersfield Ave.
Hartford, CT 06114

Melody Flowers
17 Mitchell Place
West Hartford, CT 06119

George Mandler
470 Frogtown Rd.
New Canaan, CT 06840

Diana Tosado
20 West Ave.
Darien CT 06820

Sophie Barnes
3 Buck Hill Rd.
Westport, CT 06886

Richard Francis
9 Prospect Rd.
Westport, CT 06880

Janet Francis
20 West Ave.
Westport, CT 06880

Corinne Youngling
16 Compo Parkway
Westport, CT 06880

Thomas Watson
1270 Fairfield Beach Rd.
Fairfield, CT 06432

Barbara Harris
89 Beacon View Drive
Fairfield, CT 06432

Stacy Eomes
2086 East Lake Drive
Atlanta, GA 30307

Sene Sorrow
1130 State St. NW
Atlanta, GA 30318

Sim Sorrow
P.O. Box 78121
Atlanta, GA 30357

Leigh Lytie
533 Clairmont Cir. #8
Decatur, GA 30033

Jane Ritchey
3 Nathan Hale Drive
South Norwalk, CT 06854

Doris Friend
16 Valley Rd., Wilson Point
South Norwalk, CT 06854

Chris Griffith
21 Sable St.
South Norwalk, CT 06854

Melissa Woolford
15 Shagbark Rd.
South Norwalk, CT 06854

Frank Arcamone
26 Second St.
Norwalk, CT 06855

Judith Rivas
208 Flax Hill Rd. #18
Norwalk, CT 06854

Sarah Wappler
18 Dock Rd.
Norwalk, CT 06854

S. Forelli
6 Shagbark Rd.
Norwalk, CT 06854

Lynnelle Jones
8 Point Rd.
Norwalk, CT 06854

Sal d'Alessandro
183 Rt. 81
Higganum, CT 06441

Demetrius d'Alessandro
183 Killingworth Rd Rt. 81
Higganum, CT 06441

Mardi Hanson d'Alessandro
183 Killingworth Rd Rt. 81
Higganum, CT 06441

Aydee Soto
192 Suncrest Rd.
Norwalk, CT 06854

Dorothy O. Schiavelli
96 Danbury Rd. #225
Wilton, CT 06897

Mats, Linda, Taleen and Ara Joseffsson
5 Harriett Ln.
Darien, CT 06820

Gessy M. Dervil
211 Birdseye St. Apt. B-3
Bridgeport, CT 06604

Janeen Nicholson
10 Manila Place
Bridgeport, CT 06610

Elise Klein
148 Summer St.
New Canaan, CT 06840

Beth Lazar
124 Main St. Apt. 728
Bridgeport, CT 06604

Beatriz Rivera
112 Lexington Ave.
Norwalk, CT 06854

Andrew Bivens
1148 William St. Apt. #302
Bridgeport, CT 06608

David Young
81 Acorn St.
Bridgeport, CT 06606

Joe Pensanti
76 Fairview Ave.
Stratford, CT 06614

Aretha C. Dupree
170 McGrath Court
Stratford, CT 06615

Jenny Diamantadis
73 Knapp St.
Stamford, CT 06907

Filine McDowell
11 Bedford Ave. Unit N3
Norwalk, CT 06850

Jomesha McFadden
26 Kingsbury Rd.
Bridgeport, CT 06610

Dee Schivelli
342 Chestnut Hill Rd.
Norwalk, CT 06851

Aimee Butterfield
28 Thompson Crest
Meriden, CT 06450

Stephanie Rivera
21 Goff St. Apt 4
Meriden, CT 06450

Esther Gozman
153 Horburt St.
Meriden, CT 06450

Alex Logoyke
21 Orchard St.
Meriden, CT 06450

Marisa Balletti
116 Park Ave.
Meriden, CT 06450

Carl Perdo
22 Boylston St.
Meriden, CT 06450

Victor Hawrylak
39 Linda Court
Meriden, CT 06450

Kacey Baginski
130 Bradley Ave.
Meriden, CT 06451

Ashley Proter
292 Britannia St. Apt 2
Meriden, CT 06451

Erin Murphy
38 Brookdale Rd.
Meriden, CT 06451

Isolde Rosario
33 Catlin St.
Meriden, CT 06451

Veronica Campbell
682 Murdock Ave.
Meriden, CT 0645

Tatiana A. Arias O'Connor
P.O. Box 88
Meriden, CT 06451

Heather Kozlowski
135 Newton St.
Meriden, CT 06450

Jessica Sperry
30 Sefton Drive
New Britain, CT 06053

Sara Michared
62 Atkins St.
Meriden, CT 06450

Kathryn Hewitt
153 Stephen Drive
Meriden, CT 06450

Alex Jacobine
202 Mayflower Ln.
Meriden, CT 06450

Kelly Pajor
112 Murray St.
Meriden, CT 06450

Kate DuBois
75 Clinton
Meriden, CT 06450

Linda Bovdreau
128 Bee St
Meriden, CT 06450

Meredith P. Goode
43 Woodlawn Terrace
Meriden, CT 06450

Melody A. Dodge
80 Glen Hills Rd.
Meriden, CT 06451

Brook Bourquet
240 Thorpe Ave.
Meriden, CT 06450

Caroline Schwink
60 Nancy Ln.
Meriden, CT 06450

Jessi Cantito
68 Lori Ln.
Meriden, CT 06450

Courtney Gesner
139 Cottage St.
Meriden, CT 06450

Adam Manciagli
90 Barr Rd.
Meriden, CT 06450

Jahaira Johnson
626 N. Colony St.
Meriden, CT 06450

Deidre Herenstine
54 Sage Hill Rd
Meriden, CT 06450

Lorissa Erazmus
87 Murray St.
Meriden, CT 06450

Elibeth Banitez
120 Gravel St. Apt. #30
Meriden, CT 06450

Alison Hamrah
196 Stephen Dr.
Meriden, CT 06450

Meahan Krolber
89 Carriage Dr. East
Meriden, CT 06450

Erin Harris
221 Carpenter Ave.
Meriden, CT 06450

Crystal Lavigne
50 Hawe St.
Meriden, CT 06450

Kevin Marchetti
14 Rose Circle
Meriden, CT 06450

Suyen Bonilla
58 N. Second St.
Meriden, CT 06451

Joe Lamb
25 Margerie St.
Meriden, CT 06450

Thomas Carr
79 Birchwood Dr.
South Meriden, CT 06451

Elizabeth Holian
7 Worden Circle
Cheshire, CT 06410

Mrs. L. Scharchuk
36 Tumblebrook Dr.
Vernon, CT 06066

Glen Kallinich
252 Opening Hill Rd
Madison, CT 06443

A. Esser
10 Old Barge Rd.
Simsbury, CT 06070

Dwight Sharpe
28 Courtney CT .
Meriden, CT 06450

Dennis Stario
199 Bee St.
Meriden, CT 06450

Brett Spignesi
7 Brian Court
Meriden, CT 06450

Starsha Maldonado
136 Britannia St.
Meriden, CT 06450

Kyle Fox
415 Murdock Ave.
Meriden, CT 06450

Nikui Ostasiewski
148 Midlard Dr.
Meriden, CT 06450

Demelna James
191 State St. #161
Meriden, CT 06450

Sarah Ahern
181 Hicks St. #4D
Meriden, CT 06450

John Rich
503 Blackstone Village
Meriden, CT 06450

Diego Rivera
72 Nancy Ln.
Meriden, CT 06450

Luis Roldan
64 North Ave.
Meriden, CT 06451

Kristine Kirk
1027 Old Colony Rd. Apt. 32
Meriden, CT 06451

Stacy Robillard
74 Mountain View Rd.
Meriden, CT 06450

Samantha Spellacy
50 Hobart St.
Meriden, CT 06450

Tracy Fiderio
47 Prann Court
Meriden, CT 06450

Ron Leoni
268 Atkins St. Extension
Meriden, CT 06450

Joe Pavlick
232 Metacomet Dr.
Meriden, CT 06450

Amy Ferreira
105 Pinehurst Dr.
Meriden, CT 06450

Bruce Golden
77 Hillcrest Ave.
South Meriden, CT 06451

Brenda Chapman
31 Linda Court
Meriden, CT 06450

Rob Szymaszek
76 Oak Ridge Dr.
Meriden, CT 06450

Donald Panciers
121 Gravel St.
Meriden, CT 06450

John F. Cagnina
36 Vanderbilt Ave.
Rowayton, CT 06853

Anna Aschenbach
37 East Pearl St.
New Haven, CT 06513

Alice W. Goldberg
70 Livingston St.
New Haven, CT 06511

David A. Goldberg
70 Livingston St.
New Haven, CT 06511

Mr. Lawrence M. Losio
342 Chestnut Hill Rd.
Norwalk, CT 06851

Kelly Levin
P.O. Box 206851
New Haven, CT 06520

RCSA Section 22a-174-44

B-1. Notice of public hearing
B-2. Certification of public hearing
B-3. Hearing report

Office of Secretary of the State
State of Connecticut
P.O. Box 150470, Hartford, CT 06115-0470

Susan Bysiewicz
Secretary of the State

Lesley D. Mara
Deputy Secretary of the State

October 6, 2008

Hon. Gina McCarthy, Commissioner
Department of Environmental Protection
79 Elm Street
Hartford, CT 06105

Re: Agency Regulation Concerning:

Adoption of Section 22a-174-44, Adhesives and Sealants (Abatement of Air Pollution)

Regulation Review Committee Docket Number: 2008-042
Secretary of the State File Number: 5864

Dear Commissioner McCarthy:

This is to acknowledge receipt of two certified copies of the above referenced regulation issued by the Department of Environmental Protection. One of the two copies has been forwarded to the Commission on Official Legal Publications as required by law.

Said regulation was received and filed in this office on October 3, 2008. The effective date of this regulation is October 3, 2008.

We request that you please forward the original or a copy of this acknowledgement letter to your agency's legal services department, and/or to the agency department responsible for adopting the regulation, for its files.

Sincerely,

Barbara Sladek
RLS Assistant Coordinator
860-509-6147

CC: Commission on Official Legal Publications (Letter and Copy of Regulation)

File

STATE OF CONNECTICUT

REGULATION

OF

NAME OF AGENCY

Environmental Protection

Concerning

Adoption of Section 22a-174-44
Adhesives and Sealants

The Regulations of Connecticut State Agencies are amended by adding section 22a-174-44 as follows:

(NEW)
Section 22a-174-44 Adhesives and sealants.

(a) Definitions. For the purposes of this section, the following definitions shall apply:

(1) "Acrylonitrile-butadiene-styrene welding adhesive" or "ABS welding adhesive" means any adhesive intended by the manufacturer to weld acrylonitrile-butadiene-styrene pipe, which is made by reacting monomers of acrylonitrile, butadiene and styrene.

(2) "Adhesive" means any chemical compound, such as an organic polymer, that is applied for the purpose of bonding two surfaces together by other than mechanical means.

(3) "Adhesive primer" means any product intended by the manufacturer for application to a substrate, prior to the application of an adhesive, to enhance the bonding surface.

(4) "Aerosol adhesive" means an adhesive packaged as an aerosol in which the spray mechanism is permanently housed in a non-refillable can designed for handheld application without ancillary hoses or spray equipment.

(5) "Aerospace component" means the fabricated part, assembly of parts or completed unit of any aircraft, helicopter, missile or space vehicle, including passenger safety equipment.

(6) "Architectural" means pertaining to stationary structures, including mobile homes, and their appurtenances. Appurtenances to an architectural structure include, but are not limited to, hand railings, cabinets, bathroom and kitchen fixtures, fences, rain gutters and downspouts and windows.

(7) "As applied" means the composition of an adhesive, sealant or primer at the time it is applied to a substrate, including any solvent, catalyst or other substance added to the as supplied adhesive, sealant or primer.

(8) "As supplied" means the composition of an adhesive, sealant or primer as sold to a retail customer. For multi-component adhesives, sealants or primers, "as supplied" means the composition after the component parts are combined as specified by the manufacturer and before the addition, at the user's initiative, of any ancillary substances.

(9) "Automotive glass adhesive primer" means an adhesive primer intended by the manufacturer to be applied to automotive glass prior to installation of the glass using an adhesive. "Automotive glass adhesive primer" improves the adhesion to the pinch weld and blocks ultraviolet light.

(10) "CARB" means the California Air Resources Board.

(11) "Ceramic tile installation adhesive" means any adhesive intended for use in the installation of ceramic tiles.

(12) "Chlorinated polyvinyl chloride welding adhesive" or "CPVC welding adhesive" means any adhesive intended for welding of CPVC plastic pipe.

(13) "Cleanup solvent" means a VOC-containing solvent used to remove a loosely held uncured adhesive or sealant from a substrate or to clean equipment used in applying an adhesive, a sealant or a primer.

(14) "Computer diskette jacket manufacturing adhesive" means any adhesive intended by the manufacturer to glue the fold-over flaps to the body of a vinyl computer diskette jacket.

(15) "Contact bond adhesive" means any adhesive that forms an instantaneous, non-repositionable bond when substrates, on which the adhesive was applied and allowed to dry, are brought together using momentary pressure. "Contact bond adhesive" does not include rubber cements that are primarily intended for use on paper substrates or vulcanizing fluids designed and labeled for tire repair only.

(16) "Cove base" means a flooring trim unit, generally made of vinyl or rubber, having a concave radius on one edge and a convex radius on the opposite edge that is used in forming a junction between the bottom wall course and the floor or in forming an inside corner.

(17) "Cove base installation adhesive" means any adhesive intended by the manufacturer for the installation of cove base or wall base on a wall or vertical surface at floor level.

(18) "Cyanoacrylate adhesive" means any single-component reactive diluent adhesive that contains at least 85% by weight methyl, ethyl, methoxymethyl or other functional groupings of cyanoacrylate.

(19) "Exempt compound" means compounds of carbon excluded from the definition of "VOC" in section 22a-174-1 of the Regulations of Connecticut State Agencies.

(20) "Flexible vinyl" means non-rigid polyvinyl chloride plastic with at least five percent, by weight, plasticizer content.

(21) "Fiberglass" means a material made of extremely fine filaments of glass.

(22) "Indoor floor covering installation adhesive" means any adhesive intended by the manufacturer for use in the installation of finish surface wood flooring, carpet, resilient tile, vinyl tile, vinyl backed carpet, resilient sheet and roll or artificial grass. Adhesive used to install ceramic tile or perimeter bonded sheet vinyl flooring is not "indoor floor covering installation adhesive."

(23) "Laminate" means a material made by bonding two or more sheets or layers.

(24) "Low-solids adhesive, sealant or primer" means any adhesive, sealant or primer product that contains 120 grams or less of solids per liter of product.

(25) "Marine deck sealant" or "marine deck sealant primer" means any sealant or sealant primer intended by the manufacturer for application to wooden marine decks.

(26) "Medical equipment manufacturing" means the manufacture of medical devices, such as, but not limited to, catheters, heart valves, blood cardioplegia machines, tracheostomy tubes, blood oxygenators or cardiatory reservoirs.

(27) "Metal-to-elastomer molding or casting adhesive" means any adhesive intended by the manufacturer to bond metal to rubber or urethane elastomers using a heated molding or casting process in order to fabricate products.

(28) "Multipurpose construction adhesive" means any adhesive intended by the manufacturer for use in the installation or repair of various construction materials, including, but not limited to, dry wall, subfloor, panel, fiberglass reinforced plastic, ceiling tile or acoustical tile.

(29) "Nonmembrane roof installation or repair adhesive" means any adhesive intended by the manufacturer for use in the installation or repair of nonmembrane roofs, including, but not limited to, plastic or asphalt roof cement, asphalt roof coating or cold application cement. Adhesive intended for use in the installation of pre-fabricated single-ply roof membrane is not "nonmembrane roof installation or repair adhesive."

(30) "Outdoor floor covering installation adhesive" means any adhesive intended by the manufacturer for use in the installation of floor covering that is not in an enclosure and that is exposed to ambient weather conditions during normal use.

(31) "Panel installation" means the installation of plywood, pre-decorated hardboard (or tileboard), fiberglass reinforced plastic, or similar pre-decorated or non-decorated panels to studs or solid surfaces using an adhesive formulated for that purpose.

(32) "Perimeter bonded sheet vinyl flooring installation" means the installation of sheet flooring with vinyl backing onto a nonporous substrate using an adhesive designed to be applied only to a strip no more than four inches wide around the perimeter of the sheet flooring.

(33) "Plastic cement welding adhesive" means any adhesive intended by the manufacturer for use to dissolve the surface of plastic to form a bond between mating surfaces.

(34) "Plastic cement welding primer" means any primer intended by the manufacturer for use to prepare plastic substrates prior to bonding or welding.

(35) "Plasticizer" means any substance, such as a high boiling point organic solvent, that is added to a hard plastic to provide flexibility or pliability.

(36) "Polyvinyl chloride welding adhesive" or "PVC welding adhesive" means any adhesive intended by the manufacturer for use in the welding of PVC plastic pipe.

(37) "Porous material" means wood, paper, corrugated paperboard or other solid that has tiny openings, often microscopic, in which fluids may be absorbed or discharged.

(38) "Reactive diluent" means a liquid reactant in an uncured adhesive, sealant or primer that reacts chemically or physically during the curing process to become an integral part of the cured adhesive, sealant or primer.

(39) "Roadway sealant" means any sealant intended by the manufacturer for application to public streets, highways and other surfaces, including, but not limited to, curbs, berms, driveways or parking lots.

(40) "Rubber" means any natural or manmade elastomer, including, but not limited to, styrene-butadiene rubber, polychloroprene (neoprene), butyl rubber, nitrile rubber, chlorosulfonated polyethylene or ethylene propylene diene terpolymer.

(41) "SCAQMD" means the South Coast Air Quality Management District, a part of the California Air Resources Board, which is responsible for the regulation of air quality in the State of California.

(42) "Sealant primer" means any product intended by the manufacturer for application to a substrate, prior to the application of a sealant, to enhance the bonding surface.

(43) "Sealant" means any material with adhesive properties that is formulated primarily to fill, seal, waterproof or weatherproof gaps or joints between two surfaces. Sealers and other materials that are applied to a single substrate to protect or decorate are not "sealants."

(44) "Sheet-applied rubber installation" means the process of applying sheet rubber liners by hand to metal or plastic substrates to protect the underlying substrate from corrosion or abrasion, inclusive of the process of laminating sheet rubber to fabric by hand.

(45) "Single-ply roof membrane" means a prefabricated single sheet of compounded synthetic material such as ethylene propylenediene monomer, polyvinyl chloride, thermal polyolefin or ketone ethylene ester that is applied in a single layer to a building roof.

(46) "Single-ply roof membrane installation or repair adhesive" means any adhesive intended by the manufacturer for use in the installation or repair of single-ply roof membrane.

(47) "Single-ply roof membrane adhesive primer" means any primer intended by the manufacturer for use to clean and promote adhesion of the single-ply roof membrane seams or splices prior to bonding.

(48) "Single-ply roof membrane sealant" means any sealant intended by the manufacturer for application to single-ply roof membrane.

(49) "Solvent" means any organic compounds that are used as diluents, thinners, dissolvers, viscosity reducers, cleaning agents or other related uses.

(50) "Structural glazing adhesive" means any adhesive intended by the manufacturer to apply glass, ceramic, metal, stone or composite panels to exterior building frames.

(51) "Surface preparation solvent" means a solvent used to remove dirt, oil and other contaminants from a substrate prior to the application of a primer, adhesive or sealant.

(52) "Thin metal laminating adhesive" means any adhesive intended by the manufacturer for use in bonding multiple layers of metal to metal or metal to plastic, in the production of electronic or magnetic components, in which the thickness of the bond line or lines is less than 0.25 mils.

(53) "Tire repair" means a process that includes expanding a hole, tear, fissure or blemish in a tire casing by grinding or gouging, applying adhesive and filling the hole or crevice with rubber.

(54) "Tire retread adhesive" means any adhesive intended by the manufacturer for application to the back of pre-cure tread rubber and to the casing and cushion rubber. "Tire retread adhesive" may also be used to seal buffed tire casings to prevent oxidation while the tire is being prepared for a new tread.

(55) "Traffic marking tape" means preformed reflective film intended by the manufacturer for application to streets, highways and other surfaces where pavement markings are desired, including, but not limited to, curbs, berms, driveways and parking lots.

(56) "Traffic marking tape adhesive primer" means any primer intended by the manufacturer for application to a substrate prior to installation of traffic marking tape.

(57) "Twelve-month rolling aggregate" means the amount of adhesives, sealants, primers or solvents used in a twelve-month period, calculated each month by adding the current month's adhesive, sealant, primer or solvent use to the amount used in each of the previous eleven months.

(58) "Undersea-based weapons systems components" means the fabrication of parts, assembly of parts or completed units of any portion of a missile launching system used on submarines.

(59) "Waterproof resorcinol glue" means a two-part resorcinol-resin-based adhesive intended for continuous water immersion.

(b) Applicability.

(1) Except as provided in subsection (c) of this section, this section applies to any person who, on or after January 1, 2009, sells, supplies or offers for sale for use in the State of Connecticut any adhesive, sealant, adhesive primer or sealant primer subject to a VOC content limit in Table 44-1 of this section.

(2) Except as provided in subsection (c) of this section, this section applies to any person who, on or after January 1, 2009, manufactures for sale for use in the State of Connecticut any adhesive, sealant, adhesive primer or sealant primer subject to a VOC content limit in Table 44-1 of this section.

(3) Except as provided in subsection (c) of this section, this section applies to any person who, on or after January 1, 2009, uses or applies within the State of Connecticut, or solicits the use or application of within the State of Connecticut, any adhesive, sealant, adhesive primer or sealant primer with an applicable VOC content limit in either Table 44-1 or Table 44-2 of this section.

(c) Exemptions and exceptions.

(1) The requirements of this section shall not apply, except as otherwise noted, to the manufacture, sale or use of the following adhesives, sealants, adhesive primers, sealant primers or solvents:

(A) Adhesives, sealants, adhesive primers or sealant primers being tested or evaluated in any research and development, quality assurance or analytical laboratory, provided that records are maintained as specified in subsection (f)(4) of this section;

(B) Adhesives or sealants that contain less than 20 grams of VOC per liter of adhesive or sealant, less water and exempt compounds, as applied;

(C) Cyanoacrylate adhesives;

(D) Aerosol adhesives;

(E) Adhesives, sealants, adhesive primers or sealant primers that are sold or supplied by the manufacturer or supplier in containers with a net volume of 16 fluid ounces or less, or a net weight of one pound or less, except plastic cement welding adhesives and contact bond adhesives;

(F) Adhesives, sealants, adhesive primers and sealant primers that are subject to a VOC content limit in section 22a-174-40 of the Regulations of Connecticut State Agencies;

(G) Contact bond adhesives that are sold or supplied by the manufacturer or supplier in a container with a net volume of one gallon or less; or

(H) Adhesives, cleanup solvents and surface preparation solvents used in the assembly, repair and manufacture of submarines, when the use of a noncomplying adhesive or solvent is necessary to meet military performance specifications, provided that records of the use of such noncompliant adhesives or solvents are maintained in accordance with subsection (f)(1) of this section.

(2) The requirements of this section shall not apply to the use of adhesives, sealants, adhesive primers, sealant primers, surface preparation solvent and cleanup solvent in the following operations:

(A) Tire repair operations, provided the label of the adhesive states **"For tire repair only;"**

(B) Assembly, repair or manufacture of undersea-based weapon systems;

(C) Assembly, repair or manufacture of aerospace components;

(D) Manufacture of medical equipment;

(E) Metal cleaning performed in accordance with section 22a-174-20(*l*) of the Regulations of Connecticut State Agencies; or

(F) Plaque laminating operations in which adhesives are used to bond clear, polyester acetate laminate to wood with lamination equipment installed prior to July 1, 1992. Any person claiming exemption pursuant to this subparagraph shall record and maintain monthly operational records sufficient to demonstrate compliance with this exemption and in accordance with subsection (f) of this section.

(3) The provisions of this section shall not apply to the use of adhesives, sealants, adhesive primers or sealant primers at a facility if the total VOC emissions from all adhesives, sealants, adhesive primers and sealant primers used at the facility are less than 200 pounds, or an equivalent volume, per any twelve-month rolling aggregate. Emissions from cold cleaning units, vapor degreasers and aerosol products shall not be included in determining the total VOC emissions. Any person claiming exemption pursuant to this subdivision shall record and maintain monthly operational records sufficient to demonstrate continued eligibility for this exemption and in accordance with subsection (f) of this section, as applicable.

(4) The VOC content limits in Tables 44-1 and 44-2 and the requirements of subsections (d)(7) and (d)(8) of this section shall not apply to the use of any adhesives, sealants, adhesive primers, sealant primers, cleanup solvents and surface preparation solvents provided the total volume of noncomplying adhesives, sealants, primers, cleanup and surface preparation solvents applied facility-wide does not exceed 55 gallons per any twelve-month rolling aggregate. Any person claiming exemption pursuant to this subdivision shall record and maintain monthly operational records sufficient to demonstrate compliance with this exemption and in accordance with subsection (f) of this section.

(5) This section shall not apply to any manufacturer or distributor who sells, supplies or offers for sale in the State of Connecticut any adhesive, sealant, adhesive primer or sealant primer that does not comply with the VOC content limits specified in Table 44-1 of this section provided that such manufacturer or distributor makes and keeps records demonstrating:

(A) The adhesive, sealant, adhesive primer or sealant primer is intended for shipment and use outside of the State of Connecticut; and

(B) The manufacturer or distributor has taken reasonable precautions to assure that the adhesive, sealant, adhesive primer or sealant primer is not distributed to or within the State of Connecticut.

(6) Subdivision (5) of this subsection shall not apply to any manufacturer or distributor who sells, supplies or offers for sale any adhesive, sealant, adhesive primer or sealant primer to a retail outlet in the State of Connecticut.

(7) The VOC content limits of Table 44-1 of this section shall not apply to the sale of any adhesive, sealant, adhesive primer or sealant primer to a person using add-on air pollution control equipment to control emissions of VOC from such adhesive, sealant, adhesive primer or sealant primer at the stationary source, if the add-on air pollution control equipment meets the requirements of subsection (d)(6) of this section.

(8) This section shall not apply to the use of any adhesive, sealant, adhesive primer, sealant primer, cleanup solvent or surface preparation solvent at a private residence for non-commercial purposes.

(9) The requirements of this section shall not apply to any adhesive, sealant, adhesive primer, sealant primer, cleanup solvent or surface preparation solvent that is distributed or transferred by a branch of the United States military to, from or within a premises operated by that branch of the United States military.

(10) The requirements of this section shall apply to the use of single-ply roof membrane installation or repair adhesive, single-ply roof membrane sealant and single-ply roof membrane adhesive primer on the following schedule:

(A) For the year 2009, from June 1 through August 31;

(B) For the years 2010 and 2011, from May 1 through September 30; and

(C) On and after January 1, 2012.

(11) The requirements of this section shall not apply to any manufacturer or distributor who sells, supplies or offers for sale any single-ply roof membrane installation or repair adhesive, single-ply roof membrane sealant or single-ply roof membrane adhesive primer prior to January 1, 2012.

(d) Standards.

(1) Except as provided in subsections (c) and (d)(6) of this section, on or after January 1, 2009, no person shall sell, supply or offer for sale for use in the State of Connecticut any adhesive, sealant, adhesive primer or sealant primer manufactured on or after January 1, 2009 unless such adhesive, sealant, adhesive primer or sealant primer complies with the applicable VOC content limits specified in Table 44-1 of this section and the applicable requirements of this subsection.

(2) Except as provided in subsections (c) and (d)(6) of this section, on or after January 1, 2009, no person shall manufacture for sale for use in the State of Connecticut any adhesive, sealant, adhesive primer or sealant primer unless such adhesive, sealant, adhesive primer or sealant primer complies with the applicable VOC content limits specified in Table 44-1 of this section and the applicable requirements of this subsection.

(3) Except as provided in subsections (c)(1) through (c)(4), (c)(7), (c)(9), (c)(10), (c)(11) and (d)(6) of this section, on or after January 1, 2009, no person shall use or apply, or solicit the use or application of, any adhesive, sealant, adhesive primer or sealant primer within the State of Connecticut unless such adhesive, sealant, adhesive primer or sealant primer as applied complies with the applicable VOC content limits specified in Table 44-1 or Table 44-2 of this section and the applicable requirements of this subsection.

(4) For adhesives, the VOC content limits of Tables 44-1 and 44-2 of this section shall apply as follows:

(A) If a person uses an adhesive subject to a specific VOC content limit in Table 44-1, such specific limit shall apply, and no limit in Table 44-2 shall apply; and

(B) If an adhesive is not listed in Table 44-1, a VOC content limit in Table 44-2 shall apply based on the substrate bonded by the adhesive. If an adhesive is used to bond two different substrates together, the substrate assigned the higher VOC content limit shall apply to such use.

(5) Any person using adhesives, sealants, adhesive primers, sealant primers, surface preparation solvents or clean-up solvents subject to this section shall store or dispose of all absorbent materials, such as cloth or paper, which are moistened with such adhesives, sealants, primers or solvents, in non-absorbent containers that shall be closed except when placing materials in or removing materials from the container.

(6) A person using an adhesive, sealant, adhesive primer or sealant primer subject to this section may comply with the VOC content limits of Tables 44-1 and 44-2 of this section using add-on air pollution control equipment if such equipment meets the following requirements:

(A) The VOC emissions from the use of all adhesives, sealants, adhesive primers or sealant primers subject to this section are reduced by an overall capture and control efficiency of at least 85%, by weight;

(B) The combustion temperature is monitored continuously if a thermal incinerator is operated;

(C) Inlet and exhaust gas temperatures are monitored continuously if a catalytic incinerator is operated;

(D) The VOC concentration of the inlet and exhaust gas is measured continuously if a carbon absorber or control device other than a thermal or catalytic incinerator is operated; and

(E) Operational records sufficient to demonstrate compliance with the requirements of this subdivision are maintained as required by subsection (f) of this section.

(7) Any person using a surface preparation solvent shall:

(A) Except as provided in subparagraph (B) of this subdivision for single-ply roofing, limit the VOC content of surface preparation solvent used to less than 70 grams per liter; or

(B) If a surface preparation solvent is used in applying single-ply roofing, limit the composite vapor pressure, excluding water and exempt compounds, of the surface preparation solvent used to less than or equal to 45 mmHg at 20 degrees Celsius.

(8) Any person using a cleanup solvent shall:

(A) Except as provided in subparagraph (B) of this subdivision, limit the composite vapor pressure of a cleanup solvent to less than 45 mmHg at 20 degrees Celsius; or

(B) When cleaning spray application equipment, perform the removal of an adhesive, sealant, adhesive primer or sealant primer from the parts of spray application equipment in accordance with either subparagraph (i) or (ii), as follows:

(i) In an enclosed cleaning system, or equivalent cleaning system as determined by the test method identified in subsection (e)(4) of this section, or

(ii) Using a solvent with a VOC content less than or equal to 70 grams of VOC per liter. As necessary, parts containing dried adhesive may be soaked in a solvent if the composite vapor pressure of the solvent, excluding water and exempt compounds, is less than or equal to 9.5 mmHg at 20 degrees Celsius, and the parts and solvent are in a closed container that remains closed except when adding parts to or removing parts from the container.

(9) No person who applies or solicits the application of any adhesive, sealant, adhesive primer or sealant primer subject to this section shall add solvent to such adhesive, sealant or primer in an amount in excess of the manufacturer's recommendation for application, if such addition causes the adhesive, sealant or primer to exceed the applicable VOC content limit of this section.

(e) Compliance procedures and test methods.

(1) Any person who sells, supplies, offers for sale or manufactures an adhesive, sealant, adhesive primer or sealant primer subject to this section on or after January 1, 2009 for sale in the State of Connecticut shall possess documentation that such adhesive, sealant, adhesive primer or sealant primer complies with the VOC content limits of Table 44-1 of this section, where the VOC content is determined according to the requirements of subdivisions (2) and (3) of this subsection. For single-ply roof membrane installation or repair adhesive, single-ply roof membrane sealant and single-ply roof membrane adhesive primer, such documentation is required on and after January 1, 2012.

(2) The VOC content (grams per liter and percent by weight) of adhesive, sealant, primer and solvent products subject to this section, shall be determined according to the following calculations:

(A) For products that do not contain reactive diluents, grams of VOC per liter of product thinned to the manufacturer's recommendation, less water and exempt compounds, shall be calculated according to the following equation:

$$\text{Grams of VOC per liter of product} = \frac{Ws - Ww - We}{Vm - Vw - Ve}$$

Where

Ws	=	weight of volatile compounds, in grams
Ww	=	weight of water, in grams
We	=	weight of exempt compounds, in grams
Vm	=	volume of product, as supplied, in liters
Vw	=	volume of water, in liters
Ve	=	volume of exempt compounds, in liters;

(B) For products that contain reactive diluents, the VOC content of the product is determined after curing. The grams of VOC per liter of product thinned to the manufacturer's recommendation, less water and exempt compounds, shall be calculated according to the following equation:

$$\text{Grams of VOC per liter of product} = \frac{Wrs - Wrw - Wre}{Vrm - Vrw - Vre}$$

Where

Wrs	=	weight of volatile compounds not consumed during curing, in grams
Wrw	=	weight of water not consumed during curing, in grams
Wre	=	weight of exempt compounds not consumed during curing, in grams
Vrm	=	volume of product, as supplied, not consumed during curing, in liters
Vrw	=	volume of water not consumed during curing, in liters
Vre	=	volume of exempt compounds not consumed during curing, in liters;

(C) Grams of VOC per liter of product thinned to the manufacturer's recommendation shall be calculated according to the following equation:

$$\text{Grams of VOC per liter of product} = \frac{Ws - Ww - We}{Vm}$$

Where

Ws = weight of volatile compounds, in grams
Ww = weight of water, in grams
We = weight of exempt compounds, in grams
Vm = volume of product, in liters; and

(D) Percent VOC by weight shall be calculated according to the following equation:

$$\% \text{ VOC by weight} = [(Wv / W)] \times 100$$

Where

Wv = weight of VOCs in grams
W = weight of product in grams

(3) The following procedures shall be used to determine the properties of the specified adhesives, sealants, primers, solvents or components thereof in order to perform the calculations required pursuant to subdivision (2) of this subsection or to verify calculations based on formulation data:

(A) Except as provided in subparagraphs (C), (D) and (E) of this subdivision, the VOC and solids content of all adhesives, adhesive primers, sealants, sealant primers, surface preparation solvents and cleanup solvents shall be determined using 40 CFR 60, Appendix A, Reference Method 24, or SCAQMD Method 304;

(B) The volatile organic content of exempt organic compounds shall be determined using ASTM D4457-02 or the most current version of such test, as applicable;

(C) The VOC content of any plastic welding cement adhesive or primer shall be determined using SCAQMD Method 316A;

(D) The amount of reactive diluent in a product shall be determined using SCAQMD Method 316A;

(E) The composite vapor pressure of volatile organic compounds in surface preparation solvents and cleanup solvents shall be determined by quantifying the amount of each compound in the blend using gas chromatographic analysis (ASTM E260-96(2006) or the most current version of such test) for organics and ASTM D3792-05 or the most current version of such test, for water content, as applicable, and the following equation:

$$Ppc = \left[\sum_{i=1}^{n} (Wi)(Vpi) / Mwi \right] / \left[(Ww / Mww) + \sum_{i=1}^{n} (We / Mwe) + \sum_{i=1}^{n} (Wi / Mwi) \right]$$

Where

Ppc = VOC composite partial pressure at 20 degrees C, in mmHg

Wi = Weight of the "i"th VOC compound, in grams, as determined by ASTM E260-96(2006) or the most current version of such test

Vpi = Vapor pressure of the "i"th VOC compound at 20 degrees C, in mmHg, as determined by subparagraph (F) of this subdivision

Mw*i* = Molecular weight of the "i"th VOC compound, in grams per g-mole, as given in chemical reference literature

Ww = Weight of water, in grams as determined by ASTM D3792-05 or the most current version of such test

Mww = Molecular weight of water, 18 grams per g-mole

We = Weight of the "i"th exempt compound, in grams, as determined by ASTM E260-96(2006) or the most current version of such test

Mwe = Molecular weight of the "i"th exempt compound, in grams per g-mole, as given in chemical reference literature

(F) The vapor pressure of each single component compound may be determined from ASTM D2879-97(2007), or the most current version of such test, or may be obtained from any of the following sources:

(i) The most recent edition of *The Vapor Pressure of Pure Substances*, Boublik, Fried, and Hala, eds., Elsevier Scientific Publishing Company, New York,

(ii) The most recent edition of *Perry's Chemical Engineer's Handbook*, McGraw-Hill Book Company,

(iii) The most recent edition of *CRC Handbook of Chemistry and Physics*, Chemical Rubber Publishing Company,

(iv) The most recent edition of *Lange's Handbook of Chemistry*, John Dean, editor, McGraw-Hill Book Company, or

(v) Additional sources approved for this purpose by the Commissioner.

(4) The active and passive solvent losses from spray gun cleaning systems shall be determined using SCAQMD's "General Test Method for Determining Solvent Losses from Spray Gun Cleaning Systems," dated October 3, 1989. The test solvent for this determination shall be any lacquer thinner with a minimum vapor pressure of 105 mm of Hg at 20 degrees Celsius, and the minimum test temperature shall be 15 degrees Celsius.

(5) Control device efficiency shall be measured in accordance with 40 CFR 60 Appendix A, Reference Methods 18, 25, 25A and 25B or CARB Method 100.

(6) If the organization responsible for preparing any reference or test method identified in this subsection replaces that method with an equivalent method, then either the identified method or its replacement may be used for the purposes of this section.

(f) Record keeping and reporting requirements.

(1) Except if add-on air pollution control equipment is used to comply with the VOC content limits of Tables 44-1 or 44-2 of this section, as provided in subsection (d)(6) of this section, and records are maintained as required in subsection (f)(2) of this section, each person subject to this section shall maintain records of the information necessary and sufficient for the Commissioner to determine compliance with the applicable requirements of this section. Such information may include:

(A) A list of each adhesive, sealant, adhesive primer, sealant primer, cleanup solvent and surface preparation solvent in use and in storage;

(B) Identification of each adhesive, sealant, adhesive primer, sealant primer, cleanup solvent and surface preparation solvent by product name and description;

(C) The VOC content of each adhesive, sealant, adhesive primer, sealant primer, cleanup solvent and surface preparation solvent product as supplied;

(D) The mix ratio of any catalysts, reducers or other components used;

(E) The final VOC content or vapor pressure of each adhesive, sealant, adhesive primer, sealant primer, cleanup solvent and surface preparation solvent, as applied; or

(F) The monthly volume of each adhesive, sealant, adhesive primer, sealant primer, cleanup solvent or surface preparation solvent used.

(2) Any person who complies with the VOC content limits of Table 44-1 or Table 44-2 of this section through the use of add-on air pollution control equipment shall record the key operating parameters for the control equipment, including but not limited to, the following information:

(A) The volume used per day of each adhesive, sealant, adhesive primer, sealant primer or solvent that is subject to a VOC content limit in Table 44-1 or Table 44-2 of this section and that exceeds such a limit;

(B) On a daily basis, the combustion temperature, inlet and exhaust gas temperatures and control device efficiency, as appropriate, pursuant to subsection (d)(6) of this section;

(C) Daily hours of control equipment operation;

(D) All maintenance performed on control equipment including the date and type of maintenance; and

(E) Records documenting that such equipment is operated in compliance with the control and capture efficiency requirement of subsection (d)(6) of this section.

(3) All records made to determine compliance with this section shall be maintained on the premises for five years from the date such record is created and shall be made available to the Commissioner within 90 days of a request.

(4) For adhesives, sealants, adhesive primers and sealant primers subject to the laboratory testing exemption of subsection (c)(1)(A) of this section, the person conducting the testing shall make and maintain records of all such adhesives, sealants, primers and solvents used in the preparation or evaluation process, including, as appropriate, the product name, manufacturer and description.

(5) Upon written notice, the Commissioner may require any person subject to this section to report information sufficient to determine compliance with the applicable requirements of this section.

(6) Any document submitted to the Commissioner pursuant to this section shall include a certification signed by an individual identified in section 22a-174-2a(a)(1) 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 thereto, 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, under section 53a-157b of the Connecticut General Statutes, and in accordance with any applicable statute."

(g) Container labeling.

(1) As of January 1, 2009, each manufacturer of an adhesive, sealant, adhesive primer or sealant primer subject to a VOC content limit in Table 44-1 of this section shall display the following information on the container or label for such adhesive, sealant, adhesive primer or sealant primer:

(A) The category name of the product;

(B) A statement of the manufacturer's recommendation regarding thinning, reducing or mixing, provided:

(i) A statement is not required for thinning, reducing or mixing with water, and

(ii) If thinning prior to use is not necessary, the recommendation shall specify that the product is to be applied as supplied;

(C) The maximum or the actual VOC content as supplied, displayed in grams of VOC per liter of product; and

(D) The maximum or the actual VOC content as applied in accordance with the manufacturer's recommendation regarding thinning, reducing or mixing, displayed in grams of VOC per liter of applied product.

(2) The VOC content of an adhesive, sealant, adhesive primer or sealant primer shall be calculated using the manufacturer's formulation data or determined using the calculations, procedures and test methods in subsection (e) of this section.

(3) Any person applying an adhesive, sealant, adhesive primer or sealant primer subject to a VOC content limit in Tables 44-1 or 44-2 of this section may rely on the manufacturer's representation on the container or label, if such product is applied as recommended for a use specified on the container or label.

Table 44-1. As Applied VOC Content Limits for Adhesives, Sealants, Adhesive Primers and Sealant Primers

Adhesive, sealant, adhesive primer or sealant primer category	As applied VOC content limit (grams VOC per liter)	Date on which standard applies
Adhesives		
ABS welding	400	January 1, 2009
Ceramic tile installation	130	January 1, 2009
Computer diskette jacket manufacturing	850	January 1, 2009
Contact bond	250	January 1, 2009
Cove base installation	150	January 1, 2009
CPVC welding	490	January 1, 2009
Indoor floor covering installation	150	January 1, 2009
Metal-to-elastomer molding or casting	850	January 1, 2009
Multipurpose construction	200	January 1, 2009
Nonmembrane roof installation or repair	300	January 1, 2009
Plastic cement welding	510	January 1, 2009
Outdoor floor covering installation	250	January 1, 2009
PVC welding	510	January 1, 2009
Single-ply roof membrane installation or repair	250	For 2009: June 1 through August 31; For 2010 & 2011: May 1 through September 30; and On and after January 1, 2012.
Structural glazing	100	January 1, 2009
Thin metal laminating	780	January 1, 2009
Tire retread	100	January 1, 2009
Perimeter bonded sheet vinyl flooring installation	660	January 1, 2009
Waterproof resorcinol glue	170	January 1, 2009
Sheet-applied rubber installation	850	January 1, 2009
Sealants		
Architectural	250	January 1, 2009
Marine deck	760	January 1, 2009
Nonmembrane roof installation or repair	300	January 1, 2009
Roadway	250	January 1, 2009
Single-ply roof membrane	450	For 2009: June 1 through August 31; For 2010 & 2011: May 1 through September 30; and On and after January 1, 2012.
Other	420	January 1, 2009
Adhesive primers		
Automotive glass	700	January 1, 2009
Plastic cement welding	650	January 1, 2009
Single-ply roof membrane	250	For 2009: June 1 through August 31; For 2010 & 2011: May 1 through September 30; and On and after January 1, 2012.
Traffic marking tape	150	January 1, 2009
Other	250	January 1, 2009
Sealant primers		
Non-porous architectural	250	January 1, 2009
Porous architectural	775	January 1, 2009
Marine deck	760	January 1, 2009
Other	750	January 1, 2009

Table 44-2. As Applied VOC Content Limits for Adhesives Applied to the Listed Substrate

Substrate	As applied VOC content limit (grams VOC per liter)
Flexible vinyl	250
Fiberglass	200
Metal	30
Porous material	120
Rubber	250
Other substrates	250

Statement of Purpose: This new section of the air quality regulations limits emissions of volatile organic compounds (VOCs) from adhesives, sealants and primers. This section achieves VOC reductions through two basic components: sale and manufacture restrictions that limit the VOC content of specified adhesives, sealants and primers sold in the state; and use restrictions that apply primarily to commercial/industrial operations such as wood product manufacturers, upholstery shops, adhesives retailers and architectural trades, such as building construction, floor covering installation and roof repair. By reducing the availability of higher VOC content adhesives and sealants within the state, the sales prohibition is also intended to address adhesive and sealant usage at area sources. In addition to the VOC content limits and use requirements, this section includes requirements for cleanup and preparation solvents and a compliance alternative in the form of add-on air pollution control equipment.

This section is based on a model rule of the Ozone Transport Commission, which is, in turn, based on a reasonably available control technology determination prepared by the California Air Resources Board (CARB) in 1998. In the years 1998-2001, the provisions of the CARB determination were adopted in regulatory form in various air pollution control districts in California.

The associated emissions reductions, which are estimated to be nearly 4 tons per summer day, will support attainment of the 8-hour national ambient air quality standard.

CERTIFICATION

Be it known that the foregoing: (check one) ☒ Regulations ☐ Emergency Regulations

Are: ☒ Adopted ☐ Amended as hereinabove stated ☐ Repealed

By the aforesaid agency pursuant to:

☒ Section 22a-174 of the General Statutes

☐ Section _____ of the General Statutes, as amended by Public Act No. ___ of the _____ Public Acts.
(enter year)

☐ Public Act Number _____ of the _____ Public Acts.
(enter year)

(If applicable) **After Publication in the *Connecticut Law Journal* on** September 11, 2007 **of the notice of proposal to:**
(enter publication date)

☒ Adopt ☐ Amend ☐ Repeal **such regulations**

(If applicable) **And the holding of an advertised public hearing on** October 16, 2007
(enter date)

WHEREFORE, the foregoing regulations are hereby:

☒ Adopted ☐ Amended as hereinabove stated ☐ Repealed

2008 OCT -3 AM 10: 34
SECRETARY OF THE STATE
LEGISLATION & ELECTIONS
ADMINISTRATION DIVISION

EFFECTIVE: (check one, and complete as applicable)
☒ When filed with the Secretary of the State
(OR)
☐ The ____ day of _____ 20__.

	DATE	SIGNED *(Head of Board, Agency or Commission)*	OFFICIAL TITLE, DULY AUTHORIZED
In Witness Whereof:	6/17/08		

	SIGNED	OFFICIAL TITLE, DULY AUTHORIZED
Approved by the Attorney General as to legal sufficiency in accordance with Sec. 4--169, as amended, of C.G.S.	6/26/08	ASSOC. ATTY. GENERAL

For Regulation Review Committee Use Only

☒ Approved

☐ Disapproved

☐ Disapproved in part, *(Indicate Section Numbers disapproved only)*

☐ Rejected without prejudice.

	DATE	SIGNED *(Administrator, Legislative Regulation Review Committee)*
By the Legislative Regulation Review Committee in accordance with Section 4-170, as amended, of the General Statues	9/23/08	

Two certified copies received and filed, and one such copy forwarded to the Commission on Official Legal Publications in accordance with Section 4-172, as amended, of the General Statutes.

DATE	SIGNED *(Secretary of the State.)*	BY

INSTRUCTIONS

1. One copy of all regulations for adoption, amendment or repeal, except emergency regulations, must be presented to the Attorney General for his determination of legal sufficiency. Section 4-169 of the General Statutes.
2. Seventeen copies of all regulations for adoption, amendment or repeal, except emergency regulations, must be presented to the standing Legislative Regulation Review Committee for its approval. Section 4-170 of the General Statues
3. Each Regulation must be in the form intended for publication and must include the appropriate regulation section number and section heading. Section 4-172 of the General Statutes.
4. Indicate by "(NEW)" in heading if new regulation. Amended regulations must contain new language underlined or in capital letters and deleted language in brackets. Section 4-179 of the General Statutes.
5. Additional information regarding rules and procedures of the Legislative Regulation Review Committee can be found on the Committee's web site: http://www.cga.ct.gov/rr/

Regulations
of

Environmental Protection

.....

CONCERNING

Adhesives and Sealants

.....

Received and filed in the Office of the
Secretary of the State

.....

Approved by the Attorney General

06/26/08

Approved by the Legislative Regulation
Review Committee or General Assembly

09/23/08

Published in Connecticut Law Journal

.....

The beginning interest rates may be based on interest rates for new investments as of the valuation date similar to recent investments allocated to support the product being tested or be based on an outside index, such as Treasury yields, of assets of the appropriate length on a date close to the valuation date. Whatever method is used to determine the beginning yield curve and associated interest rates should be specifically defined. The beginning yield curve and associated interest rates should be consistent for all interest rate scenarios.

(e) **Documentation.** The appointed actuary shall retain on file, for at least seven (7) years, sufficient documentation so that it will be possible to determine the procedures followed, the analyses performed, the bases for assumptions and the results obtained.

1. The Purpose of these regulations, including the problems, issues or circumstances that the regulation proposes to address.

Effective January 1, 2009, the NAIC Financial Regulation Standards and Accreditation Program will require adoption of the NAIC Actuarial Opinion and Memorandum Regulation (AOMR) amendments that are being proposed as amendments to the current Connecticut regulations. The Insurance Department is required to adopt these provisions to maintain our NAIC accreditation.

2. A summary of the main provisions of the regulation.

The purpose of sections 38a-78-1 to 38a-78-10, inclusive, of these regulations is to prescribe guidelines and standards for statements of actuarial opinion which shall be submitted in accordance with subsection (b) of section 38a-78 of the Standard Valuation Law, and for memoranda in support thereof and to establish rules applicable to the appointment of an appointed actuary.

These amendments will require asset adequacy analysis for all companies and for the filing of a regulatory asset adequacy issues summary by March 15 of each year. The amended regulations would apply to Actuarial Opinions issued for filing with the 2007 year end financial statements.

3. The legal effects of the regulation, including all ways that the regulation would change existing regulations or other laws.

These changes will repeal the portion of the current regulation dealing with actuarial opinions which allows actuarial opinions that are not based on asset adequacy analysis and will mandate the filing of a summary of the key elements of the supporting actuarial memorandum by March 15 of the year following the year for which the statement of the actuarial opinion is required.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

Notice of Intent to Adopt Regulations and to Revise the State Implementation Plan for Air Quality

The Commissioner of Environmental Protection hereby gives notice of a public hearing as part of a rulemaking proceeding to adopt section 22a-174-44 of the Regulations of Connecticut State Agencies (R.C.S.A.). This new section, which is described in the next paragraph, will regulate air emissions from the use of adhesives and sealants. The emissions reductions associated with this new section will assist the state to attain and maintain the 8-hour national ambient air quality standard, and the section will be submitted to the U.S. Environmental Protection Agency (EPA) for review and approval as a revision to the State Implementation Plan for air quality.

R.C.S.A. Section 22a-174-44 – Adhesives and sealants. This new section of the air quality regulations limits emissions of volatile organic compounds (VOCs) from the use of adhesives, sealants, primers and solvents. This section achieves VOC reductions through two basic components: sale and manufacture restrictions that limit the VOC content of specified adhesives, sealants and primers sold in the state; and use restrictions that apply primarily to commercial/industrial operations. In addition to the VOC content limits and use requirements, this section includes requirements for cleanup and preparation solvents and allows for compliance through the use of add-on air pollution control equipment.

This section is based on a model rule of the Ozone Transport Commission (OTC), which is available at http://www.otcair.org/whats_new_details.asp?PID=58. The OTC model rule is, in turn, based on a reasonably available control technology determination prepared by the California Air Resources Board in 1998 and regulations adopted in the California local air pollution control districts.

All interested persons are invited to comment on the proposal. Comments should be submitted to the Department of Environmental Protection, Bureau of Air Management, Engineering & Enforcement Division, 79 Elm Street, Hartford, Connecticut 06106-5127. All comments should be directed to the attention of Merrily A. Gere and must be received by 5:00 PM October 19, 2007. Comments may be submitted by post, facsimile to (860) 424-4064 or by electronic mail to merrily.gere@po.state.ct.us.

In addition to accepting written comments, the Department of Environmental Protection will also hold the public hearing described below. The Commissioner requests that any person giving oral comment at the hearing also submit a written copy of such comments. However, oral comments alone will also be made part of the record and are welcome.

PUBLIC HEARING
October 16, 2007 at 10:30 AM
Department of Environmental Protection, 5th Floor, Ensign Room
79 Elm Street, Hartford, CT

Copies of the new section described above and a statement required by section 22a-6(h) of the Connecticut General Statutes (C.G.S.) are available for public inspection during normal business hours and may be obtained from Jamie Dougherty at the Bureau of Air Management, Engineering & Enforcement Division, 5th Floor, 79 Elm Street, Hartford, Connecticut. Additional copies are available for review at the Law Reference Desk at the Connecticut State Library, Torrington Public Library, New London Public Library and Bridgeport Public Library. For further information, contact Jamie Dougherty of the Bureau of Air Management at (860) 424-4152 or by electronic mail to jamie.dougherty@po.state.ct.us.

The Department of Environmental Protection supports the goals of the Americans with Disabilities Act of 1990. Any individual who needs auxiliary aids for effective communication during this public hearing or in submitting comments should contact the Department's Affirmative Action Officer at (860) 424-3035 (TDD (860) 424-3333) at least one week before the public hearing.

The authority to adopt the proposed section is granted by C.G.S. sections 22a-6 and 22a-174. This notice is required pursuant to C.G.S. sections 22a-6 and 4-168 and 40 Code of Federal Regulations 51.102.

Gina McCarthy
Commissioner

EXHIBIT A

STATE OF CONNECTICUT
DEPARTMENT OF ENVIRONMENTAL PROTECTION

HEARING CERTIFICATION

This certifies in accordance with the provisions of Title 40 Code of Federal Regulations Part 51.102 that the following actions were taken regarding the proposed adoption of R.C.S.A. section 22a-174-44, concerning adhesives and sealants:

1) The public hearing was held on October 16, 2007 as announced in the notice of hearing (copy attached);

2) In accordance with the notice, materials were available for review in each Air Quality Control Region (AQCR) in Connecticut;

3) Copies of the notice were mailed to the directors of the air pollution control agencies in New York, New Jersey, Rhode Island and Massachusetts along with a copy to the Director of the Air Management Division of Region I of the U.S. Environmental Protection Agency; and

4) The notice of hearing was published in four area newspapers as follows:

Newspaper	AQCR	Date
Connecticut Post	43	September 11, 2007
Hartford Courant	42	September 11, 2007
New London Day	41	September 11, 2007
The Register Citizen	44	September 11, 2007

November 6, 2008
Date

Merrily A. Gere
Bureau of Air Management

STATE OF CONNECTICUT
DEPARTMENT OF ENVIRONMENTAL PROTECTION

HEARING REPORT

Prepared Pursuant to Section 4-168(d) of the Connecticut General Statutes and Section 22a-3a-3(d)(5) of the Department of Environmental Protection Rules of Practice

Regarding the Adoption of Section 22a-174-44 of the Regulations of Connecticut State Agencies Adhesives and Sealants

Hearing Officers:
Merrily A. Gere
Anne B. Hulick

Date of Hearing: October 16, 2007

On August 13, 2007, the Commissioner of the Department of Environmental Protection (Commissioner and Department, respectively) signed a notice of intent to adopt section 22a-174-44 (Section 44) of the Regulations of Connecticut State Agencies (RCSA). Pursuant to such notice, a public hearing was held on October 16, 2007, with the public comment period closing on October 19, 2007. The proposal is intended to create ozone precursor emissions reductions to assist the state to attain and maintain the national ambient air quality standard for 8-hour ozone.

I. Hearing Report Content

As required by section 4-168(d) of the Connecticut General Statutes (CGS), this report describes the proposal; the principal reasons in support of and in opposition to the proposal; and summarizes and responds to all comments on the proposal. A final recommended version of the text, inclusive of any changes made in response to comment, is also provided.

A statement in satisfaction of CGS section 22a-6(h) is included as Attachment 1.

II. Summary of the Proposal

Section 44 limits emissions of volatile organic compounds (VOC) from adhesives, sealants and primers. This section achieves VOC reductions through two basic components: sale and manufacture restrictions that limit the VOC content of specified adhesives, sealants and primers sold in the state; and use restrictions that apply primarily to commercial/industrial operations. As VOC are ground-level ozone precursors, reductions in VOC emissions will assist the state to demonstrate attainment of the federal 8-hour ozone national ambient air quality standard (NAAQS), as required by the Clean Air Act. Although currently mandated controls will achieve significant emissions reductions over the next five to ten years, ozone precursor emission reductions beyond current requirements will be necessary to maintain the 8-hour ozone NAAQS. Thus, following adoption, Section 44 will be submitted to the U.S. Environmental Protection

Agency (EPA) in fulfillment of a written commitment included in the Department's 8-hour ozone NAAQS attainment demonstration.[1]

Section 44 results from efforts of a workgroup composed of state air quality regulators and coordinated by the Ozone Transport Commission (OTC). The goal of the workgroup was the preparation of materials for use by each state to meet its 8-hour ozone NAAQS attainment planning obligations. These materials include model rules to regulate products and activities to reduce ozone precursor emissions. One such model rule, the OTC Model Rule for Adhesives and Sealants (OTC Model Rule), forms the basis of this proposal. The OTC Model Rule is based on the requirements of a reasonably available control technology determination prepared by the California Air Resources Board (CARB) in 1998. The provisions of the CARB determination have been adopted in regulatory form in various air pollution control districts in California. The Commissioner, via signature on resolutions and memorandums of understanding, committed with other states in the OTC to seek adoption of a state regulation based on the OTC Model Rule. Given this foregoing process, consistency with the requirements of the OTC Model Rule was a factor guiding the development of Section 44.

In addition to assisting in ozone attainment planning efforts, proposed Section 44 is consistent with a 2006 environmental initiative of the Department, which focuses on assisting individuals and organizations to decrease their "environmental footprint." Adoption of Section 44 will require some manufacturers of regulated adhesives, sealants and primers to reformulate to reduce the VOC content. Thus, consumers will be able to reduce their environmental impact while continuing to purchase and use customary adhesive and sealant products.

The text of proposed Section 44 is located in Attachment 2 to this report.

III. Principal Considerations in Opposition to the Proposal

The National Paint and Coatings Association (NPCA) opposes adoption of Section 44 as a burden to industry, particularly for industry source categories that are subject to federal standards for hazardous air pollutants.

Much comment on the proposal objects to the level and timing of the standards for single-ply roof membrane adhesives, adhesive primers and sealants. The impact of the Connecticut climate, which is cooler on average than that of the districts in California where the standards are now in effect, on single-ply roofing adhesive application and long-term roof performance and durability is questioned.

A detailed discussion of all comments and responses is set out in the next section of this report.

IV. Summary of Comments

All comments submitted are summarized below with the Department's responses. The comments are divided in two subsections: the first subsection identifies and responds to concerns with the proposed VOC content standards for adhesives, sealants and primers used in single-ply roofing applications, and the second subsection identifies and responds to all other concerns.

---

[1] See Section 4 of the attainment demonstration at: http://www.ct.gov/dep/cwp/view.asp?a=2684&q=385886

Commenters are identified by number in this section and are identified fully at the corresponding number in the list that is Attachment 3 to this report. When changes to the proposed text are indicated in response to comment, new text is in bold font and deleted text is in strikethrough font.

The final regulation maintains consistency as appropriate with the OTC Model Rule, differing in respects better to align the proposal with the Department's policies or in response to new technical information presented in the hearing process. These differences from the OTC Model Rule are created to further the Department's environmental goals but with attention to regional consistency. The Department also remains aware of the rule adoption processes in other OTC states and has shared technical information and discussed Model Rule revisions with staff in these states.

Beyond achieving the VOC emissions reductions that are the primary purpose of this proposal, the responses to these comments, particularly concerning single-ply roofing application, are guided by the importance of regulatory requirements that support other Department initiatives such as energy efficient building construction and solid waste reduction.

A. Single-Ply Roofing

This section of the report responds to timely comment submitted concerning single-ply roof membrane application products as well as a series of recommendations submitted by the EPDM Roofing Association at the Department's request following the close of the comment period.

Comment 1: Definition of "single-ply roof membrane." The definition for "single-ply roof membrane" should be expanded, as follows, to include all types of single-ply roof membrane material rather than only those made of rubber:

> "Single-ply roof membrane" means a prefabricated single sheet of compounded synthetic material. Single-ply membranes fall into one of three categories, thermosets that include rubber membranes (EPDM), thermoplastics that include TPO, PVC and KEE membranes and modified bitumen membranes. [4]
>
> **Response:** The Department agrees that the definition of "single-ply roof membrane" is intended to include all single-ply roof membrane materials including ethylene propylenediene monomer (EPDM), polyvinyl chloride, thermal polyolefin and ketone ethylene ester. While EPDM (aka rubber) is the most commonly used single-ply roof membrane material in Connecticut now, the use of thermoplastic membranes is increasing as architects, specifiers and contractors recognize that these other materials offer performance qualities similar to EPDM plus additional benefits such as superior heat island reduction and energy savings.[2]
>
> Modified bitumen roof material is generally not considered a single-ply roof material and, therefore, should not be included in the definition of single-ply membranes.
>
> In response to this comment, the Department should revise the proposed definition of "single-ply roof membrane" in Section 44(a), as follows:

---

2 US EPA. Cool roof product information. http://www.epa.gov/hiri/strategies/level3_roofproducts.html

"Single-ply roof membrane" means a prefabricated single sheet of ~~rubber, normally ethylene-propylenediene terpolymer,~~ **compounded synthetic material such as ethylene propylenediene monomer, polyvinyl chloride, thermal polyolefin or ketone ethylene ester,** that is applied in a single layer to a building roof.

Comment 2: Limited commercial availability. Two commenters expressed concern that there is a lack of compliant, commercially available adhesives, sealants and primers for use on single-ply roof membranes. [3,5]

Response: Various air quality districts in California adopted the CARB recommendations for low-VOC adhesives and sealants, in some cases nearly ten years ago. As a result of such district rules, low-VOC bonding adhesives for roofing are not only available but dominate the market in California. However, the Department acknowledges that California is the only region of the country where low-VOC roofing adhesives dominate, and change in other markets such as the Northeast does require time.[3] The Department believes the best incentive to increase the number of commercially available low-VOC single-ply roof bonding products is the multi-state promulgation of regulations requiring the sale and use of such products. To that end, the Department is proceeding to seek adoption of Section 44 in a form that will meet the Department's air quality needs and serve to bolster the adoption of very similar requirements in surrounding states.

See the Department's response to comment 6 for additional responsive text and a recommended change to the final draft of Section 44 that takes into account the concern expressed in this comment.

Comment 3: Efficacy of low-VOC roof bonding adhesives in the Northeast. One commenter expressed concern that high solvent levels are necessary to allow for adhesion, particularly in conditions characteristic of Connecticut, such as cold temperatures and long-term exposure to high winds. [4]

Response: As noted in the summary in Section II of this report, the OTC Model Rule was primarily based on analysis and recommendations of CARB and on rules adopted in several California air districts. California's experience provides no indication that a high solvent level – which implies a high VOC content – is necessary for roof adhesion in cold temperatures. Furthermore, the OTC states, along with the OTC's technical contractor, reviewed the technological basis for the implementation of the rule and the associated reductions in emissions. The OTC Model Rule was developed with feedback from states as well as stakeholders received at OTC public meetings.[4] No information was provided by industry to substantiate concerns that the VOC limits were too low to allow effective performance in the average climate conditions of the northeastern United States. This lack of supportive data, coupled with the continued pressures on states to meet both state

---

[3] Hoff, J. "The Low-Slope Commercial Roofing Industry in the Northeast United States and the Ozone Transport Commission Model Rule for Adhesives and Sealants: A Study of Risks and Options for Effective Implementation" Dec. 12, 2007: 12, on file with the CT Department of Environmental Protection. Hereinafter referred to as the Hoff Report.

[4] *See* "Questions and Comments" in Response to Air Quality Control Advisory Council (AQCAC) Meeting of September 10, 2007, Maryland, on file with the CT. Department of Environmental Protection.

and federal ozone standards, led the OTC workgroup to maintain the standards at the level recommended by CARB and adopted in certain California air quality districts.

The Department is aware of at least one single-ply roof adhesive that is available in Connecticut now and that is recommended for use in temperatures below 40°F. While additional procedures may be necessary to store and use low-VOC or water-based adhesives, such adhesives can be used successfully and provide adhesion comparable to higher VOC adhesives.

The Department should not revise Section 44 in response to this comment. *See* the responses to comments 4 through 6 for a final recommendation concerning Section 44 and additional justification for the Department's final recommendation.

Comment 4: Roof performance and durability. Several commenters expressed a lack of confidence in the overall performance and durability of low-slope roofs applied with low-VOC adhesives during cold temperatures. Poor adhesive performance would increase roof failure, require more frequent replacement and have a negative impact on the environment as a result of an increase in roofing material in landfills. [4,5,6,7,9]

Response: As explained in the response to comment 3, concerns regarding potential durability issues with compliant roofing adhesives were raised during the OTC Model Rule development. As the OTC states did not receive from commenters any substantiating data indicating performance problems, the standards for that category were retained in the OTC Model Rule.

The Department is aware that cold temperatures increase the flash-off time to bonding; that there are currently a limited number of low-VOC roof bonding adhesive products that may be applied successfully in cold weather; and that extra procedures may be required for successful roof installations on colder days. Such additional cold weather application procedures are not unique to low-VOC adhesives, since higher VOC content adhesives may gel if stored or used at temperatures less than 40°F. Particular combinations of temperature and humidity may require roof applications to be delayed or rescheduled. However, once bonding occurs using an adhesive applied as recommended by the manufacturer, there is no evidence that subsequent periods of low temperature destroy such a properly bonded surface. Although California temperatures tend to be warmer, in general, than those in Connecticut, the experience of the Sacramento Air Quality Management District is informative. The Sacramento Air Quality Management District has a history of record low temperatures below 40°F during eight months of the year and experiences an average low of 40°F during December and 41°F during January.[5] This District adopted a regulation similar to Section 44 in 1998. The Department is unaware of any increases in performance problems or of reduced roof durability associated with roof membranes that may have been applied on low temperature days in Sacramento.

---

[5] Sacramento average/record temperatures: http://www.weather.com/weather/wxclimatology/monthly/graph/USCA0968?from=search

In addition, the transition recommended in the response to comment 6 will work to resolve the performance concerns as appliers and specifiers become comfortable with the use of low-VOC and water-based adhesive products, and manufacturers and distributors increase the number and variety of compliant product lines available in Connecticut.

Therefore, the Department should not revise Section 44 in response to this comment.

Comment 5: Recommendations from EPDM Roofing Association. At the request of the Department for additional technical information concerning the expressed concerns of the single-ply roofing industry, EPDM Roofing Association submitted a study of the risks to the commercial roofing industry and options for effective implementation of the OTC Model Rule in the Northeast states. Embedded in that study are four recommended revisions to Section 44, which EPDM Roofing Association based on the information reported. The study's recommendations and the Department's responses to each are as follows:

- **Recommendation A:** The proposed VOC content limitations for single-ply roofing adhesives, sealants and primers should apply only during the ozone season, *i.e.*, from May 1 through September 30, of any year. This approach is consistent with that of the Department in the proposed revision to RCSA section 22a-174-20(k) for asphalt paving, and the administrative provisions of that amendment should also be included in Section 44.

  EPDM Roofing Association arrives at this recommendation based on both the need for user training, set out more fully in Recommendation B, and to provide additional time for the marketing in the Northeast of more single-ply roof bonding products that meet the proposed VOC content limit.
- **Recommendation B:** In addition to a permanent ozone season limitation on the VOC content limits for single-ply roofing adhesives, sealants and primers, the Department should provide a transitional period during which the application of the such standards is further limited, as follows:

Year	Apply Single-Ply Roofing Product Standards in These Months
2009	July through August
2010	June through September
2011 and after	May through September

  EPDM Roofing Association justifies the need for the transitional period to provide time for commercial installers to be trained in the use of the low-VOC products. Currently, high-VOC bonding adhesives for single-ply roofing membranes dominate the market in the Northeast. As a result, there has been virtually no training in the application of low-VOC products outside of California, where the low-VOC products dominate the market as a result of the adoption of air quality rules in many of the California air quality management districts. An abrupt change to low-VOC products in the Northeast will cause an increased risk of liability to the construction industry for roof failures.
- **Recommendation C:** The final rule should include provisions to allow the use of high-VOC single-ply roofing adhesives, sealants and primers on low temperature days in the month of May, provided that appropriate records of such use are maintained.

- **Recommendation D:** The Department should encourage the development of more low-VOC roof bonding products and ultimately help the industry reach a goal of virtual elimination of VOC. [7]

Response: In response to each recommendation, the Department notes the following:

- **Recommendation A:** Connecticut is required to attain the federal 8-hour ozone NAAQS by 2010. Connecticut committed to other states in the region and to EPA to implement a regulation to reduce the VOC content of adhesives, sealants and primers. Regional modeling to support NAAQS attainment included reductions in VOC emissions from adhesives and sealants in all states in the region. While the reductions created by Section 44 are annual, reductions are most crucial in the summer months when ozone levels typically exceed national standards on the hottest days; for air quality purposes, the period from May 1 to September 30 is called the "ozone season," and many control strategies are focused on these months. Also contributing to the high ozone levels experienced on the hottest days of summer are increased emissions from electricity production. The hottest days of summer are also the highest electricity demand days experienced in the Northeast states, requiring that high-emitting peaking and emergency generators operate to meet the demand.

  Thus, while the Department may temporarily limit the application of low-VOC standards for the single-ply roofing industry to only the summer months and achieve important air quality benefits, the application of the standards for only a few months of each year is not as meaningful from an air regulatory perspective as an annual standard and may jeopardize EPA's approval of the Department's 8-hour ozone attainment plan and the Department's ability to create federally mandated reductions, not only in Connecticut but in the larger Northeast region. Meeting commitments to reduce ozone precursors has elevated importance now given EPA's March 12, 2008 decision to revise the ozone NAAQS, which will likely require the State to adopt additional control measures.

  As explained in the response to comment 6, the Department should revise Section 44 to require seasonal single-ply roof bonding product standards for the initial three years following rule adoption and add a three-year extension on the sale and manufacture restrictions for single-ply roof application products. This phase-in will allow for 8-hour ozone attainment needs, provide additional time for applier training and allow the introduction of more low-VOC roof application products in the Connecticut and wider Northeast markets.
- **Recommendation B:** As explained in the responses to Recommendation A and comment 6, the Department should allow a three-year transition period (2009-2011), during which the proposed VOC content standards for single-ply roofing adhesives, sealants and primers are required only during certain summer months. Beginning January 1, 2012, the standards shall apply at all times. This transitional time provides necessary VOC emissions reductions in the crucial summer months, while taking into account the need for additional roofing industry training and providing an opportunity for manufacturers and distributors to increase the number of low-VOC roof bonding products available in the Northeast.
- **Recommendation C:** Given the commercial availability now of at least one single-ply roof bonding adhesive that meets the proposed VOC content limit and that bonds effectively in temperatures below 40°F and a likely increase in the number of such compliant adhesives in the near term, the Department should not implement the

recommended change. Such a change would reduce the emissions reductions obtained from the rule, complicate enforcement and decrease the incentive for the release of additional, effective products.

- **Recommendation D:** The Department believes the best incentive to increase the number of commercially available low-VOC single-ply roof bonding products is the multi-state promulgation of regulations requiring the sale and use of such products. To that end, the Department is proceeding to seek adoption of Section 44 in a form that will meet the Department's air quality needs and serve to bolster the adoption of very similar requirements in surrounding states.

Comment 6: Impact on the roofing industry. Several commenters expressed concern that the compliant products currently available have application restrictions, which limit product use when temperatures are equal to or less than 40°F. Such temperature restrictions were not addressed by CARB, nor were such restrictions concerns in the California air districts that adopted regulations since warmer, average annual temperatures predominate in California. Given the year-round nature of roof assembly and repair in Connecticut, these application restrictions will substantially impact the roofing industry, possibly limit construction projects in general, and thereby have a significant, negative economic impact on the state. [4,5,6,7,9]

An underlying concern of the roofing contractors is an increased risk of compromised roofing installations and roofing-related construction litigation. [7]

Response: As stated earlier in this report, the primary purpose of Section 44 is to reduce emissions of VOC, an ozone precursor, to assist the state to attain the federal 8-hour ozone NAAQS. One roofing industry estimate puts single-ply roof membrane bonding adhesive use in Connecticut at approximately 200,000 gallons annually.[6] Such adhesive contains, on average, 600g/L of VOC -- significantly higher than the proposed VOC content limit of 250g/L. If all of the VOC within these single-ply roofing adhesives volatized into the atmosphere, these adhesives would generate approximately 573 tons of VOC in Connecticut each year.[7] As Section 44 is projected to reduce emissions from all regulated adhesives and sealants by 4.2 tons per summer day, the VOC emissions reductions from single-ply roofing adhesive, primer and sealant standards are a potentially significant portion – perhaps 25% – of the total emissions reductions from Section 44.[8]

The Department is committed to adopting a regulation based on the OTC Model Rule in a form that will preserve the expected air quality improvements. Further, the Department disagrees with the comment concerning the level of negative impact Section 44 will have on commercial construction in Connecticut. Single-ply roof membrane installation can be accomplished by fully adhering the membrane to the substrate, by using mechanical fasteners and by using ballast stones. In Connecticut, the preferred method of installation

---

6 Hoff Report at 12.

7 Hoff Report at 12.

8 The exact level of the emissions reductions of Section 44 attributed to reductions in roof bonding products is difficult to determine as they depend on cycles in the construction industry, seasonal differences in construction and actual amounts of VOC volatized. Further, the contributions from all the adhesives and sealants regulated in Section 44 has not been separated according to single products or product categories. The regional inventory that forms the basis for the OTC's emissions reductions and Connecticut's stationary source/area source inventory are developed using top-down national estimates of total industrial adhesive use, allocated to states based on population or industrial activity levels. There is no information to provide a verifiable breakdown by subcategories.

of single-ply roof membranes is to adhere them, as this method is highly resistant to wind, water and dimensional changes.[9] Ballasting is not commonplace in Connecticut due to the lack of suitable ballast stones. Mechanically attaching the membrane with fasteners, though used in other cold-weather states, has not been standard practice in Connecticut. Thus, adoption of the proposed rule would limit the roofing industry, during cold weather, to three realistic options in Connecticut: use of an available compliant adhesive that adheres without application restrictions when ambient temperatures are at and below 40°F; use of modified bitumen (not a single-ply roofing method) with cold adhesives; or mechanically fastening the roofing membrane.

The Department recognizes the majority of compliant adhesives now available in Connecticut have temperature restrictions that limit application in cold temperatures. The Department also understands that the number of roof bonding adhesives that adhere at low temperatures with a VOC content that meets the proposed limits is expected to increase in the near future. However, in the summer months when ozone formation is of particular concern, temperatures are generally suitable for the use of a number of currently available roof bonding adhesives that have a VOC content at or below the standard proposed in Section 44.[10]

To maintain the integrity of the Department's air quality goals while taking into account the need for construction worker training (see comment 5 and response) and the limited number of compliant roofing adhesives now marketed in Connecticut, the Department should revise Section 44 to allow a limited phase-in of the single-ply roof membrane application product standards. That phase-in should begin in 2009, when the Department should require the use of single-ply roof adhesives and primers with a VOC content less than or equal to 250 g/L (or 450 g/L in the case of single-ply roof membrane sealants) from June 1 through August 31. In 2010 and 2011, the Department should extend the compliance period to the length of the ozone season (May 1 through September 30). Beginning January 1, 2012, the 250 g/L VOC content limit for the single-ply roof membrane adhesives and primers (450 g/L in the case of single-ply roof membrane sealants) should apply throughout each year.

The three-year phase-in period will allow the Department to achieve necessary reductions in VOC emissions in the critical summer months while providing additional time for the widespread distribution of low-VOC roof bonding products in the Northeast market and for the construction industry to appreciate the performance characteristics of low-VOC roof application products. Once appliers have become accustomed to any differences in application techniques, workers may even find the low- and no-VOC products preferable in terms of cleanup, and, in some cases, the products may reduce potential exposure to toxic air emissions; many VOC are also considered toxic compounds, so reductions in VOC may produce reductions in toxic compounds.

---

[9] *See* Steve Hardy and Mark Boulay, "Making Sense of Single-Ply Roofing" *Architectural Record,* p. 8. (January 2000).

[10] Hoff Report at 15. *See also* Weather Channel website at http://www.weather.com/weather/wxclimatology/monthly/graph/USCA0968?from=search The month of May has an average low temperature of 48°F and average high temperature of 70°F. September has an average low temperature of 51°F and average high temperature of 71°F.

Section 44 also restricts the sale and manufacture of non-compliant adhesives, sealants and primers. Those sale and manufacture restrictions should be delayed until January 1, 2012 for the single-ply roof membrane application products. However, the Department notes that prudent manufacturers, sellers and distributors will begin now to increase their inventory of low-VOC roof application products and decrease the inventory of non-compliant products.

The identified language in subsections (c), (d) and (e) and in Table 44-1 should be revised to implement the temporary ozone-season only standards and delay in the sales and manufacture restrictions for single-ply roof application products, as follows:

- Subsection (c), addition of new subdivisions (10) and (11)

(10) The requirements of this section shall apply to the use of single-ply roof membrane installation or repair adhesive, single-ply roof membrane sealant and single-ply roof membrane adhesive primer on the following schedule:

(A) For the year 2009, from June 1 through August 31;

(B) For the years 2010 and 2011, from May 1 through September 30; and

(C) On and after January 1, 2012.

(11) The requirements of this section shall not apply to any manufacturer or distributor who sells, supplies or offers for sale any single-ply roof membrane installation or repair adhesive, single-ply roof membrane sealant or single-ply roof membrane adhesive primer prior to January 1, 2012.

- Subsection (d), revision of subdivision (3)

(3) Except as provided in subsections (c)(1) through (c)(4), (c)(7), (c)(9), **(c)(10), (c)(11)** and (d)(6) of this section, on or after January 1, 2009, no person shall use or apply, or solicit the use or application of, any adhesive, sealant, adhesive primer or sealant primer within the State of Connecticut unless such adhesive, sealant, adhesive primer or sealant primer as applied complies with the applicable VOC content limits specified in Table 44-1 or Table 44-2 of this section and the applicable requirements of this subsection.

- Subsection (e), revision of subdivision (1)

(1) Any person who sells, supplies, offers for sale or manufactures an adhesive, sealant, adhesive primer or sealant primer subject to this section on or after January 1, 2009 for sale in the State of Connecticut shall possess documentation that such adhesive, sealant, adhesive primer or sealant primer complies with the VOC content limits of Table 44-1 of this section, where the VOC content is determined according to the requirements of subdivisions (2) and (3) of this subsection. **For single-ply roof membrane installation or repair adhesive, single-ply roof membrane sealant and single-ply roof membrane adhesive primer, such documentation is required on and after January 1, 2012.**

- Table 44-1, addition of a column designating the date on which each standard applies

Table 44-1. As Applied VOC Content Limits for Adhesives, Sealants, Adhesive Primers and Sealant Primers

Adhesive, sealant, adhesive primer or sealant primer category	As applied VOC content limit (g VOC/L)	Date on which standard applies
Adhesives		
ABS welding	400	**January 1, 2009**
Ceramic tile installation	130	**January 1, 2009**
Computer diskette jacket manufacturing	850	**January 1, 2009**
Contact bond	250	**January 1, 2009**
Cove base installation	150	**January 1, 2009**
CPVC welding	490	**January 1, 2009**
Indoor floor covering installation	150	**January 1, 2009**
Metal-to-elastomer molding or casting	850	**January 1, 2009**
Multipurpose construction	200	**January 1, 2009**
Nonmembrane roof installation or repair	300	**January 1, 2009**
Plastic cement welding	510	**January 1, 2009**
Outdoor floor covering installation	250	**January 1, 2009**
PVC welding	510	**January 1, 2009**
Single-ply roof membrane installation or repair	250	**For 2009: June 1 through August 31; For 2010 & 2011: May 1 through September 30; and On and after January 1, 2012.**
Structural glazing	100	**January 1, 2009**
Thin metal laminating	780	**January 1, 2009**
Tire retread	100	**January 1, 2009**
Perimeter bonded sheet vinyl flooring installation	660	**January 1, 2009**
Waterproof resorcinol glue	170	**January 1, 2009**
Sheet-applied rubber installation	850	**January 1, 2009**
Sealants		
Architectural	250	**January 1, 2009**
Marine deck	760	**January 1, 2009**
Nonmembrane roof installation or repair	300	**January 1, 2009**
Roadway	250	**January 1, 2009**
Single-ply roof membrane	450	**For 2009: June 1 through August 31; For 2010 & 2011: May 1 through September 30; and On and after January 1, 2012.**
Other	420	**January 1, 2009**
Adhesive primers		
Automotive glass	700	**January 1, 2009**
Plastic cement welding	650	**January 1, 2009**
Single-ply roof membrane	250	**For 2009: June 1 through August 31; For 2010 & 2011: May 1 through September 30; and On and after January 1, 2012.**
Traffic marking tape	150	**January 1, 2009**
Other	250	**January 1, 2009**
Sealant primers		
Non-porous architectural	250	**January 1, 2009**
Porous architectural	775	**January 1, 2009**
Marine deck	760	**January 1, 2009**
Other	750	**January 1, 2009**

B. All Other (Not Roofing) Concerns

Aside from single-ply roof membrane adhesion concerns, comment on Section 44 focused on comparisons of Section 44 with the OTC Model Rule or with other federal requirements.

Comment 7: Definitions. Connecticut's draft rule is closely based on the OTC's Model Rule. A majority of the definitions are the same in both rules, but EPA notes that those definitions identified in the table below are not. The Department should confirm that these differences are intended:

CT's Definition	OTC Definition
"Cyanoacrylate adhesive" means any single-component reactive diluent adhesive that contains at least 85% by weight methyl, ethyl, methoxymethyl or other functional groupings of cyanoacrylate.	"Cyanoacrylate adhesive" means any adhesive with a cyanoacrylate content of at least 95% by weight.
"Plasticizer" means any substance, such as a high boiling point organic solvent, that is added to a hard plastic to provide flexibility or pliability.	"Plasticizer" means a material, such as a high boiling point organic solvent, that is incorporated into a vinyl to increase its flexibility, workability, or distensibility, as determined by ASTM Method E-260-96.
"Reactive diluent" means a liquid reactant in an uncured adhesive, sealant or primer that reacts chemically or physically during the curing process to become an integral part of the cured adhesive, sealant or primer.	"Reactive diluent" means a liquid that is a reactive organic compound during application and one in that, through chemical and/or physical reactions, such as polymerization, twenty (20) percent or more of the reactive organic compound becomes an integral part of a finished material
"Sealant" means any material with adhesive properties that is formulated primarily to fill, seal, waterproof or weatherproof gaps or joints between two surfaces. Sealers and other materials that are applied to a single substrate to protect or decorate are not "sealants."	"Sealant" means any material with adhesive properties that is formulated primarily to fill, seal, waterproof or weatherproof gaps or joints between two surfaces. Sealants include sealant primers and caulks.
"Single-ply roof membrane installation or repair adhesive" means any adhesive intended by the manufacturer for use in the installation or repair of single-ply roof membrane.	"Single-ply roof membrane installation and repair adhesive" means any adhesive labeled for use in the installation or repair of single-ply roof membrane. Installation includes, as a minimum, attaching the edge of the membrane to the edge of the roof and applying flashings to vents, pipes and ducts that protrude through the membrane. Repair includes gluing the edges of torn membrane together, attaching a patch over a hole and reapplying flashings to vents, pipes or ducts installed through the membrane.

[1]

Response: The Department acknowledges the EPA-identified differences between proposed Section 44 and the OTC Model Rule. The differences result in clearer definitions by eliminating unnecessary words or phrases or substituting more specific language. Some of the differences result from comparisons of the OTC Model Rule with similar rules now in effect in some of the California air quality management districts, while others result from the informal comment by the regulated community. Such

revised definitions thus benefit from the adoption process in the California districts as well as the Department's considerable regulatory drafting experience.

The differences identified by EPA are not intended to create new product categories, alter the applicability or change the emissions reductions anticipated. For example, the language distinguishing "repair" from "installation" in relation to the definition of "single-ply roof membrane installation or repair adhesive" is unnecessary since both activities are undertaken using the same adhesive product.

Comment 8: Emission reduction calculation. Connecticut's proposed rule indicates that it will generate approximately four tons per summer day in VOC emission reductions. Connecticut should document how this estimate was determined, and include a discussion of how the exemption for aerosol coatings was addressed in quantifying emission reductions. [1]

Response: Emissions calculations for Connecticut's adhesives and sealants regulation are fully documented in the Department's proposed ozone attainment demonstration.[11] For regional consistency, emissions were determined using an approach agreed to by the Control Measures Workgroup of the OTC. For Connecticut, 2002 base year emissions of 1714 tons/year were obtained from an EPA-funded study[12] that applied a solvent mass balance approach to estimate emissions from various solvent source categories. Future year emission estimates include a 64.4% reduction in VOC emissions attributed to the adoption of an adhesives and sealants rule in each OTC state. This level of reduction represents the low end of the 64.4% to 77.8% range estimated by CARB[13] for the development of a regulation based on the CARB reasonably available control technology determination and its adoption in the California air quality management districts.

Connecticut's proposed adhesives and sealants regulation includes an exemption for aerosol adhesives. This exemption is included because the VOC content of aerosol adhesives is regulated by Connecticut's consumer products regulation, RCSA section 22a-174-40(d)(4). RCSA section 22a-174-40 assigns VOC content limits to five categories of aerosol adhesives. The combination of an exemption for aerosol adhesives and regulation under a separate rule is consistent with the regulatory treatment of aerosol adhesives in the California air quality management districts (Bay Area, El Dorado, Placer County, San Joaquin Valley, Ventura County, *e.g.*). Such an exemption was not included in the CARB determination underlying the district rules since it preceded, in some cases, adoption of consumer product regulations in the air quality management districts. The lack of inclusion of such an exemption in the OTC Model Rule was an oversight.

As a result, we do not anticipate that the exemption will significantly alter the level of estimated emissions reductions realized by Section 44. The reasonableness of the

---

11 *See* Section 4 and Appendix 4E of the proposed attainment demonstration at: http://www.ct.gov/dep/cwp/view.asp?a=2684&q=385886&depNav_GID=1619

12 "Solvent Mass Balance Approach for Estimating VOC Emissions from Eleven Nonpoint Solvent Source Categories"; draft report prepared by EC/R, Inc. for EPA's Office of Air Quality Planning and Standards; EPA Contract No. 68-D-02-064; Work Assignment No. 3-05; March 28, 2005.

13 *See* "Determination of Reasonably Available Control Technology and Best Available Retrofit Control Technology for Adhesives and Sealants"; California Air Resources Board; December, 1998.

emission reduction estimate is also founded on the OTC's choice of a control factor (*i.e.*, 64.4%) from the low end of the range identified by CARB.

Comment 9: Uniformity of regulations. The adoption of uniform regulations in all states in the Northeastern U.S. is the primary interest of the NPCA. [8]

Response: The Department understands the importance of uniformity in essential requirements of state regulations conceived at the regional level and shares the goal of creating one seamless regional market in which a product may be sold in every state under the same label and containing the same product formulation. To maintain uniformity to the extent possible despite new information raised during the comment period, the Department staff is in frequent contact with staff in other OTC states now pursuing the adoption of OTC Model Rule-based regulations.

Nonetheless, differences among state regulations are inevitable. To the extent Connecticut's regulation strays from the exact text of the OTC Model Rule, it does so to meet Connecticut-specific concerns, to improve the environmental result based on information and concerns not raised during the Model Rule creation, to clarify or to match Department formatting conventions. Such differences will not prevent the creation of a regional market in which significant compliance requirements are the same from state-to-state.

Comment 10: Rule development. In 1999, NPCA was involved in the process of developing the CARB determination, the document that provides the basis for the OTC Model Rule, which, in turn, forms the basis for Section 44. The CARB determination reflects industry input at that time concerning technical and legal concerns. Industry developments since the issuance of the CARB determination should be -- and are not -- incorporated into the OTC Model Rule or Section 44. This lack is a concern. [8]

Response: The key emissions-reducing provision of Section 44 is the inclusion of VOC content standards for defined categories of adhesives and sealants. The requirement to comply with these VOC content standards falls on the manufacturers and sellers of the products. Users are also required to use products that comply with the standards, in accordance with the manufacturer recommendations. A number of factors encourage the adhesive industry to develop low-VOC and water-based products, including state and federal requirements intended to create ozone precursor reductions, green building standards and consumer concerns about toxic chemicals. Given these pressures on manufacturers, the OTC workgroup that developed the OTC Model Rule was concerned that the VOC content standards of the CARB determination may not represent the lowest achievable standards of the current adhesives industry. The OTC workgroup chose to move forward without reducing those standards given that the CARB determination standards would yield significant emissions reductions for the states in the region.

In light of this background, the NPCA's comment is puzzling; the industry should be poised to meet lower VOC content standards than those provided in Section 44. Furthermore, while the NPCA expresses legal and technical concerns with certain categories of product, NPCA offers no specific concerns that the Department might act upon in an information gathering process. For this reason, the Department should not revise Section 44 in response to this comment.

Comment 11: Compliance date. Section 44's compliance date should be at least 18 months after rule promulgation to provide regulated industries time to substitute compliant materials or install control equipment. [8]

> **Response:** The proposed date on which the standards and most other requirements of Section 44 apply to regulated persons is January 1, 2009. Should the rule adoption process extend so that promulgation will occur close to that date, the Department may consider moving that compliance date to the future. However, the Department committed to EPA to adopt this rule as one of the Department's means of attaining the federal 8-hour ozone NAAQS, and is therefore under an obligation to move on a schedule that will create the intended emissions reductions as of January 1, 2009.[14] Manufacturers, distributors and sellers of regulated products are thus put on notice of the Department's intentions and should note the efforts of other OTC states including Maryland, New Jersey and Massachusetts to also complete the adoption of state regulations based on the OTC Model Rule.

Comment 12: NESHAPs. Facilities subject to the National Emissions Standards for Hazardous Air Pollutants (NESHAPs) for Miscellaneous Metal Parts and Products (40 CFR 63 Subpart MMMM) or Surface Coating of Plastic Parts and Products (40 CFR 63 Subpart PPPP) should not be regulated by Section 44. Such companies are subject to VOC and hazardous air pollutant (HAP) emission standards including source-specific emissions limits, which are enforced in operating facility permits. Subjecting these facilities to Section 44 may limit operational flexibility and will make compliance more complicated. For example, the NESHAPs measure compliance on a twelve-month rolling average, which allows the operator to use adhesives with a VOC content that exceeds the average at any given time, as long as lower VOC content products are used to maintain the average. The standards of Section 44 would force such a facility to look to the installation and use of pollution control equipment or to use non-VOC products. However, control equipment may be expensive or even infeasible. As a result, some facilities may shut or move to another state. Furthermore, the use of control equipment will result in an increase in carbon dioxide emissions. Finally, a shift to the use of aqueous or non-VOC containing adhesives will never happen at a facility that has installed control equipment. [8]

> **Response:** The ozone attainment-driven requirements of Section 44 and the NESHAPs are independent requirements that serve different purposes. Neither may substitute for the other, given the differences in the purpose, applicability and standards. Compliance with one does not exclude – and may even further – compliance with another.
>
> Section 44 is proposed to limit VOC emissions from the use of regulated adhesives, primers and sealants. The main mechanism to realize the emissions reductions are the VOC content limits for regulated adhesives, sealants, primers, cleanup and surface preparation solvents. Thus, Section 44 is applicable to manufacturers and sellers of the regulated adhesives, sealants, primers and solvents. Section 44 also includes requirements that apply to facilities at which the regulated adhesives, sealants, primers and solvents are used, but those requirements are relatively limited and apply to any process or activity using a regulated product.

---

[14] The commitment is made in the 8-hour Ozone Attainment Demonstration. Available at: http://www.ct.gov/dep/cwp/view.asp?a=2684&q=331234&depNav_GID=1619

In contrast, the NESHAPs are promulgated by EPA to reduce HAPs from certain facilities based on the activity or process occurring at the facility. The applicability is only to the owners or operators of facilities at which the identified process is occurring, and the applicability thresholds are determined by the facility's potential to emit HAPs. NESHAPs do not include VOC or HAP content limits for products, but require the owners of the regulated facilities to meet HAP emissions standards on a 12-month rolling average basis. While some of the regulated HAPs are also VOC, thereby creating coincident reductions in VOC emissions, the creation of VOC emissions reductions is not the primary purpose – or necessary result – of the NESHAPs.

Any facility that is subject to a NESHAP and at which an adhesive regulated by Section 44 is used will need to comply with both requirements. For some facilities, the use of products that comply with Section 44 will further compliance with the NESHAP; in other facilities, the requirements of Section 44 will not so do. For some facilities this will add some elements to their record keeping system. Section 44 is designed with some flexibility to facility operators in designing record keeping, as long as records are sufficient to determine compliance with applicable requirements.[15] Compliance with a NESHAP and Section 44 will not necessarily require the installation of control equipment where no such equipment is now required. Finally, a general suggestion that a source using control equipment has no incentive to switch to low-VOC or aqueous adhesives and sealants is groundless; cost, employee safety, hazardous waste disposal needs, product safety and a desire to "do the right thing" may all influence the choice of products or control equipment at any facility.

Finally, to claim that the installation of air pollution control equipment would be a deciding factor in the continued operation of a number of businesses is extreme and unsubstantiated.

The Department should not revise Section 44 in response to this comment.

Comment 13: Consistency with a MACT. Section 44 should use definitions consistent with the Miscellaneous Metal Surface Coating MACT Standard. [8]

Response: As explained in the response to comment 12, the requirements of 40 CFR 63 subpart MMMM concerning surface coating of miscellaneous metal parts serves a purpose different than that of Section 44 and applies to a group of persons for the conduct of activities outside the applicability of Section 44. Thus, not surprisingly, almost none of the terms defined in 40 CFR 63.3981 are used in Section 44. In the case of the few terms defined in both Section 44 and 40 CFR 63.3981, there is no clear advantage to substituting the federal definitions.

The Department should not revise Section 44 in response to this comment.

---

15 *See, e.g.*, Section 44(f)(1).

Comment 14: Concerns about a specific facility. The proposal should include requirements to limit VOC from manufacturing facilities that use paint and also specify the use of monitoring equipment to measure VOC in the outside air whenever a complaint is filed. The commenters offer this comment in light of their dissatisfaction with odors emitted by a neighboring factory and frustration that repeated visits by inspectors from the Department in response to complaints have not discovered any violations at the neighboring factory. [2]

Response: The Department should not revise the proposal in response to this comment as the recommendations concerning the regulation of VOC emissions from paint and the use of monitoring equipment are outside the noticed scope of this proceeding. Regarding the use of paint in manufacturing processes, the Department adopted a regulation in July 2007, RCSA section 22a-174-41, that regulates the VOC content of many paints, stains, varnishes and other coatings used in certain industrial applications. The Department's regulations always include requirements for the testing and monitoring necessary to determine compliance with limits and standards.

The Department also operates a statewide air monitoring network that is a crucial component of compliance efforts to meet federal air quality standards and to evaluate the success of our pollution control strategies. More information about that monitoring network is available at:
http://www.ct.gov/dep/cwp/view.asp?a=2684&Q=321790&depNav_GID=1744&depNav=|

In response to the complaint about the emissions from a neighboring facility, as the commenters note, the Department's inspectors have found the facility to be operating in compliance with all applicable air quality regulations. Any future complaints will be investigated should the commenters continue to experience unsatisfactory conditions.

VI. Additional Comments from the Hearing Officers

In addition to the above-recommended revisions, the Department should make the following technical corrections and clarifications to the final version of Section 44:

- The phrase "for use" should be added to subsection (d)(2) so the language mirrors the corresponding applicability requirement in subsection (b)(2), as follows:

  (2) Except as provided in subsections (c) and (d)(6) of this section, on or after January 1, 2009, no person shall manufacture for sale **for use** in the State of Connecticut any adhesive, sealant, adhesive primer or sealant primer unless such adhesive, sealant, adhesive primer or sealant primer complies with the applicable VOC content limits specified in Table 44-1 of this section and the applicable requirements of this subsection.

- The July 1, 2008 date in the labeling requirements of subsection (g)(1) should be changed to January 1, 2009, so the labeling requirements coincide with all other provisions in the section, as follows:

  (1) As of ~~July 1, 2008~~ **January 1, 2009**, each manufacturer of an adhesive, sealant, adhesive primer or sealant primer subject to a VOC content limit in Table 44-1 of this section shall display the following information on the container or label . . .

- The ASTM test methods referenced in subsection (e)(3) are not the current active methods and should be revised to reflect the current active methods, as follows:

    - ASTM D4457-85 should be replaced with **ASTM D4457-02**;
    - ASTM E260-96 and ASTM E260-91 should be replaced with **ASTM E260-96(2006)**;
    - ASTM D3792-91 should be replaced with **ASTM D3792-05**; and
    - ASTM D2879-96 should be replaced with **ASTM D2879-97(2007)**.

VII. Conclusion

Based upon the comments submitted by interested parties and addressed in this Hearing Report, we recommend the final new section, included as Attachment 4 to this report, be submitted by the Commissioner for approval by the Attorney General and the Legislative Regulations Review Committee. Based upon the same considerations, we also recommend that upon promulgation the new section be submitted to EPA as a revision to the State Implementation Plan and as a control measure in support of Connecticut's plan to attain and maintain the 8-hour ozone NAAQS.

Merrily A. Gere
Hearing Officer

06/12/08
Date

Anne B. Hulick
Hearing Officer

06/12/2008
Date

ATTACHMENT 1

Federal Standards Analysis Pursuant to Section 22a-6(h) of the General Statutes

Pursuant to the provisions of section 22a-6(h) of the Connecticut General Statutes (C.G.S.), the Commissioner of the Department of Environmental Protection (the Department) is authorized to adopt regulations pertaining to activities for which the federal government has adopted standards or procedures. At the time of public notice, the Commissioner must distinguish clearly all provisions of a proposed regulation that differ from federal standards or procedures. The Commissioner must distinguish any such provisions either on the face of such proposed regulation or through supplemental documentation accompanying the proposed regulation. In addition, the Commissioner must provide an explanation for all such provisions in the regulation-making record required under Title 4, Chapter 54 of the C.G.S. and make such explanation publicly available at the time of the notice of public hearing required under C.G.S. section 4-168.

In accordance with the requirements of C.G.S. section 22a-6(h), the following statement is entered into the public administrative record in the matter of the proposed adoption of section 22a-174-44 (Section 44) of the Regulations of Connecticut State Agencies:

There are no comparable federal standards intended to improve ambient air quality by regulating the VOC content of adhesives, and, therefore, no further analysis is required.

While the U.S. Environmental Protection Agency (EPA) published a consumer and commercial products rule on September 11, 1998 (40 CFR Part 59 Subpart D), which include five types of household adhesives, Section 44 includes an exemption for adhesives that are subject to R.C.S.A. section 22a-174-40, the state's counterpart to the Federal Part 59 rule for consumer products. Regulated products do not otherwise overlap.

In addition, EPA has promulgated national emissions standards for hazardous pollutants for source categories in 40 CFR 63, which address hazardous air emissions from adhesives and cleaning solvents used in a limited number of source categories, including wood furniture manufacturing, shipbuilding and aerospace. The limited overlap is addressed in some instances through the exemptions of Section 44. In a few other cases, such as the contact adhesive limits of Subpart JJ for wood furniture manufacturing operations, compliance with the Part 63 requirements will allow for compliance with the standard for contact bond adhesives in Section 44 for newer sources. Older source owners will find that the contact bond adhesive standard in Section 44 is stricter than that of Subpart JJ.

May 21, 2007
Date

/s/Merrily A. Gere
Bureau of Air Management

ATTACHMENT 2

Proposed RCSA Section 22a-174-44

The Regulations of Connecticut State Agencies are amended by adding section 22a-174-44, as follows:

(NEW)
Section 22a-174-44 Adhesives and sealants.

(a) Definitions. For the purposes of this section, the following definitions shall apply:

"Acrylonitrile-butadiene-styrene welding adhesive" or "ABS welding adhesive" means any adhesive intended by the manufacturer to weld acrylonitrile-butadiene-styrene pipe, which is made by reacting monomers of acrylonitrile, butadiene and styrene.

"Adhesive" means any chemical compound, although typically "adhesives" are organic polymers, that is applied for the purpose of bonding two surfaces together by other than mechanical means.

"Adhesive primer" means any product intended by the manufacturer for application to a substrate, prior to the application of an adhesive, to enhance the bonding surface.

"Aerosol adhesive" means an adhesive packaged as an aerosol in which the spray mechanism is permanently housed in a non-refillable can designed for handheld application without ancillary hoses or spray equipment.

"Aerospace component" means the fabricated part, assembly of parts or completed unit of any aircraft, helicopter, missile or space vehicle, including passenger safety equipment.

"Architectural" means pertaining to stationary structures, including mobile homes, and their appurtenances. Appurtenances to an architectural structure include, but are not limited to, hand railings, cabinets, bathroom and kitchen fixtures, fences, rain gutters and downspouts and windows.

"As applied" means the composition of an adhesive, sealant or primer at the time it is applied to a substrate, including any solvent, catalyst or other substance added to the as supplied adhesive, sealant or primer.

"As supplied" means the composition of an adhesive, sealant or primer as sold to a retail customer. For multi-component adhesives, sealants or primers, "as supplied" means the composition after the component parts are combined as specified by the manufacturer and before the addition, at the user's initiative, of any ancillary substances.

"Automotive glass adhesive primer" means an adhesive primer intended by the manufacturer to be applied to automotive glass prior to installation of the glass using an adhesive. "Automotive glass adhesive primer" improves the adhesion to the pinch weld and blocks ultraviolet light.

"CARB" means the California Air Resources Board.

"Ceramic tile installation adhesive" means any adhesive intended for use in the installation of ceramic tiles.

"Chlorinated polyvinyl chloride welding adhesive" or "CPVC welding adhesive" means any adhesive intended for welding of CPCV plastic pipe.

"Cleanup solvent" means a VOC-containing solvent used to remove a loosely held uncured adhesive or sealant from a substrate or to clean equipment used in applying an adhesive, a sealant or a primer.

"Computer diskette jacket manufacturing adhesive" means any adhesive intended by the manufacturer to glue the fold-over flaps to the body of a vinyl computer diskette jacket.

"Contact bond adhesive" means any adhesive that forms an instantaneous, non-repositionable bond when substrates, on which the adhesive was applied and allowed to dry, are brought together using momentary pressure. "Contact bond adhesive" does not include rubber cements that are primarily intended for use on paper substrates or vulcanizing fluids designed and labeled for tire repair only.

"Cove base" means a flooring trim unit, generally made of vinyl or rubber, having a concave radius on one edge and a convex radius on the opposite edge that is used in forming a junction between the bottom wall course and the floor or in forming an inside corner.

"Cove base installation adhesive" means any adhesive intended by the manufacturer for the installation of cove base or wall base on a wall or vertical surface at floor level.

"Cyanoacrylate adhesive" means any single-component reactive diluent adhesive that contains at least 85% by weight methyl, ethyl, methoxymethyl or other functional groupings of cyanoacrylate.

"Exempt compound" means compounds of carbon excluded from the definition of "VOC" in section 22a-174-1 of the Regulations of Connecticut State Agencies.

"Flexible vinyl" means non-rigid polyvinyl chloride plastic with at least five percent, by weight, plasticizer content.

"Fiberglass" means a material made of extremely fine filaments of glass.

"Indoor floor covering installation adhesive" means any adhesive intended by the manufacturer for use in the installation of finish surface wood flooring, carpet, resilient tile, vinyl tile, vinyl backed carpet, resilient sheet and roll or artificial grass. Adhesive used to install ceramic tile or perimeter bonded sheet vinyl flooring is not "indoor floor covering installation adhesive."

"Laminate" means a material made by bonding two or more sheets or layers.

"Low-solids adhesive, sealant or primer" means any adhesive, sealant or primer product that contains 120 grams or less of solids per liter of product.

"Marine deck sealant" or "marine deck sealant primer" means any sealant or sealant primer intended by the manufacturer for application to wooden marine decks.

"Medical equipment manufacturing" means the manufacture of medical devices, such as, but not limited to, catheters, heart valves, blood cardioplegia machines, tracheostomy tubes, blood oxygenators or cardiatory reservoirs.

"Metal-to-elastomer molding or casting adhesive" means any adhesive intended by the manufacturer to bond metal to rubber or urethane elastomers using a heated molding or casting process in order to fabricate products.

"Multipurpose construction adhesive" means any adhesive intended by the manufacturer for use in the installation or repair of various construction materials, including, but not limited to, dry wall, subfloor, panel, fiberglass reinforced plastic, ceiling tile or acoustical tile.

"Nonmembrane roof installation or repair adhesive" means any adhesive intended by the manufacturer for use in the installation or repair of nonmembrane roofs, including, but not limited to, plastic or asphalt roof cement, asphalt roof coating or cold application cement. Adhesive intended for use in the installation of pre-fabricated single-ply roof membrane is not "nonmembrane roof installation or repair adhesive."

"Outdoor floor covering installation adhesive" means any adhesive intended by the manufacturer for use in the installation of floor covering that is not in an enclosure and that is exposed to ambient weather conditions during normal use.

"Panel installation" means the installation of plywood, pre-decorated hardboard (or tileboard), fiberglass reinforced plastic, or similar pre-decorated or non-decorated panels to studs or solid surfaces using an adhesive formulated for that purpose.

"Perimeter bonded sheet vinyl flooring installation" means the installation of sheet flooring with vinyl backing onto a nonporous substrate using an adhesive designed to be applied only to a strip no more than four inches wide around the perimeter of the sheet flooring.

"Plastic cement welding adhesive" means any adhesive intended by the manufacturer for use to dissolve the surface of plastic to form a bond between mating surfaces.

"Plastic cement welding primer" means any primer intended by the manufacturer for use to prepare plastic substrates prior to bonding or welding.

"Plasticizer" means any substance, such as a high boiling point organic solvent, that is added to a hard plastic to provide flexibility or pliability.

"Polyvinyl chloride welding adhesive" or "PVC welding adhesive" means any adhesive intended by the manufacturer for use in the welding of PVC plastic pipe.

"Porous material" means wood, paper, corrugated paperboard or other solid that has tiny openings, often microscopic, in which fluids may be absorbed or discharged.

"Reactive diluent" means a liquid reactant in an uncured adhesive, sealant or primer that reacts chemically or physically during the curing process to become an integral part of the cured adhesive, sealant or primer.

"Roadway sealant" means any sealant intended by the manufacturer for application to public streets, highways and other surfaces, including, but not limited to, curbs, berms, driveways or parking lots.

"Rubber" means any natural or manmade elastomer, including, but not limited to, styrene-butadiene rubber, polychloroprene (neoprene), butyl rubber, nitrile rubber, chlorosulfonated polyethylene or ethylene propylene diene terpolymer.

"SCAQMD" means the South Coast Air Quality Management District, a part of the California Air Resources Board, which is responsible for the regulation of air quality in the State of California.

"Sealant primer" means any product intended by the manufacturer for application to a substrate, prior to the application of a sealant, to enhance the bonding surface.

"Sealant" means any material with adhesive properties that is formulated primarily to fill, seal, waterproof or weatherproof gaps or joints between two surfaces. Sealers and other materials that are applied to a single substrate to protect or decorate are not "sealants."

"Sheet-applied rubber installation" means the process of applying sheet rubber liners by hand to metal or plastic substrates to protect the underlying substrate from corrosion or abrasion, inclusive of the process of laminating sheet rubber to fabric by hand.

"Single-ply roof membrane" means a prefabricated single sheet of rubber, normally ethylene-propylenediene terpolymer, that is applied in a single layer to a building roof.

"Single-ply roof membrane installation or repair adhesive" means any adhesive intended by the manufacturer for use in the installation or repair of single-ply roof membrane.

"Single-ply roof membrane adhesive primer" means any primer intended by the manufacturer for use to clean and promote adhesion of the single-ply roof membrane seams or splices prior to bonding.

"Single-ply roof membrane sealant" means any sealant intended by the manufacturer for application to single-ply roof membrane.

"Solvent" means any organic compounds that are used as diluents, thinners, dissolvers, viscosity reducers, cleaning agents or other related uses.

"Structural glazing adhesive" means any adhesive intended by the manufacturer to apply glass, ceramic, metal, stone or composite panels to exterior building frames.

"Surface preparation solvent" means a solvent used to remove dirt, oil and other contaminants from a substrate prior to the application of a primer, adhesive or sealant.

"Thin metal laminating adhesive" means any adhesive intended by the manufacturer for use in bonding multiple layers of metal to metal or metal to plastic, in the production of electronic or magnetic components, in which the thickness of the bond line(s) is less than 0.25 mils.

"Tire repair" means a process that includes expanding a hole, tear, fissure or blemish in a tire casing by grinding or gouging, applying adhesive and filling the hole or crevice with rubber.

"Tire retread adhesive" means any adhesive intended by the manufacturer for application to the back of pre-cure tread rubber and to the casing and cushion rubber. "Tire retread adhesive" may also be used to seal buffed tire casings to prevent oxidation while the tire is being prepared for a new tread.

"Traffic marking tape" means preformed reflective film intended by the manufacturer for application to streets, highways and other surfaces where pavement markings are desired, including, but not limited to, curbs, berms, driveways and parking lots.

"Traffic marking tape adhesive primer" means any primer intended by the manufacturer for application to a substrate prior to installation of traffic marking tape.

"Twelve-month rolling aggregate" means the amount of adhesives, sealants, primers or solvents used in a twelve-month period, calculated each month by adding the current month's adhesive, sealant, primer or solvent use to the amount used in each of the previous eleven months.

"Undersea-based weapons systems components" means the fabrication of parts, assembly of parts or completed units of any portion of a missile launching system used on submarines.

"Waterproof resorcinol glue" means a two-part resorcinol-resin-based adhesive intended for continuous water immersion.

(b) Applicability.

(1) Except as provided in subsection (c) of this section, this section applies to any person who, on or after January 1, 2009, sells, supplies or offers for sale for use in the State of Connecticut any adhesive, sealant, adhesive primer or sealant primer subject to a VOC content limit in Table 44-1 of this section.

(2) Except as provided in subsection (c) of this section, this section applies to any person who, on or after January 1, 2009, manufactures for sale for use in the State of Connecticut any adhesive, sealant, adhesive primer or sealant primer subject to a VOC content limit in Table 44-1 of this section.

(3) Except as provided in subsection (c) of this section, this section applies to any person who, on or after January 1, 2009, uses or applies within the State of Connecticut, or solicits the use or application of within the State of Connecticut, any adhesive, sealant, adhesive primer or sealant primer with an applicable VOC content limit in either Table 44-1 or Table 44-2 of this section.

(c) Exemptions and exceptions.

(1) The requirements of this section shall not apply, except as otherwise noted, to the manufacture, sale or use of the following adhesives, sealants, adhesive primers, sealant primers or solvents:

(A) Adhesives, sealants, adhesive primers or sealant primers being tested or evaluated in any research and development, quality assurance or analytical laboratory, provided that records are maintained as specified in subsection (f)(4) of this section;

(B) Adhesives or sealants that contain less than 20 grams of VOC per liter of adhesive or sealant, less water and exempt compounds, as applied;

(C) Cyanoacrylate adhesives;

(D) Aerosol adhesives;

(E) Adhesives, sealants, adhesive primers or sealant primers that are sold or supplied by the manufacturer or supplier in containers with a net volume of 16 fluid ounces or less, or a net weight of one pound or less, except plastic cement welding adhesives and contact bond adhesives;

(F) Adhesives, sealants, adhesive primers and sealant primers that are subject to a VOC content limit in section 22a-174-40 of the Regulations of Connecticut State Agencies;

(G) Contact bond adhesives that are sold or supplied by the manufacturer or supplier in a container with a net volume of one gallon or less; or

(H) Adhesives, cleanup solvents and surface preparation solvents used in the assembly, repair and manufacture of submarines, when the use of a noncomplying adhesive or solvent is necessary to meet military performance specifications, provided that records of the use of such noncompliant adhesives or solvents are maintained in accordance with subsection (f)(1) of this section.

(2) The requirements of this section shall not apply to the use of adhesives, sealants, adhesive primers, sealant primers, surface preparation solvent and cleanup solvent in the following operations:

(A) Tire repair operations, provided the label of the adhesive states "**For tire repair only**;"

(B) Assembly, repair or manufacture of undersea-based weapon systems;

(C) Assembly, repair or manufacture of aerospace components;

(D) Manufacture of medical equipment;

(E) Metal cleaning performed in accordance with section 22a-174-20(*l*) of the Regulations of Connecticut State Agencies; or

(F) Plaque laminating operations in which adhesives are used to bond clear, polyester acetate laminate to wood with lamination equipment installed prior to July 1, 1992. Any person claiming exemption pursuant to this subparagraph shall record

and maintain monthly operational records sufficient to demonstrate compliance with this exemption and in accordance with subsection (f) of this section.

(3) The provisions of this section shall not apply to the use of adhesives, sealants, adhesive primers or sealant primers at a facility if the total VOC emissions from all adhesives, sealants, adhesive primers and sealant primers used at the facility are less than 200 pounds, or an equivalent volume, per any twelve-month rolling aggregate. Emissions from cold cleaning units, vapor degreasers and aerosol products shall not be included in determining the total VOC emissions. Any person claiming exemption pursuant to this subparagraph shall record and maintain monthly operational records sufficient to demonstrate continued eligibility for this exemption and in accordance with subsection (f) of this section, as applicable.

(4) The VOC content limits in Tables 44-1 and 44-2 and the requirements of subsections (d)(7) and (d)(8) of this section shall not apply to the use of any adhesives, sealants, adhesive primers, sealant primers, cleanup solvents and surface preparation solvents provided the total volume of noncomplying adhesives, sealants, primers, cleanup and surface preparation solvents applied facility-wide does not exceed 55 gallons per any twelve-month rolling aggregate. Any person claiming exemption pursuant to this subdivision shall record and maintain monthly operational records sufficient to demonstrate compliance with this exemption and in accordance with subsection (f) of this section.

(5) This section shall not apply to any manufacturer or distributor who sells, supplies or offers for sale in the State of Connecticut any adhesive, sealant, adhesive primer or sealant primer that does not comply with the VOC content limits specified in Table 44-1 of this section provided that such manufacturer or distributor makes and keeps records demonstrating:

(A) The adhesive, sealant, adhesive primer or sealant primer is intended for shipment and use outside of the State of Connecticut; and

(B) The manufacturer or distributor has taken reasonable precautions to assure that the adhesive, sealant, adhesive primer or sealant primer is not distributed to or within the State of Connecticut.

(6) Subdivision (5) of this subsection shall not apply to any manufacturer or distributor who sells, supplies or offers for sale any adhesive, sealant, adhesive primer or sealant primer to a retail outlet in the State of Connecticut.

(7) The VOC content limits of Table 44-1 of this section shall not apply to the sale of any adhesive, sealant, adhesive primer or sealant primer to a person using add-on air pollution control equipment to control emissions of VOC from such adhesive, sealant, adhesive primer or sealant primer at the stationary source, if the add-on air pollution control equipment meets the requirements of subsection (d)(6) of this section.

(8) This section shall not apply to the use of any adhesive, sealant, adhesive primer, sealant primer, cleanup solvent or surface preparation solvent at a private residence for non-commercial purposes.

(9) The requirements of this section shall not apply to any adhesive, sealant, adhesive primer, sealant primer, cleanup solvent or surface preparation solvent that is distributed or transferred by

a branch of the United States military to, from or within a premises operated by that branch of the United States military.

(d) Standards.

(1) Except as provided in subsections (c) and (d)(6) of this section, on or after January 1, 2009, no person shall sell, supply or offer for sale in the State of Connecticut any adhesive, sealant, adhesive primer or sealant primer manufactured on or after January 1, 2009 unless such adhesive, sealant, adhesive primer or sealant primer complies with the applicable VOC content limits specified in Table 44-1 of this section and the applicable requirements of this subsection.

(2) Except as provided in subsections (c) and (d)(6) of this section, on or after January 1, 2009, no person shall manufacture for sale in the State of Connecticut any adhesive, sealant, adhesive primer or sealant primer unless such adhesive, sealant, adhesive primer or sealant primer complies with the applicable VOC content limits specified in Table 44-1 of this section and the applicable requirements of this subsection.

(3) Except as provided in subsections (c)(1) through (c)(4), (c)(7), (c)(9) and (d)(6) of this section, on or after January 1, 2009, no person shall use or apply, or solicit the use or application of, any adhesive, sealant, adhesive primer or sealant primer within the State of Connecticut unless such adhesive, sealant, adhesive primer or sealant primer as applied complies with the applicable VOC content limits specified in Table 44-1 or Table 44-2 of this section and the applicable requirements of this subsection.

(4) For adhesives, the VOC content limits of Tables 44-1 and 44-2 of this section shall apply as follows:

(A) If a person uses an adhesive subject to a specific VOC content limit in Table 44-1, such specific limit shall apply, and no limit in Table 44-2 shall apply; and

(B) If an adhesive is not listed in Table 44-1, a VOC content limit in Table 44-2 shall apply based on the substrate bonded by the adhesive. If an adhesive is used to bond two different substrates together, the substrate assigned the higher VOC content limit shall apply to such use.

(5) Any person using adhesives, sealants, adhesive primers, sealant primers, surface preparation solvents or clean-up solvents subject to this section shall store or dispose of all absorbent materials, such as cloth or paper, which are moistened with such adhesives, sealants, primers or solvents, in non-absorbent containers that shall be closed except when placing materials in or removing materials from the container.

(6) A person using an adhesive, sealant, adhesive primer or sealant primer subject to this section may comply with the VOC content limits of Tables 44-1 and 44-2 of this section using add-on air pollution control equipment if such equipment meets the following requirements:

(A) The VOC emissions from the use of all adhesives, sealants, adhesive primers or sealant primers subject to this section are reduced by an overall capture and control efficiency of at least 85%, by weight;

(B) The combustion temperature is monitored continuously if a thermal incinerator is operated;

(C) Inlet and exhaust gas temperatures are monitored continuously if a catalytic incinerator is operated;

(D) The VOC concentration of the inlet and exhaust gas is measured continuously if a carbon absorber or control device other than a thermal or catalytic incinerator is operated; and

(E) Operational records sufficient to demonstrate compliance with the requirements of this subdivision are maintained as required by subsection (f) of this section.

(7) Any person using a surface preparation solvent shall:

(A) Except as provided in subparagraph (B) of this subdivision for single-ply roofing, limit the VOC content of surface preparation solvent used to less than 70 grams per liter; or

(B) If a surface preparation solvent is used in applying single-ply roofing, limit the composite vapor pressure, excluding water and exempt compounds, of the surface preparation solvent used to less than or equal to 45 mmHg at 20 degrees Celsius.

(8) Any person using a cleanup solvent shall:

(A) Except as provided in subparagraph (B) of this subdivision, limit the composite vapor pressure of a cleanup solvent to less than 45 mmHg at 20 degrees Celsius; or

(B) When cleaning spray application equipment, perform the removal of an adhesive, sealant, adhesive primer or sealant primer from the parts of spray application equipment in accordance with either subparagraph (i) or (ii), as follows:

(i) In an enclosed cleaning system, or equivalent cleaning system as determined by the test method identified in subsection (e)(4) of this section, or

(ii) Using a solvent with a VOC content less than or equal to 70 grams of VOC per liter. As necessary, parts containing dried adhesive may be soaked in a solvent if the composite vapor pressure of the solvent, excluding water and exempt compounds, is less than or equal to 9.5 mmHg at 20 degrees Celsius, and the parts and solvent are in a closed container that remains closed except when adding parts to or removing parts from the container.

(9) No person who applies or solicits the application of any adhesive, sealant, adhesive primer or sealant primer subject to this section shall add solvent to such adhesive, sealant or primer in an amount in excess of the manufacturer's recommendation for application, if such

addition causes the adhesive, sealant or primer to exceed the applicable VOC content limit of this section.

(e) Compliance procedures and test methods.

(1) Any person who sells, supplies, offers for sale or manufactures an adhesive, sealant, adhesive primer or sealant primer subject to this section on or after January 1, 2009 for sale in the State of Connecticut shall possess documentation that such adhesive, sealant, adhesive primer or sealant primer complies with the VOC content limits of Table 44-1 of this section, where the VOC content is determined according to the requirements of subdivisions (2) and (3) of this subsection.

(2) The VOC content (grams per liter and percent by weight) of adhesive, sealant, primer and solvent products subject to this section, shall be determined according to the following calculations:

(A) For products that do not contain reactive diluents, grams of VOC per liter of product thinned to the manufacturer's recommendation, less water and exempt compounds, shall be calculated according to the following equation:

$$\text{Grams of VOC per liter of product} = \frac{Ws - Ww - We}{Vm - Vw - Ve}$$

Where

Ws	=	weight of volatile compounds, in grams
Ww	=	weight of water, in grams
We	=	weight of exempt compounds, in grams
Vm	=	volume of product, as supplied, in liters
Vw	=	volume of water, in liters
Ve	=	volume of exempt compounds, in liters;

(B) For products that contain reactive diluents, the VOC content of the product is determined after curing. The grams of VOC per liter of product thinned to the manufacturer's recommendation, less water and exempt compounds, shall be calculated according to the following equation:

$$\text{Grams of VOC per liter of product} = \frac{Wrs - Wrw - Wre}{Vrm - Vrw - Vre}$$

Where

Wrs	=	weight of volatile compounds not consumed during curing, in grams
Wrw	=	weight of water not consumed during curing, in grams
Wre	=	weight of exempt compounds not consumed during curing, in grams
Vrm	=	volume of product, as supplied, not consumed during curing, in liters
Vrw	=	volume of water not consumed during curing, in liters

Vre = volume of exempt compounds not consumed during curing, in liters;

(C) Grams of VOC per liter of product thinned to the manufacturer's recommendation shall be calculated according to the following equation:

$$\text{Grams of VOC per liter of product} = \frac{Ws - Ww - We}{Vm}$$

Where

Ws = weight of volatile compounds, in grams
Ww = weight of water, in grams
We = weight of exempt compounds, in grams
Vm = volume of product, in liters; and

(D) Percent VOC by weight shall be calculated according to the following equation:

$$\% \text{ VOC by weight} = [(Wv / W)] \times 100$$

Where

Wv = weight of VOCs in grams
W = weight of product in grams

(3) The following procedures shall be used to determine the properties of the specified adhesives, sealants, primers, solvents or components thereof in order to perform the calculations required pursuant to subdivision (2) of this subsection or to verify calculations based on formulation data:

(A) Except as provided in subparagraphs (C), (D) and (E) of this subdivision, the VOC and solids content of all adhesives, adhesive primers, sealants, sealant primers, surface preparation solvents and cleanup solvents shall be determined using 40 CFR 60, Appendix A, Reference Method 24, or SCAQMD Method 304;

(B) The volatile organic content of exempt organic compounds shall be determined using ASTM D4457-85 or the most current version of such test, as applicable;

(C) The VOC content of any plastic welding cement adhesive or primer shall be determined using SCAQMD Method 316A;

(D) The amount of reactive diluent in a product shall be determined using SCAQMD Method 316A;

(E) The composite vapor pressure of volatile organic compounds in surface preparation solvents and cleanup solvents shall be determined by quantifying the amount of each compound in the blend using gas chromatographic analysis (ASTM E 260-96 or its most current replacement test) for organics and ASTM D3792-91 or the most current version of such test, for water content, as applicable, and the following equation:

$$Ppc = \left[\sum_{i=1}^{n} (Wi)(Vpi) / Mwi \right] / \left[(Ww/ Mww) + \sum_{i=1}^{n} (We / Mwe) + \sum_{i=1}^{n} (Wi / Mwi) \right]$$

Where

Ppc = VOC composite partial pressure at 20 degrees C, in mmHg

W*i* = Weight of the "i"th VOC compound, in grams, as determined by ASTM E 260-96 or the most current version of such test

Vp*i* = Vapor pressure of the "i"th VOC compound at 20 degrees C, in mmHg, as determined by subparagraph (F) of this subdivision

Mw*i* = Molecular weight of the "i"th VOC compound, in grams per g-mole, as given in chemical reference literature

Ww = Weight of water, in grams as determined by ASTM D 3792-91 or the most current version of such test

Mww = Molecular weight of water, 18 grams per g-mole

We = Weight of the "i"th exempt compound, in grams, as determined by ASTM E 260-91 or the most current version of such test

Mwe = Molecular weight of the "i"th exempt compound, in grams per g-mole, as given in chemical reference literature

(F) The vapor pressure of each single component compound may be determined from ASTM D2879-86, or the most current version of such test, or may be obtained from any of the following sources:

(i) The most recent edition of *The Vapor Pressure of Pure Substances*, Boublik, Fried, and Hala, eds., Elsevier Scientific Publishing Company, New York,

(ii) The most recent edition of *Perry's Chemical Engineer's Handbook*, McGraw-Hill Book Company,

(iii) The most recent edition of *CRC Handbook of Chemistry and Physics*, Chemical Rubber Publishing Company,

(iv) The most recent edition of *Lange's Handbook of Chemistry*, John Dean, editor, McGraw-Hill Book Company, or

(v) Additional sources approved for this purpose by the Commissioner.

(4) The active and passive solvent losses from spray gun cleaning systems shall be determined using SCAQMD's "General Test Method for Determining Solvent Losses from Spray Gun Cleaning Systems," dated October 3, 1989. The test solvent for this determination shall be

any lacquer thinner with a minimum vapor pressure of 105 mm of Hg at 20 degrees Celsius, and the minimum test temperature shall be 15 degrees Celsius.

(5) Control device efficiency shall be measured in accordance with 40 CFR 60 Appendix A, Reference Methods 18, 25, 25A and 25B or CARB Method 100.

(6) If the organization responsible for preparing any reference or test method identified in this subsection replaces that method with an equivalent method, then either the identified method or its replacement may be used for the purposes of this section.

(f) Record keeping and reporting requirements.

(1) Except as provided in subsection (c)(8) of this section, or except if add-on air pollution control equipment is used to comply with the VOC content limits of Tables 44-1 or 44-2 of this section, as provided in subsection (d)(6) of this section, and records are maintained as required in subsection (f)(2) of this section, each person subject to this section shall maintain records of the information necessary and sufficient for the Commissioner to determine compliance with the applicable requirements of this section. Such information may include:

(A) A list of each adhesive, sealant, adhesive primer, sealant primer, cleanup solvent and surface preparation solvent in use and in storage;

(B) Identification of each adhesive, sealant, adhesive primer, sealant primer, cleanup solvent and surface preparation solvent by product name and description;

(C) The VOC content of each adhesive, sealant, adhesive primer, sealant primer, cleanup solvent and surface preparation solvent product as supplied;

(D) The mix ratio of any catalysts, reducers or other components used;

(E) The final VOC content or vapor pressure of each adhesive, sealant, adhesive primer, sealant primer, cleanup solvent and surface preparation solvent, as applied; or

(F) The monthly volume of each adhesive, sealant, adhesive primer, sealant primer, cleanup solvent or surface preparation solvent used.

(2) Any person who complies with the VOC content limits of Table 44-1 or Table 44-2 of this section through the use of add-on air pollution control equipment shall record the key operating parameters for the control equipment, including but not limited to, the following information:

(A) The volume used per day of each adhesive, sealant, adhesive primer, sealant primer or solvent that is subject to a VOC content limit in Table 44-1 or Table 44-2 of this section and that exceeds such a limit;

(B) On a daily basis, the combustion temperature, inlet and exhaust gas temperatures and control device efficiency, as appropriate, pursuant to subsection (d)(6) of this section;

(C) Daily hours of control equipment operation;

(D) All maintenance performed on control equipment including the date and type of maintenance; and

(E) Records documenting that such equipment is operated in compliance with the control and capture efficiency requirement of subsection (d)(6) of this section.

(3) All records made to determine compliance with this section shall be maintained on the premises for five years from the date such record is created and shall be made available to the Commissioner within 90 days of a request.

(4) For adhesives, sealants, adhesive primers and sealant primers subject to the laboratory testing exemption of subsection (c)(1)(A) of this section, the person conducting the testing shall make and maintain records of all such adhesives, sealants, primers and solvents used in the preparation or evaluation process, including, as appropriate, the product name, manufacturer and description.

(5) Upon written notice, the Commissioner may require any person subject to this section to report information sufficient to determine compliance with the applicable requirements of this section.

(6) Any document submitted to the Commissioner pursuant to this section shall include a certification signed by an individual identified in section 22a-174-2a(a)(1) 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 thereto, 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, under section 53a-157b of the Connecticut General Statutes, and in accordance with any applicable statute."

(g) Container labeling.

(1) As of July 1, 2008, each manufacturer of an adhesive, sealant, adhesive primer or sealant primer subject to a VOC content limit in Table 44-1 of this section shall display the following information on the container or label for such adhesive, sealant, adhesive primer or sealant primer:

(A) The category name of the product;

(B) A statement of the manufacturer's recommendation regarding thinning, reducing or mixing, where:

(i) A statement is not required for thinning, reducing or mixing with water, and

(ii) If thinning prior to use is not necessary, the recommendation shall specify that the product is to be applied as supplied;

(C) The maximum or the actual VOC content as supplied, displayed in grams of VOC per liter of product; and

(D) The maximum or the actual VOC content as applied in accordance with the manufacturer's recommendation regarding thinning, reducing or mixing, displayed in grams of VOC per liter of applied product.

(2) The VOC content of an adhesive, sealant, adhesive primer or sealant primer shall be calculated using the manufacturer's formulation data or determined using the calculations, procedures and test methods in subsection (e) of this section.

(3) Any person applying an adhesive, sealant, adhesive primer or sealant primer subject to a VOC content limit in Tables 44-1 or 44-2 of this section may rely on the manufacturer's representation on the container or label, if such product is applied as recommended for a use specified on the container or label.

Table 44-1. As Applied VOC Content Limits for Adhesives, Sealants, Adhesive Primers and Sealant Primers

Adhesive, sealant, adhesive primer or sealant primer category	As applied VOC content limit (grams VOC per liter)
Adhesives	
ABS welding	400
Ceramic tile installation	130
Computer diskette jacket manufacturing	850
Contact bond	250
Cove base installation	150
CPVC welding	490
Indoor floor covering installation	150
Metal-to-elastomer molding or casting	850
Multipurpose construction	200
Nonmembrane roof installation or repair	300
Plastic cement welding	510
Outdoor floor covering installation	250
PVC welding	510
Single-ply roof membrane installation or repair	250
Structural glazing	100
Thin metal laminating	780
Tire retread	100
Perimeter bonded sheet vinyl flooring installation	660
Waterproof resorcinol glue	170
Sheet-applied rubber installation	850
Sealants	
Architectural	250
Marine deck	760
Nonmembrane roof installation or repair	300
Roadway	250
Single-ply roof membrane	450
Other	420
Adhesive primers	
Automotive glass	700
Plastic cement welding	650
Single-ply roof membrane	250
Traffic marking tape	150
Other	250
Sealant primers	
Non-porous architectural	250
Porous architectural	775
Marine deck	760
Other	750

Table 44-2. As Applied VOC Content Limits for Adhesives Applied to the Listed Substrate

Substrate	As applied VOC content limit (grams VOC per liter)
Flexible vinyl	250
Fiberglass	200
Metal	30
Porous material	120
Rubber	250
Other substrates	250

Statement of Purpose: This new section of the air quality regulations limits emissions of volatile organic compounds (VOCs) from adhesives, sealants and primers. This section achieves VOC reductions through two basic components: sale and manufacture restrictions that limit the VOC content of specified adhesives, sealants and primers sold in the state; and use restrictions that apply primarily to commercial/industrial operations such as wood product manufacturers, upholstery shops, adhesives retailers and architectural trades, such as building construction, floor covering installation and roof repair. By reducing the availability of higher VOC content adhesives and sealants within the state, the sales prohibition is also intended to address adhesive and sealant usage at area sources. In addition to the VOC content limits and use requirements, this section includes requirements for cleanup and preparation solvents and a compliance alternative in the form of add-on air pollution control equipment.

This section is based on a model rule of the Ozone Transport Commission, which is, in turn, based on a reasonably available control technology determination prepared by the California Air Resources Board (CARB) in 1998. In the years 1998-2001, the provisions of the CARB determination were adopted in regulatory form in various air pollution control districts in California.

The associated emissions reductions, which are estimated to be nearly 4 tons per summer day, will support attainment of the 8-hour national ambient air quality standard.

ATTACHMENT 3

List of Commenters

1. Anne Arnold, Manager
   Air Quality Planning Unit
   United States Environmental Protection Agency (EPA)
   Region 1
   One Congress Street, Suite 1100
   Boston, MA 02114-2023

2. Glenna and Mike Adams
   Bob and Mary Chapman
   South Windham, CT
   Madams1001@earthlink.com

3. C. Mitchell Sorensen, Executive Director
   Connecticut Roofing Contractors Association
   P.O. Box 30
   One Regency Drive
   Bloomfield, CT 06002
   msorensen@ssmgt.com

4. Mike Ennis
   Technical Director
   Single Ply Roofing Industry, Inc.
   m.ennis@mac.com

5. S.P. Graveline
   Vice President Technical Services
   Sika Sarnafil Inc.
   100 Dan Road
   Canton, MA 02021

6. Gary Thompson
   Beacon Sales Co.
   Hartford, CT
   gthompson@beaconsales.com

7. Jared O. Blum
   Executive Director
   EPDM Roofing Association
   7315 Wisconsin Avenue
   Suite 400E
   Bethesda, Md. 20815

8. Heidi K. McAuliffe
Counsel, Government Affairs
National Paint & Coatings Association, Inc.
1500 Rhode Island Avenue, NW
Washington, DC 20005
hmcauliffe@paint.org

9. Robert A. Baker, President
KEY POLYMER CORPORATION
17 Shepard Street, Lawrence Industrial Park
Lawrence, MA 01843-1023
Rbaker@keypolymer.com

ATTACHMENT 4

Final Text
RCSA Section 22a-174-44

The Regulations of Connecticut State Agencies are amended by adding section 22a-174-44, as follows:

(NEW)
Section 22a-174-44 Adhesives and sealants.

(a) Definitions. For the purposes of this section, the following definitions shall apply:

"Acrylonitrile-butadiene-styrene welding adhesive" or "ABS welding adhesive" means any adhesive intended by the manufacturer to weld acrylonitrile-butadiene-styrene pipe, which is made by reacting monomers of acrylonitrile, butadiene and styrene.

"Adhesive" means any chemical compound, although typically "adhesives" are organic polymers, that is applied for the purpose of bonding two surfaces together by other than mechanical means.

"Adhesive primer" means any product intended by the manufacturer for application to a substrate, prior to the application of an adhesive, to enhance the bonding surface.

"Aerosol adhesive" means an adhesive packaged as an aerosol in which the spray mechanism is permanently housed in a non-refillable can designed for handheld application without ancillary hoses or spray equipment.

"Aerospace component" means the fabricated part, assembly of parts or completed unit of any aircraft, helicopter, missile or space vehicle, including passenger safety equipment.

"Architectural" means pertaining to stationary structures, including mobile homes, and their appurtenances. Appurtenances to an architectural structure include, but are not limited to, hand railings, cabinets, bathroom and kitchen fixtures, fences, rain gutters and downspouts and windows.

"As applied" means the composition of an adhesive, sealant or primer at the time it is applied to a substrate, including any solvent, catalyst or other substance added to the as supplied adhesive, sealant or primer.

"As supplied" means the composition of an adhesive, sealant or primer as sold to a retail customer. For multi-component adhesives, sealants or primers, "as supplied" means the composition after the component parts are combined as specified by the manufacturer and before the addition, at the user's initiative, of any ancillary substances.

"Automotive glass adhesive primer" means an adhesive primer intended by the manufacturer to be applied to automotive glass prior to installation of the glass using an adhesive. "Automotive glass adhesive primer" improves the adhesion to the pinch weld and blocks ultraviolet light.

"CARB" means the California Air Resources Board.

"Ceramic tile installation adhesive" means any adhesive intended for use in the installation of ceramic tiles.

"Chlorinated polyvinyl chloride welding adhesive" or "CPVC welding adhesive" means any adhesive intended for welding of CPCV plastic pipe.

"Cleanup solvent" means a VOC-containing solvent used to remove a loosely held uncured adhesive or sealant from a substrate or to clean equipment used in applying an adhesive, a sealant or a primer.

"Computer diskette jacket manufacturing adhesive" means any adhesive intended by the manufacturer to glue the fold-over flaps to the body of a vinyl computer diskette jacket.

"Contact bond adhesive" means any adhesive that forms an instantaneous, non-repositionable bond when substrates, on which the adhesive was applied and allowed to dry, are brought together using momentary pressure. "Contact bond adhesive" does not include rubber cements that are primarily intended for use on paper substrates or vulcanizing fluids designed and labeled for tire repair only.

"Cove base" means a flooring trim unit, generally made of vinyl or rubber, having a concave radius on one edge and a convex radius on the opposite edge that is used in forming a junction between the bottom wall course and the floor or in forming an inside corner.

"Cove base installation adhesive" means any adhesive intended by the manufacturer for the installation of cove base or wall base on a wall or vertical surface at floor level.

"Cyanoacrylate adhesive" means any single-component reactive diluent adhesive that contains at least 85% by weight methyl, ethyl, methoxymethyl or other functional groupings of cyanoacrylate.

"Exempt compound" means compounds of carbon excluded from the definition of "VOC" in section 22a-174-1 of the Regulations of Connecticut State Agencies.

"Flexible vinyl" means non-rigid polyvinyl chloride plastic with at least five percent, by weight, plasticizer content.

"Fiberglass" means a material made of extremely fine filaments of glass.

"Indoor floor covering installation adhesive" means any adhesive intended by the manufacturer for use in the installation of finish surface wood flooring, carpet, resilient tile, vinyl tile, vinyl backed carpet, resilient sheet and roll or artificial grass. Adhesive used to install ceramic tile or perimeter bonded sheet vinyl flooring is not "indoor floor covering installation adhesive."

"Laminate" means a material made by bonding two or more sheets or layers.

"Low-solids adhesive, sealant or primer" means any adhesive, sealant or primer product that contains 120 grams or less of solids per liter of product.

"Marine deck sealant" or "marine deck sealant primer" means any sealant or sealant primer intended by the manufacturer for application to wooden marine decks.

"Medical equipment manufacturing" means the manufacture of medical devices, such as, but not limited to, catheters, heart valves, blood cardioplegia machines, tracheostomy tubes, blood oxygenators or cardiatory reservoirs.

"Metal-to-elastomer molding or casting adhesive" means any adhesive intended by the manufacturer to bond metal to rubber or urethane elastomers using a heated molding or casting process in order to fabricate products.

"Multipurpose construction adhesive" means any adhesive intended by the manufacturer for use in the installation or repair of various construction materials, including, but not limited to, dry wall, subfloor, panel, fiberglass reinforced plastic, ceiling tile or acoustical tile.

"Nonmembrane roof installation or repair adhesive" means any adhesive intended by the manufacturer for use in the installation or repair of nonmembrane roofs, including, but not limited to, plastic or asphalt roof cement, asphalt roof coating or cold application cement. Adhesive intended for use in the installation of pre-fabricated single-ply roof membrane is not "nonmembrane roof installation or repair adhesive."

"Outdoor floor covering installation adhesive" means any adhesive intended by the manufacturer for use in the installation of floor covering that is not in an enclosure and that is exposed to ambient weather conditions during normal use.

"Panel installation" means the installation of plywood, pre-decorated hardboard (or tileboard), fiberglass reinforced plastic, or similar pre-decorated or non-decorated panels to studs or solid surfaces using an adhesive formulated for that purpose.

"Perimeter bonded sheet vinyl flooring installation" means the installation of sheet flooring with vinyl backing onto a nonporous substrate using an adhesive designed to be applied only to a strip no more than four inches wide around the perimeter of the sheet flooring.

"Plastic cement welding adhesive" means any adhesive intended by the manufacturer for use to dissolve the surface of plastic to form a bond between mating surfaces.

"Plastic cement welding primer" means any primer intended by the manufacturer for use to prepare plastic substrates prior to bonding or welding.

"Plasticizer" means any substance, such as a high boiling point organic solvent, that is added to a hard plastic to provide flexibility or pliability.

"Polyvinyl chloride welding adhesive" or "PVC welding adhesive" means any adhesive intended by the manufacturer for use in the welding of PVC plastic pipe.

"Porous material" means wood, paper, corrugated paperboard or other solid that has tiny openings, often microscopic, in which fluids may be absorbed or discharged.

"Reactive diluent" means a liquid reactant in an uncured adhesive, sealant or primer that reacts chemically or physically during the curing process to become an integral part of the cured adhesive, sealant or primer.

"Roadway sealant" means any sealant intended by the manufacturer for application to public streets, highways and other surfaces, including, but not limited to, curbs, berms, driveways or parking lots.

"Rubber" means any natural or manmade elastomer, including, but not limited to, styrene-butadiene rubber, polychloroprene (neoprene), butyl rubber, nitrile rubber, chlorosulfonated polyethylene or ethylene propylene diene terpolymer.

"SCAQMD" means the South Coast Air Quality Management District, a part of the California Air Resources Board, which is responsible for the regulation of air quality in the State of California.

"Sealant primer" means any product intended by the manufacturer for application to a substrate, prior to the application of a sealant, to enhance the bonding surface.

"Sealant" means any material with adhesive properties that is formulated primarily to fill, seal, waterproof or weatherproof gaps or joints between two surfaces. Sealers and other materials that are applied to a single substrate to protect or decorate are not "sealants."

"Sheet-applied rubber installation" means the process of applying sheet rubber liners by hand to metal or plastic substrates to protect the underlying substrate from corrosion or abrasion, inclusive of the process of laminating sheet rubber to fabric by hand.

"Single-ply roof membrane" means a prefabricated single sheet of compounded synthetic material such as ethylene propylenediene monomer, polyvinyl chloride, thermal polyolefin or ketone ethylene ester that is applied in a single layer to a building roof.

"Single-ply roof membrane installation or repair adhesive" means any adhesive intended by the manufacturer for use in the installation or repair of single-ply roof membrane.

"Single-ply roof membrane adhesive primer" means any primer intended by the manufacturer for use to clean and promote adhesion of the single-ply roof membrane seams or splices prior to bonding.

"Single-ply roof membrane sealant" means any sealant intended by the manufacturer for application to single-ply roof membrane.

"Solvent" means any organic compounds that are used as diluents, thinners, dissolvers, viscosity reducers, cleaning agents or other related uses.

"Structural glazing adhesive" means any adhesive intended by the manufacturer to apply glass, ceramic, metal, stone or composite panels to exterior building frames.

"Surface preparation solvent" means a solvent used to remove dirt, oil and other contaminants from a substrate prior to the application of a primer, adhesive or sealant.

"Thin metal laminating adhesive" means any adhesive intended by the manufacturer for use in bonding multiple layers of metal to metal or metal to plastic, in the production of electronic or magnetic components, in which the thickness of the bond line(s) is less than 0.25 mils.

"Tire repair" means a process that includes expanding a hole, tear, fissure or blemish in a tire casing by grinding or gouging, applying adhesive and filling the hole or crevice with rubber.

"Tire retread adhesive" means any adhesive intended by the manufacturer for application to the back of pre-cure tread rubber and to the casing and cushion rubber. "Tire retread adhesive" may also be used to seal buffed tire casings to prevent oxidation while the tire is being prepared for a new tread.

"Traffic marking tape" means preformed reflective film intended by the manufacturer for application to streets, highways and other surfaces where pavement markings are desired, including, but not limited to, curbs, berms, driveways and parking lots.

"Traffic marking tape adhesive primer" means any primer intended by the manufacturer for application to a substrate prior to installation of traffic marking tape.

"Twelve-month rolling aggregate" means the amount of adhesives, sealants, primers or solvents used in a twelve-month period, calculated each month by adding the current month's adhesive, sealant, primer or solvent use to the amount used in each of the previous eleven months.

"Undersea-based weapons systems components" means the fabrication of parts, assembly of parts or completed units of any portion of a missile launching system used on submarines.

"Waterproof resorcinol glue" means a two-part resorcinol-resin-based adhesive intended for continuous water immersion.

(b) Applicability.

(1) Except as provided in subsection (c) of this section, this section applies to any person who, on or after January 1, 2009, sells, supplies or offers for sale for use in the State of Connecticut any adhesive, sealant, adhesive primer or sealant primer subject to a VOC content limit in Table 44-1 of this section.

(2) Except as provided in subsection (c) of this section, this section applies to any person who, on or after January 1, 2009, manufactures for sale for use in the State of Connecticut any adhesive, sealant, adhesive primer or sealant primer subject to a VOC content limit in Table 44-1 of this section.

(3) Except as provided in subsection (c) of this section, this section applies to any person who, on or after January 1, 2009, uses or applies within the State of Connecticut, or solicits the use or application of within the State of Connecticut, any adhesive, sealant, adhesive primer or sealant primer with an applicable VOC content limit in either Table 44-1 or Table 44-2 of this section.

(c) Exemptions and exceptions.

(1) The requirements of this section shall not apply, except as otherwise noted, to the manufacture, sale or use of the following adhesives, sealants, adhesive primers, sealant primers or solvents:

(A) Adhesives, sealants, adhesive primers or sealant primers being tested or evaluated in any research and development, quality assurance or analytical laboratory, provided that records are maintained as specified in subsection (f)(4) of this section;

(B) Adhesives or sealants that contain less than 20 grams of VOC per liter of adhesive or sealant, less water and exempt compounds, as applied;

(C) Cyanoacrylate adhesives;

(D) Aerosol adhesives;

(E) Adhesives, sealants, adhesive primers or sealant primers that are sold or supplied by the manufacturer or supplier in containers with a net volume of 16 fluid ounces or less, or a net weight of one pound or less, except plastic cement welding adhesives and contact bond adhesives;

(F) Adhesives, sealants, adhesive primers and sealant primers that are subject to a VOC content limit in section 22a-174-40 of the Regulations of Connecticut State Agencies;

(G) Contact bond adhesives that are sold or supplied by the manufacturer or supplier in a container with a net volume of one gallon or less; or

(H) Adhesives, cleanup solvents and surface preparation solvents used in the assembly, repair and manufacture of submarines, when the use of a noncomplying adhesive or solvent is necessary to meet military performance specifications, provided that records of the use of such noncompliant adhesives or solvents are maintained in accordance with subsection (f)(1) of this section.

(2) The requirements of this section shall not apply to the use of adhesives, sealants, adhesive primers, sealant primers, surface preparation solvent and cleanup solvent in the following operations:

(A) Tire repair operations, provided the label of the adhesive states "**For tire repair only**;"

(B) Assembly, repair or manufacture of undersea-based weapon systems;

(C) Assembly, repair or manufacture of aerospace components;

(D) Manufacture of medical equipment;

(E) Metal cleaning performed in accordance with section 22a-174-20(*l*) of the Regulations of Connecticut State Agencies; or

(F) Plaque laminating operations in which adhesives are used to bond clear, polyester acetate laminate to wood with lamination equipment installed prior to July 1,

1992. Any person claiming exemption pursuant to this subparagraph shall record and maintain monthly operational records sufficient to demonstrate compliance with this exemption and in accordance with subsection (f) of this section.

(3) The provisions of this section shall not apply to the use of adhesives, sealants, adhesive primers or sealant primers at a facility if the total VOC emissions from all adhesives, sealants, adhesive primers and sealant primers used at the facility are less than 200 pounds, or an equivalent volume, per any twelve-month rolling aggregate. Emissions from cold cleaning units, vapor degreasers and aerosol products shall not be included in determining the total VOC emissions. Any person claiming exemption pursuant to this subparagraph shall record and maintain monthly operational records sufficient to demonstrate continued eligibility for this exemption and in accordance with subsection (f) of this section, as applicable.

(4) The VOC content limits in Tables 44-1 and 44-2 and the requirements of subsections (d)(7) and (d)(8) of this section shall not apply to the use of any adhesives, sealants, adhesive primers, sealant primers, cleanup solvents and surface preparation solvents provided the total volume of noncomplying adhesives, sealants, primers, cleanup and surface preparation solvents applied facility-wide does not exceed 55 gallons per any twelve-month rolling aggregate. Any person claiming exemption pursuant to this subdivision shall record and maintain monthly operational records sufficient to demonstrate compliance with this exemption and in accordance with subsection (f) of this section.

(5) This section shall not apply to any manufacturer or distributor who sells, supplies or offers for sale in the State of Connecticut any adhesive, sealant, adhesive primer or sealant primer that does not comply with the VOC content limits specified in Table 44-1 of this section provided that such manufacturer or distributor makes and keeps records demonstrating:

(A) The adhesive, sealant, adhesive primer or sealant primer is intended for shipment and use outside of the State of Connecticut; and

(B) The manufacturer or distributor has taken reasonable precautions to assure that the adhesive, sealant, adhesive primer or sealant primer is not distributed to or within the State of Connecticut.

(6) Subdivision (5) of this subsection shall not apply to any manufacturer or distributor who sells, supplies or offers for sale any adhesive, sealant, adhesive primer or sealant primer to a retail outlet in the State of Connecticut.

(7) The VOC content limits of Table 44-1 of this section shall not apply to the sale of any adhesive, sealant, adhesive primer or sealant primer to a person using add-on air pollution control equipment to control emissions of VOC from such adhesive, sealant, adhesive primer or sealant primer at the stationary source, if the add-on air pollution control equipment meets the requirements of subsection (d)(6) of this section.

(8) This section shall not apply to the use of any adhesive, sealant, adhesive primer, sealant primer, cleanup solvent or surface preparation solvent at a private residence for non-commercial purposes.

(9) The requirements of this section shall not apply to any adhesive, sealant, adhesive primer, sealant primer, cleanup solvent or surface preparation solvent that is distributed or transferred by a branch of the United States military to, from or within a premises operated by that branch of the United States military.

(10) The requirements of this section shall apply to the use of single-ply roof membrane installation or repair adhesive, single-ply roof membrane sealant and single-ply roof membrane adhesive primer on the following schedule:

(A) For the year 2009, from June 1 through August 31;

(B) For the years 2010 and 2011, from May 1 through September 30; and

(C) On and after January 1, 2012.

(11) The requirements of this section shall not apply to any manufacturer or distributor who sells, supplies or offers for sale any single-ply roof membrane installation or repair adhesive, single-ply roof membrane sealant or single-ply roof membrane adhesive primer prior to January 1, 2012.

(d) Standards.

(1) Except as provided in subsections (c) and (d)(6) of this section, on or after January 1, 2009, no person shall sell, supply or offer for sale for use in the State of Connecticut any adhesive, sealant, adhesive primer or sealant primer manufactured on or after January 1, 2009 unless such adhesive, sealant, adhesive primer or sealant primer complies with the applicable VOC content limits specified in Table 44-1 of this section and the applicable requirements of this subsection.

(2) Except as provided in subsections (c) and (d)(6) of this section, on or after January 1, 2009, no person shall manufacture for sale for use in the State of Connecticut any adhesive, sealant, adhesive primer or sealant primer unless such adhesive, sealant, adhesive primer or sealant primer complies with the applicable VOC content limits specified in Table 44-1 of this section and the applicable requirements of this subsection.

(3) Except as provided in subsections (c)(1) through (c)(4), (c)(7), (c)(9), (c)(10), (c)(11) and (d)(6) of this section, on or after January 1, 2009, no person shall use or apply, or solicit the use or application of, any adhesive, sealant, adhesive primer or sealant primer within the State of Connecticut unless such adhesive, sealant, adhesive primer or sealant primer as applied complies with the applicable VOC content limits specified in Table 44-1 or Table 44-2 of this section and the applicable requirements of this subsection.

(4) For adhesives, the VOC content limits of Tables 44-1 and 44-2 of this section shall apply as follows:

(A) If a person uses an adhesive subject to a specific VOC content limit in Table 44-1, such specific limit shall apply, and no limit in Table 44-2 shall apply; and

(B) If an adhesive is not listed in Table 44-1, a VOC content limit in Table 44-2 shall apply based on the substrate bonded by the adhesive. If an adhesive is used to bond two different substrates together, the substrate assigned the higher VOC content limit shall apply to such use.

(5) Any person using adhesives, sealants, adhesive primers, sealant primers, surface preparation solvents or clean-up solvents subject to this section shall store or dispose of all absorbent materials, such as cloth or paper, which are moistened with such adhesives, sealants, primers or solvents, in non-absorbent containers that shall be closed except when placing materials in or removing materials from the container.

(6) A person using an adhesive, sealant, adhesive primer or sealant primer subject to this section may comply with the VOC content limits of Tables 44-1 and 44-2 of this section using add-on air pollution control equipment if such equipment meets the following requirements:

(A) The VOC emissions from the use of all adhesives, sealants, adhesive primers or sealant primers subject to this section are reduced by an overall capture and control efficiency of at least 85%, by weight;

(B) The combustion temperature is monitored continuously if a thermal incinerator is operated;

(C) Inlet and exhaust gas temperatures are monitored continuously if a catalytic incinerator is operated;

(D) The VOC concentration of the inlet and exhaust gas is measured continuously if a carbon absorber or control device other than a thermal or catalytic incinerator is operated; and

(E) Operational records sufficient to demonstrate compliance with the requirements of this subdivision are maintained as required by subsection (f) of this section.

(7) Any person using a surface preparation solvent shall:

(A) Except as provided in subparagraph (B) of this subdivision for single-ply roofing, limit the VOC content of surface preparation solvent used to less than 70 grams per liter; or

(B) If a surface preparation solvent is used in applying single-ply roofing, limit the composite vapor pressure, excluding water and exempt compounds, of the surface preparation solvent used to less than or equal to 45 mmHg at 20 degrees Celsius.

(8) Any person using a cleanup solvent shall:

(A) Except as provided in subparagraph (B) of this subdivision, limit the composite vapor pressure of a cleanup solvent to less than 45 mmHg at 20 degrees Celsius; or

(B) When cleaning spray application equipment, perform the removal of an adhesive, sealant, adhesive primer or sealant primer from the parts of spray application equipment in accordance with either subparagraph (i) or (ii), as follows:

(i) In an enclosed cleaning system, or equivalent cleaning system as determined by the test method identified in subsection (e)(4) of this section, or

(ii) Using a solvent with a VOC content less than or equal to 70 grams of VOC per liter. As necessary, parts containing dried adhesive may be soaked in a solvent if the composite vapor pressure of the solvent, excluding water and exempt compounds, is less than or equal to 9.5 mmHg at 20 degrees Celsius, and the parts and solvent are in a closed container that remains closed except when adding parts to or removing parts from the container.

(9) No person who applies or solicits the application of any adhesive, sealant, adhesive primer or sealant primer subject to this section shall add solvent to such adhesive, sealant or primer in an amount in excess of the manufacturer's recommendation for application, if such addition causes the adhesive, sealant or primer to exceed the applicable VOC content limit of this section.

(e) Compliance procedures and test methods.

(1) Any person who sells, supplies, offers for sale or manufactures an adhesive, sealant, adhesive primer or sealant primer subject to this section on or after January 1, 2009 for sale in the State of Connecticut shall possess documentation that such adhesive, sealant, adhesive primer or sealant primer complies with the VOC content limits of Table 44-1 of this section, where the VOC content is determined according to the requirements of subdivisions (2) and (3) of this subsection. For single-ply roof membrane installation or repair adhesive, single-ply roof membrane sealant and single-ply roof membrane adhesive primer, such documentation is required on and after January 1, 2012.

(2) The VOC content (grams per liter and percent by weight) of adhesive, sealant, primer and solvent products subject to this section, shall be determined according to the following calculations:

(A) For products that do not contain reactive diluents, grams of VOC per liter of product thinned to the manufacturer's recommendation, less water and exempt compounds, shall be calculated according to the following equation:

$$\text{Grams of VOC per liter of product} = \frac{Ws - Ww - We}{Vm - Vw - Ve}$$

Where

Ws = weight of volatile compounds, in grams
Ww = weight of water, in grams
We = weight of exempt compounds, in grams
Vm = volume of product, as supplied, in liters

Vw = volume of water, in liters
Ve = volume of exempt compounds, in liters;

(B) For products that contain reactive diluents, the VOC content of the product is determined after curing. The grams of VOC per liter of product thinned to the manufacturer's recommendation, less water and exempt compounds, shall be calculated according to the following equation:

$$\text{Grams of VOC per liter of product} = \frac{Wrs - Wrw - Wre}{Vrm - Vrw - Vre}$$

Where
Wrs = weight of volatile compounds not consumed during curing, in grams
Wrw = weight of water not consumed during curing, in grams
Wre = weight of exempt compounds not consumed during curing, in grams
Vrm = volume of product, as supplied, not consumed during curing, in liters
Vrw = volume of water not consumed during curing, in liters
Vre = volume of exempt compounds not consumed during curing, in liters;

(C) Grams of VOC per liter of product thinned to the manufacturer's recommendation shall be calculated according to the following equation:

$$\text{Grams of VOC per liter of product} = \frac{Ws - Ww - We}{Vm}$$

Where
Ws = weight of volatile compounds, in grams
Ww = weight of water, in grams
We = weight of exempt compounds, in grams
Vm = volume of product, in liters; and

(D) Percent VOC by weight shall be calculated according to the following equation:

$$\% \text{ VOC by weight} = [(Wv / W)] \times 100$$

Where
Wv = weight of VOCs in grams
W = weight of product in grams

(3) The following procedures shall be used to determine the properties of the specified adhesives, sealants, primers, solvents or components thereof in order to perform the calculations required pursuant to subdivision (2) of this subsection or to verify calculations based on formulation data:

(A) Except as provided in subparagraphs (C), (D) and (E) of this subdivision, the VOC and solids content of all adhesives, adhesive primers, sealants, sealant primers, surface preparation solvents and cleanup solvents shall be determined using 40 CFR 60, Appendix A, Reference Method 24, or SCAQMD Method 304;

(B) The volatile organic content of exempt organic compounds shall be determined using ASTM D4457-02 or the most current version of such test, as applicable;

(C) The VOC content of any plastic welding cement adhesive or primer shall be determined using SCAQMD Method 316A;

(D) The amount of reactive diluent in a product shall be determined using SCAQMD Method 316A;

(E) The composite vapor pressure of volatile organic compounds in surface preparation solvents and cleanup solvents shall be determined by quantifying the amount of each compound in the blend using gas chromatographic analysis (ASTM E260-96(2006) or the most current version of such test) for organics and ASTM D3792-05 or the most current version of such test, for water content, as applicable, and the following equation:

$$Ppc = \left[\sum_{i=1}^{n} (Wi)(Vpi) / Mwi \right] / \left[(Ww / Mww) + \sum_{i=1}^{n} (We / Mwe) + \sum_{i=1}^{n} (Wi / Mwi) \right]$$

Where

Ppc = VOC composite partial pressure at 20 degrees C, in mmHg

Wi = Weight of the "i"th VOC compound, in grams, as determined by ASTM E260-96(2006) or the most current version of such test

Vpi = Vapor pressure of the "i"th VOC compound at 20 degrees C, in mmHg, as determined by subparagraph (F) of this subdivision

Mwi = Molecular weight of the "i"th VOC compound, in grams per g-mole, as given in chemical reference literature

Ww = Weight of water, in grams as determined by ASTM D3792-05 or the most current version of such test

Mww = Molecular weight of water, 18 grams per g-mole

We = Weight of the "i"th exempt compound, in grams, as determined by ASTM E260-96(2006) or the most current version of such test

Mwe = Molecular weight of the "i"th exempt compound, in grams per g-mole, as given in chemical reference literature

(F) The vapor pressure of each single component compound may be determined from ASTM D2879-97(2007), or the most current version of such test, or may be obtained from any of the following sources:

(i) The most recent edition of *The Vapor Pressure of Pure Substances*, Boublik, Fried, and Hala, eds., Elsevier Scientific Publishing Company, New York,

(ii) The most recent edition of *Perry's Chemical Engineer's Handbook*, McGraw-Hill Book Company,

(iii) The most recent edition of *CRC Handbook of Chemistry and Physics*, Chemical Rubber Publishing Company,

(iv) The most recent edition of *Lange's Handbook of Chemistry*, John Dean, editor, McGraw-Hill Book Company, or

(v) Additional sources approved for this purpose by the Commissioner.

(4) The active and passive solvent losses from spray gun cleaning systems shall be determined using SCAQMD's "General Test Method for Determining Solvent Losses from Spray Gun Cleaning Systems," dated October 3, 1989. The test solvent for this determination shall be any lacquer thinner with a minimum vapor pressure of 105 mm of Hg at 20 degrees Celsius, and the minimum test temperature shall be 15 degrees Celsius.

(5) Control device efficiency shall be measured in accordance with 40 CFR 60 Appendix A, Reference Methods 18, 25, 25A and 25B or CARB Method 100.

(6) If the organization responsible for preparing any reference or test method identified in this subsection replaces that method with an equivalent method, then either the identified method or its replacement may be used for the purposes of this section.

(f) Record keeping and reporting requirements.

(1) Except as provided in subsection (c)(8) of this section, or except if add-on air pollution control equipment is used to comply with the VOC content limits of Tables 44-1 or 44-2 of this section, as provided in subsection (d)(6) of this section, and records are maintained as required in subsection (f)(2) of this section, each person subject to this section shall maintain records of the information necessary and sufficient for the Commissioner to determine compliance with the applicable requirements of this section. Such information may include:

(A) A list of each adhesive, sealant, adhesive primer, sealant primer, cleanup solvent and surface preparation solvent in use and in storage;

(B) Identification of each adhesive, sealant, adhesive primer, sealant primer, cleanup solvent and surface preparation solvent by product name and description;

(C) The VOC content of each adhesive, sealant, adhesive primer, sealant primer, cleanup solvent and surface preparation solvent product as supplied;

(D) The mix ratio of any catalysts, reducers or other components used;

(E) The final VOC content or vapor pressure of each adhesive, sealant, adhesive primer, sealant primer, cleanup solvent and surface preparation solvent, as applied; or

(F) The monthly volume of each adhesive, sealant, adhesive primer, sealant primer, cleanup solvent or surface preparation solvent used.

(2) Any person who complies with the VOC content limits of Table 44-1 or Table 44-2 of this section through the use of add-on air pollution control equipment shall record the key operating parameters for the control equipment, including but not limited to, the following information:

(A) The volume used per day of each adhesive, sealant, adhesive primer, sealant primer or solvent that is subject to a VOC content limit in Table 44-1 or Table 44-2 of this section and that exceeds such a limit;

(B) On a daily basis, the combustion temperature, inlet and exhaust gas temperatures and control device efficiency, as appropriate, pursuant to subsection (d)(6) of this section;

(C) Daily hours of control equipment operation;

(D) All maintenance performed on control equipment including the date and type of maintenance; and

(E) Records documenting that such equipment is operated in compliance with the control and capture efficiency requirement of subsection (d)(6) of this section.

(3) All records made to determine compliance with this section shall be maintained on the premises for five years from the date such record is created and shall be made available to the Commissioner within 90 days of a request.

(4) For adhesives, sealants, adhesive primers and sealant primers subject to the laboratory testing exemption of subsection (c)(1)(A) of this section, the person conducting the testing shall make and maintain records of all such adhesives, sealants, primers and solvents used in the preparation or evaluation process, including, as appropriate, the product name, manufacturer and description.

(5) Upon written notice, the Commissioner may require any person subject to this section to report information sufficient to determine compliance with the applicable requirements of this section.

(6) Any document submitted to the Commissioner pursuant to this section shall include a certification signed by an individual identified in section 22a-174-2a(a)(1) 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 thereto, 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, under section 53a-157b of the Connecticut General Statutes, and in accordance with any applicable statute."

(g) Container labeling.

(1) As of January 1, 2009, each manufacturer of an adhesive, sealant, adhesive primer or sealant primer subject to a VOC content limit in Table 44-1 of this section shall display the following information on the container or label for such adhesive, sealant, adhesive primer or sealant primer:

(A) The category name of the product;

(B) A statement of the manufacturer's recommendation regarding thinning, reducing or mixing, where:

(i) A statement is not required for thinning, reducing or mixing with water, and

(ii) If thinning prior to use is not necessary, the recommendation shall specify that the product is to be applied as supplied;

(C) The maximum or the actual VOC content as supplied, displayed in grams of VOC per liter of product; and

(D) The maximum or the actual VOC content as applied in accordance with the manufacturer's recommendation regarding thinning, reducing or mixing, displayed in grams of VOC per liter of applied product.

(2) The VOC content of an adhesive, sealant, adhesive primer or sealant primer shall be calculated using the manufacturer's formulation data or determined using the calculations, procedures and test methods in subsection (e) of this section.

(3) Any person applying an adhesive, sealant, adhesive primer or sealant primer subject to a VOC content limit in Tables 44-1 or 44-2 of this section may rely on the manufacturer's representation on the container or label, if such product is applied as recommended for a use specified on the container or label.

Table 44-1. As Applied VOC Content Limits for Adhesives, Sealants, Adhesive Primers and Sealant Primers

Adhesive, sealant, adhesive primer or sealant primer category	As applied VOC content limit (g VOC/L)	Date on which standard applies
Adhesives		
ABS welding	400	January 1, 2009
Ceramic tile installation	130	January 1, 2009
Computer diskette jacket manufacturing	850	January 1, 2009
Contact bond	250	January 1, 2009
Cove base installation	150	January 1, 2009
CPVC welding	490	January 1, 2009
Indoor floor covering installation	150	January 1, 2009
Metal-to-elastomer molding or casting	850	January 1, 2009
Multipurpose construction	200	January 1, 2009
Nonmembrane roof installation or repair	300	January 1, 2009
Plastic cement welding	510	January 1, 2009
Outdoor floor covering installation	250	January 1, 2009
PVC welding	510	January 1, 2009
Single-ply roof membrane installation or repair	250	For 2009: June 1 through August 31; For 2010 & 2011: May 1 through September 30; and On and after January 1, 2012.
Structural glazing	100	January 1, 2009
Thin metal laminating	780	January 1, 2009
Tire retread	100	January 1, 2009
Perimeter bonded sheet vinyl flooring installation	660	January 1, 2009
Waterproof resorcinol glue	170	January 1, 2009
Sheet-applied rubber installation	850	January 1, 2009
Sealants		
Architectural	250	January 1, 2009
Marine deck	760	January 1, 2009
Nonmembrane roof installation or repair	300	January 1, 2009
Roadway	250	January 1, 2009
Single-ply roof membrane	450	For 2009: June 1 through August 31; For 2010 & 2011: May 1 through September 30; and On and after January 1, 2012.
Other	420	January 1, 2009
Adhesive primers		
Automotive glass	700	January 1, 2009
Plastic cement welding	650	January 1, 2009
Single-ply roof membrane	250	For 2009: June 1 through August 31; For 2010 & 2011: May 1 through September 30; and On and after January 1, 2012.
Traffic marking tape	150	January 1, 2009
Other	250	January 1, 2009
Sealant primers		
Non-porous architectural	250	January 1, 2009
Porous architectural	775	January 1, 2009
Marine deck	760	January 1, 2009
Other	750	January 1, 2009

Table 44-2. As Applied VOC Content Limits for Adhesives Applied to the Listed Substrate

Substrate	As applied VOC content limit (grams VOC per liter)
Flexible vinyl	250
Fiberglass	200
Metal	30
Porous material	120
Rubber	250
Other substrates	250

Statement of Purpose: This new section of the air quality regulations limits emissions of volatile organic compounds (VOCs) from adhesives, sealants and primers. This section achieves VOC reductions through two basic components: sale and manufacture restrictions that limit the VOC content of specified adhesives, sealants and primers sold in the state; and use restrictions that, in general, apply to commercial/industrial operations such as wood product manufacturers, upholstery shops, adhesives retailers and architectural trades, such as building construction, floor covering installation and roof repair. By reducing the availability of higher VOC content adhesives and sealants within the state, the sales prohibition is also intended to address adhesive and sealant usage at area sources. In addition to the VOC content limits and use requirements, this section includes requirements for cleanup and preparation solvents and a compliance alternative in the form of add-on air pollution control equipment.

This section is based on a model rule of the Ozone Transport Commission, which is, in turn, based on a reasonably available control technology determination prepared by the California Air Resources Board (CARB) in 1998. In the years 1998-2001, the provisions of the CARB determination were adopted in regulatory form in various air pollution control districts in California.

The associated emissions reductions, which are estimated to be nearly 4 tons per summer day, will support attainment of the 1997 and 2008 national ambient air quality standards for ozone.

CGS Section 22a-174k

C-1. Bill History of HB 6773
C-2. Section 1 of Public Act 05-227

Sec. 22a-174k. Outdoor wood-burning furnaces. (a) For purposes of this section, "outdoor wood-burning furnace" means an accessory structure or appliance designed to be located outside living space ordinarily used for human habitation and designed to transfer or provide heat, via liquid or other means, through the burning of wood or solid waste, for heating spaces other than where such structure or appliance is located, any other structure or appliance on the premises, or for heating domestic, swimming pool, hot tub or jacuzzi water. "Outdoor wood-burning furnace" does not include a fire pit, wood-fired barbecue or chiminea.

(b) No person shall, from July 8, 2005, to the effective date of regulations promulgated by the United States Environmental Protection Agency to regulate outdoor wood-burning furnaces, construct, install, establish, modify, operate or use an outdoor wood-burning furnace, unless (1) the outdoor wood-burning furnace was constructed, installed, established, modified, operated or in use prior to July 8, 2005, or (2) the outdoor wood-burning furnace complies with the following:

(A) Installation of the outdoor wood-burning furnace is not less than two hundred feet from the nearest residence not serviced by the outdoor wood-burning furnace;

(B) Installation of the chimney of the outdoor wood-burning furnace is at a height that is more than the height of the roof peaks of the residences that are located within five hundred feet of the outdoor wood-burning furnace, which residences are not serviced by the outdoor wood-burning furnace, provided the chimney height is not more than fifty-five feet;

(C) No other materials are burned in the outdoor wood-burning furnace other than wood that has not been chemically treated; and

(D) Installation and operation of the outdoor wood-burning furnace is in accordance with the manufacturer's written instructions, provided such instructions do not conflict with the provisions of this section.

(c) The provisions of this section shall be enforced by the Commissioner of Environmental Protection and may be enforced by the municipality affected by the operation or potential operation of an outdoor wood-burning furnace.

(d) Any person who operates an outdoor wood-burning furnace in violation of this section shall be deemed to have committed an infraction and shall be fined not more than ninety dollars. Each day of operation of such outdoor wood-burning furnace in violation of this section shall be a separate violation.

(P.A. 05-227, S. 1.)

History: P.A. 05-227 effective July 8, 2005.

Bill Status Report for Substitute for Raised H.B. No. 6773

AN ACT CONCERNING CLEAN AIR STRATEGIES.

To reduce air pollutant and visible emissions from outdoor wood-burning furnace units, to codify a prohibition of the idling of a mobile source of air pollution, which prohibition currently exists in the Department of Environmental Protection regulations, and to designate a violation of such prohibition as an infraction, and to amend section 22a-174j of the general statutes to rephrase the term "electricity suppliers' generation facilities", to delete carbon monoxide and mercury from the list of emissions affected by said section, and to delete contingency language regarding when the performance standards should go into effect.

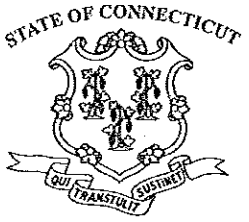
Introduced by: Environment Committee

Bill History

Date		*Action Taken*
7/11/2005		Signed by the Governor
6/22/2005		Transmitted to the Secretary of State
6/17/2005	(LCO)	Public Act 05-227
6/7/2005		In Concurrence
6/7/2005		Senate Passed
6/4/2005		Senate Calendar Number 629
6/4/2005		Favorable Report, Tabled for the Calendar, Senate
6/4/2005		Transmitted Pursuant to the Joint Rules
6/4/2005		House Passed
6/4/2005		House Rejected House Amendment Schedule B 7634
6/4/2005		House Rejected House Amendment Schedule A 7632
6/1/2005	(LCO)	File Number 825
6/1/2005		Tabled for the Calendar, House
6/1/2005		New File by Committee on Energy and Technology
6/1/2005	(LCO)	Reported Out of Legislative Commissioners' Office
5/24/2005	(LCO)	Referred to Office of Legislative Research and Office of Fiscal Analysis 05/31/05 5:00 PM
5/23/2005	(LCO)	Filed with Legislative Commissioners' Office
5/23/2005	(ET)	Joint Favorable Substitute
5/17/2005		Referred by House to Committee on Energy and Technology
5/11/2005		Tabled for the Calendar, House
5/11/2005		No New File by Committee on Transportation
5/11/2005	(LCO)	Reported Out of Legislative Commissioners' Office
5/11/2005	(LCO)	Filed with Legislative Commissioners' Office
5/11/2005	(TRA)	Joint Favorable
5/10/2005		Referred by House to Committee on Transportation
5/5/2005	(LCO)	File Number 724
5/5/2005		Tabled for the Calendar, House
5/5/2005		New File by Committee on Judiciary
5/5/2005	(LCO)	Reported Out of Legislative Commissioners' Office
4/29/2005	(LCO)	Referred to Office of Legislative Research and Office of Fiscal Analysis 05/04/05 5:00 PM
4/27/2005	(LCO)	Filed with Legislative Commissioners' Office
4/26/2005	(JUD)	Joint Favorable Substitute
4/19/2005		Referred by House to Committee on Judiciary
4/14/2005	(LCO)	File Number 373
4/14/2005		House Calendar Number 288
4/14/2005		Favorable Report, Tabled for the Calendar, House
4/14/2005	(LCO)	Reported Out of Legislative Commissioners' Office
4/8/2005	(LCO)	Referred to Office of Legislative Research and Office of Fiscal Analysis 04/13/05 5:00 PM
4/1/2005	(LCO)	Filed with Legislative Commissioners' Office
4/1/2005	(ENV)	Joint Favorable Substitute
3/3/2005		Public Hearing 03/07
2/22/2005		Referred to Joint Committee on Environment
2/14/2005	(ENV)	Vote to Draft

Co-sponsors of HB-6773
Rep. Paul Davis, 117th Dist.
Rep. Penny Bacchiochi, 52nd Dist.
Rep. Mike Alberts, 50th Dist.
Rep. Robert T. Keeley, 129th Dist.
Rep. Felipe Reinoso, 130th Dist.
Rep. Bob Godfrey, 110th Dist.

Report printed on 11/6/2008 10:21:23 AM. Please direct all inquiries regarding the status of bills to the House and Senate Clerks' Offices.



Substitute House Bill No. 6773

Public Act No. 05-227

AN ACT CONCERNING CLEAN AIR STRATEGIES.

Be it enacted by the Senate and House of Representatives in General Assembly convened:

Section 1. (NEW) (*Effective from passage*) (a) For purposes of this section, "outdoor wood-burning furnace" means an accessory structure or appliance designed to be located outside living space ordinarily used for human habitation and designed to transfer or provide heat, via liquid or other means, through the burning of wood or solid waste, for heating spaces other than where such structure or appliance is located, any other structure or appliance on the premises, or for heating domestic, swimming pool, hot tub or jacuzzi water. "Outdoor wood-burning furnace" does not include a fire pit, wood-fired barbecue or chiminea.

(b) No person shall, from the effective date of this section to the effective date of regulations promulgated by the United States Environmental Protection Agency to regulate outdoor wood-burning furnaces, construct, install, establish, modify, operate or use an outdoor wood-burning furnace, unless (1) the outdoor wood-burning furnace was constructed, installed, established, modified, operated or in use prior to the effective date of this section, or (2) the outdoor wood-burning furnace complies with the following:

(A) Installation of the outdoor wood-burning furnace is not less than two hundred feet from the nearest residence not serviced by the outdoor wood-burning furnace;

(B) Installation of the chimney of the outdoor wood-burning furnace is at a height that is more than the height of the roof peaks of the residences that are located within five hundred feet of the outdoor wood-burning furnace, which residences are not serviced by the outdoor wood-burning furnace, provided the chimney height is not more than fifty-five feet;

(C) No other materials are burned in the outdoor wood-burning furnace other than wood that has not been chemically treated; and

(D) Installation and operation of the outdoor wood-burning furnace is in accordance with the manufacturer's written instructions, provided such instructions do not conflict with the provisions of this section.

(c) The provisions of this section shall be enforced by the Commissioner of Environmental Protection and may be enforced by the municipality affected by the operation or potential operation of an outdoor wood-burning furnace.

(d) Any person who operates an outdoor wood-burning furnace in violation of this section shall be deemed to have committed an infraction and shall be fined not more than ninety dollars. Each day of operation of such outdoor wood-burning furnace in violation of this section shall be a separate violation.

Sec. 2. Section 22a-174j of the general statutes is repealed and the following is substituted in lieu thereof (*Effective October 1, 2005*):

Not later than May 1, 2006, the Department of Public Utility Control shall complete an investigation of the potential impact on electric reliability and electric rates created by promulgation of the regulations

under this section. If such investigation concludes that there is no negative impact on such reliability and rates, not later than [January 1, 1999] July 1, 2006, the Commissioner of Environmental Protection shall, in conjunction with the Department of Public Utility Control and by regulations adopted in accordance with chapter 54, establish uniform emissions performance standards [for electricity generation facilities supplying power] to regulate emissions to the air from the generation of electricity supplied to end use customers in this state. Such performance standards shall, to the greatest extent possible, be designed to improve air quality in this state and to further the attainment of the National Ambient Air Quality Standards promulgated by the United States Environmental Protection Agency. Such performance standards shall [be based on the fuel used for generation of electricity and shall apply to electric suppliers' generation facilities located in North America] apply to emissions caused by electricity generation in any location in North America used to supply end use customers in this state, shall limit emissions to levels consistent with those permitted from technically similar generators located in this state and shall limit the amount of air pollutants, including, but not limited to, nitrogen oxides, sulfur oxides [,] and carbon dioxide [, carbon monoxide and mercury,] emitted per megawatt hour of electricity produced. Such performance standards may provide for a program for purchase of offsetting reductions in emissions and trading of emission credits. [A performance standard established by the Department of Environmental Protection for an individual pollutant pursuant to this section shall go into effect when three of the states participating in the northeastern states' Ozone Transport Commission as of July 1, 1997, with a total population of not less than twenty-seven million at that time, have adopted such standard.]

Approved July 8, 2005

General Permit to Construct and/or Operate a
New or Existing Distributed Generation Resource

D-1. CGS Section 22a-174(k) (*establishing the process for general permit adoption*)
D-1. Notice of Intent to Issue A General Permit and Notice of Public Hearing
D-2. Office of Adjudications Final Decision

STATE OF CONNECTICUT
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF AIR MANAGEMENT
ENGINEERING & ENFORCEMENT DIVISION
860-424-4152

General Permit to Construct and/or Operate a New or Existing Distributed Generation Resource

Issuance Date: January 9, 2008

General Permit to Construct and/or Operate a New or Existing Distributed Generation Resource

Table of Contents

General Permit to Construct and/or Operate a New or Existing Distributed Generation Resource

Section 1. Authority

This general permit is issued under the authority of section 22a-174(k) of the Connecticut General Statutes, as directed by section 102 of Public Act 07-242, An Act Concerning Electricity and Energy Efficiency.

Section 2. Definitions

Any term not expressly defined in this general permit shall be defined as in section 22a-2 of the Connecticut General Statutes, section 22a-174-1 of the Regulations of Connecticut State Agencies, *et seq.*, and 40 CFR Part 70.2.

As used in this general permit:

"*Actual emissions*" means actual emissions as defined by section 22a-174-1 of the Regulations of Connecticut State Agencies.

"*Administrator*" means the administrator of the United States Environmental Protection Agency or his agent.

"*Air pollution control equipment*" means any equipment which is designed to reduce emissions of air pollutants from a stationary source.

"*API*" means the American Petroleum Institute.

"*Approval of registration*" means a written approval of registration issued by the Commissioner under Section 3 of this general permit.

"*Authorized activity*" means any activity authorized by this general permit.

"*CAIR*" means Clean Air Interstate Rule as defined by 40 CFR Part 96.

"*CFR*" means the Code of Federal Regulations.

"*Commissioner*" means Commissioner as defined by section 22a-2(b) of the Connecticut General Statutes.

"*Day*" means any twenty-four hour period measured from midnight to midnight on a calendar day. If any date specified in this general permit falls on a Saturday, Sunday, or legal holiday, such date shall be the next business day thereafter.

"*Distributed generation resource*" means an engine that has been approved by the Department of Public Utility Control to participate in the markets administered by the regional system operator pursuant to section 103 of Public Act 07-242.

"DPUC" means the Department of Public Utility Control.

"*Emergency*" means an unforeseeable condition that is beyond the control of theowner or operator of an emergency engine and that:

(A) Results in an interruption of electrical power from the electricity supplier to the premises;

(B) Results in a deviation of voltage from the electricity supplier to the premises of three percent above or five percent below standard voltage in accordance with subsection (a) of section 16-11-115 of the Regulations of Connecticut State Agencies;

(C) Requires an interruption of electrical power from the electricity supplier to the premises enabling the owner or operator to perform emergency repairs;

(D) Requires operation of the emergency engine to minimize damage from fire, flood, or any other catastrophic event, natural or man-made; or

(E) Notwithstanding section 22a-174-22(a)(3) of the Regulations of Connecticut State Agencies, requires operation of the emergency engine under an agreement with the New England region system operator during the period of time the New England region system operator is implementing voltage reductions or involuntary load interruptions within the Connecticut load zone due to a capacity deficiency.

"*Emergency engine*" means a stationary reciprocating engine or a turbine engine which is used as a means of providing mechanical or electrical power only during *periods of testing and scheduled maintenance or during either an emergency or in* accordance with a contract intended to ensure an adequate supply of electricity for use within the state of Connecticut during the loss of electrical power derived from nuclear facilities. The term does not include an engine for which the owner or operator of such engine is party to any other agreement to sell electrical power from such engine to an electricity supplier, or otherwise receives any reduction in the cost of electrical power for agreeing to produce power during periods of reduced voltage or reduced power availability.

"*Existing*" means, in relation to an distributed generation resource, constructed or installed on a premises prior to the effective date of this general permit.

"*Forward Reserve Market*" means the market within which ISO-NE purchases Ten Minute Non-Spinning Reserve and Thirty Minute Operating Reserve capacity on a forward basis on behalf of market participants as provided in section III.9 in the ISO-NE Market Rule 1.

"*Individual permit*" means a permit issued to a named permittee under section 22a-174 of the Connecticut General Statutes.

"*ISO-NE*" means Independent System Operator, New England.

"*Municipality*" means a city, town or borough of the state.

"*New*" means, in relation to an distributed generation resource, constructed or commenced construction or operation on or after the effective date of this general permit.

"Ozone season" means the period from May 1 through September 30 of any year.

"*Opacity*" means the degree to which emissions reduce the transmission of light and obscure the view of an object in the background.

"Operator" means the person legally responsible for the operation of the engine covered by this general permit. If the person legally responsible for operation of the engine when it is participating in the markets administered by the regional independent system is different than the person legally responsible for operation of the engine when it is operating as an emergency engine, an engine covered by this general permit may have two operators. If this occurs, the person legally responsible for operation of the engine when it is participating in the markets administered by the regional independent system operator shall not be responsible for compliance with requirements when the engine is operating as an emergency engine and visa versa.

"*Particulate matter*" means particulate matter as defined by section 22a-174-1 of the Regulations of Connecticut State Agencies.

"*Permittee*" means a person to whom the Commissioner has issued an approval of registration under this general permit.

"*Person*" means person as defined by section 22a-2(c) of the Connecticut General Statutes.

"PM 2.5" means PM 2.5 as defined by section 22a-174-1 of the Regulations of Connecticut State Agencies.

"*Potential emissions*" means potential emissions as defined by section 22a-174-1 of the Regulations of Connecticut State Agencies.

"*Premises*" means premises as defined by section 22a-174-1 of the Regulations of Connecticut State Agencies.

"*Registrant*" means a person who files a registration pursuant to Section 4 of this general permit. Registrant shall include the on-site operator as well as any remote operator of the distributed generation resource.

"*Registration*" means a registration form filed with the Commissioner pursuant to Section 4 of this general permit.

"Stationary source" means stationary source as defined by section 22a-174-1 of the Regulations of Connecticut State Agencies.

"*Subject activity*" means any operation of a subject engine in accordance with this general permit.

"*Subject engine*" means engine that is the subject of this general permit.

Section 3. Authorization Under this General Permit

(a) Eligible Sources

This general permit applies to an engine that is:

(1) rated at no more than two megawatts of electricity; and

(2) has received approval from the Department of Public Utility Control (DPUC) to participate in the markets administered by the regional independent system operator in accordance with subsection (b) of section 103 of Public Act 07-242; and

(3) not a major modification or a major stationary source as defined by section 22a-174-1 of the Regulations of Connecticut State Agencies.

(b) Eligible Activities

(1) This general permit applies to the operation of engines approved by the Department of Public Utility Control to participate in markets administered by the regional independent system operator.

(2) This general permit also applies to any such engine approved by the Department of Public Utility Control pursuant to section 103 of Public Act 07-242, when such engine is operating in an emergency as an emergency engine.

(3) An emergency engine not approved by Department of Public Utility Control pursuant to section 103 of Public Act 07-242, remains subject to section 22a-174-3a of the Regulations of Connecticut State Agencies.

(c) Requirements for Authorization

This general permit applies to the sources of air pollution listed in Section 3(a) of this general permit provided the requirements of this general permit are satisfied and meets the following requirements for authorization:

(1) Registration

A completed registration has been filed with the Commissioner and the Commissioner has issued a written approval of such registration with respect to such source.

(2) Coastal Area Management

The activities authorized by this general permit are consistent with all applicable goals and policies in section 22a-92 of the Connecticut General Statutes, and will not cause adverse impacts to coastal resources as defined by section 22a-93 of the Connecticut General Statutes.

(3) Endangered and Threatened Species

New activities authorized by this general permit do not threaten the continued existence of any species listed pursuant to section 26-306 of the General Statutes as endangered or threatened and will not result in the destruction or adverse modification of habitat designated as essential to such species.

(4) Aquifer Protection

A new activity, if it is located within an aquifer protection area as mapped under section 22a-354b of the General Statutes, complies with regulations adopted pursuant to section 22a-354i of the General Statutes.

(d) Geographic Area

This general permit applies throughout the state of Connecticut.

(e) Effective Date and Expiration Date of this General Permit

This general permit is effective on the date it is issued by the Commissioner and expires on the later of December 31, 2010 or ninety days after the energizing of the Middletown-Norwalk 345 kv transmission line approved by the Connecticut Siting Council. In no event shall this general permit expire later than five years from the date of issuance. This general permit may be renewed.

(f) Effective Date of Authorization

An activity is authorized by this general permit on the date the Commissioner issues a written approval of registration with respect to such activity.

(g) Revocation of an Individual Permit

If an activity meets the requirements of authorization of this general permit and such activity is presently authorized by an individual permit, the existing individual permit may be revoked by the Commissioner. If the Commissioner revokes such individual permit in writing, such revocation shall take effect on the effective date of authorization of such activity by this general permit.

Section 4. Registration Requirements

(a) Who Must File a Registration

Any person approved by the Department of Public Utility Control to participate in the markets administered by the regional independent system operator in accordance with subsection (b) of section 103 of Public Act 07-242.

(b) Scope of Registration

A person shall register each engine for which the registrant seeks authorization under this general permit on a separate registration form. Multiple engines at one or more sites may not be registered on one registration form.

(c) Contents of Registration

(1) A registration shall not be deemed complete unless it is filed by the person(s) who will operate the engine when:

(A) in non-emergency situations, it is participating in the markets administered by the regional independent system operator; and

(B) when it is operating as an emergency engine.

A registration shall not be deemed complete unless it is signed by all applicable operators.

(2) Fee

(A) A registration fee of $5,000.00 for any person other than a municipality, or $2,500.00 for any municipality, shall be submitted with a registration form. A registration shall not be deemed complete and no activity shall be authorized by this general permit unless the registration fee has been paid in full.

(B) The registration fee shall be paid by check or money order payable to the **Department of Environmental Protection,** or by such other method as the Commissioner may allow.

(C) The registration fee is non-refundable.

(3) Registration Form

The registration shall be filed on forms prescribed and provided by the Commissioner for each engine and shall include, but not be limited to, the following:

(A) Legal name, address, and telephone number of the registrant(s). If such registrant is an entity transacting business in Connecticut, provide the exact name as registered with the Connecticut Secretary of the State;

(B) Legal name, address, and telephone number of the owner of the premises on which the subject engine will operate;

(C) Identification of each person legally responsible for operating the subject engine (the operator) in non-emergency situations when the engine is participating in the markets administered by the regional independent system operator;

(D) Identification of each person legally responsible for operation of the subject engine (the operator) as an emergency engine;

(E) Legal name, address and telephone number of the registrant's attorney or other representative, if applicable;

(F) Legal name, address and telephone number of any consultant(s) or engineer(s) retained by the registrant to prepare the registration;

(G) Legal name, address and telephone number of any consultant(s) or engineer(s) retained by the registrant to design or construct or install the subject engine;

(H) Location address of the premises where the registered activity will be conducted;

(I) Demonstration of approval issued in accordance with any requirements established by the Department of Public Utility Control in DPUC Docket No. 07-07-37;

(J) Copy of third party agreements that the subject engine will operate under;

(K) Dates of construction and commencement of the subject activity if it is existing, or the proposed dates of construction and commencement if the subject activity is new;

(L) A detailed description of the subject activity;

(M) Make and model of the subject engine, if available;

(N) The actual operating hours of the subject engine, including operating dates and type of operation (i.e. testing, emergency, maintenance, etc) for the previous five years if available;

(O) Fuel type(s) which will be used including the maximum sulfur content of such fuel;

(P) Maximum rated fuel-firing rate of the subject engine;

(Q) Maximum design gross power output of the subject engine;

(R) Minimum exhaust gas flow rate of the subject engine;

(S) Manufacturer's specification for particulate matter air pollution control equipment and design control efficiency;

(T) Manufacturer's specification for nitrogen oxides (NOx) air pollution control equipment and design control efficiency;

(U) Operation and Maintenance Plan for the particulate matter and NOx air pollution control equipment;

(V) The actual or forecasted actual daily NOx and particulate matter emissions, in pounds per day, from the subject engine;

(W) The maximum rated pounds per megawatt hr (lb/MWhr) of NOx emissions of the subject engine;

(X) The actual annual emission rates and the potential annual emission rates of each air pollutant emitted, in tons per year, from the subject engine if it is existing;

(Y) The proposed annual emission rates and the potential annual emission rates of each air pollutant, in tons per year, to be emitted from the subject engine if it is new;

(Z) A detailed description of how the emission rate or proposed emission rate of each air pollutant identified in response to subparagraph (V), (W), (X) or (Y) of this subdivision, was calculated;

(AA) The height above grade of the stack associated with the subject engine and the shortest distance of such stack to the property line of the premises on which such engine is located;

(BB) Ambient Air Quality Analysis, as may be required by section 22a-174-3a(i) of the Regulations of Connecticut State Agencies for aggregated multiple similar or identical engines, to be operated at the same premises, and registered for under this General Permit, or applied for under section 22a-174-3a(a) of the Regulations of Connecticut State Agencies, which are constructed within an eighteen month period of each other.

(CC) If the subject engine is subject to section 22a-174-22 of the Regulations of Connecticut State Agencies, a compliance plan in accordance with section 22a-174-22 of the Regulations of Connecticut State Agencies;

(DD) If the subject engine has been registered in accordance with section 22a-174-2 of the Regulations of Connecticut State Agencies or issued a permit by the Department of Environmental Protection, Bureau of Air Management prior to the date that the present registration is filed, the subject registration or permit number;

(EE) A plan of the subject premises ("site plan") showing the property lines of the property on which the subject engine is located and the location of the subject engine at such premises and the horizontal distance from such engine's stack base to the nearest property line;

(FF) An 8 1/2" by 11" copy of the relevant portion of a United States Geological Survey quadrangle map(s), with a scale of 1:24,000, showing the exact location of the stack associated with the subject engine and the area within a one-mile radius of such stack. Identify the quadrangle name(s) and the number(s) on such copy and the latitude and longitude of the subject stack location;

(GG) The record of the registrant, the principals, and any parent company or subsidiary of the registrant, regarding compliance with environmental protection laws of this state, all other states and federal government during the five years immediately preceding the submission of such registration;

(HH) The Registrant shall submit documentation of the transfer of two ozone season allowances into the CT State NOx Retirement Account with the registration form subject to the review and approval of the Commissioner. Such allowances shall be:

(i) originally issued by the Administrator from the CAIR NOx Ozone Season Trading Program to a CAIR NOx Ozone Season unit located in the state of Connecticut, or

(ii) vintage year 2003-2008 and originally issued by the Administrator from the NOx Budget Program to a NOx Budget Program source located in the state of Connecticut; and

(II) The signature of the registrant and of the individual or individuals responsible for actually preparing the registration, 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, pursuant to section 53a-157b of the Connecticut General Statutes, and in accordance with any applicable statute.

I certify that the signature of the registrant being submitted herewith complies with section 22a-174-2a(a) of the Regulations of Connecticut State Agencies.

I certify that this general permit registration is on complete and accurate forms as prescribed by the Commissioner without alteration of the text.

I certify that I have read and understand the terms and conditions of the *General Permit to Construct and/or Operate a New or Existing Distributed Generation Resource* issued by the Cmmissioner of the Department of Environmental Protection and that the engine which is the subject of this registration is eligible for authorization under such permit."

(d) Where to File a Registration

A registration shall be filed with the Commissioner at the following address:

CENTRAL PERMIT PROCESSING UNIT
DEPARTMENT OF ENVIRONMENTAL PROTECTION
79 ELM STREET
HARTFORD, CT 06106-5127

(e) Additional Information

The Commissioner may require a registrant or permittee to submit additional information, which the Commissioner reasonably deems necessary to evaluate the consistency of the subject activity with the requirements for authorization under this general permit. Such information shall be submitted to the Commissioner in writing within forty-five days of such notification and shall be certified in accordance with Section 7(l) of this general permit.

(f) Action by Commissioner

(1) The Commissioner may reject a registration:

(A) if a registration does not satisfy the requirements of this general permit;

(B) if more than forty-five days have elapsed since the Commissioner requested that the registrant submit additional information and the registrant has not submitted such information;

(C) if the required fee pursuant to Section 4(c) of this general permit has not been submitted by the registrant; or

(D) if the CAIR NOx Ozone Allowances pursuant to Section 4(c)(3)(HH) of this general permit have not been submitted by the registrant.

(2) Any registration re-filed after such rejection shall be accompanied by the fee specified in Section 4(c) of this general permit.

(3) The Commissioner shall disapprove a registration:

(A) if the Commissioner finds that the subject activity is ineligible for this general permit or that the registrant cannot or is unlikely to comply with the requirements of this general permit; or

(B) for any other reason provided by law.

(4) The Commissioner may, for any reason provided by law, by summary proceedings or otherwise, revoke or suspend an approval of registration issued by the Commissioner under this general permit.

(5) Disapproval of a registration or revocation of an approval of registration under this subsection shall constitute notice to the registrant or permittee that the subject activity may not lawfully be conducted or maintained without the issuance of an individual permit issued pursuant to section 22a-174(c) of the Connecticut General Statutes and section 22a-174-3a of the Regulations of Connecticut State Agencies.

(6) Rejection, disapproval, approval, or revocation of a registration under this subsection shall be in writing.

Section 5. Conditions of this General Permit

The operator shall at all times continue to meet the requirements for applicability and authorization set forth in Section 3 of this general permit.

(a) Operating Conditions

Except where otherwise specifically stated below, the operator shall comply with the following requirements regardless of whether the subject engine is being used as an emergency engine or as a distributed generation resource.

(1) Selective Catalytic Reduction, or equivalent oxides of nitrogen (NOx) controls with a design control efficiency of a minimum of ninety percent, shall be installed on the subject engine.

(2) A new subject engine shall emit no more than 0.01 gr/bhp-hr of particulate matter.

(3) An existing subject engine shall emit no more than 0.01 gr/bhp-hr of particulate matter or a diesel particulate filter, or equivalent particulate matter controls with a design control efficiency of a minimum of eighty-five percent, shall be installed on the subject engine.

(4) The subject engine shall be operated with the required air pollution control equipment in service and performing properly at all times. Under no circumstance shall the control systems be by-passed.

(5) The subject engine exhaust shall be located away from fresh air intakes, air conditioners and windows.

(6) The Operating and Maintenance Plan submitted at the time of registration for such air pollution control equipment shall be followed at all times.

(7) The subject engine shall not operate as an emergency engine for more than 300 hours during each and every consecutive twelve months.

(8) The subject engine shall not operate for more than 200 hours when called upon by the ISO-NE for the ISO-NE forward reserve market program during each and every consecutive twelve months.

(9) Only a liquid fuel with an API gravity greater than thirty or a gaseous fuel shall be used in the subject engine.

(10) The use of gasoline in the subject engine is prohibited.

(11) Any fuel purchased for use by the subject engine shall have a maximum sulfur content of 0.0015% by weight, or 15 ppm (ultralow sulfur).

(12) The subject engine shall comply with all applicable maximum allowable stack limits, calculated in accordance with Tables 29-1, 29-2, and 29-3 of section 22a-174-29 of the Regulations of Connecticut State Agencies.

(13) Routine scheduled testing or maintenance of the subject engine shall not be conducted during days when the air quality index is forecasted by the Commissioner to be "unhealthy for sensitive groups", "unhealthy", "very unhealthy", or "hazardous" for ozone or PM 2.5.

The air quality index forecast shall be obtained from the Department of Environmental Protection *Air Now* web site at http://www.airnow.gov/index.cfm?action=airnow.fcsummary&stateid=8.

(14) Opacity resulting from operation of the subject engine shall not exceed 10% during any six-minute block average or 40% reduced to a one-minute block average; as measured by 40 CFR 60, Appendix A, Reference Method 9.

(15) The subject engine and operation thereof shall comply with section 22a-174-18 of the Regulations of Connecticut State Agencies, Control of Particulate Emissions.

(16) The subject engine and operation thereof shall comply with section 22a-174-19 of the Regulations of Connecticut State Agencies, Control of Sulfur Compound Emissions.

(17) The subject engine shall operate in accordance with section 22a-174-22 of the Regulations of Connecticut State Agencies, Control of nitrogen oxides emissions, if applicable.

(18) The subject engine and operation thereof shall comply with all applicable New Source Performance Standards, 40 CFR Part 60, National Emissions Standards for Hazardous Air Pollutants, 40 CFR Part 61, and MACT standards, 40 CFR Part 63.

(b) Monitoring and Emission Testing Requirements

The operator shall comply with the following requirements regardless of whether the subject engine is being used as an emergency engine or as a distributed generation resource:

(1) The Commissioner may require emissions testing of an engine authorized by this general permit to verify compliance with the applicable emissions standards of this section as allowed by state or federal statute, law or regulation. Such testing shall be performed in accordance with section 22a-174-5 of the Regulations of Connecticut State Agencies or other methods identified by the Commissioner and approved by the Administrator.

(2) The operator shall ensure compliance with the following requirements:

(A) If the subject engine is supplied with fuel by more than one tank or if multiple sources are supplied fuel by one fuel tank, a non-resettable fuel metering device shall be used on the subject engine to continuously monitor the fuel consumed by any such engine.

(B) If the subject engine is subject to section 22a-174-22 of the Regulations of Connecticut State Agencies, the operator shall comply with applicable monitoring and emission testing requirements of section 22a-174-22(k) of the Regulations of Connecticut State Agencies.

(C) For selective catalytic reduction control, the operator shall inspect such selective catalytic reduction catalyst once per year, at a minimum, and replace it as required through the monitoring of the catalyst test piece.

(D) For particulate matter air pollution control equipment, the operator shall monitor the performance of such controls in accordance with the manufacturer's written recommendations.

*(c) **Record Keeping and Reporting Requirements***

The operator shall comply with the following requirements regardless of whether the subject engine is being used as an emergency engine or as a distributed generation resource:

(1) Record Keeping Requirements

At the premises where the authorized activity takes place, or at such other place as the Commissioner approves in writing, the operator shall maintain the following records pertaining to the operation of each engine authorized to operate under this general permit:

(A) monthly and annual amounts of fuel(s) consumed. For the purposes of this subparagraph, annual fuel consumption shall be calculated each calendar month for each fuel by adding the current calendar month's fuel consumption to those of the previous eleven months;

(B) monthly and annual operating hours. For the purposes of this subparagraph, annual operating hours shall be calculated each calendar month by adding the current calendar month's operating hours to those of the previous eleven months. Separate records shall be maintained for emergency and forward reserve market program use;

(C) hourly, daily, monthly and annual actual emissions of each pollutant emitted by the subject engine. For the purposes of this subparagraph, annual emissions shall be calculated each calendar month by adding the current calendar month's emissions to those of the previous eleven months;

(D) daily, monthly and annual kilowatts produced by the subject engine. For the purposes of this subparagraph, annual kilowatts shall be calculated each calendar month by adding the current calendar month's kilowatts to those of the previous eleven months;

(E) with respect to each shipment or purchase of liquid fuel, other than liquefied petroleum gas, to be used in each engine authorized hereunder, a shipping receipt or a contract, and a certification from the fuel supplier certifying the name of the fuel supplier, type of fuel delivered, API gravity of such fuel, the percentage of sulfur in such fuel, by weight, dry basis, and the method used by the fuel supplier to determine the sulfur content of such fuel;

(F) date and duration of use of the subject engine, and whether such use was for emergency or forward reserve market program use. Separate records shall be maintained for emergency and forward reserve market program use;

(G) date of all tune-ups, repairs, replacement of parts and other maintenance;

(H) monitoring and emission testing data generated pursuant to Section 5(b) of this general permit; and

(I) if the subject engine is subject to section 22a-174-22 of the Regulations of Connecticut State Agencies, all applicable record keeping requirements of section 22a-174-22(l) of the Regulations of Connecticut State Agencies.

(2) Availability of Records

Unless the Commissioner provides otherwise in writing, the operator shall maintain each record required by this subsection at the premises where the authorized activity takes place for five years after the date such record is made. The operator shall promptly provide any such record, or a copy thereof, to the Commissioner upon request.

(3) Creation of Records

(A) Monthly and annual records required by this general permit shall be created no later than fifteen days after the end of each month and 12 month period, respectively.

(B) Hourly and daily records required by this general permit shall be created no later than two days after the subject day.

(4) Other Record Keeping Requirements

Nothing in this subsection shall relieve the operator from complying with all other applicable record keeping requirements set forth in the Regulations of Connecticut State Agencies.

(5) Reporting Requirements

(A) If the subject engine is subject to section 22a-174-22 of the Regulations of Connecticut State Agencies, the operator shall comply with applicable reporting requirements of section 22a-174-22(*l*) of the Regulations of Connecticut State Agencies.

(B) The operator shall report to the Commissioner by October 1st of each year the previous consecutive 12 month period's operating hours, fuel usage, NOx emissions, particulate matter emissions and kilowatts produced. Such report shall include the date, duration and type of operation as well as type of fuel used, sulfur content of such fuel and the total amount of fuel used for that time period and any other information on the form prescribed by the Commissioner.

(C) Reports shall be submitted on forms prescribed by the Commissioner or by such other method as approved by the Commissioner.

(d) Operation and Maintenance Requirements

The operator shall comply with the following requirements regardless of whether the subject engine is being used as an emergency engine or as a distributed generation resource:

(1) The operator shall operate and maintain the subject engine and associated control equipment in accordance with the manufacturer's specifications and written recommendations.

(2) The operator shall properly operate all air pollution control equipment at all times that the subject engine is in operation and emitting air pollutants.

Section 6. High Electric Demand Day Cap and Corrective Action

(a) Daily Offset

(1) If the sum of the NOx emissions within Connecticut from all electric generating units with a maximum capacity greater than or equal to 15 MW with NOx emissions equal to or greater than one lb/MWh, and engines registered under this general permit on any day during the ozone season exceeds 30.7 tons (the cap), offsets specified in Section 6(a)(3) of this general permit shall be required.

(2) By November 1st of each calendar year, the Commissioner will notify the operator in writing of the dates from the past ozone season that the cap in Section 6(a)(1) of this general permit was exceeded and will determine offsets required by such operator.

(3) For each engine registered under this general permit that operated on a day, or any portion of a day, in which the cap was exceeded shall be required for each such day or portion of such day, the operator shall either:

(A) Transfer three ozone season allowances into the CT State NOx Retirement Account. Such allowances shall be:

(i) originally issued by the Administrator from the CAIR NOx Ozone Season Trading Program to a CAIR NOx Ozone Season unit located in the state of Connecticut, or

(ii) vintage year 2003-2008 and originally issued by the Administrator from the NOx Budget Program to a NOx Budget Program source located in the state of Connecticut; or

(B) Take an alternative action that will result in a NOx emissions reduction in Connecticut during the Ozone Season of no less than three tons provided that:

(i) A request to take such action is submitted to the Commissioner in writing,

(ii) The alternative action is submitted to the Administrator for review, and

(iii) The Commissioner approves the alternative action in writing.

(b) Corrective Action

(1) The operator shall demonstrate to the Commissioner in writing that the offset requirements specified by the Commissioner pursuant to subparagraph (a)(2) above have been satisfied for the previous ozone season on or before November 30 of the year the engine operated, or if November 30 is not a business day, midnight of the first business day thereafter. An official U.S. Postal Service postmark or electronic time stamp shall establish the date of submittal of allowances to the Administrator.

(2) Any offset specified by the Commissioner pursuant to subparagraph (a)(2) above that has not been provided by November 30th of the year in which the engine operated shall increase by ten percent, and shall continue to increase by ten percent for each additional calendar month the offset is owed but has not been provided.

(3) If an operator does not provide the offset specified by the Commissioner pursuant to subparagraph (a)(2) above by November 30th of the year in which the engine operated, the operator shall not operate such engine unless and until the offsets required under this section have been provided.

Section 7. General Conditions

(a) Reliance on Registration

When evaluating a registration and any other submitted information, the Commissioner relies on the information provided by the registrant or permittee. If such information proves to be false or incomplete, the authorization issued under this general permit may be suspended or revoked in accordance with law, and the Commissioner may take any other legal action provided by law.

(b) Duty to Comply with this General Permit

The operator shall comply with this general permit.

(c) Duty to Correct and Report Violations

Upon learning of a violation of a condition of this general permit, the operator shall immediately take all reasonable action to determine the cause of such violation, to correct such violation and mitigate its results, and to prevent further such violation. Such violation and such corrective action shall be reported in writing to the Commissioner within five days of the operator's learning of such violation. Such report shall be certified in accordance with Section 7(*l*) of this general permit.

(d) Duty to Provide Information

If the Commissioner requests any information pertinent to the authorized activity or to compliance with this general permit, the operator shall provide such information in writing within forty-five days of such request. Such information shall be certified in accordance with Section 7(l) of this general permit.

(e) Date of Filing

For the purpose of this general permit, the date of filing with the Commissioner of any document is the date such document is received by the Commissioner.

(f) False Statements

Any false statement in any information submitted pursuant to this general permit may be punishable as a criminal offense, in accordance with section 22a-6 of the Connecticut General Statutes, pursuant to section 53a-157b of the Connecticut General Statutes, and in accordance with any applicable statute.

(g) Correction of Inaccuracies

Within fifteen days after the date a registrant or operator becomes aware of a change in any information submitted pursuant to this general permit, becomes aware that any such information is or was inaccurate or misleading, or that any relevant information has been omitted, such registrant or operator shall correct the inaccurate or misleading information or supply the omitted information in writing to the Commissioner. Such information shall be certified in accordance with Section 7(*l*) of this general permit. The provisions of this subsection shall apply both while a request for approval of registration is pending and after the Commissioner has approved such request.

(h) Transfer of an Authorization

An approval of registration under this general permit is transferable only in accordance with the provisions of section 22a-6o of the Connecticut General Statutes.

(i) Other Applicable Law

Nothing in this general permit shall relieve the permittee of the obligation to comply with any other applicable federal, state, and local law, including but not limited to the obligation to obtain any other authorizations required by such law.

(j) Other Rights

This general permit is subject to and does not derogate any present or future rights or powers of the State of Connecticut and conveys no rights in real or personal property nor any exclusive privileges, and is subject to all public and private rights and to any federal, state, and local laws pertinent to the property or activity affected by such general permit. In conducting any activity authorized hereunder, the permittee may not cause pollution, impairment, or destruction of the air, water, or other natural resources of this State. The issuance of this general permit shall not create any presumption that this general permit should or will be re-issued.

(k) Enforceability

This general permit shall be enforceable by the Commissioner or the Administrator.

(l) Certification of Documents

Except for the registration form which is certified in accordance with Section 4(c)(3)(II) of this general permit, any document, including but not limited to any notice, information or report, which is submitted to the Commissioner under this general permit shall be signed by, as applicable, the registrant, the operator or the permittee, or a duly authorized representative, and by the individual or individuals 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.

I certify that the signature of the registrant or the permittee, or a duly authorized representative, being submitted herewith complies with section 22a-174-2a(a) of the Regulations of Connecticut State Agencies."

Section 8. Commissioner's Powers

(a) Abatement of Violations

The Commissioner may take any action provided by law to abate a violation of this general permit, including the commencement of proceedings to collect penalties for such violation. The Commissioner may, by summary proceedings or otherwise and for any reason provided by law, including violation of this general permit, revoke a permittee's authorization hereunder in accordance with sections 22a-3a-2 through 22a-3a-6, inclusive, of the Regulations of Connecticut State Agencies, inclusive. Nothing herein shall be construed to affect any remedy available to the Commissioner by law.

(b) General Permit Revocation, Suspension or Modification

The Commissioner may, for any reason provided by law, by summary proceedings or otherwise, revoke or suspend this general permit or modify it to establish any appropriate conditions, schedules of compliance, or other provisions which may be necessary to protect human health or the environment.

(c) Filing of an Individual Permit Application

If the Commissioner notifies a permittee in writing that such permittee must obtain an individual permit to continue lawfully conducting the activity authorized by this general permit, the permittee may continue conducting such activity only if the permittee files an application for an individual permit within sixty days of receiving the Commissioner's notice. The Permittee may also, at its election, file an application for an individual permit for an activity authorized by this general permit. While such application is pending before the Commissioner, the permittee shall comply with the terms and conditions of this general permit. Nothing herein shall affect the Commissioner's power to revoke a permittee's authorization under this general permit at any time.

(d) Right to Inspect

Any representative of the Department of Environmental Protection 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 General Permit and applicable state law.

Issued Date: January 9, 2008

GINA McCARTHY.
Commissioner

This is a true and accurate copy of the general permit executed on January 9, 2008 by the Commissioner of the Department of Environmental Protection.

Sec. 22a-174. (Formerly Sec. 19-508). Powers of the commissioner. Regulations. Fees. Exemptions. General permits. Appeal of commissioner's action re permit applications. (a) The commissioner, in the manner provided in subdivision (1) of section 22a-6, shall have the power to formulate, adopt, amend and repeal regulations to control and prohibit air pollution throughout the state or in such areas of the state as are affected thereby, which regulations shall be consistent with the federal Air Pollution Control Act and which qualify the state and its municipalities for available federal grants. Any person heard at the public hearing on any such regulation shall be given written notice of the determination of the commissioner.

(b) The commissioner shall have the power to employ technical consultants for special studies, advice and assistance; to consult with and advise and exchange information with other departments or agencies of the state.

(c) The commissioner shall have the power, in accordance with regulations adopted by him, (1) to require that a person, before undertaking the construction, installation, enlargement or establishment of a new air contaminant source specified in the regulations adopted under subsection (a) of this section, submit to him plans, specifications and such information as he deems reasonably necessary relating to the construction, installation, enlargement, or establishment of such new air contaminant source; (2) to issue a permit approving such plans and specifications and permitting the construction, installation, enlargement or establishment of the new air contaminant source in accordance with such plans, or to issue an order requiring that such plans and specifications be modified as a condition to his approving them and issuing a permit allowing such construction, installation, enlargement or establishment in accordance therewith, or to issue an order rejecting such plans and specifications and prohibiting construction, installation, enlargement or establishment of a new air contaminant source in accordance with the plans and specifications submitted; (3) to require periodic inspection and maintenance of combustion equipment and other sources of air pollution; (4) to require any person to maintain such records relating to air pollution or to the operation of facilities designed to abate air pollution as he deems necessary to carry out the provisions of this chapter and section 14-164c; (5) to require that a person in control of an air contaminant source specified in the regulations adopted under subsection (a), obtain a permit to operate such source if the source (A) is subject to any regulations adopted by the commissioner concerning high risk hazardous air pollutants, (B) burns waste oil, (C) is allowed by the commissioner, pursuant to regulations adopted under subsection (a), to exceed emission limits for sulfur compounds, (D) is issued an order pursuant to section 22a-178, or (E) violates any provision of this chapter, or any regulation, order or permit adopted or issued thereunder; (6) to require that a person in control of an air contaminant source who is not required to obtain a permit pursuant to this subsection register with him and provide such information as he deems necessary to maintain his inventory of air pollution sources and the commissioner may require renewal of such registration at intervals he deems necessary to maintain such inventory; (7) to require a permit for any source regulated under the federal Clean Air Act Amendments of 1990, P.L. 101-549; (8) to refuse to issue a permit if the Environmental Protection Agency objects to its issuance in a timely manner under Title V of the federal Clean Air Act Amendments of 1990; and (9) notwithstanding any regulation adopted under this chapter, to require that any source permitted under Title V of the federal Clean Air Act Amendments of 1990 shall comply with all applicable standards set forth in the Code of Federal Regulations, Title 40, Parts 51, 52, 59, 60, 61, 63, 68, 70, 72 to 78, inclusive, and 82, as amended from time to time.

(d) The commissioner shall have all incidental powers necessary to carry out the purposes of this chapter and section 14-164c.

(e) As used in this subsection, "contiguous" means abutting or adjoining without consideration of the actual or projected existence of roadways, walkways, plazas, parks or other minor intervening features; "indirect source" means any building, structure, facility, installation or combination thereof, that has or

leads to associated activity as a result of which any air pollutant is or may be emitted. The commissioner shall not require the submission of plans and specifications under indirect source regulations adopted pursuant to subdivisions (1) and (2) of subsection (c) of this section for proposed construction to be undertaken within a redevelopment area or urban renewal project, as defined in chapter 130, provided (1) the proposed construction is pursuant to a plan for such redevelopment area or urban renewal project adopted pursuant to section 8-127 prior to October 1, 1974, or to a modification of such plan, (2) the proposed construction is part of a contiguous, single purpose or multipurpose development or developments and (3) site clearance or construction had commenced on a portion of the site of such development or developments prior to October 1, 1974, nor shall the commissioner issue any order pursuant to subdivision (1) of subsection (c) of this section pertaining to the enforcement of indirect source regulations with respect to such proposed construction within such redevelopment areas and urban renewal projects. In the event that the modification of any such plan after October 1, 1974, would result in the proposed construction generating substantially more motor vehicle traffic than would have been generated prior to such modification, the submission of plans and specifications shall be required for such proposed modification. The commissioner shall not require the renewal of an indirect source operating permit issued in accordance with subsection (c) of this section unless such indirect source no longer conforms with plans, specifications or other information submitted to said commissioner in accordance with said subsection (c).

(f) The commissioner shall allow the open burning of brush on residential property, provided the burning is conducted by the resident of the property or the agent of the resident and a permit for such burning is obtained from the local open burning official of the municipality in which the property is located, and the open burning of brush in municipal landfills, transfer stations and municipal recycling centers, provided a permit for such burning is obtained from the fire marshal of the municipality where the facility is located, except that no open burning of brush shall occur (1) when national or state ambient air quality standards may be exceeded; (2) where a hazardous health condition might be created; (3) when the forest fire danger in the area is identified by the commissioner as extreme and where woodland or grass land is within one hundred feet of the proposed burn; (4) where there is an advisory from the commissioner of any air pollution episode; (5) where prohibited by an ordinance of the municipality; and (6) in the case of a municipal landfill, when such landfill is within an area designated as a hot spot on the open burning map prepared by the commissioner. A permit for the burning of brush at any municipal landfill, municipal transfer station or municipal recycling center shall be issued no more than six times in any calendar year. The proposed permit to burn brush at any municipal landfill, municipal transfer station or municipal recycling center shall be submitted to the commissioner by the fire marshal, with the approval of the chief elected official of the municipality in which the municipal landfill, municipal transfer station or municipal recycling center is located. The commissioner shall approve or disapprove the fire marshal's proposed permitting of burning of brush at a municipal landfill, municipal transfer station or municipal recycling center within a reasonable time of the filing of such application. The burning of leaves, demolition waste or other solid waste deposited in such landfill shall be prohibited. The burning of nonprocessed wood for campfires and bonfires is not prohibited if the burning is conducted so as not to create a nuisance and in accordance with any restrictions imposed on such burning. Nothing in this subsection or in any regulation adopted pursuant to this subsection shall affect the power of any municipality to regulate or ban the open burning of brush within its boundaries for any purpose. Notwithstanding any other provision of this section, fire breaks for the purpose of controlling forest fires and controlled fires in salt water marshes to forestall uncontrolled fires are not prohibited. Open burning may be engaged in for any of the following purposes if the open burning official with jurisdiction over the area where the burning will occur issues an open burning permit: Fire-training exercises; eradication or control of insect infestations or disease; agricultural purposes; clearing vegetative debris following a natural disaster; and vegetative management or enhancement of wildlife habitat or ecological sustainability on municipal property or on any privately owned property permanently dedicated as open space. Open burning for such purposes on

state property may be engaged in with the written approval of the commissioner. Local burning officials nominated for the purposes of this subsection shall be nominated only by the chief executive officer of the municipality in which the official will serve and shall be certified by the commissioner. The chief executive officer may revoke the nomination. The commissioner may adopt regulations, in accordance with the provisions of chapter 54, governing open burning and may authorize or prohibit open burning consistent with this section. The regulations may require the payment of an application fee and inspection fee and may establish a certification procedure for local burning officials.

(g) The commissioner shall require, by regulations adopted in accordance with the provisions of chapter 54, the payment of a permit application fee sufficient to cover the reasonable costs of reviewing and acting upon an application for, and monitoring compliance with the terms and conditions of, any state or federal permit, license, order, certificate or approval required pursuant to this section. Any person obtaining a permit, pursuant to said regulations, for the construction or operation of a source of air pollution or for modification to an existing source of air pollution shall submit a permit fee of twice the amount of the fee established by regulations in effect on July 1, 1990. The commissioner shall require the payment of a permit application fee of two hundred dollars.

(h) The commissioner may require, by regulations adopted in accordance with the provisions of chapter 54, payment of a fee by the owner or operator of a source of air pollution, sufficient to cover the reasonable cost of a visual test of an air pollution control device through the use of a dust compound in the detection of leaks in such device, or the monitoring of such test, provided such fee may not exceed the average cost to the department for the conduct or monitoring of such tests plus ten per cent of such average cost. Except as specified in section 22a-27g, all payments received by the commissioner pursuant to this subsection shall be deposited in the General Fund and credited to the appropriations of the Department of Environmental Protection in accordance with the provisions of section 4-86.

(i) Notwithstanding the provisions of subsections (g) and (h) of this section, no municipality shall be required to pay more than fifty per cent of any fee established by the commissioner pursuant to said subsections.

(j) Fees or increased fees prescribed by this section shall not be applicable to residential property.

(k) (1) The commissioner may issue a general permit with respect to a category of new or existing stationary air pollution sources, except with respect to a source which is already covered by an individual permit, provided the general permit is not inconsistent with the federal Clean Air Act, as amended in 1990, 42 USC, Sections 7401 et seq., and as it may be further amended from time to time. Any person conducting an activity for which a general permit has been issued shall not be required to obtain an individual permit under this section, except as provided in subdivision (5) of this subsection. The general permit may regulate a category of sources which, whether or not requiring a permit under the federal Clean Air Act, (A) involve the same or substantially similar types of operations or substances, (B) require the same types of pollution control equipment or other operating conditions, standards or limitations, and (C) require the same or similar monitoring, and which, in the opinion of the commissioner, are more appropriately controlled under a general permit than under an individual permit. The general permit may require that any person proposing to conduct any activity under the general permit register such activity, including obtaining approval from the commissioner, before the general permit becomes effective as to such activity, and may include such other conditions as the commissioner deems appropriate, including, but not limited to, management practices and verification and reporting requirements. Any such reports shall be made available to the public by the commissioner. The commissioner shall grant an application for approval under a general permit without repeating the notice and comment procedures provided under subdivision (2) of this subsection, and such a grant shall not be subject to judicial review under subdivision (4) of this subsection. Registrations and applications for

approval under the general permit shall be submitted on forms prescribed by the commissioner; application forms concerning activities regulated under the federal Clean Air Act shall require that the applicant provide such information as may be required by that act. The commissioner shall prepare, and annually amend, a list of holders of general permits under this section, which list shall be made available to the public.

(2) Notwithstanding any other procedures in this chapter, any regulations adopted thereunder, and chapter 54, the commissioner may issue a general permit in accordance with the following procedures: (A) The commissioner shall publish in a newspaper, having a substantial circulation in the affected area or areas, notice of (i) intent to issue a general permit, (ii) the right to inspect the proposed general permit, (iii) the opportunity to submit written comments thereon, and (iv) the right to a public hearing if, within the comment period, the commissioner receives a petition signed by at least twenty-five persons provided the notice shall state that the right to a public hearing may be exercised upon request of any person if the permit regulates an activity which is subject to provisions of the federal Clean Air Act; (B) the administrator of the United States Environmental Protection Agency and any states affected by the general permit shall be given notice as may be required by the federal Clean Air Act; (C) the commissioner shall allow a comment period of thirty days following publication of notice under subparagraph (A) of this subdivision during which interested persons may submit written comments concerning the permit to the commissioner; (D) the commissioner shall not issue the general permit until after the comment period and the public hearing, if one is held; (E) the commissioner shall publish notice of any general permit issued in a newspaper having a substantial circulation in the affected area or areas; and (F) summary suspension may be ordered in accordance with subsection (c) of section 4-182. Any person may request that the commissioner issue, modify, revoke or suspend a general permit in accordance with this subsection.

(3) Any general permit under this subsection shall be issued for a fixed term. A general permit covering an activity regulated under the federal Clean Air Act shall be issued for a term of no more than five years. A general permit covering an activity regulated under the federal Clean Air Act shall contain such additional conditions as may be required by that act.

(4) Notwithstanding any other provision of this chapter and chapter 54, with respect to a general permit concerning activities regulated under the federal Clean Air Act, any person who submitted timely comments thereon may appeal the issuance of such permit to the superior court in accordance with the provisions of section 4-183. Such appeal shall have precedence in the order of trial as provided in section 52-192.

(5) Subsequent to the issuance of a general permit, the commissioner may require a person whose activity is or may be covered by the general permit to apply for and obtain an individual permit pursuant to this chapter if he determines that an individual permit would better protect the land, air and waters of the state from pollution. The commissioner may require an individual permit under this subdivision in cases including, but not limited to, the following: (A) The permittee is not in compliance with the conditions of the general permit; (B) a change has occurred in the availability of demonstrated technology or practices for the control or abatement of pollution applicable to the permitted activity; (C) circumstances have changed since the time the general permit was issued so that the permitted activity is no longer appropriately controlled under the general permit, or a temporary or permanent reduction or elimination of the permitted activity is necessary; or (D) a relevant change has occurred in the applicability of the federal Clean Air Act. In making the determination to require an individual permit, the commissioner may consider the location, character and size of the source and any other relevant factors. The commissioner may require an individual permit under this subdivision only if the person whose activity is covered by the general permit has been notified in writing that an individual permit is required. The notice shall include a brief statement of the reasons for requiring an individual permit, an

application form, a statement setting a time for the person to file the application and a statement that the general permit as it applies to such person shall automatically terminate on the effective date of the individual permit. Such person shall forthwith apply for, and use best efforts to obtain, the individual permit. Any person may petition the commissioner to take action under this subdivision.

(6) The commissioner may adopt regulations, in accordance with the provisions of chapter 54, to carry out the purposes of this subsection.

(l) In any proceeding on an application for a permit which is required under 42 USC 7661a, the applicant, and any other person entitled under said section to obtain judicial review of the commissioner's final action on such application may appeal such action in accordance with the provisions of section 4-183.

(m) The commissioner shall not issue a permit for an asphalt batch plant or continuous mix facility under the provisions of this section until July 1, 2004, unless the commissioner determines that the issuance of the permit will result in an improvement of environmental performance of an existing asphalt batch plant or continuous mix plant. The provisions of this section shall apply to any application pending on May 5, 1998. Nothing in this section shall apply to applications for upgrading, replacing, consolidating or otherwise altering the physical plant of an existing facility provided such upgrade, replacement, consolidation or alteration results in an improvement of environmental performance or in reduced total emissions of air pollutants.

(1967, P.A. 754, S. 4; 1969, P.A. 758, S. 4; 1971, P.A. 872, S. 17; P.A. 75-453, S. 1, 2; P.A. 76-232, S. 1, 3; P.A. 77-252; 77-604, S. 16, 84; P.A. 79-177; P.A. 81-127, S. 1, 2; 81-385, S. 1, 2; P.A. 83-159, S. 2, 3; 83-555, S. 2; 83-587, S. 74, 96; P.A. 84-5, S. 1, 2; 84-120, S. 1; 84-546, S. 133, 173; P.A. 85-515, S. 2; 85-571, S. 15; P.A. 87-165; P.A. 88-122; P.A. 90-231, S. 1, 28; 90-247, S. 1; P.A. 91-183; 91-369, S. 13, 36; P.A. 92-162, S. 5, 25; P.A. 93-428, S. 17, 19, 39; P.A. 95-165, S. 1; 95-218, S. 12; P.A. 96-64; P.A. 97-124, S. 4, 16; P.A. 98-112, S. 1, 2; P.A. 99-225, S. 2; P.A. 00-1, S. 1, 2; June Sp. Sess. P.A. 00-1, S. 31, 46; P.A. 01-204, S. 11, 29; June Sp. Sess. P.A. 01-9, S. 73, 131; June 30 Sp. Sess. P.A. 03-6, S. 124, 125; P.A. 04-151, S. 1.)

NOTICE OF INTENT TO ISSUE A GENERAL PERMIT
NOTICE OF PUBLIC HEARING
For a General Permit to Construct and/or Operate Certain New or Existing Emergency Engine or Distributed Generation Resource and to Revise the State Implementation Plan for Air Quality

I. Introduction

Pursuant to section 22a-174(l) and 22a-6 of the Connecticut General Statutes and section 102(a) of Public Act 07-242, the Commissioner of Environmental Protection (Commissioner) hereby provides notice of intent to issue a General Permit to Construct and/or Operate New or Existing Emergency Engine or Distributed Generation Resource (general permit). The Commissioner also hereby provides notice of intent to revise the State Implementation Plan (SIP) for Air Quality. Upon issuance, the general permit will be submitted to the United States Environmental Protection Agency for their review and approval as a revision to the SIP as required by the Clean Air Act Amendments of 1990 (CAA). This general permit will cover the construction and operation of new or existing emergency engines and distributed generation resources of up to two megawatts (MW) available to operate on or before December 1, 2007 for purposes of participation in a pilot program developed by the Department of Public Utility Control (DPUC) specified in section 103 of Public Act (PA) 07-242, An Act Concerning Electricity and Energy Efficiency.

The Department will hold a status conference on October 16, 2007 at 2 P.M. in the Russell Hearing Room on the 3rd Floor of the Department of Environment Protection offices at 79 Elm Street in Hartford, Connecticut. Persons interested in participating in the public hearing may attend. The public hearing will be held on November 9, 2007 at 10 A.M. in the Russell Hearing Room on the 3rd floor of the Department of Environment Protection offices at 79 Elm Street in Hartford, Connecticut.

II. General Permit Overview

As required by section 102(a) of Public Act 07-242, the general permit will authorize the construction and operation of new or existing emergency engines and distributed generation resources that (1) generate no more than two megawatts of electricity; and (2) are approved by the Department of Public Utility Control to participate in the markets administered by the regional independent system operator in accordance with section 103(b) of Public Act 07-242. The provisions of the general permit include, but are not limited to: minimum setback provisions, limitations on hours of operation, requirements for air pollution controls certified to achieve a minimum reduction in emissions of nitrogen oxides of ninety percent, directionally correct offsets at a ratio to be determined by the Commissioner of Environmental Protection, required control equipment, requirements for monitoring, reporting and recordkeeping, and any other requirement that said commissioner deems necessary.

The general permit shall expire no later than December 31, 2010 or ninety days after the energizing of the Middletown-Norwalk 345 kv transmission line approved by the Connecticut Siting Council. An emergency engine approved by Department of Public Utility Control pursuant to section 103 of Public Act 07-242, shall operate under the general permit and no longer be eligible for coverage under sections 22a-174-3a or 22a-174-3b of the Regulations of Connecticut State Agencies.

Additional background information may be obtained from the *Request For Information To Develop A General Permit Regarding The Construction And Operation Of New And Existing Emergency Engines And Distributed Generation Resources Notice* published on August 3, 2007 and can be found on the Department's web site at www.ct.gov/dep/publicnotices.

III. Review of the Draft General Permit and Public Participation

A copy of the proposed general permit is available for public inspection during normal business hours, 8:30 a.m. to 4:30 p.m., and may be obtained from Ms. Sharon Rowe-Johnson at the Bureau of Air Management, Engineering and Enforcement Division, 5th Floor, 79 Elm Street, Hartford, CT. The general permit is also posted on the Department's website at www.ct.gov/dep/publicnotices as well as being available for review at the Government Information Service Desk (Balcony level) at the Connecticut State Library located in Hartford, Torrington Public Library, New London Public Library, Bridgeport Public Library, New Haven Public Library and the Ferguson Public Library of Stamford. For further information, contact Ms. Sharon Rowe-Johnson of the Bureau of Air Management at (860) 424-4152.

All interested persons are invited to comment on the proposed general permit. All commenters should note the Commissioner may make changes to the general permit in response to public comments. Comments should be submitted to the Department of Environmental Protection, Bureau of Air Management, Engineering and Technical Services Division, 79 Elm Street, 5th Floor, Hartford, Connecticut 06106-5127. All comments should be directed to the attention of Ms. Sharon Rowe-Johnson or be electronically mailed to Sharon.Rowe-Johnson@po.state.ct.us no later than thirty (30) days after the publication of this notice. On November 9, 2007, the Commissioner shall hold a public hearing on this general permit. Such hearing shall be held at the Department of Environmental Protection, 79 Elm Street, Hartford, Connecticut in the Russell Hearing Room at 10a.m. The hearing shall be preceded by a status conference for all parties who are interested in participating as interveners on October 16, 2007. The status conference shall be held at the Department of Environmental Protection, 79 Elm Street, Hartford, Connecticut, in the Russell Hearing Room at 2 p.m.

IV. Americans with Disabilities Act Statement

In conformance with the Americans with Disabilities Act (ADA) individuals with disabilities who need information in an alternative format, to allow them to benefit and/or

participate in the agency's programs and services, should call TDD (860) 424-3000 and make their request to the receptionist, or contact Marcia Z. Bonitto, ADA Coordinator, via email: Marcia.Bonitto@po.state.ct.us

V. Legal Authority

This notice is required by sections 22a-6 and 22a-174(l) of the Connecticut General Statutes, section 102(b) of Public Act 07-242 and 40 Code of Federal Regulations Part 51.102.

_October 3, 2007____
Date

/s/ Gina McCarthy
Gina McCarthy
Commissioner

Department of Environmental Protection
Bureau of Air Management
Request for Publication

Date: October 4, 2007

VIA ELECTRONIC MAIL

Laurie Taylor
Graystone Group Advertising
2710 North Avenue, Suite 105
Bridgeport, CT 06604
ads@graystoneadv.com
1-800-544-0005

cc: Dennise Goulbourne, DEP

Contact Name: Susan Amarello Phone: (860) 424-3442
E-mail: susan.amarello@po.state.ct.us

Publication
Requested Publication Date: October 9, 2007 (all papers same day)

Please make a one-time insertion of the attached public notice in a single column space set solid under Legal Notices in the following paper(s):

- ☒ Connecticut Post
- ☐ Bristol Press
- ☐ The Chronicle
- ☒ The Day
- ☐ Greenwich Time
- ☒ The Hartford Courant
- ☒ Journal Inquirer
- ☐ Waterbury Republican
- ☐ The Middletown Press
- ☐ Record-Journal
- ☐ Naugatuck Daily News
- ☐ The Herald
- ☒ The New Haven Register
- ☐ The News-Times
- ☐ The Hour
- ☐ Norwich Bulletin
- ☒ Register Citizen
- ☒ The Advocate
- ☐ Waterbury American

Billing
Purchase Order Number: DEPM1-0000019410

Please note that the Department will not remit payment for publication of the attached public notice until **copies of the public notice and certifications of the publications** are forwarded to the Department. Please address such mailings as follows:

Attn: Dennise Goulbourne, SEA-4152
Department of Environmental Protection
Bureau of Air Management
79 Elm Street
Hartford, CT 06106-5127

Payment will occur through Dennise Goulbourne, Fiscal Administrative Assistant, Bureau of Air Management, at (860) 424-3026. Please contact her for further information regarding billing.

BUREAU OF AIR MANAGEMENT
NEW SOURCE REVIEW / TITLE V

OCT 30 2007

Affidavit of Publication

State of Connecticut
County of Fairfield

I, **Mary Ann Welch**, a billing representative of Graystone Group Advertising, 2710 North Ave., Suite 200, Bridgeport, CT 06604, do solemly swear that on:

Date: October 9, 2007

Ad title: Notice of Intent to Issue a General Permit

Appeared in: Hartford Courant publication and the newspaper attachment is from the above named issue of said newspaper.

Subscribed and sworn to this 24th day of October, 2007 before me.

KATHLEEN VITKO
NOTARY PUBLIC
State of Connecticut
My Commission Expires
July 31, 2012

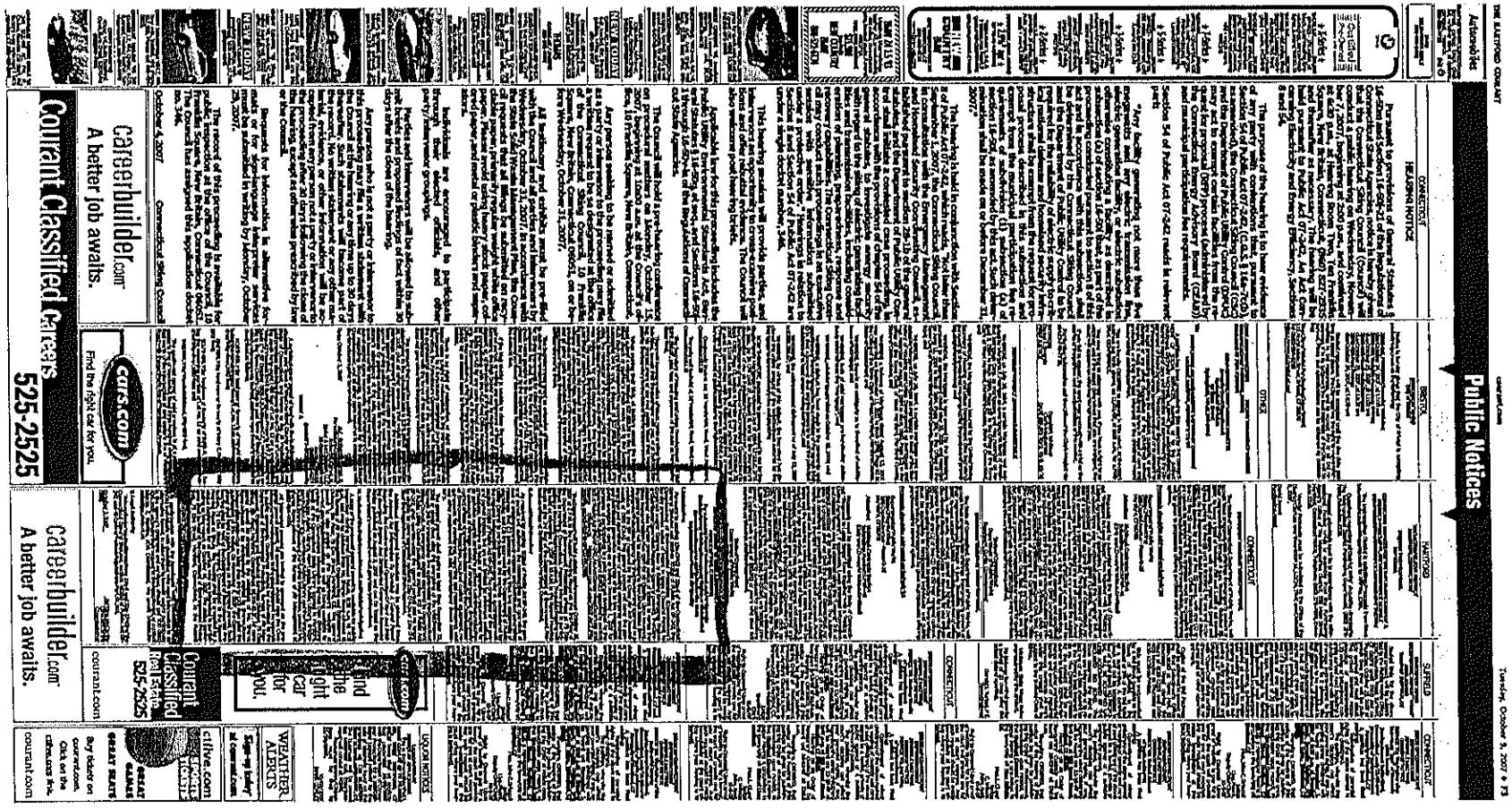
Notary Public
Kathleen Vitko

Hartford Courant

Publication Date: 10/09/2007

Ad Number:	E2097729	Client Name:	95396 / GRAYSTONE GROUP
Insertion Number:		Advertiser:	DPUC/LEGAL
Size:	2 x 9.25	Section/Page/Zone:	Classified/F3/FR
Color Type:	B&W	Description:	NOTICE OF INTENT TO ISSUE A GE

This E-Sheet confirms that the ad appeared in The Hartford Courant on the date and page indicated. You may not create derivative works, or in any way exploit or repurpose any content displayed or contained on the e-tearsheet.



BUREAU OF AIR MANAGEMENT
NEW SOURCE REVIEW / TITLE V

OCT 30 2007

BUREAU OF AIR MA[illegible]ENT
NEW SOURCE REVIEW [illegible]LEV
OCT 30 2007

Affidavit of Publication

State of Connecticut
County of Fairfield

I, **Mary Ann Welch**, a billing representative of Graystone Group Advertising, 2710 North Ave., Suite 200, Bridgeport, CT 06604, do solemly swear that on:

Date: October 9, 2007

Ad title: Notice of Intent to Issue a General

Appeared in: New Haven Register publication and the newspaper attachment is from the above named issue of said newspaper.

Subscribed and sworn to this 24th day of October, 2007 before me.

KATHLEEN VITKO
NOTARY PUBLIC
State of Connecticut
My Commission Expires
July 31, 2012

Notary Public
Kathleen Vitko

and/or Operate Certain New or Existing Emergency Engine or Distributed Generation Resource and to Revise the State Implementation Plan for Air Quality

I. Introduction

Pursuant to section 22a-174(l) and 22a-6 of the Connecticut General Statutes and section 102(a) of Public Act 07-242, the Commissioner of Environmental Protection (Commissioner) hereby provides notice of intent to issue a General Permit to Construct and/or Operate New or Existing Emergency Engine or Distributed Generation Resource (general permit). The Commissioner also hereby provides notice of intent to revise the State Implementation Plan (SIP) for Air Quality. Upon issuance, the general permit will be submitted to the United States Environmental Protection Agency for their review and approval as a revision to the SIP as required by the Clean Air Act Amendments of 1990 (CAA). This general permit will cover the construction and operation of new or existing emergency engines and distributed generation resources of up to two megawatts (MW) available to operate on or before December 1, 2007 for purposes of participation in a pilot program developed by the Department of Public Utility Control (DPUC) specified in section 103 of Public Act (PA) 07-242, An Act Concerning Electricity and Energy Efficiency, http://www.cga.ct.gov/2007/ACT/PA/2007PA-00242-R00HB-07432-PA.htm.

The Department will hold a status conference on October 16, 2007 at 2 P.M. in the Russell Hearing Room on the 3rd Floor of the Department of Environment Protection offices at 79 Elm Street in Hartford, Connecticut. Persons interested in participating in the public hearing may attend. The public hearing will be held on November 9, 2007 at 10 A.M. in the Russell Hearing Room on the 3rd floor of the Department of Environment Protection offices at 79 Elm Street in Hartford, Connecticut.

II. General Permit Overview

As required by section 102(a) of Public Act 07-242, the general permit will authorize the construction and operation of new or existing emergency engines and distributed generation resources that (1) generate no more than two megawatts of electricity; and (2) are approved by the Department of Public Utility Control to participate in the markets administered by the regional independent system operator in accordance with section 103(b) of Public Act 07-242. The provisions of the general permit include, but are not limited to: minimum setback provisions, limitations on hours of operation, requirements for air pollution controls certified to achieve a minimum reduction in emissions of nitrogen oxides of ninety percent, directionally correct offsets at a ratio to be determined by the Commissioner of Environmental Protection, required control equipment, requirements for monitoring, reporting and recordkeeping, and any other requirement that said commissioner deems necessary.

The general permit shall expire no later than December 31, 2010 or ninety days after the energizing of the Middletown-Norwalk 345 kv transmission line approved by the Connecticut Siting Council. An emergency engine approved by Department of Public Utility Control pursuant to section 103 of Public Act 07-242, shall operate under the general permit and no longer be eligible for coverage under sections 22a-174-3a or 22a-174-3b of the Regulations of Connecticut State Agencies.

Additional background information may be obtained from the Request For Information To Develop A General Permit Regarding The Construction And Operation Of New And Existing Emergency Engines And Distributed Generation Resources Notice published on August 3, 2007 and can be found on the Department's web site at www.ct.gov/dep/publicnotices.

III. Review of the Draft General Permit and Public Participation

A copy of the proposed general permit is available for public inspection during normal business hours, 8:30 a.m. to 4:30 p.m., and may be obtained from Ms. Sharon Rowe-Johnson at the Bureau of Air Management, Engineering and Enforcement Division, 5th Floor, 79 Elm Street, Hartford, CT. The general permit is also posted on the Department's website at www.ct.gov/dep/publicnotices as well as being available for review at the Government Information Service Desk (Balcony level) at the Connecticut State Library located in Hartford, Torrington Public Library, New London Public Library, Bridgeport Public Library, New Haven Public Library and the Ferguson Public Library of Stamford. For further information, contact Ms. Sharon Rowe-Johnson of the Bureau of Air Management at (860) 424-4152.

All interested persons are invited to comment on the proposed general permit. All commenters should note the Commissioner may make changes to the general permit in response to public comments. Comments should be submitted to the Department of Environmental Protection, Bureau of Air Management, Engineering and Technical Services Division, 79 Elm Street, 5th Floor, Hartford, Connecticut 06106-5127. All comments should be directed to the attention of Ms. Sharon Rowe-Johnson or be electronically mailed to
Sharon.Rowe-Johnson@po.state.ct.us
no later than thirty (30) days after the publication of this notice. On November 9, 2007, the Commissioner shall hold a public hearing on this general permit. Such hearing shall be held at the Department of Environmental Protection, 79 Elm Street, Hartford, Connecticut in the Russell Hearing Room at 10a.m. The hearing shall be preceded by a status conference for all parties who are interested in participating as interveners on October 16, 2007. The status conference shall be held at the Department of Environmental Protection, 79 Elm Street, Hartford, Connecticut, in the Russell Hearing Room at 2 p.m.

IV. Americans with Disabilities Act Statement

In conformance with the Americans with Disabilities Act (ADA) individuals with disabilities who need information in an alternative format, to allow them to benefit and/or participate in the agency's programs and services, should call TDD (860) 424-3000 and make their request to the receptionist, or contact Marcia Z. Bonitto, ADA Coordinator, via email: Marcia.Bonitto@po.state.ct.us

31, 2007."

The hearing is held in Public Act 07-242, w September 1, 2007, the consultation with the Homeland Securit established pursuant t statutes, and the Depa shall initiate a con accordance with the general statutes, to in regard to the siting and transmission fac of planning, prepare capabilities. The Co conduct such proce with sensitive info protective order." He and Section 54 of Pub docket number, 346.

This hearing sessio intervenors an op positions and offer will also welcome po

Applicable law for thi Utility Environmen Statutes § 16-50g, through 16-50v-la of State Agencies.

The Council will ho procedural matters beginning at 10:00 Franklin Square, Ne

Any person seeking party or intervenor written request to t the Connecticut Sit New Britain, Con Wednesday, Octobe

All testimony and e Council and all Wednesday, Octobe State Solid Waste requests that all fil paper, primarily re Please avoid using and metal or plasti

Individuals are en their elected offic groupings.

Parties and interv briefs and propose after the close of t

Any person who is proceeding may f Council at the he thereafter. Such st record. No written evidence, or other any person not proceeding after 3 hearing, except as Council.

Requests for infor sign-language i submitted in writi

The record of this

Affidavit of Publication

State of Connecticut
County of Fairfield

I, **Mary Ann Welch**, a billing representative of Graystone Group Advertising, 2710 North Ave., Suite 200, Bridgeport, CT 06604, do solemly swear that on:

Date: October 9, 2007

Ad title: Notice of Intent to Issue a General Permit

Appeared in: Stamford Advocate publication and the newspaper attachment is from the above named issue of said newspaper.

Subscribed and sworn to this 24th day of October, 2007 before me.

BUREAU OF AIR MANAGEMENT
NEW SOURCE REVIEW / TITLE V

OCT 3 0 2007

KATHLEEN VITKO
NOTARY PUBLIC
State of Connecticut
My Commission Expires
July 31, 2012

Notary Public

Kathleen Vitko

Notices

Public Notices 002

NOTICE OF INTENT TO ISSUE A GENERAL PERMIT
NOTICE OF PUBLIC HEARING
For a General Permit to Construct and/or Operate Certain New or Existing Emergency Engine or Distributed Generation Resource and to Revise the State Implementation Plan for Air Quality

I. Introduction

Pursuant to section 22a-174(l) and 22a-6 of the Connecticut General Statutes and section 102(a) of Public Act 07-242, the Commissioner of Environmental Protection (Commissioner) hereby provides notice of intent to issue a General Permit to Construct and/or Operate New or Existing Emergency Engine or Distributed Generation Resource (general permit). The Commissioner also hereby provides notice of intent to revise the State Implementation Plan (SIP) for Air Quality. Upon issuance, the general permit will be submitted to the United States Environmental Protection Agency for their review and approval as a revision to the SIP as required by the Clean Air Act Amendments of 1990 (CAA). This general permit will cover the construction and operation of new or existing emergency engines and distributed generation resources of up to two megawatts (MW) available to operate on or before December 1, 2007 for purposes of participation in a pilot program developed by the Department of Public Utility Control (DPUC) specified in section 103 of Public Act (PA) 07-242, An Act Concerning Electricity and Energy Efficiency,

http://www.cga.ct.gov/2007/ACT/PA/2007PA-00242-R00HB-07432-PA.htm.

The Department will hold a status conference on October 16, 2007 at 2 P.M. in the Russell Hearing Room on the 3rd Floor of the Department of Environment Protection offices at 79 Elm Street in Hartford, Connecticut. Persons interested in participating in the public hearing may attend. The public hearing will be held on November 9, 2007 at 10 A.M. in the Russell Hearing Room on the 3rd floor of the Department of Environment Protection offices at 79 Elm Street in Hartford, Connecticut.

II. General Permit Overview

As required by section 102(a) of Public Act 07-242, the general permit will authorize the construction and operation of new or existing emergency engines and distributed generation resources that (1) generate no more than two megawatts of electricity; and (2) are approved by the Department of Public Utility Control to participate in the markets administered by the regional independent system operator in accordance with section 103(b) of Public Act 07-242. The provisions of the general permit include, but are not limited to: minimum setback provisions, limitations on hours of operation, requirements for air pollution controls certified to achieve a minimum reduction in emissions of nitrogen oxides of ninety percent, directionally correct offsets at a ratio to be determined by the Commissioner of Environmental Protection, required control equipment, requirements for monitoring, reporting and recordkeeping, and any other requirement that said commissioner deems necessary.

The general permit shall expire no later than December 31, 2010 or ninety days after the energizing of the Middletown-Norwalk 345 kv transmission line approved by the Connecticut Siting Council. An emergency engine approved by Department of Public Utility Control pursuant to section 103 of Public Act 07-242, shall operate under the general permit and no longer be eligible for coverage under sections 22a-174-3a or 22a-174-3b of the Regulations of Connecticut State Agencies.

Additional background information may be obtained from the Request For Information To Develop A General Permit Regarding The Construction And Operation Of New And Existing Emergency Engines And Distributed Generation Resources Notice published on August 3, 2007 and can be found on the Department's web site at:

www.ct.gov/dep/publicnotices.

III. Review of the Draft General Permit and Public Participation

A copy of the proposed general permit is available for public inspection during normal business hours, 8:30 a.m. to 4:30 p.m., and may be obtained from Ms. Sharon Rowe-Johnson at the Bureau of Air Management, Engineering and Enforcement Division, 5th Floor, 79 Elm Street, Hartford, CT. The general permit is also posted on the Department's website at www.ct.gov/dep/publicnotices as well as being available for review at the Government Information Service Desk (Balcony level) at the Connecticut State Library located in Hartford, Torrington Public Library, New London Public Library, Bridgeport Public Library, New Haven Public Library and the Ferguson Public Library of Stamford. For further information, contact Ms. Sharon Rowe-Johnson of the Bureau of Air Management at (860) 424-4152.

All interested persons are invited to comment on the proposed general permit. All commenters should note the Commissioner may make changes to the general permit in response to public comments. Comments should be submitted to the Department of Environmental Protection, Bureau of Air Management, Engineering and Technical Services Division, 79 Elm Street, 5th Floor, Hartford, Connecticut 06106-5127. All comments should be directed to the attention of Ms. Sharon Rowe-Johnson or be electronically mailed to Sharon.

Rowe-Johnson@po.state.ct.us

no later than thirty (30) days after the publication of this notice. On November 9, 2007, the Commissioner shall hold a public hearing on this general permit. Such hearing shall be held at the Department of Environmental Protection, 79 Elm Street, Hartford, Connecticut in the Russell Hearing Room at 10a.m. The hearing shall be preceded by a status conference for all parties who are interested in participating as interveners on October 16, 2007. The status conference shall be held at the Department of Environmental Protection, 79 Elm Street, Hartford, Connecticut, in the Russell Hearing Room at 2 p.m.

IV. Americans with Disabilities Act Statement

In conformance with the Americans with Disabilities Act (ADA) individuals with disabilities who need information in an alternative format, to allow them to benefit and/or participate in the agency's programs and services, should call TDD (860) 424-3000 and make their request to the receptionist, or contact Marcia Z. Bonitto, ADA Coordinator, via email:

Marcia.Bonitto@po.state.ct.us

V. Legal Authority

This notice is required by sections 22a-6 and 22a-174(l) of the Connecticut General Statutes, section 102(b) of Public Act 07-242 and 40 Code of Federal Regulations Part 51.102.

October 3, 2007
Date
/s/ Gina McCarthy
Gina McCarthy
Commissioner

NOTICE TO BIDDERS
INVITATION TO BID
The City of Stamford
Request for Bids
Bid No. S-0003
WINDOW REPLACEMENT AT GLENBROOK FIRE DEPARTMENT

The City of Stamford will receive sealed bids for competitive Bid No. S-0003 at the Stamford Government Center, Purchasing Department, 10th Floor, 888 Washington Boulevard, Stamford, Connecticut 06901 no later than 11:00 A.M. on NOVEMBER 5, 2007 which time all sealed bids will be publicly opened and read.

All bid documents and specifications, EXCEPT FOR DRAWINGS, can be downloaded from our website www.cityofstamford.org or can be picked up directly from the City of Stamford's Purchasing Department which is located on the 10th Floor of the Stamford Government Center, 888 Washington Boulevard, Stamford, Connecticut 06901. Office hours are 8:30 a.m. to 4:00 p.m.

If the bid documents require a non-refundable fee for the specifications, drawings and blueprints, please bring a check made payable to the City of Stamford in the exact amount of the fee. Bid documents will not be distributed without the required fee, if applicable.

If you have any technical questions regarding this bid, please call Nancy Ormsby-Flynn, Engineering Department at (203) 977-4637. If you have any questions regarding the purchasing or bidding procedures, please call or email PETER PRIVITERA, PURCHASING AGENT AT (203) 977-4317 OR

pprivitera@ci.stamford.ct.us.

BID OPENING: NOVEMBER 5, 2007 @ 11:00 A.M.
BID DEPOSIT: 5%.

Peter Privitera
Purchasing Agent

Request for Bid Proposal Westford Real Estate Management (860-528-2005) will receive sealed bids for Structural Renovation to Walls, Columns & Beams in Crawl Space 100, 102, 104 Glenside, Glen River Condominiums, Wilton CT Bids due Oct 29, 2007 at 3:00 pm For Bid Documents call Scalzo Engineering 860-669-4000

NOTICE TO BIDDERS
INVITATION TO BID
The City of Stamford
Request for Bids
Bid No. S-0002
SUPPLY AND INSTALL EVAPORATIVE CONDENSOR UNIT AT THE TERRY CONNORS ICE RINK

The City of Stamford will receive sealed bids for competitive Bid No. S-0002 at the Stamford Government Center, Purchasing Department, 10th Floor, 888 Washington Boulevard, Stamford, Connecticut 06901 no later than 11:00 A.M. on OCTOBER 30, 2007 which time all sealed bids will be publicly opened and read.

All Bid documents and specifications, EXCEPT FOR DRAWINGS, can be downloaded from our website www.cityofstamford.org or can be picked up directly from the City of Stamford's Purchasing Department which is located on the 10th Floor of the Stamford Government Center, 888 Washington Boulevard, Stamford, Connecticut 06901. Office hours are 8:30 a.m. to 4:00 p.m.

If the bid documents require a non-refundable fee for the specifications, drawings and blueprints, please bring a check made payable to the City of Stamford in the exact amount of the fee. Bid documents will not be distributed without the required fee, if applicable.

If you have any technical questions regarding this bid, please call Deane Pomeroy, Terry Connors Ice Rink at (203) 977-4515. If you have any questions regarding the purchasing or bidding procedures, please call or email PETER PRIVITERA, PURCHASING AGENT AT (203) 977-4317 OR

pprivitera@ci.stamford.ct.us.

BID OPENING: OCTOBER 30, 2007 @ 11:00 A.M.
BID DEPOSIT: 5%.

Peter Privitera
Purchasing Agent

NOTICE TO BIDDERS
INVITATION TO BID
The City of Stamford
Request for Proposals For RFP #446A (Second Request)
MANAGEMENT AND OPERATION OF FOOD SERVICES AT THE PATIO CAFE, 4TH FLOOR STAMFORD GOVERNMENT CENTER

The City of Stamford will receive sealed proposals for RFP No. 446A (Second Request) at the Stamford Government Center, Purchasing Department, 10th Floor, no later than 4:00 P.M OCTOBER 30, 2007.

All Proposal documents and specifications, EXCEPT FOR DRAWINGS, can be downloaded from our website www.cityofstamford.org or can be picked up directly from the City of Stamford's Purchasing Department which is located on the 10th Floor of the Stamford Government Center, 888 Washington Boulevard, Stamford, Connecticut 06901. Office hours are 8:30 a.m. to 4:00 p.m.

If the Proposal documents require a non-refundable fee for the specifications, drawings and blueprints, please bring a check made payable to the City of Stamford in the exact amount of the fee. Proposal documents will not be distributed without the required fee, if applicable.

If you have any technical questions regarding this Proposal, please call Joseph Falzone, Facilities Management Department at (203) 977-4726. If you have any questions regarding the purchasing or bidding procedures, please call or email PETER PRIVITERA, PURCHASING AGENT AT (203) 977-4317 OR

pprivitera@ci.stamford.ct.us.

PROPOSALS DUE: OCTOBER 30, 2007 @ 4:00 P.M.

MANDATORY PRE-PROPOSAL MEETING: OCTOBER 23, 2007 @ 10:00 A.M. AT:
THE PATIO CAFE
STAMFORD
GOVERNMENT CENTER
888 WASHINGTON BOULEVARD
4TH FLOOR
STAMFORD, CT 06901

Peter Privitera
Purchasing Agent

NOTICE TO CREDITORS
Estate of: Frederick L. Nichols, Jr., deceased

The Honorable Gerald M. Fox, Jr., Judge of the Court of Probate, District of Stamford, by decree dated September 18, 2007 ordered that all claims must be presented to the fiduciary at the address below. Failure to promptly present any such claims may result in the loss of rights to recover such claim.

Roselyn B. Ramist
Clerk

The fiduciary is:
Anne Marie Nichols
c/o Robert F. Maslan, Jr.
Maslan Associates PC
3 Parklands Drive
Suite 207
Darien, CT 06820

BUREAU OF AIR MANAGEMENT
NEW SOURCE REVIEW / TITLE V
OCT 30 2007

Affidavit of Publication

State of Connecticut
County of Fairfield

I, **Mary Ann Welch**, a billing representative of Graystone Group Advertising, 2710 North Ave., Suite 200, Bridgeport, CT 06604, do solemly swear that on:

Date: October 9, 2007

Ad title: Notice of Intent to Issue a General Permit

Appeared in: Connecticut Post publication and the newspaper attachment is from the above named issue of said newspaper.

Subscribed and sworn to this 24th day of October, 2007 before me.

KATHLEEN VITKO
NOTARY PUBLIC
State of Connecticut
My Commission Expires
July 31, 2012

Notary Public
Kathleen Vitko

EPSF file: CP20071009C04CLAS1.eps
Width: 12.63" Height: 21.75" Bounding box: [0.0 0.0 909.0 1566.0] Scale factor: 95%

BUREAU OF AIR MANAGEMENT
NEW SOURCE REVIEW / TITLE V

OCT 30 2007

HEARING NOTICE

Pursuant to provisions of General Statutes § 16-50m and Section 16-50j-21 of the Regulations of Connecticut State Agencies, notice is hereby given that the Connecticut Siting Council (Council) will conduct a public hearing on Wednesday, November 7, 2007, beginning at 2:00 p.m., and continued at 6:30 p.m., at Hearing Room Two, Ten Franklin Square, New Britain, Connecticut, (860) 827-2935 and thereafter as necessary. The hearing will be held pursuant to Public Act 07-242, An Act Concerning Electricity and Energy Efficiency, Sections 8 and 54.

The purpose of the hearing is to hear evidence of any party with contentions that, pursuant to Section 54 of Public Act 07-242, (C.G.S. § 16a-7c(b), as amended), the Connecticut Siting Council (CSC) and the Department of Public Utility Control (DPUC) may act to exempt certain facilities from the request for proposal (RFP) process (administered by the Connecticut Energy Advisory Board (CEAB)) and municipal participation fee requirements.

Section 54 of Public Act 07-242 reads in relevant part:

"Any facility generating not more than five megawatts and any electric transmission line, electric generation facility, or electric substation otherwise constituting a facility as described in subsection (a) of section 16-50i that, as part of the proceeding conducted pursuant to section 8 of this act and in accordance with this subsection shall be determined by the Connecticut Siting Council and the Department of Public Utility Control to be required for the reliability of electric supply to critical national defense and homeland security infrastructure shall be exempt from the request for proposal process described in this subsection and exempt from the municipal participation fee requirements of subdivision (1) subsection (a) of section 16-50l, as amended by this act. Such determination shall be made on or before December 31, 2007."

The hearing is held in conjunction with Section 8 of Public Act 07-242, which reads, "Not later than September 1, 2007, the Connecticut Siting Council, in consultation with the Emergency Management and Homeland Security Coordinating Council, established pursuant to section 28-1b of the general statutes, and the Department of Public Utility Control shall initiate a contested case proceeding, in accordance with the provisions of chapter 54 of the general statutes, to investigate energy security with regard to the siting of electric generating facilities and transmission facilities, including consideration of planning, preparedness, response and recovery capabilities. The Connecticut Siting Council may conduct such proceedings in an executive session with sensitive information submitted under a protective order." Hearings in relation to Section 8 and Section 54 of Public Act 07-242 are under a single docket number, 346.

This hearing session will provide parties, and intervenors an opportunity to cross-examine positions and offer rebuttal evidence. The Council will also welcome post hearing briefs.

Applicable law for this proceeding includes the Public Utility Environmental Standards Act, General Statutes § 16-50g, et seq., and Sections 16-50j-1 through 16-50v-1a of the Regulations of Connecticut State Agencies.

The Council will hold a pre-hearing conference on procedural matters on Monday, October 15, 2007, beginning at 10:00 a.m. at the Council's office, 10 Franklin Square, New Britain, Connecticut.

Any person seeking to be named or admitted as a party or intervenor to the proceeding may file a written request to be so designated at the office of the Connecticut Siting Council, 10 Franklin Square, New Britain, Connecticut 06051, on or before Wednesday, October 31, 2007.

All testimony and exhibits must be pre-filed with the Council and all parties and intervenors by Wednesday, October 31, 2007. In accordance with the State Solid Waste Management Plan, the Council requests that all filings be submitted on recyclable paper, primarily regular weight white office paper. Please avoid using heavy stock paper, colored paper, and metal or plastic binders and separators.

Individuals are encouraged to participate through their elected officials, and other party/intervenor groupings.

Parties and intervenors will be allowed to submit briefs and proposed findings of fact within 30 days after the close of the hearing.

Any person who is not a party or intervenor to this proceeding may file a written statement with the Council at the hearing or any time up to 30 days thereafter. Such statements will become part of the record. No written statement or any other material, evidence, or other information will be accepted from any person not a party or intervenor to the proceeding after 30 days following the close of the hearing, except as otherwise prescribed by law or the Council.

Requests for information in alternative formats or for sign-language interpreter services must be submitted in writing by Monday, October 29, 2007.

The record of this proceeding is available for public inspection at the office of the Council, 10 Franklin Square, New Britain, Connecticut 06051. The Council has assigned this application docket no. 346.

October 4, 2007
Connecticut Siting Council

NOTICE

THE ZONING BOARD OF APPEALS OF THE TOWN OF TRUMBULL, AFTER PUBLIC HEARING THEREON, HAS TAKEN ACTION (on October 3, 2007) WITH RESPECT TO APPLICATIONS AS FOLLOWS: [illegible]

Dated at Trumbull, CT this 4th day of October, 2007.

By: Joseph Vitrella, Secretary

PUBLIC NOTICE

Certified MBE WBE Contractors / Suppliers are invited to submit Quotes for the Wooster-land of Ice Renovations. If you require plans and specs, please call and we can send a set to your office. To view plans and submit quotes, contact Merritt Contractors, Inc., 360 Bostwick Avenue, Bridgeport, CT. 06605. Tel. (203) 367-4220 and Fax 203-334-7095.

Make Someone's Day
Place a Happy Ad

CITY OF SHELTON

BID#26-50 — JONES FARM APPRAISAL [illegible]

NOTICE OF INTENT TO ISSUE A GENERAL PERMIT
NOTICE OF PUBLIC HEARING

[illegible]

PUBLIC NOTICE

[illegible]

CITY OF SHELTON

BID#26-48 — REPLACEMENT ENGINE FOR MICHIGAN LOADER MODEL 55C [illegible]

NOTICE

THE STRATFORD BOARD OF ZONING APPEALS [illegible]

INVITATION TO BID

SNOW REMOVAL [illegible]

Affidavit of Publication

State of Connecticut
County of Fairfield

I, **Mary Ann Welch**, a billing representative of Graystone Group Advertising, 2710 North Ave., Suite 200, Bridgeport, CT 06604, do solemly swear that on:

Date: October 9, 2007

Ad title: Notice of Intent to Issue a General Permit

Appeared in: Torrington Register Citizen publication and the newspaper attachment is from the above named issue of said newspaper.

Subscribed and sworn to this 24th day of October, 2007 before me.

BUREAU OF AIR MANAGEMENT
NEW SOURCE REVIEW / TITLE V
OCT 30 2007

KATHLEEN VITKO
NOTARY PUBLIC
State of Connecticut
My Commission Expires
July 31, 2012

Notary Public
Kathleen Vitko

210 ROOMS FOR RENT

Clean rooms, refrig. $100/week. Palmer House, 122 Water Street. 482-4758.

TORRINGTON: Lowest price in town! Incls. everything at the Royal Inn. 489-4400

TORRINGTON Rooms for rent $110/wk, security deposit required. Call 860-482-9618.

230 APARTMENTS UNFURNISHED

BANTAM Riverfront Studio. Private location. Large bath, terrace. Heat, utilities & cable included. $695 + security. (860) 567-4585

MORRIS- Bantam Lake w/ beach. 1BR, w/ carport & appl. $695 incl. all utils. 567-8562.

PUBLISHER'S NOTICE

All Real Estate Advertised in The Register Citizen or Foothills Trader is subject to the Federal Fair Housing Act of 1968 revised March 12, 1989, which makes it illegal to advertise any preference, limitation or discrimination based on race, color, religion, national origin gender, handicap, or familial status, or intention to make any such preference, limitations or discrimination." It is also subject to Connecticut Public Act No. 89-449 and the New Haven Ordinance to stop discrimination against families/single parents with children. All residential property advertised in this newspaper is subject to the State of Connecticut General Statutes Sections 46a-64c which prohibits the making, printing, or publishing, or cause to be made printed or published any notice, statement, or advertisement, with respect to the sale or rental of a dwelling that indicated any preference, limitation of discrimination based on race, creed, color, national origin, gender, marital status, age, lawful source of income, familial status, physical or mental disability, or sexual orientation, or an intention to make any such preference, limitation or discrimination. We will not knowingly accept any advertising for real estate or for the sale or rental of residential property which is in violation of these laws. If you feel you have been discriminated against or have any inquiries, please call the Livable City Initative 203/946-5885.

TORRINGTON 1br $550/mo 2br $650/mo. 1mo dep req'd. Call 860-482-9618.

TORRINGTON 1st fl, 3br, lrg fenced backyard, off st park. Call 860-227-8583.

260 RENTS WANTED

Wanted to rent 4 or 5br house. Please call 860-238-7246.

505 BUSINESS OPPORTUNITIES

NOTICE

"Investigate Before Investing"

Call the Connecticut Department of Banking before investing in a business opportunity or franchise. See if the seller or the investment is registered with the Securities Division. Call 860-240-8230 or visit our Web site at www.ct.gov/dob.

This notice is provided as a public service by
The Register Citizen

550 MONEY TO LOAN

NOTICE

It is illegal in Connecticut for brokers of unsecured loans to require that applicants pay any fee before loan proceeds are disbursed. If you have paid or have been asked to pay such a fee, or would like more information, please contact the Consumer Affairs Unit of the Connecticut Department of Banking at

860-240-8299 or
www.ct.gov/dob.

This notice is provided as a public service by
The Register Citizen

Employment

620 EMPLOYMENT AGENCIES

ALTERNATIVE EMPLOYMENT
Call 860-489-1463

JACI CARROLL
STAFFING
TORRINGTON, CT
860-496-0075

KELLY SERVICES
8 CHURCH STREET
TORRINGTON, CT 06790
(860)482-1771
(860)496-9780 FAX

DON'T FORGET to advertise your business in the "At Your Service Directory". Or start new customers. 489-5555

REGISTER CITIZEN CONTACT NUMBERS

BY DEPARTMENT

CLASSIFIEDS
(to place a line ad)
489-5555

CIRCULATION
(to subscribe or discuss a current account)
489-1450

MAIN NUMBER
(display ads & other inquiries)
489-3121

AUTO TECH
Experience in brakes, tuneup & front end parts. Liberal benefits package. Uniforms, 401K, medical. Apply in person:
Zeller Tire
618 Main St., Torrington

LOOK!

Did this catch your eye? You can get better results by using a graphic element in your ad. We call them "Attention Getters" because that is what they do --they draw reader's attention to your ad--bringing you maximum results. They come in all shapes and sizes. Call for details!
The Register Citizen
Classifieds Dept.
(860) 489-5555
Fax (860) 489-8790

We are seeking a highly motivated, highly energetic person that can share our dedication in giving our customers the best possible service. Job responsibilities include: answering inbound customer service queries, making courtesy calls, data entry, newspaper filing and various clerical tasks. Requirements: strong attention to detail, excellent listening/communication skills, accurate efficient data entry skills, excellent organizational skills, proficient w/MS Office programs, the ability to work alone and with a team, customer service experience and a professional demeanor with pleasant phone manner. Schedule is Sunday through Thursday, varied morning hours, total 25-27 hours per week.

Please send resume to:
Bob Reneson, Circulation Director,
The Register Citizen,
190 Water Street, Torrington, CT 06790
FAX: 860-489-8790,
Email: breneson@registercitizen.com.
No Calls Please.

LEGALS

LEGALS

LEGALS

LEGAL NOTICE

NOTICE OF INTENT TO ISSUE A GENERAL PERMIT
NOTICE OF PUBLIC HEARING
For a General Permit to Construct and/or Operate Certain New or Existing Emergency Engine or Distributed Generation Resource and to Revise the State Implementation Plan for Air Quality

I. Introduction

Pursuant to section 22a-174(d) and 22a-6 of the Connecticut General Statutes and section 102(a) of Public Act 07-242, the Commissioner of Environmental Protection (Commissioner) hereby provides Notice of Intent to Issue a General Permit to Construct and/or Operate New or Existing Emergency Engine or Distributed Generation Resource (general permit). The Commissioner also hereby provides notice of intent to revise the State Implementation Plan (SIP) for Air Quality. Upon issuance, the general permit will be submitted to the United States Environmental Protection Agency for their review and approval as a revision to the SIP as required by the Clean Air Act Amendments of 1990 (CAA). This general permit will cover the construction and operation of new or existing emergency engines and distributed generation resources of up to two megawatts (MW) available to operate on or before December 1, 2007 for purposes of participation in a pilot program developed by the Department of Public Utility Control (DPUC) specified in section 103 of Public Act (PA) 07-242, An Act Concerning Electricity and Energy Efficiency, http://www.cga.ct.gov/2007/ACT/PA/2007PA-00242-R00HB-07432-PA.htm.

The Department will hold a status conference on October 16, 2007 at 2 P.M. in the Russell Hearing Room on the 3rd Floor of the Department of Environment Protection offices at 79 Elm Street in Hartford, Connecticut. Persons interested in participating in the public hearing may attend. The public hearing will be held on November 9, 2007 at 10 A.M. in the Russell Hearing Room on the 3rd floor of the Department of Environment Protection offices at 79 Elm Street in Hartford, Connecticut.

II. General Permit Overview

As required by section 102(a) of Public Act 07-242, the general permit will authorize the construction and operation of new or existing emergency engines and distributed generation resources that (1) generate no more than two megawatts of electricity; and (2) are approved by the Department of Public Utility Control to participate in the markets administered by the regional independent system operator in accordance with section 102(b)i of Public Act 07-242. The provisions of the general permit include, but are not limited to: minimum setback provisions, limitations on hours of operation, requirements of air pollution controls certified to achieve a minimum reduction in emissions of nitrogen oxides of ninety percent, directionally correct offsets at a ratio to be determined by the Commissioner of Environmental Protection, required control equipment, requirements for monitoring, reporting and recordkeeping, and any other requirement that said commissioner deems necessary.

The general permit shall expire no later than December 31, 2010 or ninety days after the energizing of the Middletown-Norwalk 345 kv transmission line approved by the Connecticut Siting Council. An emergency engine approved by Department of Public Utility Control pursuant to section 103 of Public Act 07-242, shall operate under the general permit and no longer be eligible for coverage under sections 22a-174-3a or 22a-174-35 of the Regulations of Connecticut State Agencies.

Additional background information may be obtained from the *Request for Information To Develop A General Permit Regarding The Construction And Operation Of New And Existing Emergency Engines And Distributed Generation Resources Notice* published on August 3, 2007 and can be found on the Department's web site at www.ct.gov/dep/publicnotices.

III. Review of the Draft General Permit and Public Participation

A copy of the proposed general permit is available for public inspection during normal business hours, 8:30 a.m. to 4:30 p.m., and may be obtained from Ms. Sharon Rowe-Johnson at the Bureau of Air Management, Engineering and Enforcement Division, 5th floor, 79 Elm Street, Hartford, CT. The general permit is also posted on the Department's website at www.ct.gov/dep/publicnotices as well as being available for review at the Government Information Service Desk (Balcony level) at the Connecticut State Library located in Hartford, Torrington Public Library, New London Public Library, Bridgeport Public Library, New Haven Public Library and the Ferguson Public Library of Stamford. For further information, Contact Ms. Sharon Rowe-Johnson of the Bureau of Air Management at (860)424-4152.

All interested persons are invited to comment on the proposed general permit. All commenters should note the Commissioner may make changes to the general permit in response to public comments. Comments should be submitted to the Department of Environmental Protection, Bureau of Air Management, Engineering and Technical Services Division, 79 elm Street, 5th Floor, Hartford, Connecticut 06106-5127. All comments should be directed to the attention of Ms. Sharon Rowe-Johnson or be electronically mailed to Sharon.Rowe-Johnson@po.state.ct.us no later than thirty (30) days after the publication of this notice. On November 9, 2007, the Commissioner shall hold a public hearing on this general permit. Such hearing shall be held at the Department of Environmental Protection, 79 Elm Street, Hartford, Connecticut in the Russell Hearing Room at 10a.m. The hearing shall be preceded by a status conference for all parties who are interested in participating as intervenors on October 16, 2007. The status conference shall be held at the Department of Environmental Protection, 79 Elm Street, Hartford, Connecticut, in the Russell Hearing Room at 2 p.m.

IV. Americans with Disabilities Act Statement

In conformance with the Americans with Disabilities Act (ADA) individuals with disabilities who need information in an alternative format, to allow them to benefit and/or participate in the agency's programs and services, should call TDD (860)424-3000 and make their request to the receptionist, or contact Marcia Z. Bonitto, ADA Coordinator, via email: Marcia.Bonitto@po.state.ct.us

V. Legal Authority

This notice is required by sections 22a-6 and 22a-174(d) of the Connecticut General Statutes, section 102(b) of Public Act 07-242 and 40 Code of Federal Regulations Part 51.102.

October 3, 2007
Date
Commissioner

/s/Gina McCarthy
Gina McCarthy

be required for the reliability of electric supply to critical national defense and homelar security infrastructure shall be exempt from the request for proposal process describe in this subsection and exempt from the municipal participation fee requirements of sul division (1) subsection (a) of section 16-50l, as amended by this act. Such determinatio shall be made on or before December 31, 2007."

The hearing is held in conjunction with Section 8 of Public Act 07-242, which read "Not later than September 1, 2007, the Connecticut Siting Council, in consultation wit the Emergency Management and Homeland Security Coordinating Council, establishe pursuant to section 28-1b of the general statutes, and the Department of Public Utilit Control shall initiate a contested case proceeding, in accordance with the provisions c chapter 54 of the general statutes, to investigate energy security with regard to the sitin of electric generating facilities and transmission facilities, including consideration o planning, preparedness, response and recovery capabilities. The Connecticut Sitin Council may conduct such proceedings in an executive session with sensitive informa tion submitted under a protective order." Hearings in relation to Section 8 and Sectio 54 of Public Act 07-242 are under a single docket number, 346.

This hearing session will provide parties, and intervenors an opportunity to cross examine positions and offer rebuttal evidence. The Council will also welcome post hearing briefs.

Applicable law for this proceeding includes the Public Utility Environmental Standards Act, General Statutes § 16-50g, et seq., and Sections 16-50j-1 through 16-50v-la of the Regulations of Connecticut State Agencies.

The Council will hold a pre-hearing conference on procedural matters on Monday, October 15, 2007, beginning at 10:00 a.m. at the Council's office, 10 Franklin Square, New Britain, Connecticut.

Any person seeking to be named or admitted as a party or intervenor to the proceeding may file a written request to be so designated at the office of the Connecticut Siting Council, 10 Franklin Square, New Britain, Connecticut 06051, on or before Wednesday, October 31, 2007.

All testimony and exhibits must be pre-filed with the Council and all parties and intervenors by Wednesday, October 31, 2007. In accordance with the State Solid Waste Management Plan, the Council requests that all filings be submitted on recyclable paper, primarily regular weight white office paper. Please avoid using heavy stock paper, colored paper, and metal or plastic binders and separators.

Individuals are encouraged to participate through their elected officials, and other party/intervenor groupings.

Parties and intervenors will be allowed to submit briefs and proposed findings of fact within 30 days after the close of the hearing.

Any person who is not a party or intervenor to this proceeding may file a written statement with the Council at the hearing or any time up to 30 days thereafter. Such statements will become part of the record. No written statement or any other material, evidence, or other information will be accepted from any person not a party or intervenor to the proceeding after 30 days following the close of the hearing, except as otherwise prescribed by law or the Council.

Requests for information in alternative formats or for sign-language interpreter services must be submitted in writing by Monday, October 29, 2007.

The record of this proceeding is available for public inspection at the office of the Council, 10 Franklin Square, New Britain, Connecticut 06051. The Council has assigned this application docket no. 346.

October 4, 2007
Connecticut Siting Council

Affidavit of Publication

State of Connecticut
County of Fairfield

I, **Mary Ann Welch**, a billing representative of Graystone Group Advertising, 2710 North Ave., Suite 200, Bridgeport, CT 06604, do solemly swear that on:

Date: October 10, 2007

Ad title: Notice of Intent to Issue a General Permit

Appeared in: New London Day publication and the newspaper attachment is from the above named issue of said newspaper.

Subscribed and sworn to this 24th day of October, 2007 before me.

Notary Public

Kathleen Vitko

KATHLEEN VITKO
NOTARY PUBLIC
State of Connecticut
My Commission Expires
July 31, 2012

BUREAU OF AIR MANAGEMENT
SOURCE REVIEW / TITLE V
OCT 30 2007

Public Notice

4724

State of Connecticut

NOTICE OF INTENT TO ISSUE A GENERAL PERMIT
NOTICE OF PUBLIC HEARING

For a General Permit to Construct and/or Operate Certain New or Existing Emergency Engine or Distributed Generation Resources and to Revise the State Implementation Plan for Air Quality

I. Introduction

Pursuant to section 22a-174(l) and 22a-6 of the Connecticut General Statutes and section 102(a) of Public Act 07-242, the Commissioner of Environmental Protection (Commissioner) hereby provides notice of intent to issue a General Permit to Construct and/or Operate New or Existing Emergency Engine or Distributed Generation Resource (general permit). The Commissioner also hereby provides notice of intent to revise the State Implementation Plan (SIP) for Air Quality. Upon issuance, the general permit will be submitted to the United States Environmental Protection Agency for their review and approval as a revision to the SIP as required by the Clean Air Act Amendments of 1990 (CAA). This general permit will cover the construction and operation of new or existing emergency engines and distributed generation resources of up to two megawatts (MW) available to operate on or before December 1, 2007 for purposes of participation in a pilot program developed by the Department of Public Utility Control (DPUC) specified in section 102 of Public Act (PA) 07-242, An Act Concerning Electricity and Energy Efficiency. http://www.cga.ct.gov/2007/ACT/PA/2007PA-00242-R00HB-07432-PA.htm.

The Department will hold a status conference on October 16, 2007 at 1 P.M. in the Russell Hearing Room on the 3rd Floor of the Department of Environmental Protection offices at 79 Elm Street in Hartford, Connecticut. Persons interested in participating in the public hearing may attend. The public hearing will be held on November 9, 2007 at 10 A.M. in the Russell Hearing Room on the 3rd floor of the Department of Environmental Protection offices at 79 Elm Street in Hartford, Connecticut.

II. General Permit Overview

As required by section 102(a) of Public Act 07-242, the general permit will authorize the construction and operation of new or existing emergency engines and distributed generation resources that (1) generate no more than two megawatts of electricity and (2) are approved by the Department of Public Utility Control to participate in the markets administered by the regional independent system operator in accordance with section 102(b) of Public Act 07-242. The provisions of the general permit include, but are not limited to: minimum setback provisions, limitations on hours of operation, requirements for air pollution controls certified to achieve a minimum reduction in emissions of nitrogen oxides of ninety percent, directionally correct offsets at a ratio to be determined by the Commissioner of Environmental Protection, required control equipment, requirements for monitoring, reporting and recordkeeping, and any other requirement that said commissioner deems necessary.

The general permit shall expire no later than December 31, 2013 or ninety days after the energizing of the Middletown-Norwalk 345 kV transmission line approved by the Connecticut Siting Council. An emergency engine approved by Department of Public Utility Control pursuant to section 102 of Public Act 07-242, shall operate under the general permit and no longer be eligible for coverage under sections 22a-174-3d or 22a-174-3b of the Regulations of Connecticut State Agencies.

Additional background information may be obtained from the Request For Information To Develop A General Permit Regarding The Construction And Operation Of New And Existing Emergency Engines And Distributed Generation Resources Notice published on August 1, 2007 and can be found on the Department's web site of www.ct.gov/dep/publicnotices.

III. Review of the Draft General Permit and Public Participation

A copy of the proposed general permit is available for public inspection during normal business hours, 8:30 a.m. to 4:30 p.m., and may be obtained from Ms. Sharon Rowe-Johnson of the Bureau of Air Management, Engineering and Enforcement Division, 5th Floor, 79 Elm Street, Hartford, CT. The general permit is also posted on the Department's website at www.ct.gov/dep/publicnotices, as well as being available for review at the Government Information Service Desk (Delivery level) of the Connecticut State Library located in Hartford, Torrington Public Library, New London Public Library, Bridgeport Public Library, New Haven Public Library and the Ferguson Public Library of Stamford. For further information, contact Ms. Sharon Rowe-Johnson of the Bureau of Air Management at (860) 424-4152.

All interested persons are invited to comment on the proposed general permit. All commenters should note the Commissioner may make changes to the general permit in response to public comments. Comments should be submitted to the Department of Environmental Protection, Bureau of Air Management, Engineering and Technical Services Division, 79 Elm Street, 5th Floor, Hartford, Connecticut 06106-5127. All comments should be directed to the attention of Ms. Sharon Rowe-Johnson or be electronically mailed to Sharon.Rowe-Johnson@po.state.ct.us no later than thirty (30) days after the publication of this notice. On November 9, 2007, the Commissioner shall hold a public hearing on this general permit. Such hearing shall be held at the Department of Environmental Protection, 79 Elm Street, Hartford, Connecticut in the Russell Hearing Room at 10a.m. The hearing shall be preceded by a status conference for all parties who are interested in participating as intervenors on October 16, 2007. The status conference shall be held at the Department of Environmental Protection, 79 Elm Street, Hartford, Connecticut, in the Russell Hearing Room at 1 p.m.

IV. Americans with Disabilities Act Statement

In conformance with the Americans with Disabilities Act (ADA) individuals with disabilities who need information in an alternative format, to allow them to benefit and/or participate in the agency's programs and services, should call TDD (860) 424-3000 and make their request to the receptionist, or contact Marcia Z. Bonitto, ADA Coordinator, via email: Marcia.Bonitto@po.state.ct.us

V. Legal Authority

This notice is required by sections 22a-6 and 22a-174(l) of the Connecticut General Statutes, section 102(a) of Public Act 07-242 and 40 Code of Federal Regulations Part 51.102.

October 1, 2007
Date

Gina McCarthy
Commissioner

Affidavit of Publication

State of Connecticut
County of Fairfield

I, **Mary Ann Welch**, a billing representative of Graystone Group Advertising, 2710 North Ave., Suite 200, Bridgeport, CT 06604, do solemly swear that on:

Date: October 9, 2007

Ad title: Notice of Intent to Issue a General Permit

Appeared in: Manchester Journal Inquirer publication and the newspaper attachment is from the above named issue of said newspaper.

Subscribed and sworn to this 24th day of October, 2007 before me.

KATHLEEN VITKO
NOTARY PUBLIC
State of Connecticut
My Commission Expires
July 31, 2012

Notary Public

Kathleen Vitko

PUBLIC NOTICE

NOTICE OF INTENT TO ISSUE A GENERAL PERMIT

NOTICE OF PUBLIC HEARING

For a General Permit to Construct and/or Operate Certain New or Existing Emergency Engine or Distributed Generation Resource and to Revise the State Implementation Plan for Air Quality

I. Introduction

Pursuant to section 22a-174(l) and 22a-6 of the Connecticut General Statutes and section 102(a) of Public Act 07-242, the Commissioner of Environmental Protection (Commissioner) hereby provides notice of intent to issue a General Permit to Construct and/or Operate New or Existing Emergency Engine or Distributed Generation Resource (general permit). The Commissioner also hereby provides notice of intent to revise the State Implementation Plan (SIP) for Air Quality. Upon issuance, the general permit will be submitted to the United States Environmental Protection Agency for their review and approval as a revision to the SIP as required by the Clean Air Act Amendments of 1990 (CAA). This general permit will cover the construction and operation of new or existing emergency engines and distributed generation resources of up to two megawatts (MW) available to operate on or before December 1, 2007 for purposes of participation in a pilot program developed by the Department of Public Utility Control (DPUC) specified in section 103 of Public Act (PA) 07-242, An Act Concerning Electricity and Energy Efficiency, _http://www.cga.ct.gov/2007/ACT/PA/2007PA-00242-R00HB-07432-PA.htm_.

The Department will hold a status conference on October 16, 2007 at 2 P.M. in the Russell Hearing Room on the 3rd Floor of the Department of Environment Protection offices at 79 Elm Street in Hartford, Connecticut. Persons interested in participating in the public hearing may attend. The public hearing will be held on November 9, 2007 at 10 A.M. in the Russell Hearing Room on the 3rd floor of the Department of Environment Protection offices at 79 Elm Street in Hartford, Connecticut.

II. General Permit Overview

As required by section 102(a) of Public Act 07-242, the general permit will authorize the construction and operation of new or existing emergency engines and distributed generation resources that (1) generate no more than two megawatts of electricity; and (2) are approved by the Department of Public Utility Control to participate in the markets administered by the regional independent system operator in accordance with section 103(b) of Public Act 07-242. The provisions of the general permit include, but are not limited to: minimum setback provisions, limitations on hours of operation, requirements for air pollution controls certified to achieve a minimum reduction in emissions of nitrogen oxides of ninety percent, directionally correct offsets at a ratio to be determined by the Commissioner of Environmental Protection, required control equipment, requirements for monitoring, reporting and record-keeping, and any other requirement that said commissioner deems necessary.

The general permit shall expire no later than December 31, 2010 or ninety days after the energizing of the Middletown-Norwalk 345 kv transmission line approved by the Connecticut Siting Council. An emergency engine approved by Department of Public Utility Control pursuant to section 103 of Public Act 07-242, shall operate under the general permit and no longer be eligible for coverage under sections 22a-174-3a or 22a-174-3b of the Regulations of Connecticut State Agencies.

Additional background information may be obtained from the Request For Information To Develop A General Permit Regarding The Construction And Operation Of New And Existing Emergency Engines And Distributed Generation Resources Notice published on August 3, 2007 and can be found on the Department's web site at www.ct.gov/dep/publicnotices.

III. Review of the Draft General Permit and Public Participation

A copy of the proposed general permit is available for public inspection during normal business hours, 8:30 a.m. to 4:30 p.m., and may be obtained from Ms. Sharon Rowe-Johnson at the Bureau of Air Management, Engineering and Enforcement Division, 5th Floor, 79 Elm Street, Hartford, CT. The general permit is also posted on the Department's website at www.ct.gov/dep/publicnotices as well as being available for review at the Government Information Service Desk (Balcony level) at the Connecticut State Library located in Hartford, Torrington Public Library, New London Public Library, Bridgeport Public Library, New Haven Public Library and the Ferguson Public Library of Stamford. For further information, contact Ms. Sharon Rowe-Johnson of the Bureau of Air Management at (860) 424-4152.

All interested persons are invited to comment on the proposed general permit. All commenters should note the Commissioner may make changes to the general permit in response to public comments. Comments should be submitted to the Department of Environmental Protection, Bureau of Air Management, Engineering and Technical Services Division, 79 Elm Street, 5th Floor, Hartford, Connecticut 06106-5127. All comments should be directed to the attention of Ms. Sharon Rowe-Johnson or be electronically mailed to Sharon.Rowe-Johnson@po.state.ct.us no later than thirty (30) days after the publication of this notice. On November 9, 2007, the Commissioner shall hold a public hearing on this general permit. Such hearing shall be held at the Department of Environmental Protection, 79 Elm Street, Hartford, Connecticut in the Russell Hearing Room at 10a.m. The hearing shall be preceded by a status conference for all parties who are interested in participating as interveners on October 16, 2007. The status conference shall be held at the Department of Environmental Protection, 79 Elm Street, Hartford, Connecticut, in the Russell Hearing Room at 2 p.m.

IV. Americans with Disabilities Act Statement

In conformance with the Americans with Disabilities Act (ADA) individuals with disabilities who need information in an alternative format, to allow them to benefit and/or participate in the agency's programs and services, should call TDD (860) 424-3000 and make their request to the receptionist, or contact Marcia Z. Bonitto, ADA Coordinator, via email: Marcia.Bonitto@po.state.ct.us

V. Legal Authority

This notice is required by sections 22a-6 and 22a-174(l) of the Connecticut General Statutes, section 102(b) of Public Act 07-242 and 40 Code of Federal Regulations Part 51.102.

Dated October 3, 2007

Gina McCarthy,
Commissioner

Journal Inquirer
October 9, 2007

PUBLIC NOTICE

PUBLIC NOTICE
TOWN OF EAST WINDSOR
WATER POLLUTION CONTROL AUTHORITY
BID NOTICE

The Town of East Windsor is seeking bids for (1) 2008 Chevrolet Silverado 3500HD for the Water Pollution Control Authority. Specifications are available in the Office of the Water Pollution Control Authority. Sealed bids must be submitted by 11 a.m. on Friday, October 26, 2007 at the Office of the Water Pollution Control Authority, 192 South Water Street, East Windsor, CT 06088.

Kevin Leslie
WPCA Superintendent

Journal Inquirer
October 8, 2007
October 9, 2007
October 10, 2007
October 11, 2007
October 12, 2007
October 13, 2007

PUBLIC NOTICE
INVITATION(S) TO BID

The Town of Manchester, CT will receive sealed bids in the General Services' office, Lincoln Center Building, 494 Main Street until October 19, 2007 @ 11:00 a.m. for the following: Purchase of 12" Polycarbonate Traffic Signal Heads; Proprietary Cold Permanent Asphalt Repair Material. The Town is an equal opportunity employer and requires an affirmative action policy for all of its contractors and vendors as a condition of doing business with the Town, as per Federal Order 11246. Bid Documents are available at the General Services office.

Scott Shanley,
General Manager

Journal Inquirer
October 8, 2007
October 9, 2007
October 10, 2007

OFFICE OF ADJUDICATIONS

IN THE MATTER OF :*GENERAL PERMIT*

CONSTRUCT AND/OR OPERATE
NEW OR EXISTING EMERGENCY ENGINE
OR DISTRIBUTED GENERATION RESOURCE : *JANUARY 9, 2008*

FINAL DECISION

I affirm the hearing officer's *Proposed Final Decision* in this matter. I accept her recommendation to issue the general permit, incorporating the terms and conditions set forth in the revised draft permit that is appended to her decision as Attachment A.

/s/ Gina McCarthy
Gina McCarthy
Commissioner

PARTY LIST

Final Decision re: General Permit to Construct and/or Operate
New or Existing Distributed Generation Resource

PARTY	REPRESENTED BY
Department of Environmental Protection Bureau of Air Management Planning and Standards Division 79 Elm Street Hartford, CT 06106	Susan Amarello

---

Intervenors

The Connecticut Fund for the Environment	Frank B. Cochran, Esq. Cooper, Whitney, Cochran & Francois P.O. Box 1989 New Haven, Connecticut 06508
Connecticut Municipal Electric Energy Cooperative/ Sustainable Energy Analytics, LLC	Philip L. Sussler, Esq. 79 Spruce Lane Glastonbury, CT 06033

OFFICE OF ADJUDICATIONS

IN THE MATTER OF :*GENERAL PERMIT*

CONSTRUCT AND/OR OPERATE
NEW OR EXISTING EMERGENCY ENGINE
OR DISTRIBUTED GENERATION RESOURCE : *DECEMBER 21, 2007*

PROPOSED FINAL DECISION

I
SUMMARY

The Department of Environmental Protection intends to issue a General Permit to Construct and/or Operate a New or Existing Distributed Generation Resource in response to §102 of the 2007 Public Acts, No. 07-242, An Act Concerning Electricity and Energy Efficiency, and in accordance with the provisions of General Statutes §22a-174. The general permit authorizes the construction and operation of new or existing diesel powered emergency engines and distributed generation resources of up to two megawatts for participation in a pilot program developed by the Connecticut Department of Public Utility Control (DPUC).

On November 9, 2007, a hearing was conducted for the purpose of receiving public comment on the proposed general permit. In response to issues raised by the intervenors, comments made at the hearing, and other written comments received before and after the hearing, DEP staff has modified the draft general permit (Attachment A).

I have reviewed the modified draft general permit, the applicable law, and the record, including staff's response to public comments. I find that the modified proposed general permit is consistent with the requirements of P.A. 07-242 §102 and General Statutes §22a-174(k). I therefore recommend that the proposed general permit be issued as modified.

II

DECISION

A
FINDINGS OF FACT

1
Procedural History

1. During its most recent session, the Connecticut legislature passed Public Act 07-242, An Act Concerning Electricity and Energy Efficiency. Section 102 of the Act requires the Commissioner to issue a "notice of intent to issue a general permit for the construction and operation of new or existing emergency engines and distributed generation resources that (1) generate not more than two megawatts of electricity; and (2) are approved by the Department of Public Utility Control to participate in the markets administered by the regional independent system operator...." Section 103 of the act requires the DPUC to implement a pilot program to allow the operation of such generators. (Ex. DEP-1.)

2. On August 3, 2007, the Commissioner issued a Request for Information to inform the general public and owners and operators of diesel powered emergency generators that the DEP intended to develop and issue the general permit. The DEP specifically requested comments on the geographic scope of the proposed general permit, environmental impacts and economic benefits associated with the pilot program, particulate matter (PM) control equipment capable of working in conjunction with Nitrogen Oxide (NOx) control equipment, methods for determining relevant peak day emissions, appropriate limitation on hours of operation, and reporting systems. (Ex. DEP-2.)

3. During the comment period specified in the Request for Information, staff met with control equipment manufacturers and environmental groups. Staff also consulted the regional independent system operator, ISO-NE, Northeast States for Coordinated Air Use Management (NESCAUM) and reviewed California engine

requirements. At the close of the comment period, the DEP considered all relevant information and developed a proposed general permit. (Exs. DEP-5-7, 11; test. S. Amarello.[1])

4. On October 9, 2007, the department published a Notice of Intent to Issue A General Permit[2] and Notice of Public Hearing to be held on November 9, 2007. The Connecticut Fund for the Environment requested and was granted intervening party status pursuant to General Statutes §22a-19(a) and Regulations of Connecticut State Agencies §22a-3a-6(k)(1)(A). The Connecticut Municipal Electric Energy Cooperative (CMEEC) and its subsidiary, Sustainable Energy Analytics LLC (SEA), requested and were granted intervening party status pursuant to §22a-3a-6(k)(1)(B).[3] (Exs. DEP-9, 10.)

5. A hearing was held on November 9, 2007, during which staff from the DEP Bureau of Air Management, Planning and Standards Division, provided an overview of the proposed permit and related background information. Members of the public, including representatives of the intervenors and environmental groups, spoke at the hearing. Written comments were also received before, during and after the hearing, seeking clarification of and recommending certain changes to various provisions of the proposed general permit. (Ex. DEP-12; test. S. Amarello, P. Farrell.)

6. On December 7, 2007, staff submitted a written report that summarizes and responds to public comments, proposes certain changes to the general permit based on those comments, and explains why other recommendations were not followed. Staff's report was accompanied by a revised draft permit, which incorporates the changes discussed in the response. Staff submitted supplemental responses and a final revised draft permit on December 18, 2007. The record was closed on December 20, 2007. (Exs. DEP-13, 13A, 14, 14A.)

---

[1] All testimony was provided during the public hearing held on November 9, 2007.
[2] Notice was published in the Connecticut Post, The Day, The Hartford Courant, Journal Inquirer, The New Haven Register, Register Citizen and The Advocate. (Ex. DEP-10.)
[3] All documents pertaining to the procedural history of this proceeding are contained in the docket file maintained by the Office of Adjudications and are part of the administrative record in this matter. General Statutes §4-177 (d).

2
The General Permit

7. The proposed permit applies to engines that are rated at not more than two megawatts of electricity that have received approval from the DPUC to participate in the markets administered by the regional independent system operator. The permit authorizes the operation of such engines in the relevant markets and in emergency situations. The permit specifically defines an emergency engine and the circumstances constituting an emergency, which are consistent with existing regulations. (Exs. DEP-13, 14A.)

8. The permit applies to engines located throughout the state and becomes effective on the date it is issued. The expiration date of the proposed permit is the later of December 31, 2010 or ninety days after the energizing of the Middletown-Norwalk 345 kv transmission line approved by the Connecticut Siting Council. In no event will the permit remain in effect after five years from the date of issuance. (Exs. DEP-13, 14A.)

9. The general permit contains specific registration requirements for owner/operators and establishes a process by which the commissioner approves or disapproves such registrations. Registrants under the permit must, among other things, demonstrate that the engine has been approved by the DPUC, provide manufacturer's specifications for particulate matter (PM) and nitrogen oxides (NOx) air pollution control equipment and design control efficiency. Registrants must also submit documentation of the transfer of two ozone season allowances to the State NOx Retirement Account. (Ex. DEP-14A.)

10. Once operation of a source is authorized, the emissions from such source shall not exceed the general permit emissions limitations. Permitted operating conditions include a requirement for Selective Catalytic Reduction or equivalent NOx emissions controls with a design control efficiency of a minimum of ninety percent for all engines. In lieu of graduated emissions control efficiencies based on setback

distances, new engines are limited to PM emissions of no more than 0.01grams per brake horsepower hour (gr/bhp-hr). PM emissions from existing engines must also be in compliance with these limits or operators must install a diesel particulate filter or equivalent PM controls with a design control efficiency of eighty-five percent. A bypass of the emissions controls is specifically prohibited. (Ex. DEP-14A.)

11. Engines must operate on ultralow sulfur diesel fuel. The hours of operation are limited to 300 hours for emergency engines and 200 hours for engines operating when called upon by the ISO-NE during each and every consecutive twelve-month period. Registrants are also required to comply with opacity limits, state regulations pertaining to the control of PM, NOx and Sulfur Compound emissions, and applicable federal standards for new source performance, hazardous air pollutants and emissions control technology. (Ex. DEP-14A; test. S. Amarello.)

12. The permit requires standard monitoring and record keeping of fuel usage, hours of operation, emissions and kilowatt production. Operators are required to report to the Commissioner by October 1st of each year the hours of operation, fuel usage, NOx and PM emissions, kilowatts produced, type of operation (emergency or non-emergency), duration, type of fuel, and sulfur content of fuel for each operation. Operators are also required to report violations of any permit conditions and associated corrective action to the Commissioner. (Ex. DEP-14A; test. S. Amarello.)

13. Registrants with engines that operate on a day or portion of a day when the cap on NOx emissions is exceeded are required to transfer three ozone season[4] allowances to the State NOx Retirement Account or to take alternative action that results in a reduction of no less than three tons of NOx emissions during the ozone season. Sanctions, including a ten percent increase in the requisite offsets, may be imposed in the event a registrant fails to timely comply with this requirement. (Ex. DEP-14A; test. S. Amarello.)

[4] The period from May 1 through September 30 of any year. (Ex. DEP-14A.)

B

CONCLUSIONS OF LAW

Section 102 of Public Act 07-242 requires the Commissioner to develop and issue a general permit for the construction and operation of new or existing emergency engines and other distributed generation resources in accordance with the provisions of General Statutes §22a-174(k). Specifically, §102 requires the following general permit terms:

(1) eligible resources that generate no more than two megawatts of electricity;
(2) engines that are approved by the DPUC to participate in a pilot program;
(3) an expiration date of December 31, 2010 or ninety days after the Middletown-Norwalk 345kv transmission line is energized;
(4) minimum setback provisions;
(5) limitations on hours of operation;
(6) requirements for air pollution controls certified to achieve a minimum reduction in emissions of nitrogen oxides (NOx)of ninety percent;
(7) requirements for directionally correct NOx offsets from Connecticut sources at a ratio determined by the Commissioner;
(8) requirements for emissions control equipment; and
(9) requirements for monitoring, reporting and record keeping.

The permit terms and conditions are consistent with the requirements of Public Act 07-242, §102 and relevant regulations governing the resources that are the subject of this general permit. The record also demonstrates that the Commissioner has complied with all procedural requirements for notice and hearing and receipt of public comments applicable to the issuance of this general permit. §22a-174(k).

III

RECOMMENDATION

I recommend that the Commissioner issue the modified proposed General Permit to Construct and/or Operate a New or Existing Distributed Generation Resource (Attachment A).

/s/ Jean F. Dellamarggio
Jean F. Dellamarggio
Hearing Officer

P A R T Y L I S T

Proposed Final Decision re: General Permit to Construct and/or Operate
New or Existing Distributed Generation Resource

PARTY	REPRESENTED BY
Department of Environmental Protection Bureau of Air Management Planning and Standards Division 79 Elm Street Hartford, CT 06106	Susan Amarello

---

Intervenors

The Connecticut Fund for the Environment Francois	Frank B. Cochran, Esq. Cooper, Whitney, Cochran & P.O. Box 1989 New Haven, Connecticut 06508
Connecticut Municipal Electric Energy Cooperative/ Sustainable Energy Analytics, LLC	Philip L. Sussler, Esq. 79 Spruce Lane Glastonbury, CT 06033

STATE OF CONNECTICUT
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF AIR MANAGEMENT
ENGINEERING & ENFORCEMENT DIVISION
860-424-4152

General Permit to Construct and/or Operate a New or Existing Distributed Generation Resource

Issuance Date: XX, 2007

General Permit to Construct and/or Operate a New or Existing Distributed Generation Resource

Table of Contents

General Permit to Construct and/or Operate a New or Existing Distributed Generation Resource

Section 1. Authority

This general permit is issued under the authority of section 22a-174(k) of the Connecticut General Statutes, as directed by section 102 of Public Act 07-242, An Act Concerning Electricity and Energy Efficiency.

Section 2. Definitions

Any term not expressly defined in this general permit shall be defined as in section 22a-2 of the Connecticut General Statutes, section 22a-174-1 of the Regulations of Connecticut State Agencies, *et seq.*, and 40 CFR Part 70.2.

As used in this general permit:

"*Actual emissions*" means actual emissions as defined by section 22a-174-1 of the Regulations of Connecticut State Agencies.

"*Administrator*" means the administrator of the United States Environmental Protection Agency or his agent.

"*Air pollution control equipment*" means any equipment which is designed to reduce emissions of air pollutants from a stationary source.

"*API*" means the American Petroleum Institute.

"*Approval of registration*" means a written approval of registration issued by the Commissioner under Section 3 of this general permit.

"*Authorized activity*" means any activity authorized by this general permit.

"*CAIR*" means Clean Air Interstate Rule as defined by 40 CFR Part 96.

"*CFR*" means the Code of Federal Regulations.

"*Commissioner*" means Commissioner as defined by section 22a-2(b) of the Connecticut General Statutes.

"*Day*" means any twenty-four hour period measured from midnight to midnight on a calendar day. If any date specified in this general permit falls on a Saturday, Sunday, or legal holiday, such date shall be the next business day thereafter.

"*Distributed generation resource*" means an engine that has been approved by the Department of Public Utility Control to participate in the markets administered by the regional system operator pursuant to section 103 of Public Act 07-242.

"DPUC" means the Department of Public Utility Control.

"*Emergency*" means an unforeseeable condition that is beyond the control of theowner or operator of an emergency engine and that:

(A) Results in an interruption of electrical power from the electricity supplier to the premises;

(B) Results in a deviation of voltage from the electricity supplier to the premises of three percent above or five percent below standard voltage in accordance with subsection (a) of section 16-11-115 of the Regulations of Connecticut State Agencies;

(C) Requires an interruption of electrical power from the electricity supplier to the premises enabling the owner or operator to perform emergency repairs;

(D) Requires operation of the emergency engine to minimize damage from fire, flood, or any other catastrophic event, natural or man-made; or

(E) Notwithstanding section 22a-174-22(a)(3) of the Regulations of Connecticut State Agencies, requires operation of the emergency engine under an agreement with the New England region system operator during the period of time the New England region system operator is implementing voltage reductions or involuntary load interruptions within the Connecticut load zone due to a capacity deficiency.

"*Emergency engine*" means a stationary reciprocating engine or a turbine engine which is used as a means of providing mechanical or electrical power only during *periods of testing and scheduled maintenance or during either an emergency or in* accordance with a contract intended to ensure an adequate supply of electricity for use within the state of Connecticut during the loss of electrical power derived from nuclear facilities. The term does not include an engine for which the owner or operator of such engine is party to any other agreement to sell electrical power from such engine to an electricity supplier, or otherwise receives any reduction in the cost of electrical power for agreeing to produce power during periods of reduced voltage or reduced power availability.

"*Existing*" means, in relation to an distributed generation resource, constructed or installed on a premises prior to the effective date of this general permit.

"*Forward Reserve Market*" means the market within which ISO-NE purchases Ten Minute Non-Spinning Reserve and Thirty Minute Operating Reserve capacity on a forward basis on behalf of market participants as provided in section III.9 in the ISO-NE Market Rule 1.

"*Individual permit*" means a permit issued to a named permittee under section 22a-174 of the Connecticut General Statutes.

"*ISO-NE*" means Independent System Operator, New England.

"*Municipality*" means a city, town or borough of the state.

"*New*" means, in relation to an distributed generation resource, constructed or commenced construction or operation on or after the effective date of this general permit.

"Ozone season" means the period from May 1 through September 30 of any year.

"*Opacity*" means the degree to which emissions reduce the transmission of light and obscure the view of an object in the background.

"Operator" means the person legally responsible for the operation of the engine covered by this general permit. If the person legally responsible for operation of the engine when it is participating in the markets administered by the regional independent system is different than the person legally responsible for operation of the engine when it is operating as an emergency engine, an engine covered by this general permit may have two operators. If this occurs, the person legally responsible for operation of the engine when it is participating in the markets administered by the regional independent system operator shall not be responsible for compliance with requirements when the engine is operating as an emergency engine and visa versa.

"*Particulate matter*" means particulate matter as defined by section 22a-174-1 of the Regulations of Connecticut State Agencies.

"*Permittee*" means a person to whom the Commissioner has issued an approval of registration under this general permit.

"*Person*" means person as defined by section 22a-2(c) of the Connecticut General Statutes.

"PM 2.5" means PM 2.5 as defined by section 22a-174-1 of the Regulations of Connecticut State Agencies.

"*Potential emissions*" means potential emissions as defined by section 22a-174-1 of the Regulations of Connecticut State Agencies.

"*Premises*" means premises as defined by section 22a-174-1 of the Regulations of Connecticut State Agencies.

"*Registrant*" means a person who files a registration pursuant to Section 4 of this general permit. Registrant shall include the on-site operator as well as any remote operator of the distributed generation resource.

"*Registration*" means a registration form filed with the Commissioner pursuant to Section 4 of this general permit.

"Stationary source" means stationary source as defined by section 22a-174-1 of the Regulations of Connecticut State Agencies.

"*Subject activity*" means any operation of a subject engine in accordance with this general permit.

"*Subject engine*" means engine that is the subject of this general permit.

Section 3. Authorization Under this General Permit

(a) Eligible Sources

This general permit applies to an engine that is:

(1) rated at no more than two megawatts of electricity; and

(2) has received approval from the Department of Public Utility Control (DPUC) to participate in the markets administered by the regional independent system operator in accordance with subsection (b) of section 103 of Public Act 07-242; and

(3) not a major modification or a major stationary source as defined by section 22a-174-1 of the Regulations of Connecticut State Agencies.

(b) Eligible Activities

(1) This general permit applies to the operation of engines approved by the Department of Public Utility Control to participate in markets administered by the regional independent system operator.

(2) This general permit also applies to any such engine approved by the Department of Public Utility Control pursuant to section 103 of Public Act 07-242, when such engine is operating in an emergency as an emergency engine.

(3) An emergency engine not approved by Department of Public Utility Control pursuant to section 103 of Public Act 07-242, remains subject to section 22a-174-3a of the Regulations of Connecticut State Agencies.

(c) Requirements for Authorization

This general permit applies to the sources of air pollution listed in Section 3(a) of this general permit provided the requirements of this general permit are satisfied and meets the following requirements for authorization:

(1) Registration

A completed registration has been filed with the Commissioner and the Commissioner has issued a written approval of such registration with respect to such source.

(2) Coastal Area Management

The activities authorized by this general permit are consistent with all applicable goals and policies in section 22a-92 of the Connecticut General Statutes, and will not cause adverse impacts to coastal resources as defined by section 22a-93 of the Connecticut General Statutes.

(3) Endangered and Threatened Species

New activities authorized by this general permit do not threaten the continued existence of any species listed pursuant to section 26-306 of the General Statutes as endangered or threatened and will not result in the destruction or adverse modification of habitat designated as essential to such species.

(4) Aquifer Protection

A new activity, if it is located within an aquifer protection area as mapped under section 22a-354b of the General Statutes, complies with regulations adopted pursuant to section 22a-354i of the General Statutes.

(d) Geographic Area

This general permit applies throughout the state of Connecticut.

(e) Effective Date and Expiration Date of this General Permit

This general permit is effective on the date it is issued by the Commissioner and expires on the later of December 31, 2010 or ninety days after the energizing of the Middletown-Norwalk 345 kv transmission line approved by the Connecticut Siting Council. In no event shall this general permit expire later than five years from the date of issuance. This general permit may be renewed.

(f) Effective Date of Authorization

An activity is authorized by this general permit on the date the Commissioner issues a written approval of registration with respect to such activity.

(g) Revocation of an Individual Permit

If an activity meets the requirements of authorization of this general permit and such activity is presently authorized by an individual permit, the existing individual permit may be revoked by the Commissioner. If the Commissioner revokes such individual permit in writing, such revocation shall take effect on the effective date of authorization of such activity by this general permit.

Section 4. Registration Requirements

(a) Who Must File a Registration

Any person approved by the Department of Public Utility Control to participate in the markets administered by the regional independent system operator in accordance with subsection (b) of section 103 of Public Act 07-242.

(b) Scope of Registration

A person shall register each engine for which the registrant seeks authorization under this general permit on a separate registration form. Multiple engines at one or more sites may not be registered on one registration form.

(c) Contents of Registration

(1) A registration shall not be deemed complete unless it is filed by the person(s) who will operate the engine when:

(A) in non-emergency situations, it is participating in the markets administered by the regional independent system operator; and

(B) when it is operating as an emergency engine.

A registration shall not be deemed complete unless it is signed by all applicable operators.

(2) Fee

(A) A registration fee of $5,000.00 for any person other than a municipality, or $2,500.00 for any municipality, shall be submitted with a registration form. A registration shall not be deemed complete and no activity shall be authorized by this general permit unless the registration fee has been paid in full.

(B) The registration fee shall be paid by check or money order payable to the **Department of Environmental Protection,** or by such other method as the Commissioner may allow.

(C) The registration fee is non-refundable.

(3) Registration Form

The registration shall be filed on forms prescribed and provided by the Commissioner for each engine and shall include, but not be limited to, the following:

(A) Legal name, address, and telephone number of the registrant(s). If such registrant is an entity transacting business in Connecticut, provide the exact name as registered with the Connecticut Secretary of the State;

(B) Legal name, address, and telephone number of the owner of the premises on which the subject engine will operate;

(C) Identification of each person legally responsible for operating the subject engine (the operator) in non-emergency situations when the engine is participating in the markets administered by the regional independent system operator;

(D) Identification of each person legally responsible for operation of the subject engine (the operator) as an emergency engine;

(E) Legal name, address and telephone number of the registrant's attorney or other representative, if applicable;

(F) Legal name, address and telephone number of any consultant(s) or engineer(s) retained by the registrant to prepare the registration;

(G) Legal name, address and telephone number of any consultant(s) or engineer(s) retained by the registrant to design or construct or install the subject engine;

(H) Location address of the premises where the registered activity will be conducted;

(I) Demonstration of approval issued in accordance with any requirements established by the Department of Public Utility Control in DPUC Docket No. 07-07-37;

(J) Copy of third party agreements that the subject engine will operate under;

(K) Dates of construction and commencement of the subject activity if it is existing, or the proposed dates of construction and commencement if the subject activity is new;

(L) A detailed description of the subject activity;

(M) Make and model of the subject engine, if available;

(N) The actual operating hours of the subject engine, including operating dates and type of operation (i.e. testing, emergency, maintenance, etc) for the previous five years if available;

(O) Fuel type(s) which will be used including the maximum sulfur content of such fuel;

(P) Maximum rated fuel-firing rate of the subject engine;

(Q) Maximum design gross power output of the subject engine;

(R) Minimum exhaust gas flow rate of the subject engine;

(S) Manufacturer's specification for particulate matter air pollution control equipment and design control efficiency;

(T) Manufacturer's specification for nitrogen oxides (NOx) air pollution control equipment and design control efficiency;

(U) Operation and Maintenance Plan for the particulate matter and NOx air pollution control equipment;

(V) The actual or forecasted actual daily NOx and particulate matter emissions, in pounds per day, from the subject engine;

(W) The maximum rated pounds per megawatt hr (lb/MWhr) of NOx emissions of the subject engine;

(X) The actual annual emission rates and the potential annual emission rates of each air pollutant emitted, in tons per year, from the subject engine if it is existing;

(Y) The proposed annual emission rates and the potential annual emission rates of each air pollutant, in tons per year, to be emitted from the subject engine if it is new;

(Z) A detailed description of how the emission rate or proposed emission rate of each air pollutant identified in response to subparagraph (V), (W), (X) or (Y) of this subdivision, was calculated;

(AA) The height above grade of the stack associated with the subject engine and the shortest distance of such stack to the property line of the premises on which such engine is located;

(BB) Ambient Air Quality Analysis, as may be required by section 22a-174-3a(i) of the Regulations of Connecticut State Agencies for aggregated multiple similar or identical engines, to be operated at the same premises, and registered for under this General Permit, or applied for under section 22a-174-3a(a) of the Regulations of Connecticut State Agencies, which are constructed within an eighteen month period of each other.

(CC) If the subject engine is subject to section 22a-174-22 of the Regulations of Connecticut State Agencies, a compliance plan in accordance with section 22a-174-22 of the Regulations of Connecticut State Agencies;

(DD) If the subject engine has been registered in accordance with section 22a-174-2 of the Regulations of Connecticut State Agencies or issued a permit by the Department of Environmental Protection, Bureau of Air Management prior to the date that the present registration is filed, the subject registration or permit number;

(EE) A plan of the subject premises ("site plan") showing the property lines of the property on which the subject engine is located and the location of the subject engine at such premises and the horizontal distance from such engine's stack base to the nearest property line;

(FF) An 8 1/2" by 11" copy of the relevant portion of a United States Geological Survey quadrangle map(s), with a scale of 1:24,000, showing the exact location of the stack associated with the subject engine and the area within a one-mile radius of such stack. Identify the quadrangle name(s) and the number(s) on such copy and the latitude and longitude of the subject stack location;

(GG) The record of the registrant, the principals, and any parent company or subsidiary of the registrant, regarding compliance with environmental protection laws of this state, all other states and federal government during the five years immediately preceding the submission of such registration;

(HH) The Registrant shall submit documentation of the transfer of two ozone season allowances into the CT State NOx Retirement Account with the registration form subject to the review and approval of the Commissioner. Such allowances shall be:

(i) originally issued by the Administrator from the CAIR NOx Ozone Season Trading Program to a CAIR NOx Ozone Season unit located in the state of Connecticut, or

(ii) vintage year 2003-2008 and originally issued by the Administrator from the NOx Budget Program to a NOx Budget Program source located in the state of Connecticut; and

(II) The signature of the registrant and of the individual or individuals responsible for actually preparing the registration, 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, pursuant to section 53a-157b of the Connecticut General Statutes, and in accordance with any applicable statute.

I certify that the signature of the registrant being submitted herewith complies with section 22a-174-2a(a) of the Regulations of Connecticut State Agencies.

I certify that this general permit registration is on complete and accurate forms as prescribed by the Commissioner without alteration of the text.

I certify that I have read and understand the terms and conditions of the *General Permit to Construct and/or Operate a New or Existing Distributed Generation Resource* issued by the Cmmissioner of the Department of Environmental Protection and that the engine which is the subject of this registration is eligible for authorization under such permit."

(d) Where to File a Registration

A registration shall be filed with the Commissioner at the following address:

CENTRAL PERMIT PROCESSING UNIT
DEPARTMENT OF ENVIRONMENTAL PROTECTION
79 ELM STREET
HARTFORD, CT 06106-5127

(e) Additional Information

The Commissioner may require a registrant or permittee to submit additional information, which the Commissioner reasonably deems necessary to evaluate the consistency of the subject activity with the requirements for authorization under this general permit. Such information shall be submitted to the Commissioner in writing within forty-five days of such notification and shall be certified in accordance with Section 7(l) of this general permit.

(f) Action by Commissioner

(1) The Commissioner may reject a registration:

(A) if a registration does not satisfy the requirements of this general permit;

(B) if more than forty-five days have elapsed since the Commissioner requested that the registrant submit additional information and the registrant has not submitted such information;

(C) if the required fee pursuant to Section 4(c) of this general permit has not been submitted by the registrant; or

(D) if the CAIR NOx Ozone Allowances pursuant to Section 4(c)(3)(HH) of this general permit have not been submitted by the registrant.

(2) Any registration re-filed after such rejection shall be accompanied by the fee specified in Section 4(c) of this general permit.

(3) The Commissioner shall disapprove a registration:

(A) if the Commissioner finds that the subject activity is ineligible for this general permit or that the registrant cannot or is unlikely to comply with the requirements of this general permit; or

(B) for any other reason provided by law.

(4) The Commissioner may, for any reason provided by law, by summary proceedings or otherwise, revoke or suspend an approval of registration issued by the Commissioner under this general permit.

(5) Disapproval of a registration or revocation of an approval of registration under this subsection shall constitute notice to the registrant or permittee that the subject activity may not lawfully be conducted or maintained without the

issuance of an individual permit issued pursuant to section 22a-174(c) of the Connecticut General Statutes and section 22a-174-3a of the Regulations of Connecticut State Agencies.

(6) Rejection, disapproval, approval, or revocation of a registration under this subsection shall be in writing.

Section 5. Conditions of this General Permit

The operator shall at all times continue to meet the requirements for applicability and authorization set forth in Section 3 of this general permit.

(a) Operating Conditions

Except where otherwise specifically stated below, the operator shall comply with the following requirements regardless of whether the subject engine is being used as an emergency engine or as a distributed generation resource.

(1) Selective Catalytic Reduction, or equivalent oxides of nitrogen (NOx) controls with a design control efficiency of a minimum of ninety percent, shall be installed on the subject engine.

(2) A new subject engine shall emit no more than 0.01 gr/bhp-hr of particulate matter.

(3) An existing subject engine shall emit no more than 0.01 gr/bhp-hr of particulate matter or a diesel particulate filter, or equivalent particulate matter controls with a design control efficiency of a minimum of eighty-five percent, shall be installed on the subject engine.

(4) The subject engine shall be operated with the required air pollution control equipment in service and performing properly at all times. Under no circumstance shall the control systems be by-passed.

(5) The subject engine exhaust shall be located away from fresh air intakes, air conditioners and windows.

(6) The Operating and Maintenance Plan submitted at the time of registration for such air pollution control equipment shall be followed at all times.

(7) The subject engine shall not operate as an emergency engine for more than 300 hours during each and every consecutive twelve months.

(8) The subject engine shall not operate for more than 200 hours when called upon by the ISO-NE for the ISO-NE forward reserve market program during each and every consecutive twelve months.

(9) Only a liquid fuel with an API gravity greater than thirty or a gaseous fuel shall be used in the subject engine.

(10) The use of gasoline in the subject engine is prohibited.

(11) Any fuel purchased for use by the subject engine shall have a maximum sulfur content of 0.0015% by weight, or 15 ppm (ultralow sulfur).

(12) The subject engine shall comply with all applicable maximum allowable stack limits, calculated in accordance with Tables 29-1, 29-2, and 29-3 of section 22a-174-29 of the Regulations of Connecticut State Agencies.

(13) Routine scheduled testing or maintenance of the subject engine shall not be conducted during days when the air quality index is forecasted by the Commissioner to be "unhealthy for sensitive groups", "unhealthy", "very unhealthy", or "hazardous" for ozone or PM 2.5.

The air quality index forecast shall be obtained from the Department of Environmental Protection *Air Now* web site at http://www.airnow.gov/index.cfm?action=airnow.fcsummary&stateid=8.

(14) Opacity resulting from operation of the subject engine shall not exceed 10% during any six-minute block average or 40% reduced to a one-minute block average; as measured by 40 CFR 60, Appendix A, Reference Method 9.

(15) The subject engine and operation thereof shall comply with section 22a-174-18 of the Regulations of Connecticut State Agencies, Control of Particulate Emissions.

(16) The subject engine and operation thereof shall comply with section 22a-174-19 of the Regulations of Connecticut State Agencies, Control of Sulfur Compound Emissions.

(17) The subject engine shall operate in accordance with section 22a-174-22 of the Regulations of Connecticut State Agencies, Control of nitrogen oxides emissions, if applicable.

(18) The subject engine and operation thereof shall comply with all applicable New Source Performance Standards, 40 CFR Part 60, National Emissions Standards for Hazardous Air Pollutants, 40 CFR Part 61, and MACT standards, 40 CFR Part 63.

(b) Monitoring and Emission Testing Requirements

The operator shall comply with the following requirements regardless of whether the subject engine is being used as an emergency engine or as a distributed generation resource:

(1) The Commissioner may require emissions testing of an engine authorized by this general permit to verify compliance with the applicable emissions standards of this section as allowed by state or federal statute, law or regulation. Such testing shall be performed in accordance with section 22a-174-5 of the Regulations of Connecticut State Agencies or other methods identified by the

Commissioner and approved by the Administrator.

(2) The operator shall ensure compliance with the following requirements:

(A) If the subject engine is supplied with fuel by more than one tank or if multiple sources are supplied fuel by one fuel tank, a non-resettable fuel metering device shall be used on the subject engine to continuously monitor the fuel consumed by any such engine.

(B) If the subject engine is subject to section 22a-174-22 of the Regulations of Connecticut State Agencies, the operator shall comply with applicable monitoring and emission testing requirements of section 22a-174-22(k) of the Regulations of Connecticut State Agencies.

(C) For selective catalytic reduction control, the operator shall inspect such selective catalytic reduction catalyst once per year, at a minimum, and replace it as required through the monitoring of the catalyst test piece.

(D) For particulate matter air pollution control equipment, the operator shall monitor the performance of such controls in accordance with the manufacturer's written recommendations.

*(c) **Record Keeping and Reporting Requirements***

The operator shall comply with the following requirements regardless of whether the subject engine is being used as an emergency engine or as a distributed generation resource:

(1) Record Keeping Requirements

At the premises where the authorized activity takes place, or at such other place as the Commissioner approves in writing, the operator shall maintain the following records pertaining to the operation of each engine authorized to operate under this general permit:

(A) monthly and annual amounts of fuel(s) consumed. For the purposes of this subparagraph, annual fuel consumption shall be calculated each calendar month for each fuel by adding the current calendar month's fuel consumption to those of the previous eleven months;

(B) monthly and annual operating hours. For the purposes of this subparagraph, annual operating hours shall be calculated each calendar month by adding the current calendar month's operating hours to those of the previous eleven months. Separate records shall be maintained for emergency and forward reserve market program use;

(C) hourly, daily, monthly and annual actual emissions of each pollutant emitted by the subject engine. For the purposes of this subparagraph, annual emissions shall be calculated each calendar month by adding the current calendar month's emissions to those of the previous eleven months;

(D) daily, monthly and annual kilowatts produced by the subject engine. For the purposes of this subparagraph, annual kilowatts shall be calculated each calendar month by adding the current calendar month's kilowatts to those of the previous eleven months;

(E) with respect to each shipment or purchase of liquid fuel, other than liquefied petroleum gas, to be used in each engine authorized hereunder, a shipping receipt or a contract, and a certification from the fuel supplier certifying the name of the fuel supplier, type of fuel delivered, API gravity of such fuel, the percentage of sulfur in such fuel, by weight, dry basis, and the method used by the fuel supplier to determine the sulfur content of such fuel;

(F) date and duration of use of the subject engine, and whether such use was for emergency or forward reserve market program use. Separate records shall be maintained for emergency and forward reserve market program use;

(G) date of all tune-ups, repairs, replacement of parts and other maintenance;

(H) monitoring and emission testing data generated pursuant to Section 5(b) of this general permit; and

(I) if the subject engine is subject to section 22a-174-22 of the Regulations of Connecticut State Agencies, all applicable record keeping requirements of section 22a-174-22(l) of the Regulations of Connecticut State Agencies.

(2) Availability of Records

Unless the Commissioner provides otherwise in writing, the operator shall maintain each record required by this subsection at the premises where the authorized activity takes place for five years after the date such record is made. The operator shall promptly provide any such record, or a copy thereof, to the Commissioner upon request.

(3) Creation of Records

(A) Monthly and annual records required by this general permit shall be created no later than fifteen days after the end of each month and 12 month period, respectively.

(B) Hourly and daily records required by this general permit shall be created no later than two days after the subject day.

(4) Other Record Keeping Requirements

Nothing in this subsection shall relieve the operator from complying with all other applicable record keeping requirements set forth in the Regulations of Connecticut State Agencies.

(5) Reporting Requirements

(A) If the subject engine is subject to section 22a-174-22 of the Regulations of Connecticut State Agencies, the operator shall comply with applicable reporting requirements of section 22a-174-22(*l*) of the Regulations of Connecticut State Agencies.

(B) The operator shall report to the Commissioner by October 1st of each year the previous consecutive 12 month period's operating hours, fuel usage, NOx emissions, particulate matter emissions and kilowatts produced. Such report shall include the date, duration and type of operation as well as type of fuel used, sulfur content of such fuel and the total amount of fuel used for that time period and any other information on the form prescribed by the Commissioner.

(C) Reports shall be submitted on forms prescribed by the Commissioner or by such other method as approved by the Commissioner.

(d) Operation and Maintenance Requirements

The operator shall comply with the following requirements regardless of whether the subject engine is being used as an emergency engine or as a distributed generation resource:

(1) The operator shall operate and maintain the subject engine and associated control equipment in accordance with the manufacturer's specifications and written recommendations.

(2) The operator shall properly operate all air pollution control equipment at all times that the subject engine is in operation and emitting air pollutants.

Section 6. High Electric Demand Day Cap and Corrective Action

(a) Daily Offset

(1) If the sum of the NOx emissions within Connecticut from all electric generating units with a maximum capacity greater than or equal to 15 MW with NOx emissions equal to or greater than one lb/MWh, and engines registered under this general permit on any day during the ozone season exceeds 30.7 tons (the cap), offsets specified in Section 6(a)(3) of this general permit shall be required.

(2) By November 1st of each calendar year, the Commissioner will notify the operator in writing of the dates from the past ozone season that the cap in Section 6(a)(1) of this general permit was exceeded and will determine offsets required by such operator.

(3) For each engine registered under this general permit that operated on a day, or any portion of a day, in which the cap was exceeded shall be required for each such day or portion of such day, the operator shall either:

(A) Transfer three ozone season allowances into the CT State NOx Retirement Account. Such allowances shall be:

(i) originally issued by the Administrator from the CAIR NOx Ozone Season Trading Program to a CAIR NOx Ozone Season unit located in the state of Connecticut, or

(ii) vintage year 2003-2008 and originally issued by the Administrator from the NOx Budget Program to a NOx Budget Program source located in the state of Connecticut; or

(B) Take an alternative action that will result in a NOx emissions reduction in Connecticut during the Ozone Season of no less than three tons provided that:

(i) A request to take such action is submitted to the Commissioner in writing,

(ii) The alternative action is submitted to the Administrator for review, and

(iii) The Commissioner approves the alternative action in writing.

(b) Corrective Action

(1) The operator shall demonstrate to the Commissioner in writing that the offset requirements specified by the Commissioner pursuant to subparagraph (a)(2) above have been satisfied for the previous ozone season on or before November 30 of the year the engine operated, or if November 30 is not a business day, midnight of the first business day thereafter. An official U.S. Postal Service postmark or electronic time stamp shall establish the date of submittal of allowances to the Administrator.

(2) Any offset specified by the Commissioner pursuant to subparagraph (a)(2) above that has not been provided by November 30th of the year in which the engine operated shall increase by ten percent, and shall continue to increase by ten percent for each additional calendar month the offset is owed but has not been provided.

(3) If an operator does not provide the offset specified by the Commissioner pursuant to subparagraph (a)(2) above by November 30th of the year in which the engine operated, the operator shall not operate such engine unless and until the offsets required under this section have been provided.

Section 7. General Conditions

(a) Reliance on Registration

When evaluating a registration and any other submitted information, the Commissioner relies on the information provided by the registrant or permittee. If such information proves to be false or incomplete, the authorization issued under this general permit may be suspended or revoked in accordance with law, and the Commissioner may take any other legal action provided by law.

(b) Duty to Comply with this General Permit

The operator shall comply with this general permit.

(c) Duty to Correct and Report Violations

Upon learning of a violation of a condition of this general permit, the operator shall immediately take all reasonable action to determine the cause of such violation, to correct such violation and mitigate its results, and to prevent further such violation. Such violation and such corrective action shall be reported in writing to the Commissioner within five days of the operator's learning of such violation. Such report shall be certified in accordance with Section 7(*l*) of this general permit.

(d) Duty to Provide Information

If the Commissioner requests any information pertinent to the authorized activity or to compliance with this general permit, the operator shall provide such information in writing within forty-five days of such request. Such information shall be certified in accordance with Section 7(l) of this general permit.

(e) Date of Filing

For the purpose of this general permit, the date of filing with the Commissioner of any document is the date such document is received by the Commissioner.

(f) False Statements

Any false statement in any information submitted pursuant to this general permit may be punishable as a criminal offense, in accordance with section 22a-6 of the Connecticut General Statutes, pursuant to section 53a-157b of the Connecticut General Statutes, and in accordance with any applicable statute.

(g) Correction of Inaccuracies

Within fifteen days after the date a registrant or operator becomes aware of a change in any information submitted pursuant to this general permit, becomes aware that any such information is or was inaccurate or misleading, or that any relevant information has been omitted, such registrant or operator shall correct the inaccurate or misleading information or supply the omitted information in writing to the Commissioner. Such information shall be certified in accordance with Section 7(*l*) of this general permit. The provisions of this subsection shall apply both while a request for approval of registration is pending and after the Commissioner has approved such request.

(h) Transfer of an Authorization

An approval of registration under this general permit is transferable only in accordance with the provisions of section 22a-6o of the Connecticut General Statutes.

(i) Other Applicable Law

Nothing in this general permit shall relieve the permittee of the obligation to comply with any other applicable federal, state, and local law, including but not limited to the obligation to obtain any other authorizations required by such law.

(j) Other Rights

This general permit is subject to and does not derogate any present or future rights or powers of the State of Connecticut and conveys no rights in real or personal property nor any exclusive privileges, and is subject to all public and private rights and to any federal, state, and local laws pertinent to the property or activity affected by such general permit. In conducting any activity authorized hereunder, the permittee may not cause pollution, impairment, or destruction of the air, water, or other natural resources of this State. The issuance of this general permit shall not create any presumption that this general permit should or will be re-issued.

(k) Enforceability

This general permit shall be enforceable by the Commissioner or the Administrator.

(l) Certification of Documents

Except for the registration form which is certified in accordance with Section 4(c)(3)(II) of this general permit, any document, including but not limited to any notice, information or report, which is submitted to the Commissioner under this general permit shall be signed by, as applicable, the registrant, the operator or the permittee, or a duly authorized representative, and by the individual or individuals 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.

I certify that the signature of the registrant or the permittee, or a duly authorized representative, being submitted herewith complies with section 22a-174-2a(a) of the Regulations of Connecticut State Agencies."

Section 8. Commissioner's Powers

(a) Abatement of Violations

The Commissioner may take any action provided by law to abate a violation of this general permit, including the commencement of proceedings to collect penalties for such violation. The Commissioner may, by summary proceedings or otherwise and for any reason provided by law, including violation of this general permit, revoke a permittee's authorization hereunder in accordance with sections 22a-3a-2 through 22a-3a-6, inclusive, of the Regulations of Connecticut State Agencies, inclusive. Nothing herein shall be construed to affect any remedy available to the Commissioner by law.

(b) General Permit Revocation, Suspension or Modification

The Commissioner may, for any reason provided by law, by summary proceedings or otherwise, revoke or suspend this general permit or modify it to establish any appropriate conditions, schedules of compliance, or other provisions which may be necessary to protect human health or the environment.

(c) Filing of an Individual Permit Application

If the Commissioner notifies a permittee in writing that such permittee must obtain an individual permit to continue lawfully conducting the activity authorized by this general permit, the permittee may continue conducting such activity only if the permittee files an application for an individual permit within sixty days of receiving the Commissioner's notice. The Permittee may also, at its election, file an application for an individual permit for an activity authorized by this general permit. While such application is pending before the Commissioner, the permittee shall comply with the terms and conditions of this general permit. Nothing herein shall affect the Commissioner's power to revoke a permittee's authorization under this general permit at any time.

(d) Right to Inspect

Any representative of the Department of Environmental Protection 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 General Permit and applicable state law.

Issued: [DATE]

Gina McCarthy
Commissioner