

CONTENTS

Regulation Number	<u>Title</u>	Page
1	General Provisions	
1.0	Definitions	1
1.1	Registration of Existing Sources	7
1.2	Permits for Construction and Operation	10
1.3	Source Monitoring and Record Keeping	19
1.4	Source Sampling and Testing Methods	24
1.5	Procedures for Emergency Episodes	27
1.6	Malfunctioning of Control Equipment	38
1.7	Compliance Schedules	40
1.8	Prohibition of Air Pollution	45
1.9	Public Availability of Information	46
1.10	Prohibition of Circumvention	47
1.11	Violations and Enforcement	48
1.12	Variances	52
1.13	Nuisance	56
1.14	Severability	57
1.15	Responsibility to Comply	58
2	Control of Open Burning	59
3	Particulate Emissions	61
4	Sulfur Oxide Emissions	72
5	Hydrocarbon Emissions	76
6	Carbon Monoxide Emissions	88
7	Nitrogen Oxide Emissions	89
8	Odors	91
9	Connecticut Primary & Secondary Standards	93
10	Effective Date of Regulations	96

REGULATION 1.0

Definitions

1.0.1 "Air Pollutant" means dust, fumes, mist, smoke, other particulate matter, vapor, gas, aerosol, odorous substances, or any combination thereof, but does not include carbon dioxide, uncombined water vapor or water droplets, or molecular oxygen or nitrogen.

1.0.2 "Air Pollution" means the presence in the outdoor (ambient) atmosphere of one or more air pollutants or any combination thereof, in such quantities and of such characteristics and duration as to be, or to be likely to be, injurious to public welfare, to the health of human, plant, or animal life, or to property, or as unreasonably to interfere with the enjoyment of life and property.

1.0.3 "Architectural coating" means a coating used for residential or commercial buildings and their appurtenances, or industrial buildings, or other outdoor structures.

1.0.4 "BTU" means British thermal unit, which is the amount of heat required to raise the temperature of one pound of water by one degree Fahrenheit.

1.0.5 "Commenced" or "Commencement" means that an owner or operator has undertaken a continuous program of construction or modification or has entered into a binding agreement or contractual obligation for the construction or modification, within a reasonable time, of equipment or processes that directly affect emissions from the source.

1.0.6 "Commissioner" means the Commissioner of Environmental Protection, or the Deputy Commissioner for Environmental Quality.

1.0.7 "Deterioration in air quality" means that a pollutant concentration in a region or subregion for any pollutant specified in these regulations will exceed the maximum pollutant concentration for the specified time period for that region or subregion.

1.0.8 "Emission" means the act of releasing or discharging air pollutants into the ambient air from any source.

1.0.9 "Existing source" means any stationary source, the construction or modification of which is commenced prior to June 1, 1972.

1.0.10 "Flare" means an apparatus or contrivance for the burning of flammable gases or vapors at or near the exit of a stack, flue or vent.

1.0.11 "Fuel-burning equipment" means any furnace, boiler, apparatus, stack, and all appurtenances thereto, used in the process of burning fuel for the primary purpose of producing heat or power.

1.0.12 "Fugitive dust" means solid airborne particulate matter omitted from any source other than through a stack.

1.0.13 "Incinerator" means any device, apparatus, equipment, or structure used for destroying, reducing, or salvaging by fire any material or substance including, but not limited to, refuse, rubbish, garbage, trade waste, debris or scrap; or facilities for cremating human or animal remains. For further definitions related to incineration, see section 3.3.1.

1.0.14 "Maximum pollutant concentration" means the largest concentration of a specific pollutant in a region or subregion either as a measured or calculated value, as determined by the Commissioner, for the twelve months

ending on June 30, 1972. The time periods to be averaged for the purpose of establishing maximum pollutant concentrations shall be as follows: for sulfur oxides, particulate matter, and nitrogen dioxide, one year; for carbon monoxide, eight hours; for photochemical oxidants, one hour; for hydrocarbons, three hours.

1.0.15 "Mobile source" means a source designed or constructed to move from one location to another or to be portable and includes, but is not limited to, automobiles, buses, trucks, tractors, earth-moving equipment, hoists, cranes, mobile power generators, aircraft, locomotives operating on rails, vessels for transportation on water, lawnmowers, and other small home appliances.

1.0.16 "Modify" or "Modification" means making any physical change in, or change in the method of operation of, a source which increases the amount of any air pollutant (to which a standard applies) emitted by such facility, or which results in the emission of any air pollutant (to which a standard applies) not previously emitted, or which increases the maximum rated processing or fuel burning capacity of the source, except that:

(1) Routine maintenance, repair, and replacement shall not be considered physical changes, and

(2) The following shall not be considered a change in the method of operation:

(i) An increase in the production rate, if such increase does not exceed the operating design capacity of the affected facility;

(ii) An increase in hours of operation;

(iii) Use of an alternative fuel or raw material if, prior to the date any standard under this part becomes applicable to such source, the affected facility is designed to accommodate such alternative use.

(3) Any change, the sole purpose of which is to bring an existing source into compliance with regulations applicable to such source, shall not be considered a modification.

1.0.17 "Multiple-chamber incinerator" means any article, machine, equipment, contrivance, structure or part of a structure used to dispose of combustible refuse by burning, which consists of two or more refractory lined combustion furnaces in series, physically separated by refractory walls, interconnected by gas passage ports or ducts and employing adequate design parameters necessary for maximum combustion of the material to be burned.

1.0.18 "New source" means any stationary source, the construction or modification of which is commenced after June 1, 1972.

1.0.19 "Non-degradation" means that air quality in any region or designated subregion shall not deteriorate, as defined in Section 1.0.6.

1.0.20 "Opacity" means the degree to which emissions reduce the transmission of light and obscure the view of an object in the background.

1.0.21 "Open-burning" means the burning of any matter in such a manner that the products of combustion resulting from the burning are emitted directly into the ambient air without passing through an adequate stack or flare.

1.0.22 "Organic compounds" means any chemical compounds of carbon excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides, metallic carbonates and ammonium carbonate.

1.0.23 "Particulate matter" means any material, except water in uncombined form, that is or has been airborne and exists as a liquid or a solid at standard conditions.

1.0.24 "Person" means any individual, corporation, partnership, firm, association, trust, estate, public or private institution, group, agency, political subdivision of this State, any other State, the United States,

or political subdivision or agency thereof or any legal successor, representative, agent, or any agency of the foregoing.

1.0.25 "Process source" means any operation, process, or activity except (a) the burning of fuel for indirect heating in which the products of combustion do not come in contact with process material, (b) the burning of refuse, and (c) the processing of salvageable material by burning.

1.0.26 "Region" means an Air Quality Control Region, or the Connecticut portion thereof, as defined by the Environmental Protection Agency in its Office of Air Programs publication No. AP-102.

1.0.27 "Residual oil" means any fuel oil of No. 4, No. 5, or No. 6 grades, as defined by Commercial Standard C.S. 12-48.

1.0.28 "Ringelmann chart" means the chart published and described in the U.S. Bureau of Mines Information Circular 8333.

1.0.29 "Soiling index" means a measure of the soiling properties of suspended particles in air determined by drawing a measured volume of air through a known area of Whatman No. 4 filter paper for a measured period of time, expressed as COH's/1,000 linear feet, or equivalent.

1.0.30 "Source" means any property, real or personal, which emits or may emit any air pollutant.

1.0.31 "Stack" means any chimney, flue, conduit, or duct arranged to conduct emissions to the ambient air.

1.0.32 "Standard conditions" means a dry gas temperature of 68° Fahrenheit and a gas pressure of 14.7 pounds per square inch absolute (20° C, 760 mm Hg.).

1.0.33 "Stationary source" means any building, structure, facility or installation which emits or may emit any air pollutant, and which does not move during normal operation.

1.0.34 "Submerged fill pipe" means any fill pipe the discharge opening of which is still entirely submerged when the pipe normally used to withdraw liquid from the tank can no longer withdraw any liquid.

1.0.35 "Subregion" means a subdivision of a Region, as determined by the Commissioner.

1.0.36 "Tank" means any vessel for containing liquids or gases.

1.0.37 "Volatile organic compounds" means any organic compound, as defined above, which has a vapor pressure of 1.5 pounds per square inch absolute (77.6 mm. Hg.) or greater under actual storage conditions.

1.0.38 "Waste water separator" means any tank, box, sump, or other container in which any volatile organic compound floating on or entrained or contained in water entering such tank, box, sump, or other container is physically separated and removed from such water prior to outfall, drainage, or recovery of such water.

REGULATION 1.1

Registration Requirements for
Existing Sources of Air Pollutants

1.1.0 Except as specified in 1.1.1, any person who on June 1, 1972, owns or operates a source of air pollutants shall submit to the Commissioner of the Department of Environmental Protection by October 1, 1972, a source registration statement and reports to be completed in accordance with instructions and on forms furnished by the Commissioner.

1.1.1 Registration shall not be required for the following sources:

- (1) Mobile sources.
- (2) Equipment used in a manufacturing process involving surface coating, including but not limited to, spray and dip painting, roller coating, electrostatic depositing or spray cleaning, and in which the total quantity of coating material and solvents used is less than thirty (30) pounds in any one hour.
- (3) Equipment which is used in a manufacturing process involving metal cleaning and/or surface preparation, and (a) which is connected to a ventilation system controlling escape of air pollutants or contaminants to the workroom air, such manufacturing process including, but not limited to, etching, pickling, or plating when the total capacity of such equipment is 1,000 gallons or less, or (b) any solvent degreasing units with a total capacity of 1,000 gallons or less.
- (4) Equipment used in a manufacturing process, other than as set forth in subsections (1), (2), (3), (5), (6), or (7), in which the combined weight of all materials introduced, excluding air and water, does not exceed either 2,000 pounds in any one hour or 16,000 pounds in any one day.
- (5) Any liquid storage tank, reservoir, or container used for the storage of acids, volatile organic compounds, solvents, diluents or thinners, inks, colorants, lacquers, enamels, varnishes, or liquid resins, and having a capacity less than 40,000 gallons.

(6) Fuel burning equipment in which the maximum rated fuel burning capacity is less than five million BTUs per hour, unless the source is burning coal or residual oil.

(7) Sources used as incinerators in dwellings containing six (6) or fewer family units.

(8) Any other process, operation, equipment, or activity, except those types specified in Sections 1 through 7, which emits or causes to be emitted a total of eight tons per year or less of any air pollutant or combination of air pollutants.

1.1.1.1 Notwithstanding any provision of 1.1.1, registration shall be required for all stationary industrial pneumatic solid material handling or conveying systems and all industrial flares for the disposal of waste or excess process gases.

1.1.2 Unless the Commissioner shall otherwise determine, two or more sources of a similar or identical nature in the same plant or premises shall be considered a single aggregate source for registration purposes. Two or more dissimilar sources in the same plant or premises shall be considered separate sources for registration purposes.

1.1.3 Any person who has registered a source pursuant to the provisions of paragraph 1.1 of this regulation shall inform the Commissioner on forms supplied by him of any change in location of the source, or any alteration of the source which changes the amount of any air pollutant emitted by such source, or the installation of an air cleaning device thereon, or permanent cessation in operation of the source. Such information shall be submitted prior to the completion of such change or alteration or cessation of operations. The information furnished the Commissioner shall be sufficient to enable him to determine the manner in which the change will affect emissions from such source.

1.1.4 Guidelines, reporting forms, and instructions shall be furnished by the Commissioner for preparation of the registration statements and reports. The Commissioner shall make these forms as clear, easily understood, and concise as possible.

Permits for Construction and Operation

1.2.0 Exemptions from Permit Requirements.

1.2.0.1 Permits under this regulation shall not be required for the following sources:

(1) Mobile sources

(2) Equipment used in a manufacturing process involving surface coating, including but not limited to, spray and dip painting, roller coating, electrostatic depositing or spray cleaning, and in which the total quantity of coating material and solvents used is less than thirty (30) pounds in any one hour.

(3) Equipment which is used in a manufacturing process involving metal cleaning and/or surface preparation, and (a) which is connected to a ventilation system controlling escape of air pollutants or contaminants to the workroom air, such manufacturing process including, but not limited to, etching, pickling, or plating when the total capacity of such equipment is 1,000 gallons or less, or (b) any solvent degreasing units with a total capacity of 1,000 gallons or less.

(4) Equipment used in a manufacturing process, other than as set forth in subsections (1), (2), (3), (5), (6), or (7), in which the combined weight of all materials introduced, excluding air and water, does not exceed either 2,000 pounds in any one hour or 16,000 pounds in any one day.

(5) Any liquid storage tank, reservoir, or container, used for the storage of acids, volatile organic compounds, solvents, diluents or thinners, inks, colorants, lacquers, enamels, varnishes, liquid resins, and having a capacity less than 40,000 gallons.

(6) Fuel burning equipment in which the maximum rated fuel burning capacity is less than five million BTU per hour, unless the source is burning coal or residual oil.

(7) Sources used as incinerators in dwellings containing six (6) or fewer family units.

(8) Any other process, operation, equipment, or activity, except those types specified in Sections 1 through 7, which emits or causes to be emitted a total of eight tons per year or less of any air pollutant or combination of air pollutants.

1.2.0.2 Notwithstanding any provision of 1.2.0.1, permits shall be required for all new stationary industrial pneumatic solid material handling or conveying systems and all industrial flares for the disposal of waste or excess process gases.

1.2.1 Applications for Permits to Construct.

1.2.1.1 Effective June 1, 1972, except as specified under section 1.2.0, no person shall construct, modify, install or cause the construction, modification, or installation of any new source of air pollutants, or modify any existing source or facility without applying for and obtaining a construction permit from the Commissioner.

1.2.1.2 Application for each source described in 1.2.1.1, 1.2.6.5, and 1.2.6.6 shall be made by the owner or operator of the source on forms furnished by the Commissioner. Each application shall include siting information; descriptions of the equipment and processes involved; the nature, source and quantity of uncontrolled and controlled emissions; the type, size and efficiency of control facilities; and such other information as the Commissioner may require.

1.2.1.3 Unless the Commissioner shall otherwise determine, when two or more sources of a similar or identical nature are constructed or modified in the same plant or premises, they shall be considered a single aggregate source. When two or more dissimilar sources are constructed or modified, a separate permit shall be required for each source.

1.2.2 Standards for Granting Construction Permits. No permit to construct or modify shall be granted until the Commissioner shall have found, upon evidence submitted by the applicant or otherwise made part of the record, that:

(a) The new or modified source for which the permit is requested will operate in accordance with applicable regulations.

(b) Such new or modified source will operate without preventing or interfering with the attainment or maintenance of applicable federal national ambient air quality standards.

(c) Such new or modified source incorporates, the best available control technology.

(d) Such new or modified source contains:

(i) Sampling ports of a size, number and location as the Commissioner may reasonably require.

(ii) Safe access to each port.

(iii) Such instrumentation to monitor and record emission data as is required by these regulations; and

(iv) Such other sampling and testing facilities as the Commissioner may reasonably require.

(e) Such new or modified source will not result in deterioration of air quality in 1975 or later in any region or subregion of the state.

1.2.3 Action on Applications for Construction Permits.

1.2.3.1 Except where a public hearing is held under section 1.2.9.3, the Commissioner shall inform an applicant for a construction permit of the decision approving, denying or conditionally approving the application within sixty (60) days of the receipt of the application. The Commissioner may, on notice to the applicant, extend the time for acting on the application an additional sixty (60) days. An application will not be deemed to have been received by the Commissioner until all papers and documents required in support of the application have been submitted in proper form. The Commissioner must act within 120 days.

1.2.3.2 When a public hearing is held under Section 1.2.9.3 on an application for a construction permit, the Commissioner shall inform the applicant of his decision on the application within thirty (30) days following receipt of the record of the hearings.

1.2.3.3 The Commissioner shall briefly set forth in any notice of approval, conditional approval, or denial, the basis for his determination.

1.2.3.4 The Commissioner may impose any reasonable conditions upon an approval to construct or modify.

1.2.4 Cancellation of Construction Permits.

1.2.4.1 The Commissioner may cancel or modify a construction permit if:

(a) Construction or modification authorized by the permit is not begun within one year from the date of issuance or such other period as is allowed by the permit; or

(b) During construction or modification, work is suspended for one year; or

(c) Prior to commencement of construction or modification, significantly more effective control measures become available, or more stringent emission standards are adopted.

(d) He determines that any provision of Section 1.2.2 has not been or is not being met.

1.2.5 Permits to Operate.

1.2.5.1 No person shall operate or cause the operation of a new or modified source without first obtaining a permit to operate from the Commissioner in accordance with the requirements of this section. No separate application shall be required under this section except for those sources subject to the provisions of 1.2.6.5 and 1.2.6.6.

1.2.5.2 Prior to issuance of a permit to operate, the Commissioner may require the owner or operator of a new or modified source to provide such additional information as he deems necessary and as has not already been included in the application for a construction permit or submitted during the course of construction.

1.2.6.1 The Commissioner may impose reasonable conditions on any permit to operate, including due diligence in operation and maintenance.

1.2.6.2 The Commissioner shall grant a permit to operate a source subject to 1.2.5.1, 1.2.6.5, or 1.2.6.6 if he determines that:

(a) The source is in compliance with applicable regulations.

(b) The source operates without preventing or interfering with the attainment or maintenance of applicable federal national ambient air quality standards.

(c) The source is equipped with instrumentation to monitor and record emission data or other information about the operation of source which satisfies the requirements of Regulation 1.3.

(d) The new or modified source has been constructed in accordance with and meets the requirements, standards, and conditions set forth in the construction permit.

(e) Performance tests conducted at the owner's or operator's expense, in accordance with methods prescribed by the Commissioner or his duly authorized representative and with his observation and participation if he so requires, demonstrate that the new or modified source has in fact met the requirements, standards and conditions of the construction permit, is in compliance with applicable regulations, and that the owner or operator of the source verifies the results in a form satisfactory to the Commissioner.

(f) An emergency abatement or standby plan, where required, has been submitted for the source and approved by the Commissioner.

1.2.6.3 In circumstances where reliable performance tests must be conducted during actual operations, the Commissioner may issue a conditional permit to commence operations for a period not to exceed sixty days. For good cause shown, the period may be extended by the Commissioner for any additional period required. Prior to expiration of the time covered by the conditional permit, the Commissioner shall notify the owner or operator in writing of his approval, conditional approval, or denial of the permit to operate and the reasons therefor .

1.2.6.4 Operating permits shall be renewed every five years, unless issued for a shorter period.

1.2.6.5 Application for the renewal of operating permits must be made at least 120 days prior to the expiration of the existing operating permit.

1.2.6.6 Except as specified under Section 1.2.0, no person shall operate or cause the operation of a source, the construction of which has commenced prior to June 1, 1972, but which will not begin operation prior to October 1, 1972, without first having obtained a permit to operate from the Commissioner in accordance with the requirements of this regulation.

1.2.6.7 Applications pursuant to 1.2.6.6 must be made at least 120 days prior to the start-up of operations.

1.2.7 Transfer of Permit to Operate: The holder of a permit to operate may not transfer it without prior written notification to the Commissioner. Each new owner or operator or holder of the permit shall be responsible for complying with all applicable regulations and with the conditions of the permit.

1.2.8 Denial, Revocation or Modification of Operating Permits.

1.2.8.1 An operating permit may be denied, revoked, or modified for failure to comply with the terms of Sections 1.2.6.1 and 1.2.6.2.

1.2.8.2 Notice of denial, revocation, or modification of either a construction or an operating permit shall set forth the reasons for the action taken and shall be effective thirty (30) days after the date of service of the notice, unless a hearing is requested prior to the expiration of the thirty (30) day period.

1.2.8.3 Any person considering himself aggrieved by the notice of denial, revocation, or modification may consider the notice a written order of violation under Section 1.11.2 (b) of these regulations and may obtain a hearing thereon by filing a written answer and request for a hearing in accordance with Section 1.11.2 (e). Filing of the answer and request for the hearing shall postpone the effective date of the notice until conclusion of hearing and issuance of the decision of the Commissioner.

1.2.9 Public Information and Hearing Procedures.

1.2.9.1.1 In all cases where there is a requirement of legal notice, the Commissioner shall cause the applicant to publish at this own expense all notices of hearings and other notices required by law.

1.2.9.1.2 The Commissioner shall inform the public of:

- (a) all permit applications received;
- (b) all pending operating permits subject to the requirements of 1.2.5.1;
- (c) all decisions approving, denying, or conditionally approving any permit.

1.2.9.2 While a decision is pending on a permit application, or a permit to operate for sources subject to the provisions of 1.2.5.1, any person may file a written objection setting forth the basis thereof in detail with the Department of Environmental Protection and opposing the approval of the permit in its entirety or requesting that specific conditions be attached to it. Objection may be accompanied by a request for hearing.

1.2.9.3 Following receipt of a request for a hearing according to Section 1.2.9 above, or upon his own initiative, the Commissioner may, prior to the issuance of the permit, hold a public hearing. Following the close of the hearing, the Commissioner shall make a decision based on all available evidence, including the record of the hearing and the recommendation of the hearing examiner, as to whether to approve, deny, or conditionally approve the permit. Notice of such decision shall be published according to Section 1.2.9.

1.2.9.4 Notwithstanding the provisions of Section 1.2.9.3, a public hearing shall be mandatory for any application subject to 1.2.1.1, 1.2.6.5 or 1.2.6.6 for a source which the Department has reason to believe will emit more than 100 tons of air pollutants annually.

1.2.10 No permit issued under this Regulation shall be effective until the applicant or his duly authorized representative shall have signed the permit, which signature shall constitute an agreement to abide by the terms and conditions therein.

REGULATION 1.3

Source Monitoring, Record Keeping and Reporting

1.3.0 The owner or operator of an air pollutant source shall install, use, and maintain monitoring equipment, sample emissions, establish and maintain records, and make periodic reports as prescribed by the Commissioner from time to time by regulation.

1.3.1 Continuous monitoring.

1.3.1.1 Effective April 1, 1973, the owner or operator of the following sources shall install, maintain, and operate continuously a photoelectric or other equally effective smoke or opacity detector and recorder:

- (1) Fuel-burning equipment burning No. 6 residual oil or coal;
- (2) Other fuel-burning equipment burning liquid or solid fuels having a maximum rated capacity of more than five million (5,000,000) BTU per hour;
- (3) Incinerators having a maximum rated capacity in excess of two thousand (2,000) pounds per hour;
- (4) A process source emitting in excess of twenty-five (25) pounds per hour of particulate matter when operated at maximum rated capacity.

1.3.1.2 Effective April 1, 1973, the owner or operator of fuel-burning sources (1) and (2) described in 1.3.1.1 above, when those sources burn only liquid or solid fuel containing not in excess of one-half of one percent (0.5%) sulfur (Dry Basis), shall monitor sulfur oxides emissions by satisfactory evidence of the sulfur content and quantity of all fuels burned. Satisfactory evidence of sulfur content of fuels shall be determined by analysis procedures set forth in Regulation 1.4. Records of sulfur content and quantity of fuels burned shall be kept current and be reported in a manner and form and at intervals which the Commissioner shall prescribe.

1.3.1.3 Effective April 1, 1973, the owner or operator of a fuel-burning source burning fuel containing in excess of one-half of one percent (0.5%) sulfur (Dry Basis) shall monitor in accordance with the provisions of Sections 4.1.3 and 4.1.6.

1.3.1.4 In addition to the requirements of Sections 1.3.1.1, 1.3.1.2 and 1.3.1.3, the Commissioner may require sources to monitor continuously their air pollutant emissions where he determines that equipment and methods for such monitoring are reasonably available. Where the Commissioner determines that continuous monitoring of air pollutant emissions is not reasonably available, he may require monitoring or intermittent testing of such sources in whatever reasonable manner he determines to be necessary to demonstrate that the sources are in compliance with applicable regulations.

1.3.1.5 Nothing in Section 1.3.1.4 shall be construed as requiring the installation or use of monitoring devices or methods on any source for the purpose of determining compliance with applicable regulations when such source can be demonstrated, to the satisfaction of the Commissioner, to be physically incapable of violating such regulations.

1.3.2 The owner or operator of a source emitting 100 tons per year or more of pollutants shall be required to carry out an emission test or tests as prescribed by the Commissioner, within twelve months of the effective date of these regulations. Such test or tests shall be repeated at least once every two years thereafter or at such intervals as the Commissioner may specify for an individual source.

1.3.3 Records and reports prescribed by the Commissioner concerning air pollutants, fuels, and operational information shall be recorded, compiled, and submitted on forms furnished or prescribed by the Commissioner. Such records and reports shall be signed or verified in writing by the corporate president, or vice president reporting directly to the president, or highest ranking corporate officer or managing official with offices located in the state; or by an equivalently responsible officer in the case of organizations other than corporations. Such signature shall constitute personal affirmation that such officer has exercised due diligence in verifying the accuracy of the record or report and that, to the best of his knowledge and belief, the record or report is true and complete, complying fully with applicable state requirements. Such signature shall subject the responsible official to liability under these rules and regulations for false or misleading statements.

(a) Emissions shall be reported in units which shall be specified by the Commissioner. Such units shall be in the same form as the units of the emission standards found in the applicable regulations (e.g. pounds per million BTU gross heat input, pounds per pound of process material, pounds per 1000 pounds of exhaust gas), or in any other meaningful units specified by the Commissioner.

(b) The Commissioner may require the submission of any additional records or reports of monitoring data and other information as he deems fit and necessary to fulfill the purposes and policies contained in these regulations.

1.3.4 All monitoring data required by the Commissioner shall be kept current and in a form allowing easy inspection and shall be retained by the source for a period of at least three years. In order to allow meaningful correlation

of the monitoring data or other information with the applicable emission standards as set forth in these regulations, a summary of such monitoring data and information shall be submitted by the source to the Commissioner every three (3) months or at such times and in a form to be prescribed by him.

1.3.5 Equipment or methods for monitoring a source as may be required pursuant to Section 1.3.1 of this regulation shall be maintained in operation at any time that the source is in operation.

(a) No person shall deliberately shut down any monitoring device or method required under these regulations while the source being monitored is in operation or is emitting air pollutants, except for necessary maintenance which cannot be accomplished when the monitored source is not in operation.

(b) In the case of deliberate shutdown or of breakdown or failure of any monitoring device or method during which time the source will be in operation, all reasonable measures shall be taken to assure resumption of monitoring as soon as possible. In the event such shutdown of monitoring equipment is expected, or may reasonably be expected, to continue for longer than 72 hours, and if the source is to be operated at any time during that period, the Commissioner shall be promptly notified in writing. Such notification shall specify the steps being taken to restore monitoring, the expected duration of the monitoring shutdown, and the length of time that the source will be in operation during the shutdown.

(c) Failure of any monitoring equipment in no way relieves the owner or operator of any emission source from the responsibility to comply with applicable air pollutant emission regulations or standards.

1.3.6 The Commissioner or his designated agent, upon presentation of his credentials,

(a) may enter at all reasonable times upon any public or private property, except a private residence, for the purpose of inspection and investigation to ascertain possible violations of these regulations, in accordance with constitutional limitations;

(b) may at reasonable times have access to records and may obtain copies thereof; and

(c) may at any reasonable time inspect any monitoring equipment or method and sample any emissions.

1.3.7 It shall be a violation of these regulations to adjust any monitoring device or method so as to falsify its readings or results.

1.3.8 If the Commissioner has reason to believe that any emission standard is being exceeded or that any regulation is being violated, he may require such tests as he deems necessary to demonstrate compliance.

REGULATION 1.4

Methods for Sampling, Testing, Record Keeping and Reporting

1.4.0 All sampling, testing, record keeping and reporting shall be done in accordance with procedures prescribed by the Commissioner from time to time by regulation.

1.4.1 Sampling and Testing Methods

(a) Analysis for the sulfur content of liquid fuels shall be done according to the American Society for Testing and Materials methods D 1551-68, or D 129-64, or D 1552-64.

(b) Analysis for sulfur content of solid fuel shall be done according to the American Society for Testing and Materials methods:

- (1) Mechanical sampling by method D 22 34065
- (2) Sample preparation by method D 2013-65
- (3) Sample analysis by method 271-68

(c) The testing method for sulfur dioxide emissions from stationary sources shall be that specified as Method 6 in the Federal Register of December 23, 1971, p. 24890.

(d) The testing method for sulfur oxides emissions from sulfuric acid plants, and from any other source as the Commissioner shall determine by regulation, shall be that specified as Method 8 in the Federal Register of December 23, 1971, p. 24893.

(e) The testing method for particulate emissions from all stationary sources except existing incinerators shall be that specified as Method 5 in the Federal Register of December 23, 1971, p. 24888.

(f) The testing method for particulate emissions from existing incinerators shall be those specified as the American Society of Mechanical Engineers Test Code for Dust Separating Apparatus, PTC 21-1941, the ASME Test Code for Determining Dust Concentration in

Gas Stream, PTC 27-1957, and the Los Angeles County Source Testing Manual.

(g) The testing method for organic compound emissions shall be that specified in the Federal Register of April 30, 1971, Appendix E, p. 8198. This method shall be used in conjunction with a heated sampling probe as specified in Section 2.2.1 of Method 6 in the Federal Register of December 23, 1971, p. 24890.

(h) The testing method for nitrogen oxide emissions from stationary sources shall be that specified as Method 7 in the Federal Register of December 23, 1971, p. 24891.

1.4.2 All tests shall be made under the direction of persons qualified by training or experience in the field of monitoring air pollution sources.

1.4.3 Sampling and Testing Methods as specified in Section 1.4.1 may be modified or adjusted with the approval of the Commissioner as required by the specific sampling conditions or needs based upon good practice, judgment and experience.

1.4.4 The Commissioner may require the owner or operator of any air pollution source to conduct tests of emissions. Such tests shall be conducted in a manner satisfactory to the Commissioner and shall be conducted at the expense of the owner or operator, and the Commissioner or his representative shall be entitled to be present to observe the tests, including initial sampling, subsequent laboratory analysis, or any other related procedures.

1.4.6 Record keeping and reporting shall be in a form specified by regulation for sources required to monitor under Regulation 1.3.

(a) Records of continuous monitoring data shall show hourly, daily, weekly, monthly and annual averages. Reports of continuous monitoring data shall be submitted to the Commissioner every three (3) months and shall include daily, weekly, and monthly averages of emissions calculated from such data, the relation of the emissions with the appropriate emission regulations, and a list of the hours and dates, if any, that the source exceeded the applicable standards and the levels reached.

(b) Records of intermittent sampling data or other data which the Commissioner may require according to Regulation 1.3 shall be recorded according to such form as the Commissioner shall prescribe.

(c) Fuel-burning sources shall keep records of the quantity and sulfur content of all liquid and solid fuels delivered. In addition, fuel-burning sources with a fuel storage capacity in excess of two million (2,000,000) gallons shall keep records of monthly fuel use. New sources with a maximum rated gross heat input rate in excess of 250 million BTU's per hour shall keep records of fuel sulfur content based on daily analysis. A summary report of data required in this sub-section will be submitted to the Commissioner every six (6) months and will be on forms, or in a form, prescribed by the Commissioner.

REGULATION 1.5

Air Pollution Emergency Episode Procedures

1.5.0 When a stagnation advisory has been received from the National Weather Service by the Commissioner, he shall prepare for the establishment of an appropriate emergency stage.

1.5.1 Emergency Criteria. In determining any stage of an air pollution emergency to exist, the Commissioner shall be guided by the following criteria:

1.5.2 1st Stage: Advisory of Threatening Atmospheric Conditions. A first-stage emergency ("Advisory of Threatening Atmospheric Conditions.") will be declared when a stagnation advisory is received from the National Weather Service and pollutant concentrations show a rising trend.

1.5.3 2nd Stage: Air Pollution Alert. An air pollution alert shall be declared whenever the concentration of one or more of the pollutants listed below reaches the described level at any monitoring site:

SO₂ - 800 ug./m³ (0.3 p.p.m.), 24-hour average.

Particulate - 3.0 COHs or 375 ug./m³, 24-hour average.

SO₂ and particulate combined - product of SO₂ p.p.m., 24-hour average, and COHs equal to 0.2 or product of SO₂ - ug/m³, 24-hour average, and particulate ug./m³, 24-hour average equal to 65 x 10³.

CO - 17 mg./m³ (15 p.p.m.), 8-hour average.

Oxidant (O₃) - 200 ug./m³ (0.1 p.p.m.) - 1-hour average

NO₂ - 1130 ug./m³ (0.6 p.p.m.), 1-hour average, 282 ug./m³ (0.15 p.p.m.), 24-hour average,

and meteorological conditions are such that the pollutant concentrations can be expected, unless control actions are taken, to remain at the above

levels or increase over a period of twelve (12) or more hours or such other length of time determined by the Commissioner to constitute a threat to the safety and welfare of people.

1.5.4 Third Stage: Air Pollution Warning. An air pollution warning shall be declared whenever evidence shows that air quality is continuing to degrade from the 1st stage alert and any one of the following levels is reached at any monitoring site:

SO₂ - 1,600 ug./m³ (0.6 p.p.m.), 24-hour average.

Particulate - 5.0 COHs or 625 ug./m³, 24-hour average.

SO₂ and particulate combined - product of SO₂ p.p.m., 24-hour average and COHs equal to .8 or product of SO₂ ug./m³, 24-hour average and particulate ug./m³, 24-hour average equal to 261 x 10³.

CO - 34 mg./m³ (30 p.p.m.), 8-hour average.

Oxidant (O₂) - 800 ug./m³ (0.4 p.p.m.), 1-hour average.

NO₂ - 2,260 ug./m³ (1.2 p.p.m.) - 1-hour average; 565 ug./m³ (0.3 p.p.m.), 24-hour average,

and meteorological conditions are such that pollutant concentrations can be expected, unless control actions are taken, to remain at the above levels or increase over a period of twelve (12) or more hours or such other length of time determined by the Commissioner to constitute a threat to the safety and welfare of people.

1.5.5 Fourth Stage: Extreme Emergency. An extreme emergency shall be declared whenever evidence shows that air quality has degraded to a level deemed unacceptable by the Commissioner under any circumstances and requiring the most stringent control actions. An extreme emergency will automatically be declared when any one of the following levels is reached at any monitoring site:

SO - 2,100 ug./m³ (0.8 p.p.m.), 24-hour average.

Particulate - 7.0 COHs or 875 ug./m³, 24-hour average.

SO₂ and particulate combined - product of SO₂ p.p.m., 24-hour average and COHs equal to 1.2 or product of SO₂ ug./m³, 24-hour average and particulate ug./m³, 24-hour average equal to 398 x 10³.

CO - 46 mg./m³ (40 p.p.m.), 8-hour average.

Oxidant (O₃) - 1,200 ug./m³ (0.6 p.p.m.), 1-hour average.

NO₂ - 3,000 ug./m³ (1.6 p.p.m.), 1-hour average; 750 ug./m³ (0.4 p.p.m.), 24-hour average,

and meteorological conditions are such that this condition can be expected to continue for twelve (12) or more hours or such other length of time determined by the Commissioner to justify the extreme emergency.

1.5.6 Termination. Once any stage of an air pollution emergency has been declared, it shall remain in effect until the Commissioner shall announce its termination. At such time, the next lower stage shall take effect.

Plans of Action at Each Stage of Emergency

1.5.7 1st Stage: Advisory of Threatening Atmospheric Conditions. Whenever the Commissioner issues a 1st stage advisory of threatening atmospheric conditions, all open burning shall cease (except as authorized by the Commissioner in writing to safeguard public health and safety), and incinerator operations shall be limited as he may prescribe. Additionally, persons responsible for the operation of a source of air pollution shall immediately put into effect the preplanned abatement strategies referred to in Section 1.5.10.1 for the 1st stage advisory; and shall commence preparations for advancing into all phases of the 2nd stage alert as set forth in Table I.

1.5.8 2nd Stage Air Pollution Alert. Whenever the Commissioner declares a 2nd stage air pollution alert, persons responsible for the operation of a source of air pollution as set forth in Table I shall as rapidly as

possible take all required steps for pollution reduction and shall put into effect the preplanned abatement strategy for a 2nd stage alert.

TABLE I

Steps For Air Pollution Reduction
at 2nd Stage Alert

1. There shall be no open burning, except as authorized by the Commissioner in writing to safeguard public health and safety.
2. The use of incinerators for the disposal of any form of solid waste shall be limited to the hours between 12 noon and 4 p.m.
3. Boiler lancing or soot blowing required for fuel burning equipment shall be performed only between the hours of 12 noon and 4 p.m.
4. All unessential operation of motor vehicles shall be terminated.

Any person responsible for the operation of a source of air pollution listed below shall take all described control actions for this 2nd stage alert.

<u>Source of air pollution</u>	<u>Control action</u>
1. Coal or oil-fired electric power generating facilities.	<ol style="list-style-type: none">a. Substantial reduction by utilization of fuels having low ash and sulfur content, as set forth in standby plans.b. Maximum utilization of mid-day (12 noon to 4 p.m.) atmospheric turbulence for boiler lancing and soot blowing.c. Substantial reduction by diverting electric power generation to facilities outside of Alert Area, as set forth in standby plans.
2. Coal and oil-fired process steam generating facilities.	<ol style="list-style-type: none">a. Substantial reduction by utilization of fuels having low ash and sulfur content, as set forth in standby plans.

Table I (continued)

3. Manufacturing industries of the following classifications:
- Primary Metals Industry.
 - Petroleum Refining Operation.
 - Chemical Industries.
 - Mineral Processing Industries.
 - Paper and Allied Industries.
 - Grain Industry.
- b. Maximum utilization of mid-day (12 noon to 4 p.m.) atmospheric turbulence for boiler lancing and soot blowing.
 - c. Substantial reduction of steam load demands consistent with continuing plant operations, as set forth in standby plans.
 - a. Substantial reduction of air pollutants from manufacturing operations by curtailing, postponing, or deferring production and other operations, as set forth in standby plans.
 - b. Maximum reduction by deferring trade waste disposal operations which emit solid particles, gas vapors or malodorous substances.
 - c. Maximum reduction of heat load demands for processing.
 - d. Maximum utilization of mid-day (12 noon to 4 p.m.) atmospheric turbulence for boiler lancing or soot blowing.

1.5.9 Third Stage Air Pollution Warning. Whenever the Commissioner declares a 3rd stage air pollution warning, persons responsible for the operation of a source of air pollution as set forth in Table II shall as rapidly as possible take all required steps for pollution reduction and shall put into effect the preplanned abatement strategy for a 3rd stage warning.

TABLE II

Steps for Air Pollution Reduction
at 3rd Stage Warning

1. There shall be no open burning except as authorized by the Commissioner in writing to safeguard public health and safety.
2. The use of incinerators for the disposal of any form of solid waste or liquid waste shall be prohibited.

Table II (continued)

3. Boiler lancing or soot blowing required for fuel burning equipment shall be performed only between the hours of 12 noon and 4 p.m.
4. All private non-commercial motor vehicle operations shall cease except where absolutely essential for necessities of life including medical treatment. Driving to and from work in private vehicles shall be prohibited except where no alternative public transportation of any kind exists, and then use of car pools shall be mandatory. Police, toll booth operators and other government officials shall be requested to verify justification for private motor vehicle use during 3rd stage warning. Commercial vehicle operations shall be reduced to the absolute minimum necessary to transport necessities and provide for public safety and welfare.

Any person responsible for the operation of a source of air pollutants listed below shall take all required control actions for this Warning Level.

<u>Source of air pollution</u>	<u>Control action</u>
1. Coal or oil-fired power generating facilities.	<ol style="list-style-type: none"> a. Maximum reduction by utilization of fuels having lowest ash and sulfur content, as set forth in standby plans. b. Maximum utilization of mid-day (12 noon to 4 p.m.) atmospheric turbulence for boiler lancing and soot blowing. c. Maximum reduction by diverting electric power generation to facilities outside of Warning Area, as set forth by standby plans.
2. Coal and oil-fired process steam generating facilities.	<ol style="list-style-type: none"> a. Maximum reduction by utilization of fuels having the lowest available ash and sulfur content, as set forth in standby plans. b. Maximum utilization of mid-day (12 noon to 4 p.m.) atmospheric turbulence for boiler lancing and soot blowing. c. Substantial reduction of steam load demands, as set forth in standby plans.

Table II (continued)

- | | |
|--|--|
| 3. Manufacturing industries which require considerable lead time for shut-down including but not limited to the following classifications: | |
| Petroleum Refining.
Chemical Industries.
Primary Metals Industries.
Glass Industries.
Paper and Allied Products. | |
| 4. Manufacturing industries requiring relatively short lead time for shut-down including but not limited to the following classifications: | |
| Primary Metals Industries.
Chemical Industries.
Mineral Processing Industries.
Grain Industry. | |
- | |
|---|
| a. Maximum reduction of air pollutants from manufacturing and other operations, as set forth in standby plans. |
| b. Maximum reduction by deferring trade waste disposal operations which emit solid particles, gases, vapors or malodorous substances. |
| c. Maximum reduction of heat load demands for processing as set forth in standby plans. |
| d. Maximum utilization of mid-day (12 noon to 4 p.m.) atmospheric turbulence for boiler lancing or soot blowing. |
- | |
|---|
| a. Elimination of air pollutants from manufacturing operations by ceasing, curtailing, postponing or deferring production and allied operations to the extent possible as set forth in standby plans. |
| b. Elimination of air pollutants from trade waste disposal processes which emit solid particles, gases, vapors or malodorous substances. |
| c. Maximum reduction of heat load demands for processing, as set forth in standby plans. |
| d. Maximum utilization of mid-day (12 noon to 4 p.m.) atmospheric turbulence for boiler lancing or soot blowing. |

1.5.10 4th Stage Extreme Emergency. Whenever the Commissioner declares a fourth stage extreme emergency, persons responsible for the operation of a source of air pollution as set forth in Table III shall immediately take all required steps for pollution reduction and shall put into effect the preplanned abatement strategy for a 4th stage extreme emergency.

TABLE III

Steps for Air Pollution Reduction
at 4th Stage Extreme Emergency

1. There shall be no open burning, except as authorized by the Commissioner in writing to safeguard public health and safety.
2. The use of incinerators for the disposal of any form of solid or liquid waste shall be prohibited.
3. All enterprises and activities described below shall immediately cease operations:
 - a. Mining and quarrying.
 - b. All construction work except that essential to secure sites against endangering life and limb.
 - c. All manufacturing establishments except those involved in combatting the air pollution emergency in accordance with preplanned abatement strategies.
 - d. All wholesale trade establishments, i.e., places of business primarily engaged in selling merchandise to retailers, or industrial, commercial, institutional or professional users, or to other wholesalers, or acting as agents in buying merchandise for or selling merchandise to such persons or companies, except those engaged in the distribution of drugs, surgical supplies and food.
 - e. All state and local government offices except those necessary for public safety and welfare, including any involved in combatting the air pollution emergency.
 - f. All retail trade establishments except pharmacies, surgical supply distributors, and stores primarily engaged in the sale of food.
 - g. Banks, credit agencies other than banks, securities and commodities brokers, dealers, exchanges and services; offices of insurance carriers, agents and brokers, real estate offices.
 - h. Wholesale and retail laundries, laundry services and cleaning and dyeing establishments; photographic studios; beauty shops, barber shops, shoe repair shops.
 - i. Advertising offices; consumer credit reporting, adjustment and collection agencies; duplicating, addressing, blueprinting; photocopying, mailing, mailing list and stenographic services; equipment rental services, commercial testing laboratories.
 - j. Automobile repair and servicing and all parking and garage operations.
 - k. All office, clerical and professional service enterprises including law and accounting offices but excluding doctors' offices and medical laboratories.

Table III (continued)

1. All schools of any kind.
- m. Establishments rendering amusement and recreational services including motion picture theaters.
4. All commercial, manufacturing or service establishments not shut down by this regulation shall institute such actions as will result in maximum reduction of air pollutants from their activities by ceasing, curtailing, or postponing operations which emit air pollutants to the extent possible without causing injury to persons or damage to equipment.
5. The use of motor vehicles of any kind shall cease except in emergencies with the express approval of local or state police.

Any person responsible for the operation of a source of air pollution listed below shall take all required control actions for this 4th stage all-out emergency.

<u>Source of air pollution</u>	<u>Control action</u>
1. Coal of oil-fired electric power generating facilities.	<ol style="list-style-type: none"> a. Maximum reduction by utilization of fuels having lowest ash and sulfur content, as set forth in standby plans. b. Maximum utilization of mid-day (12 noon to 4 p.m.) atmospheric turbulence for boiler lancing or soot blowing. c. Maximum reduction by diverting electric power generation to facilities outside of Emergency Area, as set forth in standby plans. d. Imposition of coal reduction procedures to extent necessary.
2. Coal and oil-fired process steam generating facilities to the extent not prohibited in paragraph 3 (a-m) above.	<ol style="list-style-type: none"> a. Maximum reduction by reducing heat and steam demands to absolute necessities consistent with preventing equipment damage, as set forth in standby plans. b. Maximum utilization of mid-day (12 noon to 4 p.m.) atmospheric turbulence for boiler lancing and soot blowing. c. Maximum reduction of steam load demands as set forth in standby plans.

1.5.10.1 Preplanned Abatement Strategies. Any person responsible for the operation of a source of air pollutants as shown in Tables I - III or any other person operating a source that emits 100 tons or more of pollutants a year shall prepare a standby plan for reducing the emission of air pollutants during each of the four stages of an air pollution emergency, i.e., 1st Stage Advisory; 2nd Stage Alert; 3rd Stage Warning; 4th Stage Extreme Emergency. Standby plans shall be designed to reduce or eliminate emission of air pollutants in accordance with the requirements set forth in Tables I - III.

1.5.10.2 Any person responsible for the operation of a source of air pollutants not set forth under Section 1.5.10.1 shall, when requested by the Commissioner, prepare standby plans for reducing the emissions of air pollutants during each of the four stages of an air pollution emergency. Such standby plans shall be designed to reduce or eliminate emissions of air pollutants in accordance with the requirements set forth in Tables I - III.

1.5.10.3 All standby plans shall be in writing, identify the source of air pollutants, contain a commitment as to the amount of reduction to be achieved, and set forth in sufficient detail for the Commissioner to evaluate the manner in which the reduction will be accomplished.

1.5.10.4 During any period of Air Pollution Advisory, Alert, Warning, or Extreme Emergency, standby plans shall be made available on the premises to persons authorized to enforce these regulations.

1.5.10.5 The standby plans required by Section 1.5.10.1 shall be submitted to the Commissioner by August 1, 1972. Standby plans requested by the Commissioner under Section 1.5.10.2 shall be submitted within 90 days of the date of receipt of the request. When in the judgment of the

Commissioner a standby plan is not adequate to carry out the objectives set forth in Tables I - III, he may reject the plan and require that it be resubmitted in an acceptable form within 30 days from the date of rejection.

1.5.10.6 Declaration of Air Pollution Emergency In Aid of Sister State.

Notwithstanding that the concentration of pollutants in the air over the State of Connecticut does not meet the criteria set forth in 1.5.2 to 1.5.5 above for any stage of an air pollution emergency, the Commissioner may nevertheless declare such emergency to be in effect at the stage level he deems appropriate when it becomes necessary to reduce the level of air pollutants in Connecticut to avoid intensifying deteriorated air conditions in one or more areas outside the state that are endangering the health and welfare of residents in those area.

1.5.10.7 Emissions from a Limited Number of Sources. Whenever the Commissioner determines that a specified emergency criteria level has been reached in a limited area, he may restrict the response to such emergency in the manner he deems appropriate, including notification to those sources contributing or believed to be contributing to the emergency levels that the abatement actions of Tables I, II, or III, as the case may be, are required and shall be put into effect until the pollution is reduced below the criteria levels.

REGULATION 1.6

Malfunction of Control Equipment; Reporting

1.6.1 Equipment or methods which control air pollutant emissions from a source and which are necessary to the operation of such source in compliance with applicable emission standards and regulations shall be maintained in operation at all times that the source is in operation or is emitting air pollutants.

1.6.2 No person shall deliberately shut down any such control equipment or method while the source is in operation except for such necessary maintenance as cannot be accomplished when the source itself is not in operation and is not emitting air pollutants.

1.6.3 In the case of breakdown, failure, or deliberate shutdown of any control equipment or method during which time the source will be in operation, all reasonable measures shall be taken to assure resumption of control as soon as possible. Due diligence shall be exercised to minimize emissions while the control equipment or method is inoperative. In the event such shutdown of control equipment or methods is expected or may reasonably be expected to continue for longer than 72 hours, and if the source is to be operated at any time during that period, the Commissioner shall be notified promptly. Such notice shall include, but is not limited to the following:

(a) Identification of the specific facility taken out, or to be taken out, of service as well as its location and, where applicable, registration or permit number.

(b) The expected length of time that the air pollution control equipment will be out of service.

(c) The nature and quantity of emissions of air pollutants likely to be emitted during the shutdown period.

(d) Measures such as the use of off-shift labor and equipment that will be taken to minimize the length of the shutdown period.

(e) The reasons that it would be impossible or impractical to shut down the source operation during the maintenance period.

1.6.4 The Commissioner may attach conditions to the operation of the source during the period of shutdown or breakdown.

Compliance Schedule

1.7.1 All new sources must comply with all regulations as of startup of operations.

1.7.2.1 Existing sources must comply with regulations 2.1, 3.2, 3.4, and 8.1 by June 1, 1972.

1.7.2.2 Existing sources must comply with regulations 3.1, 3.3, 3.5, 3.6, 4.2, 4.3, 4.4, 4.5, 4.6, 5.1, 5.2, 5.3, 5.4, 5.5, 5.6.1, 5.6.2, 5.6.4, 5.6.5, 5.6.6, 5.6.7, 5.6.8, 5.6.9, 6.1, 6.2, 7.1, 7.2, and 7.3 as expeditiously as practicable but not later than June 1, 1973.

1.7.2.3 Sources subject to regulation 5.6.3 must submit to the Commissioner a proposed compliance plan and schedule by November 1, 1972, which plan must provide for compliance with appropriate regulations as expeditiously as practicable but not later than April 1, 1975. Sources that do not submit such a plan must be in compliance by June 1, 1973.

1.7.2.4 Fuel merchants must comply with 4.1 by September 1, 1972, and fuel users must comply with 4.1 by April 1, 1973.

1.7.2.5 Paint merchants must comply with 5.7.1 by January 1, 1974, and paint users must comply with 5.7.2 by January 1, 1975.

1.7.2.6 Exemptions specified in regulation 5.9.1.1 will terminate January 1, 1975.

1.7.2.7 Sources subject to the provisions of 1.3.1.1, 1.3.1.2 and 1.3.1.3 must comply by April 1, 1973.

1.7.3 Any existing source required to comply with regulation 1.7.2.2 which is unable to comply by the date specified therein must submit to the Commissioner a proposed compliance plan and schedule by October 1, 1972,

which plan must provide for compliance with appropriate regulations as expeditiously as practicable but not later than April 1, 1974.

1.7.4 Compliance plans and schedules pursuant to 1.7.2.3 and 1.7.3 must:

- (a) be submitted on forms furnished or prescribed by the Commissioner;
- (b) set forth a proposed date for compliance with each applicable regulation; and
- (c) specify in detail the manner in which compliance will be achieved.

Said schedule shall also include dates for achievement of increments of progress toward compliance and provide for the source to verify completion of each increment to the Commissioner as it is achieved.

1.7.5 The Commissioner may approve, approve with conditions, or disapprove a proposed compliance plan and schedule. The Commissioner shall approve such plan and schedule if he determines that:

- (a) The source cannot comply with the regulation at any earlier time, even using the best available control technology, or cannot install such technology any earlier;

- (b) Adherence to such plan and schedule will not jeopardize the attainment or maintenance of a national standard by the required time;

- (c) The plan and schedule provide for the earliest possible compliance by the source; and

- (d) The plan and schedule provide for interim control measures to be taken before the compliance date.

1.7.6 If the Commissioner rejects a proposed plan and schedule or portion thereof, then the source or sources involved must be in compliance with applicable regulations not later than June 1, 1973.

1.7.7 All decisions of the Commissioner regarding a proposed plan and schedule shall be in writing and shall briefly state the basis for the decision.

1.7.8 The Commissioner shall issue periodic reports at intervals of not less than once a month, available on request to any interested party, which shall contain information regarding:

- (a) proposed compliance schedules received; and
- (b) determinations of the Commissioner regarding such schedules.

1.7.9 Following submission to the Commissioner of a proposed compliance plan and schedule, any person may file written objections to the plan, in whole or in part, specifying the basis for those objections. The Commissioner may, at his discretion and after appropriate notice, hold public hearings upon proposed compliance plans and schedules.

Compliance Schedule

Reg. No.

CARBON MONOXIDE EMISSIONS

6.1,	Effective Date	6/1/73
6.2	of Compliance	According to Approved Plan (as expeditiously as possible; not later than 4/1/74)

NITROGEN OXIDE EMISSIONS

Fuel Burning	7.1	}	Effective Date	6/1/73
Non-Fuel Burning	7.2, 7.3		of Compliance	According to Approved Plan (as expeditiously as possible; not later than 4/1/74)
Equipment				

ODORS

Odors	8.1	Effective Date	6/1/72
		of Compliance	

REGULATION 1.8

Prohibition of Air Pollution

1.8.0 No person shall permit or cause air pollution, as defined in section 1.0.2 of these regulations. This section applies to air pollutants not otherwise covered by these regulations.

REGULATION 1.9

Public Availability of Information

1.9.1.1 Any records, reports or other information obtained by the Commissioner or on file with the department shall, pursuant to the provisions of Sections 1-7 through 20 of the General Statutes, as amended, be made available to the public. Upon a showing satisfactory to the Commissioner by any person that such records, reports or other information, or particular parts thereof (other than emission data), if made public, would divulge methods or processes entitled to protection as trade secrets of such person, the Commissioner shall consider such record, report or information, or particular part thereof, confidential, except that such record, report or information may be disclosed to other officers, employees, or authorized representatives of the state concerned with carrying out these regulations or when relevant in any hearing conducted by the Department of Environmental Protection or in any judicial proceeding, subject to such safeguards as the hearing officer or presiding judge may impose.

1.9.1.2 Emission data shall not be entitled to protection as a trade secret.

1.9.2 Any emission data made public by the Commissioner shall be presented in such a manner as to show the relationship between measured amounts under applicable emission limitations and compliance schedules or other measures.

1.9.3 The Commissioner, when he deems it appropriate, may require a nominal charge to defray the costs of reproducing any requested information.

REGULATION 1.10

Prohibition Against Concealment or Circumvention

1.10.0 No person shall install or cause the installation or use of any device or any means which, without resulting in reduction in the total amount of air pollutant emitted, conceals or dilutes an emission of air pollutant which would otherwise violate applicable regulations.

1.10.1 Abatement of objectionable odors as defined in Regulation 8 by means of dilution or masking shall not be deemed a violation of Section 1.10 above, provided that any masking odor used shall not itself violate Regulation 8 or create a nuisance.

REGULATION 1.11

Violations and Enforcement

1.11.1 No person shall violate or cause the violation of any applicable regulation.

1.11.2 Remedies for Violations.

(a) the Commissioner shall designate employees of DEP to be known as enforcement personnel, who shall, acting with or without complaints, conduct investigations and ascertain whether the Commissioner's regulations are being complied with.

(b) whenever the enforcement personnel determine that any regulation promulgated by the Commissioner has been violated or there has been a failure to comply therewith, they shall make and serve upon the person or persons responsible for the violations, or failure, a written order specifying the nature of the violation or failure, a written order specifying the nature of the violation or failure and affording a reasonable period of time for its correction or remedying.

(c) prior to the issuance of such order, the Enforcement Personnel shall make reasonable effort in the light of all circumstances to correct the violation or failure of compliance by conference, conciliation and persuasion, as required by statute.

(d) unless the person or persons against whom an order has been served files a written answer thereto with the Commissioner, within thirty (30) days after the date of service of the order, and requests a hearing thereon, such order shall become final and effective. The answer shall contain a clear and concise statement of the reason or reasons, if any,

that the order is claimed to be invalid or insufficient and/or the manner in which the persons filing the answer deem themselves aggrieved by the order. Upon receipt of the answer and request for a hearing, the Commissioner shall schedule the hearing as soon thereafter as is practical before himself or a designated hearing officer to act in his place and stead. The person designated to act as hearing officer shall not have participated in any way in the investigation or other preliminary proceedings preceding the issuance of the order specifying the violation. The hearing shall be open to the public and shall be conducted in the manner provided by statute, to wit: Testimony shall be under oath and recorded stenographically or by a sound-recording device, but strict rules of evidence of courts of law shall not be binding on the hearing officer. True copies of the transcript and of any other record made by or at such hearing shall be furnished a party or any other person requesting them at their own expense. During the course of a hearing, the hearing officer may take appropriate measures to preserve the confidentiality of trade secrets.

(e) any person who receives a notice that a permit has been denied, revoked or modified, or only conditionally approved, may deem the notice a written order of violation under Section 1.11.2 and file a written answer and request for a hearing under Section 1.11.2.(d).

(f) at the conclusion of a hearing held under Section 1.11.2(d) or 1.11.2(e) and after reviewing the hearing record and the recommendation and report of the hearing officer, if any, the Commissioner shall determine whether the person or persons against whom such order has been issued is violating any regulation of the Commissioner, or has failed to comply with a proper requirement, order, notice, ruling or directive duly issued,

or has improperly had a permit denied, revoked, or modified, or conditionally approved, and he shall affirm, modify, reverse or revoke the order, notice or other action complained of as he shall in his discretion determine, and shall so notify such person or persons by certified mail. Any information as to secret processes or methods shall be kept confidential.

1.11.3 Any person who violates an order of the Commissioner shall be liable for a civil penalty not to exceed five thousand dollars (\$5,000) per week commencing the 10th day after expiration of the time fixed for the taking of preventive or corrective measures, although the Commissioner in his discretion may waive such accrual in whole or in part. The penalty may be collected in a civil action in the manner provided by statute. In addition, the Commissioner may institute a civil action in any court of competent jurisdiction for injunctive relief to prevent any further violations of an order.

1.11.4 Emergencies. Notwithstanding any other provision of these regulations, if the Commissioner determines that an air pollution emergency exists caused by adverse meteorological conditions, such as an inversion or a stagnant high pressure system, which requires immediate action to protect public health or safety, he may order any person emitting or responsible for the emission of air pollutants or contaminants creating or contributing to the emergency, to reduce or discontinue such actions immediately. Upon the issuance of such order, the Commissioner shall fix a place and time, not later than forty-eight hours thereafter, for a hearing to be held before him or a

hearing officer designated by him. Not more than twenty-four hours after the conclusion of such hearing, and without adjournment thereof, the Commissioner shall affirm, modify or set aside his order. Nothing contained in this regulation shall be deemed a waiver of the Commissioner's powers to seek immediate injunctive relief in the courts against a person responsible for emission of pollutants in an emergency.

1.11.4.1 Any person who violates an order issued during and/or related to an air pollution emergency shall be liable for a civil penalty of five thousand dollars (\$5,000) per week commencing with the date of notice to such person of issuance of the order.

1.11.5 Criminal Liability. Any person who files any statement, record or report with the Commissioner containing false or misleading information or other claims shall be subject to criminal prosecution for a Class A misdemeanor punishable by imprisonment for a period of up to one year and a fine of up to one thousand dollars (\$1,000) for each violation.

REGULATION 1.12

Variances

1.12.1.1 Any person who owns or operates any source of air pollutants as defined in 1.0.1 may apply to the Commissioner for a variance or a partial variance from one or more of the provisions of these regulations. Applications for a variance shall be submitted on forms furnished or prescribed by the Commissioner and shall supply such information as he requires, including but not limited to,

(a) information on the nature and location of the facility or process for which such application is made;

(b) the reasons for which the variance is required, including the economic and technological justifications;

(c) the type and quantity of emissions that will occur during the period of variance;

(d) a description of interim control measures to be taken by the source to minimize emissions and the damages occurring therefrom;

(e) history of any previous environmental litigation between the source and government agencies;

(f) a specific schedule of measures to be taken to bring the source into eventual compliance with those regulations from which the variance is sought;

(g) any other relevant information the Commissioner may require in order to make a determination regarding the application.

1.12.1.2 Failure to supply all necessary information to enable the Commissioner to make a determination regarding the application shall be

cause for rejection of the application.

1.12.2 No variance shall be approved unless the applicant shall establish to the Commissioner's satisfaction that:

(a) discharges occurring during the period of variance will not constitute a danger to public health or safety;

(b) compliance with the regulations would produce practical difficulty or hardship without equal or greater benefits to the public.

1.12.3 In making a determination on granting a variance, the Commissioner shall consider:

(a) the character and degree of injury to, or interference with, safety, health, or the reasonable use of property which is caused or threatened to be caused;

(b) the social and economic value of the activity for which the variance is sought;

(c) the suitability or unsuitability of the activity to the area in which it is located;

(d) the impracticability, both scientific and economic, of complying with the regulation from which the variance is sought.

1.12.4 The Commissioner shall not grant any variance that will prevent or interfere with the attainment or maintenance of any relevant ambient air quality standard.

1.12.5 Applications for variances may be rejected as untimely if received by the Department of Environmental Protection less than 90 days prior to the date for compliance with the regulation for which the variance is sought, or if notice of violation of the regulation has been served in accordance with Section 1.11.2(b).

1.12.6 Following receipt and review of an application for a variance, the Commissioner shall fix a date, time, and location for a public hearing on such application.

1.12.7 The Commissioner shall cause the applicant to publish at his own expense all notices of hearings and other notices required by law.

1.12.8 Within sixty (60) days of the receipt of the record of the hearing on a variance application, the Commissioner shall issue his determination regarding such application. All such decisions of the Commissioner shall be in writing and shall briefly set forth the reasons for the decision.

1.12.9 The Commissioner may, at his discretion, limit the duration of any variance granted under these regulations, except that no such variance may extend beyond three years.

(a) Any party holding a variance for three years and needing an extension of time may apply for a new variance under the provisions of these regulations.

(b) Any such application shall include a demonstration of compliance with any conditions imposed by the previous variance.

1.12.10 The Commissioner may attach to any variance any reasonable conditions he deems necessary or desirable, including but not limited to:

(a) requirements for special control measures to be taken by the source to minimize emissions during the period of variance;

(b) requirements for periodic reports submitted by the applicant relating to emissions, to compliance with any other conditions under which the variance is granted, or to any other relevant information the Commissioner deems necessary.

1.12.11.1 A variance may be revoked or modified for failure to comply with such conditions as the Commissioner may have attached to the original grant of a variance.

1.12.11.2 Notice of revocation or modification shall set forth the reasons for the action taken and shall be effective thirty (30) days after the date of service of the notice, unless a hearing is requested prior to the expiration of the thirty (30) day period.

1.12.11.3 Any person considering himself aggrieved by such notice may consider the notice a written order of violation under Section 1.11.2(b) of these regulations and may obtain a hearing thereon by filing a written answer and request for a hearing in accordance with Section 1.11.2(e). Filing of the answer and request for the hearing shall postpone the effective date of the notice until conclusion of hearing and issuance of the decision of the Commissioner.

REGULATION 1.13

Compliance with Regulation no Defense
to Nuisance Claim

1.13.0 Nothing in any portion of these regulations shall in any manner be construed as authorizing or legalizing the creation or maintenance of a nuisance, and compliance of a source with these regulations is not a bar to a claim of nuisance by any person.

REGULATION 1.14

Severability

1.14.0 If any provision of these regulations or the application thereof to any person or circumstances is held to be invalid, such invalidity shall not affect other provisions or application of any other part of these regulations which can be given effect without the invalid provisions or application, and to this end the provisions of these regulations and the various applications thereof are declared to be severable.

REGULATION 1.15

Responsibility to Comply with Applicable Regulations

1.15.0 Exemption from requirements for registration or permits or possession of a permit to construct or operate or of a variance or approval of a compliance schedule shall not relieve any person of the responsibility to comply with any other applicable regulations or other provisions of federal or state law.

REGULATION 2

Control of Open Burning

2.0 No person shall ignite, cause to be ignited, permit to be ignited, or maintain any open fire except as follows:

- (a) Barbeques or other outdoor open fires for the cooking of food for human consumption;
- (b) Campfires, bonfires, and other fires for ceremonial or recreational purposes;
- (c) Fires to abate a fire hazard provided that the abatement fire is controlled according to directions of a responsible fire official;
- (d) Fires in salamanders or other devices used by construction or other workers for heating purposes, provided smoke is kept to a minimum and no nuisance is created; and small fires kindled by contractors, which fires are essential to street installation or paving activities, the repairing of utilities, or other similar work.

2.1 The following types of fires are allowed provided that a written certificate has first been obtained from the Commissioner or his designee;

- (a) Fires for training personnel in methods of fighting fires;
- (b) Fires for the prevention or control of disease or pests;
- (c) Fires for the prevention, control, or destruction of agricultural diseases and pests, and agricultural burning for vegetation management;
- (d) Fires for the disposal of dangerous materials where there is no reasonable alternative method of disposal;
- (e) Any other fires which the Commissioner determines are necessary

to thwart or prevent a hazard which cannot be properly managed by any other means or are necessary for the protection of public health.

2.2 A certificate given under Section 2.1 shall be applicable only for the occasion or the circumstance for which it is obtained, and a new certificate shall be required for all open burning not sanctioned by an existing certificate.

2.3 Certificates approved under Section 2.1 shall be subject to such reasonable conditions as are necessary to avoid a nuisance or to protect the health, safety, or comfort of the public. The Commissioner or his designee shall not issue a certificate under Section 2.1 when he determines that:

- (a) A hazardous health condition will be created by such burning; or
- (b) A salvage operation by open burning will be conducted; or
- (c) A practical and reasonably available alternative method for the disposal of the material to be burned exists; or
- (d) Such open burning would prevent the attainment or maintenance of a relevant ambient air quality standard.

2.4 If the Commissioner declares an Advisory of Threatening Atmospheric Condition, the first stage of an air pollution emergency episode as set forth in Regulation 1.5, or any other air pollution emergency episode stage, no person shall ignite, cause to be ignited, permit to be ignited, or maintain any open fire except as specifically provided by Regulation 1.5.

REGULATION 3

Control of Particulate Emissions

3.1 Visible emissions.

3.1.1 Visible emission restrictions for stationary sources.

(a) No person shall cause or permit the emission of visible air pollutants of a shade or density equal to or darker than that designated as No. 1 on the Ringelmann chart or 20 percent opacity.

(b) A person may discharge air pollutants into the atmosphere from any source of emission for a period or periods aggregating not more than 5 minutes in any 60 minutes, provided that said air pollutants are of a shade or density not darker than No. 2 on the Ringelmann chart or 40 percent opacity.

(c) Open burning conducted under provisions of Regulation 2 shall not be subject to Regulation 3.1.1.

3.1.2 Visible emission restrictions for mobile sources.

(a) No person shall cause or permit the emission of visible air pollutants from gasoline-powered mobile sources for longer than five (5) consecutive seconds.

(b) No person shall cause or permit the emission of clearly visible air pollutants (comparable to a shade or density equal to or darker than No. 1 on the Ringelmann chart or 20 percent opacity) from diesel powered motor vehicles for more than ten (10) consecutive seconds, during which time the maximum shade or density of emissions shall be no darker than No. 2 on the Ringelmann chart or 40 percent opacity.

3.1.3 Exceptions for uncombined water. Where the presence of uncombined water, such as water vapor, is the only reason for the failure of an emission to meet the requirements of this regulation, then the provisions of this regulation shall not apply.

3.1.4 The following shall be exempt from the requirements of Section 3.1.2:

- (a) Antique automobiles over 30 years old;
- (b) Vehicles used exclusively for racing; and
- (c) Mobile sources in the process of being repaired.

3.1.5 Emissions from stationary or idling mobile sources.

No mobile source engine shall be allowed to operate for more than three (3) consecutive minutes when the mobile source is not in motion except as follows:

(a) When a mobile source is forced to remain motionless because of traffic conditions or mechanical difficulties over which the operator has no control;

(b) When it is necessary to operate heating, cooling or auxiliary equipment installed on the mobile source when such equipment is necessary to accomplish the intended use of the mobile source;

(c) To bring the mobile source to the manufacturer's recommended operating temperature;

(d) When the outdoor temperature is below twenty (20) degrees Fahrenheit;

(e) When the mobile source is being repaired.

3.1.6 Subsection 3.1.2 and 3.1.5 shall not apply to aircraft, locomotives operating on rails, vessels for transportation on water, lawnmowers, snowblowers, and other small home appliances.

3.2 Fugitive Dust

3.2.1 No person shall cause or permit any materials to be handled, transported, or stored; or a building, its appurtenances, or a road to be used, constructed, altered, repaired or demolished without taking reasonable precautions to prevent particulate matter from becoming airborne. Such reasonable precautions shall be in accordance with good industrial process as determined by the Commissioner and shall include, but not be limited

to, the following:

(a) Use, where possible, of water or chemicals for control of dust in the demolition of existing buildings or structures, construction operations, the grading of roads or the clearing of land;

(b) Application of asphalt, oil, water, suitable chemicals or coverage on materials stockpiles and other surfaces which can give rise to airborne dusts;

(c) Installation and use of hoods, fans, and fabric filters to enclose and vent the handling of dusty materials. Adequate containment methods shall be employed during sandblasting or other similar operations;

(d) Covering, at all times when in motion, open-bodied trucks and trains transporting materials likely to give rise to airborne dusts;

(e) The prompt removal of earth or other material from paved streets onto which earth or other material has been transported by trucking or earth-moving equipment, erosion by water, or other means.

3.2.2 Agricultural activities are exempt from the provisions of Section

3.2.1. However, agricultural practices such as tilling of land and application of fertilizers shall be conducted in such manner as to minimize dust from becoming airborne.

3.2.3 No person shall cause or permit the discharge of visible emissions beyond the lot line of the property on which the emissions originate when:

(a) The emissions remain visible and exist near ground level outside the property boundaries; or

(b) The emissions remain visible and impinge on a building or structure so that the health, safety, or enjoyment of life or the public may be diminished.

3.2.4 No particulate matter shall be emitted into the open air in such a manner as to cause a nuisance.

3.3 Incineration.

3.3.1 Definitions. The following terms as used in sections 3.3.1 to 3.3.6, inclusive, shall have the following meanings:

(a) "Incinerator" means any device, apparatus, equipment or structure used for destroying, reducing or salvaging by fire any material or substance, including but not limited to, refuse, rubbish, garbage, trade waste, debris or scrap, or facilities for cremating human or animal remains. (1) "Small incinerator" means an incinerator designed and used to burn waste materials of types 0, 1, 2, and 3 only, in all capacities not exceeding two thousand pounds per hour of waste material input. (2) "Special incinerator" means an incinerator designed and used to burn pathological waste type 4 or trade waste types 5 and 6 of any burning capacity. Crematories are included in this category. (3) "Large incinerator" means an incinerator owned or operated by any government or any person, firm or corporation, designed and used to burn waste materials generated by the public of any and all types, 0 to 6 inclusive, with a burning capacity in excess of two thousand pounds per hour of waste material input.

(b) "New incinerator" means an incinerator which is a new source, as defined in Section 1.0.16 of these regulations.

(c) "Existing incinerator" means any incinerator which is not a new

source, as defined in Section 1.0.16 of these regulations.

(d) "Flue-fed incinerator" means an incinerator provided with a single flue which serves as both the charging chute and the flue to transport products of combustion to the atmosphere.

(e) "Liquid particulates" means particles which have volume but are not of rigid shape and which upon collection tend to coalesce and create uniform homogeneous films upon the surface of the collecting media.

(f) "Solid particulates" means particles of rigid shape and definite volume.

(g) "Smoke" means and includes small gas-borne particles, excluding water vapor, arising from a process of combustion in sufficient number to be observable.

(h) "Air pollution control equipment" means any device which prevents or controls the emission of any air contaminant.

(i) "Type 0 waste" means trash, a mixture of highly combustible waste such as paper, cardboard, cartons, wood boxes and combustible floor sweepings, from commercial and industrial activities. The mixture may contain up to ten percent by weight of plastic bags, coated paper, laminated paper, treated corrugated cardboard, oily rags and plastic or rubber scraps. This type of waste contains approximately ten percent moisture and five percent incombustible solids and has a heating value of approximately eighty-five hundred BTUs per pound as fired.

(j) "Type 1 waste" means rubbish, a mixture of combustible waste such as paper, cardboard cartons, wood scrap, foliage and combustible floor sweepings, from domestic, commercial and industrial activities. The mixture may contain up to twenty percent by weight of restaurant or cafeteria

waste, but contains little or no treated paper, plastic or rubber wastes. This type of waste contains approximately twenty-five percent moisture and ten percent incombustible solids and has a heating value of approximately sixty-five hundred BTU per pound as fired.

(k) "Type 2 waste" means refuse, consisting of an approximately even mixture of rubbish and garbage by weight. This type of waste is common to apartment and residential occupancy, consisting of up to fifty percent moisture and approximately seven percent incombustible solids, and has a heating value of approximately forty-three hundred BTU per pound as fired.

(l) "Type 3 waste" means garbage, consisting of animal and vegetable wastes from restaurants, cafeterias, hotels, hospitals, markets and like installations. This type of waste contains up to seventy percent moisture and up to five percent incombustible solids and has a heating value of approximately twenty-five hundred BTU per pound as fired.

(m) "Type 4 waste" means human and animal remains, consisting of carcasses, organs and solid organic wastes from hospitals, laboratories, abattoirs, animal pounds and similar sources, consisting of up to eighty-five percent moisture and approximately five percent incombustible solids and having a heating value of approximately one thousand BTU per pound as fired.

(n) "Type 5 waste" means by-product waste, gaseous, liquid or semi-liquid, such as tar, paints, solvents, sludge, fumes from industrial operations.

(o) "Type 6 waste" means solid by-product waste, such as rubber, plastics, wood waste from industrial operations and all salvage operations.

3.3.2 Flue-fed incinerators. No person shall construct, install, use or cause to be used any new incinerator of the flue-fed type.

3.3.3 Emission standards. Particulates. (a) No person shall construct, install, use or cause to be used any new incinerator which will result in particulate matter in the effluent in excess of 0.08 gr/S.C.F. (0.18 gm/NM³) corrected to 12 percent CO₂, maximum 2-hour average. (b) No person shall use or cause to be used any existing incinerator which will emit more than four-tenths pound of particulates per one thousand pounds of flue gases adjusted to fifty percent excess air.

3.3.3.1 All incinerators must comply with Section 3.1.1 of this regulation.

3.3.3.2 Unburned waste and ash. No person shall cause, suffer, allow or permit the emission of particulates of unburned waste or ash from any incinerator which are individually large enough to be discernible by the human eye.

3.3.3.3. Odors. No person shall construct, install, use or cause to be used any incinerator which will result in violations of Regulation 8.

3.3.4 Operation. (a) Approved operating procedures and rated burning capacity of the incinerator shall be posted at a convenient place as near as practical to the point of operation. (b) No person shall use or cause to be used any incinerator unless all components connected, or attached to, or serving the incinerator which affect air pollution are functioning properly and are in use, in accordance with the permit to construct and the certificate or permit to operate.

3.3.5.1 Emission tests shall be conducted at the maximum-rated burning capacity of the incinerator.

3.3.5.3 For the purposes of this regulation, the total of the capacities of all furnaces within one system shall be considered as the incinerator capacity.

3.3.6 Exceptions. The provisions of Sections 3.3.1 to 3.3.5, inclusive, shall not apply to incinerators installed or used in dwellings containing six or fewer family units.

3.3.7 None of these regulations shall be construed to permit the emission of hazardous materials defined and limited by the Commissioner.

3.4 Fuel-burning equipment.

3.4.1 No person shall cause or permit the emission from fuel-burning equipment of particulate matter in excess of 0.20 pounds per million BTU ($0.36 \text{ gm}/10^6 \text{ gm-cal}$) of heat input for existing sources and 0.10 pounds per million BTU ($0.18 \text{ gm}/10^6 \text{ gm-cal}$) of heat input for new sources.

3.4.2 For purposes of this regulation, the heat input shall be the aggregate heat content of all fuels whose product of combustion pass through a stack or stacks. The heat input value used shall be the equipment manufacturer's or designer's guaranteed maximum input, whichever is greater. The total heat input of all fuel burning units on a plant or premises shall be used for determining the maximum allowable amount of particulate matter which may be emitted.

3.4.3 Fuel-burning sources which, as of the effective date of these regulations, have particulate control equipment in place, must maintain such control equipment in proper operation.

3.5 Process industries - general

3.5.1 No persons shall cause or permit the emission of particulate matter in any one hour from any source in excess of the amount shown in Table 3-1 below for the process weight rate allocated to such source, with the exception of sources specified in Section 3.6.

TABLE 3-1

<u>Process Weight Rate</u>	<u>Emission Rate</u>	<u>Process Weight Rate</u>	<u>Emission Rate</u>
lbs./hr.	lbs./hr.	lbs./hr.	lbs./hr.
50	0.36	60,000	29.60
100	0.55	80,000	31.19
500	1.53	120,000	33.28
1,000	2.25	160,000	34.85
5,000	6.34	200,000	36.11
10,000	9.73	400,000	40.35
20,000	14.99	1,000,000	46.72

3.5.2 Interpolation of the data in Table 3-1 for the process weight rates up to 60,000 lbs./hr. shall be accomplished by the use of the equation:

$$E = 3.59 P^{0.62} \quad P \text{ equal to or less than } 30 \text{ tons/hr.}$$

and interpolation and extrapolation of the data for process weight rates in excess of 60,000 lbs./hr. shall be accomplished by the use of the equation:

$$E = 17.31 P^{0.16} \quad P \text{ greater than } 30 \text{ tons/hr.}$$

Where: E = Emissions in pounds per hour.

P = Process weight rate in tons per hour.

3.5.3 For the purposes of this regulation, process weight per hour is the total weight of all materials introduced into any specific process that may cause any emission of particulate matter. Solid fuels charged will be considered as part of the process weight, but liquid and gaseous fuels and combustion air will not. For a cyclical or batch operation, the process

weight per hour will be derived by dividing the total process weight by the number of hours in one complete operation from the beginning of any given process to the completion thereof, excluding any time during which the equipment is idle. For a continuous operation, the process weight per hour will be derived by dividing the process weight for a typical period of time.

3.5.4 Where the nature of any process or operation or the design of any equipment is such as to permit more than one interpretation of this regulation, the interpretation that results in the minimum value for allowable emission shall apply.

3.5.5 For purposes of the regulation, the total process weight from all similar process units at a plant or premises shall be used for determining the maximum allowable emission of particulate matter that passes through a stack or stacks.

3.5.6 For the purposes of this regulation, when any material undergoes a series of operations which are capable of emitting particulate matter and which employ any combination of machines, equipment, or other devices used for processing the material either continuously or in batches, the total process weight for the series of operations shall be the weight of materials introduced to the series as a whole. Any material which is the product of any operation in the series shall not be counted as part of the process weight for any other operation in the series.

3.6 Process industries - specific.

3.6.1 Emission standards (iron cupolas). No person shall cause or allow the operation of any iron foundry cupola unless such cupola is equipped

with gas-cleaning devices and so operated as to remove eighty-five percent by weight of all particulate matter in the cupola discharge gases, or to release not more than eight-tenths of a pound of particulate matter per thousand pounds of discharge gas, whichever is more stringent. Gases, vapors and gas-entrained effluents from such cupolas shall be incinerated at a minimum temperature of 1300 degrees Fahrenheit for a period of not less than three-tenths of a second.

3.6.2 Emission standards (hot mix asphalt plants). No person shall cause or allow the emission of particulate matter from hot mix asphalt plants in excess of three-tenths of a pound per one thousand pounds of discharge gas. In addition, the process must conform to Section 3.2 of this regulation.

3.6.3 Emission standards (foundry sand). No person shall cause or allow the operation of a foundry sand process unless such process conforms to Section 3.2 of this regulation and is equipped with fugitive dust control facilities with collection efficiency of at least 90 percent.

3.6.4 Emission standards (concrete batching). No person shall cause or allow the operation of a concrete batching process unless such process conforms to Section 3.2 of this regulation and is equipped with fugitive dust control facilities with a collection efficiency of 90 percent or 0.02 pounds per cubic yard of concrete, whichever results in less emission.

REGULATION 4

Control of Sulfur Compound Emissions

4.1 Fuel Combustion

4.1.1 Definitions. As used in Sections 4.1 to 4.6, inclusive: (1) "Fuel" means a substance containing combustibles used for producing heat, light, power, or energy; (2) "combustible" means the heat-producing constituents of a fuel; (3) "combustion" means the rapid chemical combination of oxygen with the combustible element of a fuel resulting in the production of heat; (4) "sulfur dioxide (SO₂)" means a colorless gas at standard conditions which has the molecular formula SO₂; (5) "sulfur oxides (SO_x)" means any compound made up only of sulfur and oxygen. For the purpose of this regulation, concentrations of sulfur oxides (SO_x) will be calculated as sulfur dioxide (SO₂); (6) "stack" or "chimney" means a flue, conduit or opening permitting particulate or gaseous emission into the open air, or constructed or arranged for such purpose; (7) "fuel merchant" means any person who offers for sale or sells, transfers, or provides in retail or wholesale trade, fuel, including agents, brokers, wholesalers, distributors, or producers who sell commercial or noncommercial fuel; (8) "fuel user" means any person who stores or utilizes commercial or noncommercial fuel for the purpose of creating by combustion heat, light, power, or energy.

4.1.2 (a) No fuel merchant, except as provided in Sections 4.1.3 and 4.1.4, shall store, offer for sale, sell, make available, deliver for use or exchange in trade for use in Connecticut, and no person shall use or burn, fuel which contains sulfur in excess of one percent (1.0%) by weight (Dry Basis).

After September 1, 1972 no fuel merchant shall store, offer for sale, sell, make available, deliver for use or exchange in trade for use in Connecticut fuel which contains sulfur in excess of one-half of one per cent (0.5%) by weight (Dry Basis), and after April 1, 1973, no person shall use or burn fuel which contains sulfur in excess of one-half of one per cent (0.5%) by weight (Dry Basis).

(b) Under conditions of fuel shortage emergency, as determined by the Commissioner, higher percentages of sulfur may be permitted by express approval of the Commissioner for temporary periods.

4.1.3 Notwithstanding the provisions of Section 4.1.2, the Commissioner may approve: (a) combustion of a mixture of fuels, or (b) combustion of a single fuel, which contain(s) a higher sulfur content than that specified by Section 4.1.2, if the combustion of such fuel is combined with a stack-gas cleaning process or its equivalent as approved in writing by the Commissioner. No such stack-gas cleaning process, or its equivalent, shall be approved unless the total sulfur compound emissions (expressed as sulfur dioxide) from the stack, chimney, flue, and other vents to the ambient air do not exceed 0.55 pounds per million BTU gross heat input, provided that any effluent from the approved stack-gas cleaning process or its equivalent which is discharged into State waters meets with the prior approval of the Commissioner. The Commissioner may require such information or data as is necessary to establish that total emissions will not exceed the above limitations.

4.1.4 In other than conditions of fuel shortage emergency described under 4.1.2(b) above, fuel merchants seeking to store, offer for sale, sell, deliver for use or exchange in trade, for use in Connecticut, and fuel users seeking to create by combustion heat, light, power, or energy from fuels containing sulfur

in excess of the maximums set by Section 4.1.2 under the conditions specified in 4.1.3 shall obtain the prior approval of the Commissioner.

4.1.5 The provisions of Sections 4.1.1 to 4.1.7 inclusive shall not apply to fuels used by ocean-going vessels.

4.1.6 The Commissioner may require submission of fuel analyses or results of stack sampling, or both, prepared at the expense of the merchant or user, to ensure compliance with the provisions of Sections 4.1.1 to 4.1.7 inclusive, and no person shall fail to submit such data when requested to do so by the Commissioner.

4.1.7 Persons selling fuels in Connecticut shall maintain records of sales of all fuel containing sulfur and shall make these records available for inspection by the Commissioner or his representative during normal business hours. This section shall not apply to any of the following fuels which have sulfur contents below two-tenths of one percent (0.2%) by weight (Dry Basis): distillate oil, motor vehicle fuel, aircraft fuel, or gaseous fuel.

4.1.8 No person shall cause or permit the flaring or combustion of any refinery process gas stream or any other process gas stream that contains sulfur compounds measured as hydrogen sulfide in concentrations greater than 10 grains per 100 standard cubic feet (23 gm/100 scm) of gas.

4.2 Sulfuric Acid Plants.

No person shall cause or permit sulfur oxides emissions which exceed 6.5 pounds per ton (3.25 kg/metric ton) of 100 percent acid produced.

4.3 Sulfur Recovery Plants.

No person shall cause or permit the emission of sulfur oxides from a sulfur recovery plant to exceed 0.01 pounds (kg.) per pound (kg.) of sulfur processed.

4.4 Nonferrous Smelters.

No person shall cause or permit the emission of sulfur oxides from primary nonferrous smelters to exceed that set forth according to the following equations.

$$\text{Copper smelters: } Y = 0.2 X.$$

$$\text{Zinc smelters: } Y = 0.564 X^{0.85}.$$

$$\text{Lead smelters: } Y = 0.98 X^{0.77}.$$

Where X is the total sulfur fed to the smelter in lb./hr. and Y is the allowable sulfur dioxide emissions in lb./hr.

4.5 Sulfite Pulp Mills.

No persons shall cause or permit the total sulfite pulp mill emissions of sulfur oxides from blow pits, washer vents, storage tanks, digester relief, recovery system, etc., to exceed 9.0 pounds per air-dried ton (4.5 kg./metric ton) of pulp produced.

4.6 Other Process Sources.

Notwithstanding the provisions of 3.5, process sources not covered in Section 4.2 through and including Section 4.5 above shall not emit sulfur oxides in the effluent in concentrations which exceed 500 parts per million.

REGULATION 5

Control of Organic Compound Emissions

5.1 Storage of Volatile Organic Compounds

5.1.1.1 No person shall place, store, or hold in any stationary tank, reservoir or other container of more than 40,000 gallons (150,000 liters) capacity any volatile organic compounds unless such tank, reservoir, or other container is a pressure tank capable of maintaining working pressures sufficient at all times to prevent vapor or gas loss to the atmosphere or is designed, and equipped, with one of the following vapor loss control devices:

(a) A floating roof, consisting of a pontoon type, double deck type roof or internal floating cover, which will rest on the surface of the liquid contents and be equipped with a closure seal or seals to close the space between the roof edge and tank wall. This control equipment shall not be permitted if the volatile organic compounds have a vapor pressure of 11.0 pounds per square inch absolute (568 mm Hg.) or greater under actual storage conditions. All tank gauging or sampling devices shall be gas-tight except when tank gauging or sampling is taking place.

(b) A vapor recovery system, consisting of a vapor gathering system capable of collecting the volatile organic compounds vapors and gases discharged, and a vapor disposal system capable of processing such volatile organic vapors and gases so as to prevent their emission to the atmosphere and with all tank gauging and sampling devices gas-tight except when gauging or sampling is taking place.

(c) Other equipment or means of equal efficiency for purposes of air pollution control as may be approved by the Commissioner.

5.1.1.2 Section 5.1.1.1 shall not apply to existing gasoline retail facilities, construction of which has been commenced prior to June 1, 1972.

5.1.2 No person shall place, store, or hold in any stationary storage vessel more than 250-gallon (950 liter) capacity any volatile organic compound unless such vessel is equipped with a conservation vent valve and with a permanent submerged fill pipe or with equipment of equivalent efficiency or is a pressure tank as described in section 5.1.1 or is fitted with a vapor recovery system as described in section 5.1.1 (b). For the purpose of this regulation, "a conservation vent valve" is a weight loaded valve designed and used to reduce evaporation losses of volatile organic compounds by limiting the amount of air admitted to, or vapors released from, the vapor space of a closed storage vessel. Vessels equipped with a floating roof as described in Section 5.1.1.1(a) above do not require a conservation vent valve.

5.1.3 The provisions of section 5.1.2 shall not apply to the loading of volatile organic compounds into any storage vessel having a capacity of less than 1,000 gallons which was installed prior to the date of adoption of this regulation, nor to any underground storage vessel installed prior to the date of adoption of this rule where the fill line between the fill connection and the storage vessel is offset.

5.2 Volatile Organic Compounds Loading Facilities

5.2.1 No person shall load or permit the loading of any volatile organic compounds into any tank truck, tank trailer, or railroad tank car having a capacity in excess of 200 gallons (760 liters) from any loading facility unless such loading facility is equipped with a vapor collection and disposal system or its equivalent, properly installed, in good working order, and in operation.

5.2.2 No person shall load or permit the loading of any volatile organic compounds into any tank truck, tank trailer, or railroad tank car having a capacity in excess of 200 gallons (760 liters) unless such loading facility is equipped with a loading arm with a vapor collection adaptor, pneumatic, hydraulic, or other mechanical means to force a vapor-tight seal between the adaptor and the hatch. A means shall be provided to prevent liquid organic compounds drainage from the loading device when it is removed from the hatch of any tank, truck, or trailer, or to accomplish complete drainage before such removal. When loading is effected through means other than hatches, all loading and vapor lines shall be equipped with fittings which make vapor-tight connections and which close automatically when disconnected.

5.2.3 Sections 5.2.1 and 5.2.2 shall apply only to the loading of volatile organic compounds at a facility from which at least 10,000 gallons of such organic compounds are loaded in any one day.

"Loading facility", for the purpose of this section, shall mean any aggregation or combination of organic liquid loading equipment which is both (1) possessed by one person and (2) located so that all the organic liquid loading outlets for such aggregation or combination of loading equipment can be encompassed within any circle of three hundred (300) feet in diameter.

5.3 Volatile Organic Compound Water Separation

5.3.1 No person shall use any compartment of any single or multiple compartment volatile organic compound waste water separator which receives effluent water containing 200 gallons (760 liters) a day or more of any volatile organic compound from any equipment processing, refining, treating, storing, or handling volatile organic compounds

consisting of kerosene or more volatile organic materials unless such compartment is equipped with one of the following vapor loss control devices, properly installed, in good working order, and in operation:

(a) A container having all openings sealed and totally enclosing the liquid contents. All gauging and sampling devices shall be gas-tight except when gauging or sampling is taking place.

(b) A container equipped with a floating roof, consisting of a pontoon type, double deck type roof, or internal floating cover, which will rest on the surface of the contents and be equipped with a closure seal or seals to close the space between the roof edge and container wall. All gauging and sampling devices shall be gas-tight except when gauging or sampling is taking place.

(c) A container equipped with a vapor recovery system consisting of a vapor gathering system capable of processing such organic vapors and gases so as to prevent their emission to the atmosphere and with all container gauging and sampling devices gas-tight except when gauging or sampling is taking place.

(d) A container having other equipment of equal efficiency for purposes of air pollution control as may be approved by the Commissioner or equipment which meets the requirements of sections 5.6.1, 5.6.2 and 5.6.3 below.

5.4 Pumps and Compressors:

All pumps and compressors handling volatile organic compounds shall have mechanical seals or other equipment of equal efficiency for purposes of air pollution control as may be approved by the Commissioner; except that in cases where mechanical seals are impractical because of the abrasive or corrosive nature of the liquid handled, best available technology for the reduction of organic compound emissions

shall be deemed equivalent to the use of mechanical seals.

5.5 Waste Gas Disposal

5.5.1 No person shall cause or permit any emission from any ethylene producing plant or other ethylene emission source unless the waste gas stream is properly burned at 1300°F (704°C) for 0.3 second or greater in a direct-flame afterburner or an equally effective device as approved by the Commissioner. This provision shall not apply to emergency reliefs and vapor blowdown systems.

5.5.2 No person shall cause or permit the emission of organic gases from a vapor blowdown system or emergency relief unless these gases are burned by smokeless flares or an equally effective control device as approved by the Commissioner. Exemption to this section will be considered when the frequency of venting and the quantity of potential release are low, and all occurrences are reported to the Commissioner. In the case of emergency reliefs, exemption will also be considered if the Commissioner determines that addition of control equipment would constitute an explosion hazard or other safety hazard.

5.6 Organic Solvents.

5.6.1 No person shall cause or permit the discharge into the atmosphere of more than 15 pounds of organic materials in any one day, nor of more than 3 pounds in any one hour, from any article, machine, equipment or other contrivance, in which any organic solvent or any material containing organic solvent comes into contact with flame or is baked, heat-cured or heat-polymerized, in the presence of oxygen, unless said discharge has been reduced by at least 85 per cent. Those portions of any series of articles, machines, equipment or other contrivances designed for processing a continuous web, strip or wire

which emit organic materials and using operations described in this section shall be collectively subject to compliance with this section.

5.6.2 No person shall cause or permit the discharge into the atmosphere of more than 40 pounds of organic materials in any one day, nor of more than 8 pounds in any one hour, from any article, machine, other than described in section 5.6.1, for employing or applying, any photochemically reactive solvent, as defined in section 5.6.10.2.1 or material containing such photochemically reactive solvent, unless said discharge has been reduced by at least 85 per cent. Emissions of organic materials into the atmosphere resulting from air or heated drying of products for the first 12 hours after their removal from any article, machine, equipment, or other contrivance described in this section shall be included in determining compliance with this section. Emissions resulting from baking, heat-curing, or heat-polymerizing as described in section 5.6.1 shall be excluded from determination of compliance with this section. Those portions of any series of articles, machines, equipment or other contrivances designed for processing a continuous web, strip or wire which emit organic materials and using operations described in this section shall be collectively subject to compliance with this section.

5.6.2.1 On or after January 1, 1975, the discharge of photochemically reactive solvents described in section 5.6.2 shall be limited to 15 pounds in any day or 3 pounds in any hour, unless such discharge has been reduced by 85 per cent.

5.6.3 On or after June 1, 1973, no person shall cause or permit the discharge into the atmosphere of more than 800 pounds of organic materials in any one day, nor more than 160 pounds in any one hour,

from any article, machine, equipment or other contrivance in which any non-photochemically reactive organic solvent or any material containing such solvent is employed or applied, unless said discharge has been reduced by at least 85 per cent. Emissions of organic materials into the atmosphere resulting from air or heated drying of products for the first 12 hours after their removal from any article, machine, equipment, or other contrivance described in this section shall be included in determining compliance with this section. Emissions resulting from baking, heat-curing, or heat-polymerizing as described in Section 5.6.1 shall be excluded from determination of compliance with this section. Those portions of any series of articles, machines, equipment or other contrivances designed for processing a continuous web, strip or wire which emit organic materials and using operations described in this section shall be collectively subject to compliance with this section.

5.6.4 Emissions of organic materials to the atmosphere from the clean-up with photochemically reactive solvent, as defined in Section 5.6.10.2.1 of any article, machine, equipment or other contrivance described in sections 5.6.1, 5.6.2 or 5.6.3 shall be included with the other emissions of organic materials from that article, equipment or other contrivance for determining compliance with this regulation.

5.6.5 Emissions of organic materials required to be controlled by sections 5.6.1, 5.6.2 or 5.6.3, shall be reduced by:

(a) Incineration, provided that 90 percent or more of the carbon in the organic material being incinerated is oxidized to carbon dioxide. However, incineration is not acceptable for halogenated hydrocarbons; or

(b) Adsorption, or

(c) Processing in a manner determined by the Commissioner to be not less effective than (a) or (b) above.

(d) Substitution of organic solvents which have been shown to be virtually unreactive or of low reactivity in the formation of oxidants. For the purposes of these regulations, photochemically unreactive solvents include saturated halogenated hydrocarbons, perchlorethylene, benzene, acetone, C₁ - C₅ n-paraffins, cyclohexanone, ethyl acetate, isopropyl alcohol, methyl benzoate, 2-nitropropane, phenyl acetate, triethylamine, and other compounds determined by the Commissioner. The Commissioner may, upon submission of evidence satisfactory to him, add or subtract compounds from this list. Notwithstanding the above, substitution as described in Section 5.6.5(d) above shall not be acceptable for Compliance with Sections 5.6.1 and 5.6.3.

5.6.6 A person incinerating, adsorbing, or otherwise processing organic materials pursuant to Section 5.6.5 shall provide, properly install, and maintain in calibration, in good working order, and in operation, devices as specified by the Commissioner for indicating temperatures, pressures, rates of flow, or other operating conditions necessary to determine the degree and effectiveness of air pollution control.

5.6.7 Any person using organic solvents or any materials containing organic solvents shall supply the Commissioner, upon request and in the manner and form prescribed by him, written evidence of the chemical composition, physical properties, and amount consumed for each organic solvent used.

5.6.8 The provisions of Section 5.6 of this regulation shall not apply to:

(a) The use of equipment for which other requirements are specified by Sections 5.1, 5.2, 5.3, 5.4, and 5.5, or which are exempt from air pollution control requirements under those Sections.

(b) The spraying or other employment of insecticides, pesticides, or herbicides.

(c) Industrial surface coating operations when the coating's solvent make-up contains less than 20 per cent of photochemically reactive solvent, as defined in Section 5.6.10.2.1.

(d) The use of any material, in any article, machine, equipment or other contrivance described in Sections 5.6.1, 5.6.2, 5.6.3 or 5.6.4, if:

(i) the volatile content of such material consists only of water and organic solvents, and

(ii) the organic solvents comprise not more than 20 per cent of said volatile content, and

(iii) the volatile content is not photochemically reactive as defined in Section 5.6.10.2.1.

5.6.9 For the purposes of this regulation, organic materials are defined as chemical compounds of carbon excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides, metallic carbonates, and ammonium carbonate.

5.6.9.1 For the purposes of this regulation, organic solvents include diluents and thinners and are defined as organic materials which are liquids at standard conditions and which are used as solvers, viscosity reducers or cleaning agents, except that such materials which exhibit a boiling point higher than 220°F at 0.5 millimeter mercury absolute pressure or having an equivalent vapor pressure shall not be considered to be solvents unless exposed to temperatures exceeding 220°F.

5.6.10.1 For the purpose of Sections 5.6.1 and 5.6.3, 85 per cent reduction of organic materials emissions shall mean 85 per cent reduction of total organic materials emissions present when operations are conducted according to good industrial practice.

5.6.10.2 For the purpose of Sections 5.6.2 and 5.6.2.1, 85 per cent reduction of emissions shall mean 85 per cent reduction of photochemically reactive solvent emissions present when operations are conducted according to good industrial practice, utilizing the maximum proportion of photochemically reactive solvent appropriate to such good practice. Substitution of a photochemically unreactive solvent shall be considered 100 per cent reduction of the photochemically reactive emissions involved.

5.6.10.2.1 For the purposes of these regulations, a photochemically reactive solvent is any organic solvent other than those defined as photochemically unreactive in either:

- (a) Section 5.6.5(d); or
- (b) Section 5.9.1 while Section 5.9.1 is in force.

5.7 Architectural Coatings

5.7.1 On or after January 1, 1974, no person shall sell or offer for sale to the final user in containers greater than 1-quart (0.95 liter) capacity unless the solvent composition is photochemically unreactive, as defined in 5.6.5(d).

5.7.2 On or after January 1, 1975, no person shall employ, apply, evaporate, or dry any architectural coating purchased in containers of greater than 1-quart (0.95 liter) capacity unless the solvent composition is photochemically unreactive, as defined in 5.6.5(d).

5.7.3 On or after January 1, 1975, no person shall thin or dilute for application any architectural coating with a photochemically reactive solvent, as defined in 5.6.10.2.1, purchased in containers of greater than 1-quart (0.95 liter) capacity.

5.8 If the Commissioner determines that photochemically unreactive solvents are not available for a particular application or class of applications, he may issue an exemption, provided that this shall not prevent the attainment or maintenance of the National Ambient Air ~~Quality Standard~~ for photochemical oxidants.

5.9.1.1 The following solvents shall be deemed satisfactory for control of hydrocarbon emissions by substitution as defined in Section 5.6.5(d) and shall be deemed to be included in the list of unreactive solvents in Section 5.6.5(d): Any solvent with an aggregate of less than 20 per cent of its total volume composed of the chemical compounds classified below or which does not exceed any of the following individual percentage composition limitations, referred to the total volume of solvent:

1. A combination of hydrocarbons, alcohols, aldehydes, esters, ethers or ketones having an olefinic or cyclo-olefinic type of unsaturation: 5 per cent;

2. A combination of aromatic compounds with eight or more carbon atoms to the molecule except ethylbenzene , phenyl acetate or methyl benzoate: 8 per cent;

3. A combination of ethylbenzene, ketones having branched hydrocarbon structures, trichloroethylene or toluene: 20 per cent.

5.9.1.2 Whenever any organic solvent or any constituent of an organic solvent may be classified from its chemical structure into more than one of the above groups of organic compounds it shall be considered as a member of the most reactive chemical group, that is, that group having the least allowable per cent of the total volume of solvents.

5.9.2 On or after January 1, 1975, Section 5.9.1 shall expire.

5.10 Disposal and Evaporation of Solvents.

A person shall not, during any one day, dispose of more than one and one-half gallons (5.7 liters) of any organic solvent or of any material containing more than one and one-half gallons (5.7 liters) of any such organic solvent by any means which will permit the evaporation of such solvent into the atmosphere.

Regulation 6

Control of Carbon Monoxide Emissions

6.1.1 No person shall cause or permit the emission of carbon monoxide waste gas generated during the operation of a grey iron cupola, blast furnace or basic oxygen steel furnace unless the waste gas is incinerated in a direct flame afterburner, boiler, or equivalent device at a temperature of 1300° F. for a period of not less than three-tenths of a second.

6.1.2 No person shall cause or permit the emission of carbon monoxide waste gas from any catalyst regeneration of a petroleum cracking system, petroleum fluid coker, or other petroleum process into the atmosphere unless the waste gas is incinerated in a direct flame afterburner, boiler, or equivalent device at a temperature of 1300° F for a period of not less than three-tenths of a second.

REGULATION 7

Control of Nitrogen Oxides Emissions

7.1 Fuel Burning Equipment.

7.1.1 No person shall cause or permit the emission of nitrogen oxides, calculated as nitrogen dioxide, from gas-fired fuel burning equipment in excess of 0.2 pounds per million BTUs (0.36 gm/10⁶ gm-cal) of heat input.

7.1.2 No person shall cause or permit the emission of nitrogen oxides, calculated as nitrogen dioxide, from oil-fired fuel burning equipment in excess of 0.30 pounds per million BTUs (0.54 gm/10⁶ gm-cal) of heat input.

7.1.3 No person shall cause or permit emissions of nitrogen oxides from a coal-fired boiler in excess of 0.7 pounds per million BTUs of heat input per hour for new sources and 0.9 pounds per million BTUs for existing sources.

7.1.4 Sections 7.1.1, 7.1.2 and 7.1.3 shall apply to all equipment with a maximum capacity rating above 250 million BTUs per hour. For equipment rated between 5 and 250 million BTUs/hr., these regulations shall apply unless the Commissioner is satisfied that it is not technically or economically feasible for a unit of the size considered. Sections 7.1.1, 7.1.2, 7.1.3 and 7.1.4 shall not apply to stationary gas turbines, stationary internal combustion engines and mobile sources.

7.1.5 No person shall cause or permit emissions of nitrogen oxides from a stationary gas turbine in excess of 0.9 pounds per million BTUs of heat input.

7.2 Nitric Acid Manufacture.

No person shall cause or permit the emission of nitrogen oxides, calculated as nitrogen dioxide, from nitric acid manufacturing plants in excess of 5.5 pounds per ton (2.8 kg./metric ton) of 100 per cent acid produced.

7.3 Other Sources.

No non-fuel burning source shall emit nitrogen oxides in excess of 700 parts per million by volume.

REGULATION 8

Control of Odors

8.1.1 No person, firm or corporation shall emit or cause to be emitted into the outdoor air any substance which creates an objectionable odor beyond his property line. An odor will be deemed objectionable when:

(a) Three staff members of the Department of Environmental Protection agree, following personal observation, that the odor is objectionable taking into account its nature, concentration, location, and duration; or,

(b) Samples from the source are taken and found to rate over 120 odor units per cubic foot as determined by Mills' adaptation of ASTM D-1391-57. ("Quantitative Odor Measurement", a paper by John L. Mills, 56th Annual Meeting of the Air Pollution Control Association, in Detroit, Michigan, June 9-13, 1963.); or,

(c) If the odor is caused in whole or in part by a substance listed in Table 8-1, and when the concentration in Table 8-1 is exceeded for any period of time as demonstrated by analysis made in accordance with methods approved by qualified professional chemists.

8.1.2 Nothing in this regulation shall permit emission of any air pollutant in violation of any other regulation.

TABLE 8-1 ODOR THRESHOLD LIMITS

<u>Chemical</u>	<u>Odor Threshold</u> <u>(ppm by volume)</u>
Acetaldehyde	0.21
Acetic acid	1.0
Acetone	100.0
Acrolein	0.21*
Acrylonitrile	21.4*
Allyl chloride	0.47

Amine, dimethyl	0.047
Amine, monomethyl	0.021
Amine, trimethyl	0.00021
Ammonia	46.8*
Aniline	1.0
Benzene	4.68
Benzyl chloride	0.047
Benzyl sulfide	0.0021
Bromine	0.047
Butyric acid	0.001
Carbon disulfide	0.21
Carbon tetrachloride (chlorination of CS ₂)	21.4*
Carbon tetrachloride (chlorination of CH ₄)	100.0*
Chloral	0.047
Chlorine	0.314
Dimethylacetamide	46.8*
Dimethylformamide	100.0*
Dimethyl sulfide	0.001
Diphenyl ether	0.1
Diphenyl sulfide	0.0047
Ethanol (synthetic)	10.0
Ethyl acrylate	0.00047
Ethyl mercaptan	0.001
Formaldehyde	1.0
Hydrochloric acid gas	10.0*
Hydrogen sulfide (from Na ₂ S)	0.0047
Hydrogen sulfide gas	0.00047
Methanol	100.0
Methyl chloride	(above 10 ppm)
Methylene chloride	214.0*
Methyl ethyl ketone	10.0
Methyl isobutyl ketone	0.47
Methyl mercaptan	0.0021
Methyl methacrylate	0.21
Monochlorobenzene	0.21
Monomethylamine	0.021
Nitrobenzene	0.0047
Paracresol	0.001
Paraxylene	0.47
Perchloroethylene	4.68
Phenol	0.047
Phosgene	1.0*
Phosphine	0.021
Pyridine	0.021
Styrene (inhibited)	0.1
Styrene (uninhibited)	0.047
Sulfur dichloride	0.001
Sulfur dioxide	0.47
Toluene (from coke)	4.68
Toluene (from petroleum)	2.14
Toluene diisocyanate	2.14*
Trichloroethylene	21.4

*Exceeds the Threshold Limit Value adopted by the American Conference of Industrial Hygienists for 1971. "Threshold Limit Values refer to airborne concentrations of substances and represent conditions under which it is believed that nearly all workers may be repeatedly exposed day after day without adverse effect."

REGULATION 9

Connecticut Primary and Secondary Standards

9.1 Definitions

(a) "Ambient air" means that portion of the atmosphere, external to buildings, to which the general public has access.

(b) "Reference method" means a method of sampling and analyzing for an air pollutant, as described in Section 9.12 below.

(c) "Equivalent method" means any method of sampling and analyzing for an air pollutant which can be demonstrated to the Commissioner's satisfaction to have a consistent relationship to the reference method.

9.2 The concentration of pollutants in the outdoor atmosphere shall conform with levels specified below as the applicable air quality standards for these substances throughout Connecticut. These standards shall not be construed to permit any deterioration of air quality in any portion of the state.

9.3 Reference conditions.

All measurements of air quality are corrected to a reference temperature of 20° C. and to a reference pressure of 760 millimeters of mercury (1,013.2 millibars).

9.4 Connecticut primary ambient air quality standards for sulfur oxides (sulfur dioxide).

The Connecticut primary ambient air quality standards for sulfur oxides, measured as sulfur dioxide, are:

(a) 80 micrograms per cubic meter (0.03 p.p.m.) - annual arithmetic mean.

(b) 365 micrograms per cubic meter (0.14 p.p.m.) - maximum 24-hour concentration not to be exceeded more than once per year.

9.5 Connecticut secondary ambient air quality standards for sulfur oxides (sulfur dioxide).

The Connecticut secondary ambient air quality standards for sulfur oxides, measured as sulfur dioxide, are:

- (a) 60 micrograms per cubic meter (0.02 p.p.m.) - annual arithmetic mean.
- (b) 260 micrograms per cubic meter (0.1 p.p.m.) - maximum 24-hour concentration not to be exceeded more than once per year.
- (c) 1,300 micrograms per cubic meter (0.5 p.p.m.) - maximum 3-hour concentration not to be exceeded more than once per year.

9.6 Connecticut primary ambient air quality standards for particulate matter.

The Connecticut primary ambient quality standards for particulate matter are:

- (a) 75 micrograms per cubic meter - annual geometric mean.
- (b) 260 micrograms per cubic meter - maximum 24-hour concentration not to be exceeded more than once per year.

9.7 Connecticut secondary ambient air quality standards for particulate matter. The Connecticut secondary ambient air quality standards for particulate matter are:

- (a) 60 micrograms per cubic meter - annual geometric mean.
- (b) 150 micrograms per cubic meter - maximum 24-hour concentration not to be exceeded more than once per year.

9.8 Connecticut primary and secondary ambient air quality standards for carbon monoxide.

The Connecticut primary and secondary ambient air quality standards for carbon monoxide are:

- (a) 10 milligrams per cubic meter (9 p.p.m.) - maximum 8-hour concentration not to be exceeded more than once per year.
- (b) 40 milligrams per cubic meter (35 p.p.m.) - maximum 1-hour concentration not to be exceeded more than once per year.

9.9 Connecticut primary and secondary ambient air quality standards for photochemical oxidants.

The Connecticut primary and secondary ambient air quality standard for photochemical oxidants, measured and corrected for interferences due to nitrogen oxides and sulfur dioxide, is: 160 micrograms per cubic meter (0.08 p.p.m.) - maximum 1-hour concentration not to be exceeded more than once per year.

9.10 Connecticut primary and secondary ambient air quality standards for hydrocarbons.

The hydrocarbons standard is for use as a guide in achieving oxidant standards.

The Connecticut primary and secondary ambient air quality standard for hydrocarbons is: 160 micrograms per cubic meter (0.24 p.p.m.) - maximum 3-hour concentration (6 a.m. to 9 a.m.) not to be exceeded more than once per year.

9.11 Connecticut primary and secondary ambient air quality standard for nitrogen dioxide.

The Connecticut primary and secondary ambient air quality standard for nitrogen dioxide is: 100 micrograms per cubic meter (0.05 p.p.m.) - annual arithmetic mean.

9.12 Reference Methods

The methods to be used are those described in Federal Register Vol. 36, No. 84, Friday, April 30, 1971, PP 8187 - 8201.

REGULATION 10

Effective Date

10.0 The effective date of these regulations shall be June 1, 1972.