1852

State of Connecticut

Rules and Regulations

OF

DEPARTMENT OF ENVIRONMENTAL PROTECTION

Concerning:

ABATEMENT OF AIR POLLUTION

Rules and Regulations

SUBSECTIONS (f), (g) AND (i) OF SECTION 19-508-20 OF THE REGULATIONS OF CONNECTICUT STATE AGENCIES ARE REPEALED AND THE FOLLOWING SUBSTITUTED IN LIEU THEREOF:

(f) Organic solvents.

(f)(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 percent. 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 subsection shall be collectively subject to compliance with this subsection.

(f)(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 or machine,

other than described in subsection (f)(1), for employing or applying any photochemically reactive solvent, as defined in subsections [(f)(10)(v)] (i)(1) AND (i)(2), or material containing such photochemically reactive solvent, unless said discharge has been reduced by at least 85 percent. 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 subsection shall be included in determining compliance with this subsection. Emissions resulting from baking, heat-curing, or heat-polymerizing as described in subsection (f)(1) shall be excluded from determination of compliance with this subsection. 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 subsection shall be collectively subject to compliance with this subsection.

(f)(3) On or after January 1, 1975, the discharge of photochemically reactive solvents described in subsection (f)(2) shall be limited to 15 pounds in any day or 3 pounds in any hour, unless such discharge has been reduced by 85 percent.

(f)(4) 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 percent. 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 subsection shall be included in determining compliance with this subsection. Emissions resulting from baking, heat-curing, or heat-polymerizing as described in subsection (f)(1) shall be excluded from determination of compliance with this subsection. 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 subsection shall be collectively subject to compliance with this subsection.

(f)(5) Emissions of organic materials to the atmosphere from the cleanup with photochemically reactive solvent, as defined in subsections [(f)(10)(v)] (i)(1) AND (i)(2), of any article, machine, equipment or other contrivance described in subsections (f)(1) through (f)(4) inclusive shall be included with the other emissions of organic materials from that article, equipment or other contrivance for determining compliance with this subsection.

(f)(6) Emissions of organic materials required to be controlled by subsections (f)(1) through (f)(4) inclusive shall be reduced by:

(i) 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.

(ii) Adsorption, or

(iii) Processing in a manner determined by the Commissioner to be not less effective than (i) or (ii) above.

(iv) 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 this section, photochemically unreactive solvents include saturated halogenated hydrocarbons, perchlorethylene, benzene, acetone, C_1 - C_5 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 this subsection (f)(6)(iv) shall not be acceptable for compliance with subsections (f)(1) and (f)(4).

(f)(7) A person incinerating, adsorbing, or otherwise processing organic materials pursuant to subsection (f)(6) 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.

(f)(8) 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.

(f)(9) The provisions of subsection (f) shall not apply to:

(i) The use of equipment for which other requirements are specified by subsections (a) through (e) inclusive or which are exempt from air pollution control requirements under those subsections.

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

(f)(10) (i) For the purposes of this section, organic materials are defined as chemical compounds of carbon excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides,

metallic carbonates, and ammonium carbonate.

(f)(10) (ii) For the purposes of this section, organic solvents include diluents and thinners and are defined as organic materials which are liquids at standard conditions and which are used as dissolvers, 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.

(f)(10)(iii) For the purpose of subsections (f)(1) and (f)(4), 85 percent reduction of organic materials emissions shall mean 85 percent reduction of total organic materials emissions present when operations are conducted according to good industrial practice.

(f)(10) (iv) For the purpose of subsections (f)(2) and (f)(3), 85 percent reduction of emissions shall mean 85 percent 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 percent reduction of the photochemically reactive emissions involved.

[(f)(10) (v) For the purposes of this section, a photochemically reactive solvent is any organic solvent other than those defined as photochemically unreactive in either subsection (f)(6)(iv) or in subsection (i)(1) while that subsection is in force.]

(g) Architectural coatings.

(g)(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 any architectural coating or solvent for the purpose of thinning or diluting any architectural coating unless the solvent composition is photochemically unreactive, as defined in subsection [(f)(6)(iv)] (i)(4).

(g)(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 subsection [(f)(6)(iv)] (i)(4).

(g)(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 subsections [(f)(10)(v)] (i)(1) AND (i)(2), purchased in containers of greater than 1-quart (0.95 liter) capacity.

(h) Exemptions. 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.

[(i) Classification of solvents.

(i)(1) The following solvents shall be deemed satisfactory for control of hydrocarbon emissions by substitution as defined in subsection (f)(6)(iv) and shall be deemed to be included in the list of unreactive solvents in that subsection: Any solvent with an aggregate of less than 20 percent 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:

(i) A combination of hydrocarbons, alcohols, aldehydes, esters, ethers or ketones having an olefinic or cyclo-olefinic type of unsaturation: 5 percent;

(ii) A combination of aromatic compounds with eight or more carbon atoms to the molecule except ethylbenzene, phenyl acetate or methyl benzoate: 8 percent;

(iii) A combination of ethylbenzene, ketones having branched hydrocarbon structures, trichloroethylene or toluene: 20 percent.

(i)(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 percent of the total volume of solvents.

(i)(3) On or after January 1, 1975, subsections (i)(1) and (i)(2) shall expire.]

(i) CLASSIFICATION OF SOLVENTS.

(i)(1) THE FOLLOWING SOLVENTS SHALL BE CONSIDERED PHOTOCHEMICALLY REACTIVE:

(i) GROUP R1: ANY HYDROCARBONS, ALCOHOLS; ALDEHYDES, ESTERS, ETHERS, OR KETONES, HAVING AN OLEFINIC OR CYCLO-OLEFINIC TYPE OF UNSATURATION.

(ii) GROUP R2: ANY AROMATIC COMPOUNDS WITH EIGHT OR MORE CARBON ATOMS TO THE MOLECULE EXCEPT ETHYLBENZENE, PHENYL ACETATE, AND METHYL BENZOATE.

(iii) GROUP R3: ANY KETONES HAVING BRANCHED HYDROCARBON STRUCTURES, AND ETHYLBENZENE, TRICHLOROETHYLENE, AND TOLUENE.

(i)(2) ANY SOLVENT MIXTURE WILL BE CONSIDERED PHOTOCHEMICALLY REACTIVE IF THE COMPOSITION OF SUCH MIXTURE EXCEEDS ANY OF THE FOLLOWING LIMITS BY VOLUME:

(i) 5 PERCENT OF ANY COMBINATION OF CHEMICAL COMPOUNDS IN GROUP R1.

(ii) 8 PERCENT OF ANY COMBINATION OF CHEMICAL COMPOUNDS IN GROUP R2.

(iii) 20 PERCENT OF ANY COMBINATION OF CHEMICAL COMPOUNDS IN GROUP R3.

(iv) 20 PERCENT OF ANY COMBINATION OF CHEMICAL COMPOUNDS IN GROUPS R1, R2, AND R3.

(i)(3) WHENEVER ANY ORGANIC SOLVENT OR ANY CONSTITUENT OF ANY ORGANIC SOLVENT MAY BE CLASSIFIED FROM ITS CHEMICAL STRUCTURE INTO MORE THAN ONE OF THE ABOVE GROUPS OF ORGANIC COMPOUNDS, IT SHALL BE CONSIDERED A MEMBER OF THE MOST REACTIVE CHEMICAL GROUP, WHICH IS, THAT GROUP HAVING THE LEAST ALLOWABLE PERCENT OF THE TOTAL VOLUME OF SOLVENTS.

(i)(4) ANY SOLVENT NOT CLASSIFIED IN (i)(1) AND ANY SOLVENT MIXTURE WHICH DOES NOT EXCEED ANY OF THE LIMITS IN (i)(2) SHALL BE CONSIDERED PHOTOCHEMICALLY NONREACTIVE.

(i)(5) UPON SUBMISSION OF TECHNICAL EVIDENCE CONCERNING THE PHOTOCHEMICALLY REACTIVE NATURE OF ORGANIC COMPOUNDS SATISFACTORY TO THE COMMISSIONER, THE COMMISSIONER MAY ADD OR SUBTRACT COMPOUNDS FROM THE LIST OF PHOTOCHEMICALLY REACTIVE SOLVENTS.

(j) 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.

Strike out form or phrases when inapplicable

Be it known that the within and foregoing rules and regulations are made, adopted and promulgated ~~are repealed~~ by the undersigned pursuant to Section 19-508 of the ~~Supplement to~~ General Statutes ~~Public Act No. of the Public Acts after~~ the publication in the Connecticut Law Journal on November 5, 1974 of the notice of the proposal to adopt them the holding of an advertised public hearing on December 13, 1974, on the issuance thereof and after consideration of all relevant matter presented ~~as an amendment to~~ in repeal and substitution of certain sections of ~~and are no longer part of~~ the rules and regulations of his Department, pertaining to Abatement of Air Pollution.

In Witness Whereof, I have hereunto set my hand and seal this 20th day of February 1975.

..... L. S.

Commissioner
(Title of office)

Strike out form or phrases when inapplicable

Be it known that the within and foregoing rules and regulations have been made, adopted and promulgated have been repealed by at a meeting held on the day of 19, pursuant to Section of the Supplement to the General Statutes, Public Act No. of the Public Acts, after publication in the Connecticut Law Journal on 19, of the notice of the proposal to adopt them the holding of an advertised public hearing on 19, on the issuance thereof and after consideration of all relevant matter presented as an amendment to in repeal and substitution of certain sections of and are no longer part of the rules and regulations of said Board Commission pertaining to

In Witness Whereof, I have hereunto set my hand and seal this day of 19.

..... L. S.
Secretary

Received and filed in triplicate, this day of 19, in accordance with Section 4-45 of the General Statutes, Revision of 1958, as amended.

.....
Secretary of the State

BY:

Approved: MAR 31 1975 19.

.....
Deputy Attorney General

This is to certify that the within and foregoing rules and regulations have been published in the Connecticut Law Journal on the day of 19.

Attest:

.....
Commission on Official Legal Publications

RECEIVED AND FILED

MAY 30 1975

SECRETARY OF THE STATE
EFFECTIVE DATE: May 30, 1975