Environmental Protection Agency

§ 52.1145 Regulation on organic solvent use.

(a) Definitions:

(1) 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 millimeters of mercury absolute pressure or having an equivalent vapor pressure shall not be considered to be solvents unless exposed to temperatures exceeding 220 °F.

(2) Solvent of high photochemical reactivity means any solvent with an aggregate of more than 20 percent of its total volume composed of the chemical compounds classified below or which exceeds any of the following individual percentage composition limitations in reference to the total volume of solvent:

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

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

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

(3) Organic materials are chemical compounds of carbon excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides, metallic carbonates, and ammonium carbonate.

(b) This section is applicable throughout the Boston Intrastate Region. The requirements of this section shall be in effect in accordance with §52.1147.

(c) No person shall cause, allow, suffer, or permit the discharge into the atmosphere of more than 15 pounds of organic materials in any 1 day, nor more than 3 pounds of organic materials in any 1 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 as a result of the installation of abatement controls 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 that emit organic materials and use operations described in this section shall be collectively subject to compliance with this section.

(d) No person shall cause, suffer, allow, or permit the discharge into the atmosphere of more than 40 pounds of organic materials in any 1 day, nor more than 8 pounds in any 1 hour, from any article, machine, equipment, or other contrivance used under conditions other than described in paragraph (c) of this section for employing, or applying any solvent of high photochemical reactivity or material containing such photochemically reactive solvent, unless said discharge has been reduced as a result of the installation of abatement controls 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 section shall be included in determining compliance with this section. Emissions resulting from baking, heat-curing, or heat-polymerizing as described in paragraph (c) of this section 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 that emit organic materials and use operations described in this section shall be collectively subject to compliance with this section.

(e) Emissions of organic materials to the atmosphere from the clean-up with a solvent of high photochemical reactivity, or any article, machine, equipment, or other contrivance described in paragraph (c) or (d) of this section or in this paragraph, shall be included with the other emissions of organic materials from that article, machine, equipment or other contrivance for determining compliance with this section.

(f) No person shall cause, suffer, allow, or permit during any one day disposal of a total of more than 1.5 gallons of any solvent of high photochemical reactivity, or of any material containing more than 1.5 gallons of any such photochemically reactive solvent by any means that will permit the evaporation of such solvent into the atmosphere.

(g) Emissions of organic materials into the atmosphere required to be controlled by paragraph (c) or (d) of this section shall be reduced by:

(1) Incineration, provided that 90 percent or more of the carbon in the organic material being incinerated is converted to carbon dioxide, or

(2) Adsorption, or

(3) The use of other abatement control equipment determined by the Regional Administrator to be no less effective than either of the above methods.

(h) A person incinerating, adsorbing, or otherwise processing organic materials pursuant to this section shall provide, properly install and maintain in calibration, in good working order, and in operation, devices as specified in the authority to construct, or as specified by the Regional Administrator, for indicating temperatures, pressures, rates of flow, or other operating conditions necessary to determine the degree and effectiveness of air pollution control.

(i) Any person using organic solvents or any materials containing organic solvents shall supply the Regional Administrator 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.

(j) The provisions of this rule shall not apply to:

(1) The manufacture of organic solvents, or the transport or storage of organic solvents or materials containing organic solvents.

(2) The spraying or other use of insecticides, pesticides, or herbicides.

(3) The employment, application, evaporation, or drying of saturated halogenated hydrocarbons or perchloroethylene.

(4) The use of any material, in any article, machine, equipment or other contrivance described in paragraph (c), (d), or (e) of this section if:

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

(ii) The organic solvents comprise not more than 30 percent by volume of said volatile content;

(iii) The volatile content is not a solvent of high photochemical reactivity as defined in paragraph (a) of this section; and

(iv) The organic solvent or any material containing organic solvent does not come into contact with flame. This last stipulation applies only for those articles, machines, equipment or other contrivances that are constructed or modified after November 8, 1973.

(5) The use of any material, in any article, machine, equipment or other contrivance described in paragraph (c), (d), or (e) of this section if:

(i) The organic solvent content of such material does not exceed 30 percent by volume of said material;

(ii) The volatile content is not a solvent of high photochemical reactivity;

(iii) [Reserved]

(iv) The organic solvent or any material containing organic solvent does not come into contact with flame. This last stipulation applies only for those articles, machines, equipment or other contrivances that are constructed or modified after November 8, 1973.

(6) [Reserved]

(7) An article, machine, equipment or other contrivance described in paragraph (c), (d) or (e) of this section used exclusively for chemical or physical analyses or determination of product...
quality and commercial acceptance provided that—
(i) The exemption is approved in writing by the Regional Administrator;
(ii) The operator of said article, machine, equipment or contrivance is not an integral part of the production process; and
(iii) The emissions from said article, machine, equipment or other contrivance do not exceed 800 lbs. in any calendar month.

(6) Sources subject to the provisions of Massachusetts Regulation 310 CMR 7.18 which has been federally approved.

(k) [Reserved]

(l) All determinations of emission rates shall be conducted in a manner approved in writing by the Regional Administrator.

[40 FR 25165, June 12, 1975, as amended at 47 FR 28373, June 30, 1982]

§ 52.1146 [Reserved]

§ 52.1147 Federal compliance schedules.

(a) Except as provided in paragraph (c) of this section, the owner or operator of a source subject to regulation under paragraph (c)(1) of §52.1144 and §52.1145 shall comply with the increments of progress contained in the following schedule:

(1) Final control plans for emission control systems or process modifications must be submitted on or before June 1, 1974, for sources subject to §52.1144(c)(1) and on or before May 1, 1974 for sources subject to §52.1145.

(2) Contracts for emission control systems or process modifications must be awarded or orders must be issued for the purchase of component parts to accomplish emission control or process modifications on or before March 1, 1975, for sources subject to §52.1144(c)(1) and on or before July 1, 1974, for sources subject to §52.1145.

(3) Initiation of on-site construction or installation of emission control equipment or process modification must begin on or before May 1, 1975, for sources subject to §52.1144(c)(1) and on or before August 15, 1974, for sources subject to §52.1145.

(4) On-site construction or installation of emission control equipment or process modification must be completed prior to April 15, 1975, except for purposes of paragraph (c)(1) of §52.1144, the applicable date shall be February 1, 1976.

(5) Final compliance is to be achieved prior to May 31, 1975, except for sources subject to paragraph (c)(1) of §52.1144 of this subpart. Final compliance for sources subject to paragraph (c)(1) of §52.1144 is to be achieved by June 1, 1976.

(1) Facilities subject to paragraph (c)(1)(ii) of §52.1144 of this subpart which have a daily throughput of 20,000 gallons of gasoline or less are required to have a vapor recovery system in operation no later than May 31, 1977. Delivery vessels and storage containers served exclusively by facilities required to have a vapor recovery system in operation no later than May 31, 1977, also are required to meet the provisions of this section no later than May 31, 1977.

(6) Any owner or operator of stationary sources subject to compliance schedule in this paragraph shall certify to the Administrator within 5 days after the deadline for each increment of progress, whether or not the required increment of progress has been met.

(7) Any gasoline dispensing facility subject to paragraph (c)(1) of §52.1144 which installs a storage tank after October 15, 1973, shall comply with such paragraph by March 1, 1976. Any facility subject to such paragraph which installs a storage tank after March 1, 1976 shall comply with such paragraph at the time of installation.

(b) Except as provided in paragraph (d) of this section, the owner or operator of a source subject to paragraph (d)(1) of §52.1144 shall comply with the increments of progress contained in the following compliance schedule:

(1) Final control plans for emission control systems or process modifications must be submitted prior to January 1, 1975.

(2) Contracts for emission control systems or process modifications must be awarded or orders must be issued for the purchase of component parts to accomplish emission control or process modification prior to March 1, 1975.

(3) Initiation of on-site construction or installation of emission control equipment or process modification must be completed prior to April 15, 1975, except for purposes of paragraph (d)(1) of §52.1144, the applicable date shall be February 1, 1976.

(4) Final compliance is to be achieved prior to May 31, 1975, except for sources subject to paragraph (d)(1) of §52.1144 of this subpart. Final compliance for sources subject to paragraph (d)(1) of §52.1144 is to be achieved by June 1, 1976.

(5) Facilities subject to paragraph (d)(1)(ii) of §52.1144 of this subpart which have a daily throughput of 20,000 gallons of gasoline or less are required to have a vapor recovery system in operation no later than May 31, 1977. Delivery vessels and storage containers served exclusively by facilities required to have a vapor recovery system in operation no later than May 31, 1977, also are required to meet the provisions of this section no later than May 31, 1977.