AGENCY OF NATURAL RESOURCES

Waterbury, Vermont

ENVIRONMENTAL PROTECTION REGULATIONS

CHAPTER 5

AIR POLLUTION CONTROL

Subchapter II. Prohibitions

Section 5-231 Prohibition of Particulate Matter

(1) Industrial Process Emissions

(a) No person shall discharge, cause, suffer, allow, or permit in any one hour from any stack whatsoever particulate matter in excess of the amount shown in Table 1. For purposes of this regulation the total process weight entering a process unit shall be used to determine the maximum allowable emissions of particulate matter which may pass through the stack associated with the process unit. When two or more process units exhaust through a common stack, the combined process weight of all of the process units, served by the common stack, shall be used to determine the allowable particulate matter emission rate.

(b) In cases where process weight is not applicable as determined by the Air Pollution Control Officer, the concentration of particulate matter in the effluent gas stream shall not exceed 0.14 grams per cubic meter (0.06 grains per cubic foot) of undiluted exhaust gas at standard conditions on a dry basis. In the case of wood processing operations, process weight is not applicable, and instead, the concentration standard specified in this subsection shall apply.

(2) Incinerator Emissions

(a) A person shall not discharge, cause, suffer, allow, or permit the emission of particulate matter int0 the ambient air space from any incinerator with a designed charging rate of less than 45.36 metric tons (50 tons) per day to exceed 0.05 kilograms (0.10 pounds) per 43.36 kilograms (100 pounds) of refuse burnt. All incinerators built and installed after July 1, 1971, shall be multiple chamber incinerators or equipment found by the Air Pollution Control Officer, in advance of such use, to be equally effective for the purpose of air pollution control as an

approved multiple chamber incinerator. The responsibility for showing that the equipment other than a multiple chamber incinerator is in compliance with the emission limits of this subsection shall be on the person seeking to come within the provisions of this subsection.

(b) Any incinerators with a designed charging rate of 45.36 metric tons (50 tons) per day or more shall be operated in such a manner that emissions of particulate matter shall not exceed 0.183 grams per dry standard cubic meter (0.08 grains per dry standard cubic foot) corrected to 12 percent carbon dioxide.

(c) No incinerator with a capacity of less than 226.80 kilograms (500 pounds) per hour of refuse burnt shall be built or installed, except incinerators used exclusively for the destruction of pathological waste, unless substantial operating data is available to demonstrate compliance with the emission standards above when the proposed incinerator is utilizing similar wastes and conditions to the proposed installation.

(d) Any incinerator which is designed or operated primarily for the purpose of producing heat or power may be designated as fuel burning equipment by the Air Pollution Control Officer. An incinerator so designated shall be subject to the emission limitations set forth in subsection(3)(a) of this section, concerning combustion contaminants.

(3) Combustion Contaminants

(a) A person shall not discharge, cause, suffer, allow or permit the emission of particulate matter caused by the combustion of fossil fuel in fuel burning equipment from any stack or chimney in excess of the following emission limits:

(i) 0.5 pounds per hour per million BTU's of heat input in combustion installations where the heat input is 10 million BTU's or less per hour.

(ii) For combustion installations where the heat input is greater than 10 million BTU's per hour, but where the heat input is equal to or less than 250 million BTU's per hour, the applicable limit is determined by using the following formula:

$$E_{PM}=10^{(-0.47039(\log_{10}HI)+0.16936)}$$

where:

E_{PM} - is the particulate matter emission limit, expressed to the nearest hundredth pound per hour per million BTU's; and

HI - is the heat input in millions of BTU's per hour.

(iii) 0.1 pounds per hour per million BTU's of heat input in installations where the heat input is greater than 250 million BTU's per hour, but where the heat input is equal to or less than 1000 million BTU's per hour.

(iv) 0.06 pounds per hour per million BTU's of heat input in installations where the heat input is greater than 1000 million BTU's per hour.

(b) A person shall not discharge, cause, suffer, allow, or permit the emission of particulate matter caused by the combustion of wood fuel in fuel burning equipment from any stack or chimney:

(i) In excess of 0.45 grains per dry standard cubic foot (gr/DSCF) of exhaust gas corrected to 12% CO_2 in any combustion installation that has a rated output of greater than 90 H.P. which commenced operation prior to December 5, 1977.

(ii) In excess of 0.20 gr/DSCF corrected to 12% CO_2 in any combustion installation that has a rated output of greater than 90 H.P., but less than 1300 H.P., which commences operation after December 5, 1977.

(iii) In excess of 0.10 gr/DSCF corrected to 12% CO_2 in any combustion installation that has a rated output of 1300 H.P. or greater which commences operation after December 5, 1977.

Any wood fuel burning equipment that has a rated output of 90 H.P. or less shall not be subject to these particulate matter emission standards.

When any fossil fuel is burned in combination with wood fuel, and the fossil fuel contributes less than 50% of the total BTU input, the above particulate matter standards shall apply. If the fossil fuel contributes more than 50% of the total BTU input, subsection (3)(a) of this regulation shall apply.

When a soot blowing cycle exceeds 15 minutes, separate emissions testing for particulate matter emissions during the soot blowing cycle may be required in addition to emissions testing during normal operating conditions pursuant to Regulation 5-404 below. In this event, the emission rate calculated for the soot blowing cycle shall be prorated over the time

period between soot blowing cycles.

(c) The emission standards in this regulation apply to installations in which fuel is burned for the primary purpose of producing steam, hot water, hot air or other liquids, gases, or solids, and in the course of doing so, the products of combustion do not come into direct contact with the process material. Fuel includes coal, coke, lignite, fuel oil, wood, and combustible refuse. When any product or byproducts of a manufacturing process are burned for said purpose, or in conjunction with any fuel, the emission standards above shall apply.

(4) Fugitive Particulate Matter

A person shall not cause, suffer, allow, or permit any process operation to operate; 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. Public roads will not be subject to this section unless a public nuisance is created.

When fugitive particulate matter escapes from a building or equipment in such manner and amount as to cause a nuisance or to violate any regulation, the Air Pollution Control Officer may order that the building or equipment in which processing, handling and storage are done be tightly closed and ventilated in such a way that all air and gases and air or gasborne material leaving the building or equipment are treated by removal or destruction of air contaminants before discharge to the open air.

(5) Hot Mix Asphalt Plants

A person shall not discharge or cause, suffer, allow or permit the emission of particulate matter in excess of 90 milligrams per dry standard cubic meter (0.04 grains per dry standard cubic foot) from a hot mix asphalt plant constructed after April 30, 1971.

For the purposes of this subsection, a hot mix asphalt plant is comprised of any combination of the following: rotary drier, screening and classifying equipment, aggregate weighing system, mixer, storage bins, conveying equipment, and transfer systems.