Sec. 22a-174-19. Control of sulfur compound "emissions."

(a) Fuel combustion.

(a)(1) Definitions. As used in subsections (a) through (f) inclusive:

"Combustible" means the heat-producing constituents of a fuel.

"Combustion" means the rapid chemical combination of oxygen with the combustible element of a fuel resulting in the production of heat.

"Fuel" means a substance containing combustibles used for producing heat, light, power or energy.

"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 non-commercial fuel.

"Fuel user" means any "person" who stores or utilizes commercial or non-commercial fuel for the purpose of creating by combustion heat, light, power, or energy.

"Gross heat input" means the total energy requirement for a"premise" for twelve (12) consecutive months.

"Heat input" means the actual firing rate of the "fuel burning equipment."

"Premise" means the grouping of all "air pollutant" emitting activities or "sources" at any one location and owned or under the control of the same "person" or "persons."

"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.

"Sulfur dioxide (SO2)" means a colorless gas at "standard conditions" which has the molecular formula SO2.

"Sulfur oxides (SOx)" means any compound made up only of sulfur and oxygen which for the purpose of this regulation will be calculated as sulfur dioxide (SO2).

(a)(2) Fuel users

(a)(2)

(i) No "person," except as provided in subparagraphs (a)(2)(ii), (a)(3)(i) and (a)(3)(ii), shall use or burn fuel which contains sulfur in excess of a maximum of one percent (1.0%)

by weight (dry basis). Additionally, no fuel user shall cause or permit the installation or operation of any "fuel burning equipment" with a heat input of 250,000 "BTU" per hour or more which uses fuel containing any solid fuel without first obtaining the "Commissioner's" approval by the issuance of a "stationary source" "operating permit" for this purpose, unless the fuel user demonstrates to the "Commissioner's" satisfaction that the "emissions" of sulfur compounds (expressed as sulfur dioxide) from such equipment are 1.1 pounds per million "BTU" of heat input or less.

(ii) 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.

(a)(3) Use of fuel containing other than one percent (1%) sulfur.

(ii) "Air pollution" control/energy trade program. Notwithstanding the provisions of subsection (a)(2), the "Commissioner" may approve: (i) combustion of a mixture of fuels, or (ii) combustion of a single fuel, which contain(s) more than one percent (1.0 percent) sulfur by weight (dry basis) provided that:

(a) The "emissions" of sulfur compounds (expressed as sulfur dioxide) from a given "premise" do not exceed 0.55 pounds per million "BTU" of gross heat input;

(b) The owner or "operator" of the "premise" applies for and obtains, prior to the burning of such fuel, a "stationary source" operating permit for this purpose; and

(c) The "emissions" do not prevent or interfere with either the "attainment" or maintenance of any applicable air quality standard.

(ii) "Emission limitation." Notwithstanding the provisions of subdivision (a)(2) the "Commissioner" may approve the combustion of a single fuel or a mixture of fuels which contain(s) more than one percent (1%) sulfur by weight (dry basis) for any "fuel burning equipment" provided that the "emissions" of sulfur compounds (expressed as sulfur dioxide) from such equipment do not exceed 1.1 pounds per million "BTU" of heat input.

(iii) Ambient impact. Notwithstanding the provisions of subdivision (a)(2) or subparagraphs (a)(3)(i) and (ii) the "Commissioner" shall, by permit or order,

limit the "emission" of sulfur compounds (expressed as sulfur dioxide) from any "fuel burning equipment" on a given "premise" to less than 1.1 pounds per million "BTU" of heat input for any "source" which interferes with the "attainment" or maintenance of any applicable air quality standard.

(a)(4) Fuel merchants

(i) No fuel merchant, except as provided in subparagraphs (a)(4)(ii) and (iii) shall store, offer for sale, sell, make available, deliver for use or exchange in trade for use in Connecticut fuel which contains in excess of one percent (1.0%) sulfur by weight (dry basis).

(ii) In other than conditions of fuel shortage emergency described under subsection (a)(2)(ii), 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 subsection (a)(2) under the conditions specified in subsection (a)(3) shall obtain the prior approval of the "Commissioner."

(iii) The "Commissioner" may allow a fuel merchant to store, sell, or deliver fuel, which contains more than one percent (1%) sulfur by weight (dry basis) to any fuel user who has been authorized to use such fuel by:

(A) A variance pursuant to 22a-174-13; or
(B) A permit pursuant to 22a-174-3; or
(C) Approval pursuant to 22a-174-19(a)(2)(ii); or
(D) Approval pursuant to 22a-174-19(a)(3); or
(E) Authorization as a result of any other action taken by the "Commissioner."

The "Commissioner" may take such action under this subparagraph without requiring any notice or hearing.

(a)(5) The "Commissioner" may require submission of fuel analyses, results of "stack" sampling, or both, prepared at the expense of the merchant or user, to ensure compliance with the provisions of subsections (a)(1) through (a)(7) inclusive, and no "person" shall fail to submit such data when requested to do so by the "Commissioner."

(a)(6) "Persons" selling fuels in Connecticut shall intain records of sales of all fuel containing sulfur and shall ke ese records available for inspection by the "Commissioner" his representative during normal business hours. This section all not apply to any of the following fuels which have sulfur tents below two-tenths of one percent (0.2%) by weight (dry is): distillate oil, motor vehicle fuel, aircraft fuel, or eous fuel.

(a)(7) The provisions of subsections (a)(1) through (a)(6) inclusive shall not apply to fuels used by oceangoing vesssels.

(a)(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.

(a)(9)

(i) The provisions of subsections (a)(2)(i) above shall not apply to any coal burning equipment used primarily for educational or historical demonstrations or exhibits provided that the "emissions" from such "fuel burning equipment" do not interfere with either the "attainment" or maintenance of any applicable air quality standard. These "sources" shall include, but are not limited to, blacksmith's forges, steam locomotives, and steamboats, provided, however, that such "sources" do not use or burn fuel which contains sulfur in excess of one and one-half percent (1.5%) by weight (dry basis).

(ii) As a prerequisite for exemption under the provisions of subsections (a)(9)(i), owners shall notify the "Commissioner" prior to "commencement" of said operation.

(iii) The "Commissioner" may revoke or "modify" an exemption under subsection (a)(9) if he determines that operation of the "source" will (1) prevent or interfere with the "attainment" or maintenance of any applicable air quality air standards, or (2) create a substantial health problem.

(iv) All fuel merchants are authorized to sell fuel to any owner or "operator" granted an exemption pursuant to subsection (a)(9) above. In addition to the requirements of subsection (a)(7) above, all records shall include the sulfur content of the fuel.

(b) 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 one hundred percent (100%) acid produced.

(c) 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.

(d) Nonferrous smelters. No "person" shall cause or permit the "emission" of sulfur oxides from primary non-ferrous smelters to exceed that set forth according the the following equations.

Copper smelters: $Y = 0.2\ X$
Zinc smelters: $\log Y = \log .564 + .85 \log X$
Lead smelters: $\log Y = \log .98 + .77 \log X$

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

(e) Sulfite pulp mills. No "person" 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.

(f) Other "process sources." Notwithstanding the provisions of section 22a-174-18 (e), "process sources" not covered in subsections (b) through (e) inclusive shall not emit sulfur oxides (expressed as sulfur dioxide) in the "stack" effluent in concentrations which exceed 500 parts per million at standard temperature and pressure.

Section 22a-174-19 of the Regulations of Connecticut State Agencies is amended by revising subsection (f) as follows:

(f) Other process sources. Notwithstanding the provisions of section 22a-174-18(f) of the Regulations of Connecticut State Agencies, process sources not covered in subsections (b) through (e) of this section shall not emit sulfur oxides (expressed as sulfur dioxide) in the stack effluent in concentrations which exceed 500 parts per million at standard temperature and pressure.