

SUBPART J - Standards of Performance for Petroleum Refineries

(Delegation Effective 11-8-76)

RULE 260.100. APPLICABILITY AND DESIGNATION OF AFFECTED FACILITY (Rev. Effective 1/12/79)

(a) The provisions of this subpart are applicable to the following affected facilities in petroleum refineries: fluid catalytic cracking unit catalyst regenerators, fluid catalytic cracking unit incinerator-waste heat boilers, and fuel gas combustion devices and all Claus sulfur recovery plants except Claus plants of 20 long tons per day (LTD) or less associated with a small petroleum refinery. The Claus sulfur recovery plant need not be physically located within the boundaries of a petroleum refinery to be an affected facility, provided it processes gases produced within a petroleum refinery.

(b) Any fluid catalytic cracking unit catalyst regenerator or fuel gas combustion device under Section (a) of this rule which commences construction or modification after June 11, 1973, or any Claus sulfur recovery plant under Section (a) of this rule which commences construction or modification after October 4, 1976, is subject to the requirements of this subpart.

RULE 260.101. DEFINITIONS (Rev. Effective 5/1/81)

As used in this subpart, all terms not defined herein shall have the meaning given them in Subpart A.

(a) "**Petroleum Refinery**" means any facility engaged in producing gasoline, kerosene, distillate fuel oils, residual fuel oils, lubricants, or other products through distillation of petroleum or through redistillation, cracking or reforming of unfinished petroleum derivatives.

(b) "**Petroleum**" means the crude oil removed from the earth and the oils derived from tar sands, shale, and coal.

(c) "**Process Gas**" means any gas generated by a petroleum refinery process unit, except fuel gas and process upset gas as defined in this rule.

(d) "**Fuel Gas**" means any gas which is generated by a petroleum refinery and which is combusted. Fuel gas also includes natural gas when the natural gas is combined and combusted in any proportion with a gas generated at a refinery. Fuel gas does not include gases generated by catalytic cracking unit, catalyst regenerators and fluid coking burners. (Effective 5/1/81)

(e) "**Process Upset Gas**" means any gas generated by a petroleum refinery process unit as a result of startup, shutdown, upset or malfunction.

(f) "**Refinery Process Unit**" means any segment of the petroleum refinery in which a specific processing operation is conducted.

(g) **"Fuel Gas Combustion Device"** means any equipment, such as process heaters, boilers and flares used to combust fuel gas, but does not include facilities in which gases are combusted to produce sulfur or sulfuric acid.

(h) **"Coke Burn-Off"** means the coke removed from the surface of the fluid catalytic cracking unit catalyst by combustion in the catalyst regenerator. The rate of coke burn-off is calculated by the formula specified in Rule 260.106.

(i) **"Claus Sulfur Recovery Plant"** means a process unit which recovers sulfur from hydrogen sulfide by a vapor-phase catalytic reaction of sulfur dioxide and hydrogen sulfide.

(j) **"Oxidation Control System"** means an emission control system which reduces emissions from sulfur recovery plants by converting these emissions to sulfur dioxide.

(k) **"Reduction Control System"** means an emission control system which reduces emissions from sulfur recovery plants by converting these emissions to hydrogen sulfide.

(l) **"Reduced Sulfur Compounds"** means hydrogen sulfide (H₂S), carbonyl sulfide (COS) and carbon disulfide (CS₂).

(m) **"Small Petroleum Refinery"** means a petroleum refinery which has a crude oil processing capacity of 50,000 barrels per stream day or less and which is owned or controlled by a refinery with a total combined crude oil processing capacity of 137,500 barrels per stream day or less.

RULE 260.102. STANDARD FOR PARTICULATE MATTER (Rev. Effect. 1/12/79)

(a) On and after the date on which the performance test required to be conducted by Rule 260.8 is completed, no owner or operator subject to the provisions of this subpart shall discharge or cause the discharge into the atmosphere from any fluid catalytic cracking unit catalyst regenerator:

(1) Particulate matter in excess of 1.0 kg/1000 kg (1.0 lb/1000 lb) of coke burn-off in the catalyst regenerator.

(2) Gases exhibiting greater than 20 percent opacity, except for 3 minutes in any one hour.

(b) Where the gases discharged by the fluid catalytic cracking unit catalyst regenerator pass through an incinerator or waste heat boiler in which auxiliary or supplemental liquid or solid fossil fuels are burned, particulate matter in excess of that permitted by Subsection (a)(1) of this rule may be emitted to the atmosphere, except that the incremental rate of particulate emissions shall not exceed 0.18 g/million Cal (0.10 lb/million Btu) of heat input attributable to such liquid or solid fuel.

RULE 260.103. STANDARD FOR CARBON MONOXIDE

On and after the date on which the performance test required to be conducted by Rule 260.8 is completed, no owner or operator subject to the provisions of this subpart shall discharge or cause the discharge into the atmosphere from the fluid catalytic cracking unit catalyst regenerator any gases which contain carbon monoxide in excess of 0.050 percent by volume.

RULE 260.104. STANDARD FOR SULFUR DIOXIDE (Rev. Effect. 1/12/79)

(a) On and after the date on which the performance test required to be conducted by Rule 260.8 is completed, no owner or operator subject to the provisions of this subpart shall burn in any fuel gas combustion device, any fuel gas which contains H₂S in excess of 230 mg/dscm (0.10 gr/dscf), except as provided in Section (b) of this rule. The combustion of process upset gas in a flare, or the combustion in a flare of process gas or fuel gas which is released to the flare as a result of relief valve leakage, is exempt from this section .

(b) The owner or operator may elect to treat the gases resulting from the combustion of fuel gas in a manner which limits the release of SO₂ emissions as effectively as compliance with the requirements of Section (a) of this rule.

(c) No owner or operator shall discharge or cause the discharge of any gases into the atmosphere from any Claus sulfur recovery plant containing in excess of:

(i) 0.025 percent by volume of sulfur dioxide at zero percent oxygen on a dry basis if emissions are controlled by an oxidation control system, or a reduction control system followed by incineration, or

(ii) 0.030 percent by volume of reduced sulfur compounds and 0.0010 percent by volume of hydrogen sulfide calculated as sulfur dioxide at zero percent oxygen on a dry basis if emissions are controlled by a reduction control system not followed by incineration.

RULE 260.105. EMISSION MONITORING

Monitoring requirements shall be those specified in Part 60, Chapter I, Title 40, Code of Federal Regulations, Section 60.105.

RULE 260.106. TEST METHODS AND PROCEDURES

Performance tests shall be conducted as specified in Part 60, Chapter I, Title 40, Code of Federal Regulations, Section 60.106.