

**SUBPART TT - Standard of Performance for Metal Coil Surface Coating**  
(Delegation Effective 4/24/84: Rev. Effective 11/3/92))

**RULE 260.460. APPLICABILITY AND DESIGNATION OF AFFECTED FACILITY**

(a) The provisions of this subpart apply to the following affected facilities in a metal coil surface coating operation: each prime coat operation, each finish coat operation, and each prime and finish coat operation combined when the finish coat is applied wet on wet over the prime coat and both coatings are cured simultaneously.

(b) This subpart applies to any facility identified in Section (a) of this rule that commences construction, modification, or reconstruction after January 5, 1981.

**RULE 260.461. DEFINITIONS**

All terms used in this subpart not defined below are given the same meaning as in the Act or in Subpart A of this Regulation.

(a) "**Coating**" means any organic material that is applied to the surface of metal coil.

(b) "**Coating Application Station**" means that portion of the metal coil surface coating operation where the coating is applied to the surface of the metal coil. Included as part of the coating application station is the flashoff area between the coating application station and the curing oven.

(c) "**Curing Oven**" means the device that uses heat or radiation to dry or cure the coating applied to the metal coil.

(d) "**Finish Coat Operation**" means the coating application station, curing oven, and quench station used to apply and dry or cure the final coating(s) on the surface of the metal coil. Where only a single coating is applied to the metal coil, that coating is considered a finish coat.

(e) "**Metal Coil Surface Coating Operation**" means the application system used to apply an organic coating to the surface of any continuous metal strip with thickness of 0.15 millimeter (mm) (0.006 in.) or more that is packaged in a roll or coil.

(f) "**Prime Coat Operation**" means the coating application station, curing oven, and quench station used to apply dry or cure the initial coating(s) on the surface of the metal coil.

(g) "**Quench Station**" means that portion of the metal coil surface coating operation where the coated metal coil is cooled, usually by a water spray, after baking or curing.

(h) "**VOC Content**" means the quantity, in kilograms per liter of coating solids, of volatile organic compounds (VOC's) in a coating.

All symbols used in this subpart not defined below are given the same meaning as in the Act and in Subpart A of this Regulation.

- $C_a$  = the VOC concentration in each gas stream leaving the control device and entering the atmosphere (parts per million by volume, as carbon).
- $C_b$  = the VOC concentration on each gas stream entering the control device (parts per million by volume, as carbon).
- $C_i$  = VOC concentration in each gas stream emitted directly to the atmosphere (parts per million by volume, as carbon).
- $D_c$  = density of each coating, as received (kilograms per liter).
- $D_d$  = density of each VOC-solvent added to coatings (kilograms per liter).
- $D_r$  = density of VOC-solvent recovered by an emission control device (kilograms per liter).
- $E$  = VOC destruction efficiency of the control device (fraction).
- $F$  = the proportion of total VOC's emitted by an affected facility that enters the control device (fraction).
- $G$  = volume-weighted average mass of VOC's in coatings consumed in a calendar month per unit volume of coating solids applied (kilograms per liter).
- $L_c$  = the volume of each coating consumed, as received (liters).
- $L_d$  = the volume of each VOC-solvent added to coatings (liters).
- $L_r$  = the volume of VOC-solvent recovered by an emission control device (liters).
- $L_s$  = the volume of coatings solids consumed (liters).
- $M_d$  = the mass of VOC-solvent added to coatings (kilograms).
- $M_o$  = the mass of VOC's in coatings consumed, as received (kilograms).
- $M_r$  = the mass of VOC's recovered by an emission control device (kilograms).
- $N$  = the volume-weighted average mass of VOC emissions to the atmosphere per unit volume of coating solids applied (kilograms per liter).
- $Q_a$  = the volumetric flow rate of each gas stream leaving the control device and entering the atmosphere (dry standard cubic meters per hour).
- $Q_b$  = the volumetric flow rate of each gas stream entering the control device (dry standard cubic meters per hour).

- $Q_r$  = the volumetric flow rate of each gas stream emitted directly to the atmosphere (dry standard cubic meters per hour).
- $R$  = the overall VOC emission reduction achieved for an effected facility (fraction).
- $S$  = the calculated monthly allowable emission limit (kilograms of VOC per liter of coating solids applied).
- $V_s$  = the proportion of solids in each coating, as received (fraction by volume).
- $W_o$  = the proportion of VOC's in each coating, as received (fraction by weight).

**RULE 260.462. STANDARDS FOR VOLATILE ORGANIC COMPOUNDS**

(a) On and after the date on which Rule 260.8 requires a performance test to be completed, each owner or operator subject to this subpart shall not cause to be discharged into the atmosphere more than:

(1) 0.28 kilogram VOC per liter (kg VOC/l) of coating solids applied for each calendar month for each affected facility that does not use an emission control device(s); or

(2) 0.14 kg VOC/l of coating solids applied for each calendar month for each effected facility that continuously uses an emission control device(s) operated at the most recently demonstrated overall efficiency; or

(3) 10 percent of the VOC's applied for each calendar month (90 percent emission reduction) for each affected facility that continuously uses an emission control device(s) operated at the most recently demonstrated overall efficiency; or

(4) A value between 0.14 (or a 90 percent emission reduction) and 0.28 kg VOC/l of coating solids applied for each calendar month for each affected facility that intermittently uses an emission control device operated at the most recently demonstrated overall efficiency.

**RULE 260.463. PERFORMANCE TEST AND COMPLIANCE PROVISIONS**

The owner or operator of an affected facility shall conduct performance tests and provide compliance calculations as specified in Part 60, Chapter I, Title 40, Code of Federal Regulations, Section 60.463.

**RULE 260.464. MONITORING OF EMISSIONS AND OPERATIONS**

(a) Where compliance with the numerical limit specified in Rule 260.462 (a)(1) and (2) is achieved through the use of low VOC-content coatings without the use of emission control devices or through the use of higher VOC-content coatings in conjunction with emission control devices, the owner or operator shall compute and record the average VOC content of coatings applied during each calendar month for each affected facility, according to the equations provided in Rule 260.463.

(b) Where compliance with the limit specified in Rule 260.462(a)(4) is achieved through the intermittent use of emission control devices, the owner or operator shall compute and record for each affected facility the average VOC content of coatings applied during each calendar month according to the equations provided in Rule 260.463.

(c) If thermal incineration is used, only, each owner or operator subject to the provisions of this subpart shall install, calibrate, operate, and maintain a device that continuously records the combustion temperature of any effluent gases incinerated to achieve compliance with Rule 260.462(a)(2), (3) or (4). This device shall have an accuracy of  $\pm 2.5^{\circ}\text{C}$  or  $+0.75$  percent of the temperature being measured expressed in degrees Celsius, whichever is greater. Each owner or operator shall also record all periods (during actual coating operations) in excess of 3 hours during which the average temperature in any thermal incinerator used to control emissions from an affected facility remains more than  $28^{\circ}\text{C}$  ( $50^{\circ}\text{F}$ ) below the temperature at which compliance with Rule 260.462(a)(2), (3), or (4) was demonstrated during the most recent measurement of incinerator efficiency required by Rule 260.8. The records required by Rule 260.7 shall identify each such occurrence and its duration. If catalytic incineration is used, the owner or operator shall install, calibrate, operate, and maintain a device to monitor and record continuously the gas temperature both upstream and downstream of the incinerator catalyst bed. This device shall have an accuracy of  $\pm 2.5^{\circ}\text{C}$  or  $\pm 0.75$  percent of the temperature being measured expressed in degrees Celsius, whichever is greater. During coating operations, the owner or operator shall record all periods in excess of 3 hours where the average difference between the temperature upstream and downstream of the incinerator catalyst bed remains below 80 percent of the temperature difference at which compliance was demonstrated during the most recent measurement of incinerator efficiency or when the inlet temperature falls more than  $28^{\circ}\text{C}$  ( $50^{\circ}\text{F}$ ) below the temperature at which compliance with Rule 260.462 (a)(2), (3), or (4) was demonstrated during the most recent measurement of incinerator efficiency required by Rule 260.8. The records required by Rule 260.7 shall identify each such occurrence and its duration.

**RULE 260.465. REPORTING AND RECORDKEEPING REQUIREMENTS**  
(Rev. Effective 11/3/92)

(a) Where compliance with the numerical limit specified in Rule 260.462 (a)(1), (2), or (4) is achieved through the use of low VOC-content coatings without emission control devices or through the use of higher VOC-content coatings in conjunction with emission control devices, each owner or operator subject to the provisions of this subpart shall include in the initial compliance report required by Rule 260.8 the weighted average of the VOC content of coatings used during a period of one calendar month for each affected facility. Where compliance with Rule 260.462(a)(4) is achieved through the intermittent use of a control device, reports shall include separate values of the weighted average VOC content of coatings used with and without the control device in operation.

(b) Where compliance with Rule 260.462(a), (2), (3), or (4) is achieved through the use of an emission control device that destroys VOC's, each owner or operator subject to the provisions of this subpart shall include the following data in the initial compliance report required by Rule 260.8.

(1) The overall VOC destruction rate used to attain compliance with Rule 260.462(a)(2), (3), and (4) and the calculated emission limit used to attain compliance with Rule 260.462(a)(4); and

(2) The combustion temperature of the thermal incinerator or the gas temperature, both upstream and downstream of the incinerator catalyst bed, used to attain compliance with Rule 260.462(a)(2), (3), or (4).

(c) Following the initial performance test, the owner or operator of an affected facility shall identify, record, and submit a written report, as specified in Rule 260.7(c), to the Control Officer every calendar quarter of each instance in which the volume-weighted average of the local mass of VOC's emitted to the atmosphere per volume of applied coating solids (N) is greater than the limit specified under Rule 269.462. If no such instances have occurred during a particular quarter, a report stating this shall be submitted to the Control Officer semiannually.

(d) The owner or operator of each affected facility shall also submit reports semiannually to the Control Officer when the incinerator temperature drops as defined under Rule 269.464(c). If no such periods occur, the owner or operator shall state this in the report.

(e) Each owner or operator subject to the provisions of this subpart shall maintain at the source, for a period of at least 2 years, records of all data and calculations used to determine monthly VOC emissions from each affected facility and to determine the monthly emission limit, where applicable. Where compliance is achieved through the use of thermal incineration, each owner or operator shall maintain, at the source, daily records of the incinerator combustion temperature. If catalytic incineration is used, the owner or operator shall maintain at the source daily records of the gas temperature, both upstream and downstream of the incinerator catalyst bed.

#### **RULE 260.466. TEST METHODS AND PROCEDURES**

Performance tests shall be conducted as specified in Part 60, Chapter I, Title 40, Code of Federal Regulations, Section 60.466.