**DETERMINING PROGRAM APPLICABILITY**

Oklahoma Air Quality Division (AQD) Part 70 regulations require major sources and certain source-specific sites to obtain a federal operating permit in order to operate the facility. An applicability outline is provided below in order to evaluate a site and determine whether a federal operating permit will be required.If the answer to any of the following questions is yes, a Title V permit is required.

1. Is the facility considered a major source as defined in OAC 252:100-8-2?

2. Does the site have a potential to emit 10 TPY or more of any single hazardous air pollutant (HAP), except radionuclides. or 25 TPY or more aggregated of any combination of HAPs listed in Title III (section 112(b)) of the 90CAAA?

3. Does the site have the potential to emit 100 TPY or more of any contaminant? In the calculation of emissions rates, fugitive emissions are included only if the site is one of those named in the list below.

4. Is the site located in a nonattainment area and does the site have the potential to emit at or above the level specified for the applicable area?

5. Does the site contain one or more solid waste incineration units as applicable to the Federal Operating Permits Program pursuant to Section 129(e) of Title I?

6. As defined in the Acid Rain Rules (40 CFR Part 72.6), is the site an affected source or opt-in source pursuant to the Acid Rain Rules?

7. Does the site have a minor source which the EPA requires, by rulemaking, to have an operating permit? (Part 60, 61, and 63)

**Sources required to include fugitive emissions with their major source applicability determination**

1. Coal cleaning plants (with thermal dryers)

2. Kraft pulp mills

3. Portland cement plants

4. Primary zinc smelters

5. Iron and steel mills

6. Primary aluminum ore reduction plants

7. Primary copper smelters

8. Municipal incinerators capable of charging more than 250 tons of refuse daily

9. Hydrofluoric, sulfuric, or nitric acid plants

10. Petroleum refineries

11. Lime plants

12. Phosphate rock processing plants

13. Coke oven batteries

14. Sulfur recovery plants

15. Carbon black plants (furnace process)

16. Primary lead smelters

17. Fuel conversion plants

18. Sintering plants

19. Secondary metal production plants

20. Chemical process plants

21. Fossil-fuel boilers (or combination thereof) totaling more than 250 million British Thermal Units (BTUs) per hour heat input

22. Petroleum storage and transfer with units of total storage capacity exceeding 300,000 barrels

23. Taconite ore processing plants

24. Glass fiber processing plants

25. Charcoal production plants

26. Fossil-fuel fired steam electric plants of more than 250 million BTUs per hour heat input

27. Any other stationary source category which is regulated under Section 111 or 112 of the CAAA90 except for exemptions under OAC 252:100-8(3)(b).

**STATE OF OKLAHOMA TITLE V APPLICATION SCHEDULE**

This schedule for filing of Part 70 (Title V) permit applications is consistent with EPA approvals found in the February 5, 1996 Federal Register Volume 61, Number 24, Page 4223, and State of Oklahoma Rules found in OAC 252:100-8-5(B)(2)(A) as passed by the Air Quality Council on November 13, 1995. Supporting rules will be submitted to EPA for approval. The effective date of Oklahoma's Title V program was March 6, 1996.

I. No later than September 5, 1996, which will be six months after the effective date of the federally approved **Source Specific Interim State Operating Permit Program:**

(1) Affected sources under the acid rain program (Title IV) must submit an application for at least the affected units at each facility, and

(2) applications must be received from one third of all facilities from each owner/operator in the following SIC codes:

Petroleum and Natural Gas - 1311

Natural Gas Liquids - 1321

Electric Services - 4911 & 4961

Natural Gas Transmission - 4922

Natural Gas Transmission and Distribution - 4923

Petroleum Bulk Stations and Terminals - 5171

II. The remaining two thirds of all sources in the above listed SIC codes must submit Title V applications by March 5, 1997.

III. Sources in the following SIC codes must also submit Title V applications by March 5, 1997:

Metals - 3312, 3315, 3321, 3379\*, 3341, 3351, 3411, 3412, 3432, 3466

Brick Plants - 3251 and 3297

Commercial Printing - 2752 and 2761

Title V permits shall be issued to all of the above listed sources on or before March 5, 1998; 24 months following interim approval.

IV. Sources in the following SIC codes must submit Title V permit applications by July 5, 1998; 28 months following interim program approval:

Refineries - 2911

Cement Plants - 3241

Chemical/Carbon - 2819, 2821, 2851, 2861, 2869, 2891, 2895, 2899, 2999, 3053, 3086, 3089

Petroleum Transportation/Terminals/Storage - 4612, 4613

Food Products - 2013, 2074, 2095

V. All remaining Title V sources must submit applications by March 5, 1999; 36 months following interim approval. **All Title V applications must be received within the first three years following interim program approval.**

VI. All Title V permits must be issued within 36 months **after final program approval** by EPA. If final program approval occurs 24 months (maximum allowed by EPA) after interim approval, all Title V permits would be issued on or before March 5, 2001.

\*typographical error, please disregard

**WORKSHEET 1**

|  |  |
| --- | --- |
| **FACILITY NAME** |  |
| **UNIT NUMBER** |  |

|  |  |  |  |
| --- | --- | --- | --- |
| **APPLICABLE REQUIREMENTS (OAC 252:100-8-2)** | | | |
| **CITATION** | | **TITLE** | **EXPLAIN WHY OR WHY NOT APPLICABLE OR EXEMPT** |
| 40 CFR 52.1920 | CAA TITLE I, SIP Rules (see next page) |  | |
| 40 CFR 52.21 | CAA TITLE I, including Parts C and E, Pre-construction Permits |  | |
| 40 CFR 60 | CAA Section 111, Standards of Performance for New Stationary Sources (NSPS) |  | |
| 40 CFR 61 & 63 | CAA Section 112, National Emission Standards for Hazardous Air Pollutants (NESHAP), not including 112 (r) |  | |
| 40 CFR 72 | CAA Title IV, Acid Rain |  | |
| 40 CFR 70.6 | CAA Section 114 (a) (3) or 504 (b), Compliance |  | |
| 40 CFR 60.30 | CAA Section 129, Solid Waste Incineration |  | |
| 40 CFR 81 | CAA Section 183 (e), Federal Ozone Measures ( Best Available Controls, Consumer and Commercial Products) |  | |
| 40 CFR 81 | CAA Section 183 (f), Tank Vessels |  | |
| 40 CFR 82 | C AA TITLE VI, Stratospheric Ozone |  | |
| 40 CFR 50 | CAA TITLE I, Part C, NAAQS, or increment, or visibility requirement only to apply to Temporary Sources (504 (e)) |  | |

**WORKSHEET 2**

|  |  |
| --- | --- |
| **FACILITY NAME** |  |
| **UNIT NUMBER** |  |

|  |  |
| --- | --- |
| **OKLAHOMA STATE AIR QUALITY STANDARDS AND REGULATIONS** | |
| (Given are initial effective dates of the subchapter, other effective dates may apply) | |
| REGULATION / EFFECTIVE DATE | EXPLAIN WHY OR WHY NOT APPLICABLE OR EXEMPT |
| OAC 252:100 5 7/21/70  Registration of Air Contaminant Sources |  |
| OAC 252:100-7 10/19/71  Permits |  |
| OAC 252:100-8 3/6/96  Operating Permits |  |
| OAC 252:100-9 1/23/72  Excess Emission and Malfunction Reporting |  |
| OAC 252:100-11 4/17/82  Alternative Emissions Reductions Permits |  |
| OAC 252:100-13 3/31/69  Prohibition of Open Burning |  |
| OAC 252:100-15 12/28/68  Motor Vehicle Pollution Control Devices |  |
| OAC 252:100-17 7/21/70  Incinerators |  |
| OAC 252:100-19 7/21/70  Particulate Matter Emissions From Fuel Burning Equipment |  |
| OAC 252:100-21 4/1/78  Particulate Matter Emissions From Wood-Waste Burning Equipment |  |
| OAC 252:100-23 6/1/93  Control of Emissions From Cotton Gins |  |
| OAC 252:100-24 1/5/95  Particulate Matter Emissions from Feed, Grain, or Seed Operations |  |
| OAC 252:100-25 4/15/71  Smoke, Visible Emissions and Particulate |  |
| OAC 252:100-27 7/21/70  Particulate Matter Emissions from Industrial and other Processes, Operations, and Activities except fuel burning equipment |  |
| OAC 252:100-29 2/12/72  Control of Fugitive Dust |  |
| OAC 252:100-31 2/12/72  Control of Emission of Sulfur Compounds |  |
| OAC 252:100-33 2/15/72  Control of Emissions of Nitrogen Oxides |  |
| OAC 252:100-35 2/15/72  Control of Emissions of Carbon Monoxide |  |
| OAC 252:100-37 2/14/72  Control of Emissions of Organic Materials |  |
| OAC 252:100-39 2/14/72  Emissions of Organic Materials in Non-Attainment Areas |  |
| OAC 252:100-41 12/31/74 **(**State only requirement) Control of Emission or Hazardous and Toxic Air Containment’s |  |
| OAC 252:100-43 2/14/72  Sampling and Testing Methods |  |
| OAC 252:100-45 2/14/72  Monitoring of Emissions |  |

**TRIVIAL ACTIVITIES**

THIS IS AN INTERIM LIST AWAITING EPA APPROVAL. Unless otherwise regulated, the list follows:

1. Lawn care (noncommercial)

2. Weed control (noncommercial)

3. Pest control (noncommercial)

4. Wood working (saw-cutting, staining & varnishing) (noncommercial)

5. Janitorial services

6. Miscellaneous solvent use (degreasing & lubrication)

7. Sweeping (Floor Sweep)

8. Insulation installing or removal (non-asbes­tos)

9. Acid washing (maintenance cleaning)

10. Caustic washing (maintenance cleaning)

11. Abrasive blasting

12. Water washing or blasting

13. Steam cleaning

14. Application of refractory & insulation (calcium silicate, etc.)

15. Welding, brazing, soldering for maintenance purposes

16. Use of adhesives for maintenance purposes

17. Grinding, cutting, sanding for maintenance purposes

18. Seal replacement (i.e., manhole gaskets)

19. Removal of basic sediment & water from collection/storage systems (i.e., clarifiers)

20. Roof coating, service, and repair

21. Hydraulic or hydrostatic testing

22. Plastic or fiberglass welding or repair

23. Paving of roads, parking lots, and other areas

24. Office emissions (photocopying, blueprint copying, photograph processes)

25. Outdoor recreational emissions (campfires, barbecue pits)

26. Fireplaces for heat & recreation

27. Outdoor non-plumbed restroom facilities (port-a-potties)

28. Open burning for the purpose of land management (must get permission from Air Quality Enforcement even though exempt from permitting)

29. Air conditioning or comfort ventilation systems, to include space heating, not regulated under Title VI of the Clean Air Act

30. Emissions from laundry care equipment processing bedding, clothing or other fabric items. These include dryers, extractors, & tumblers. **NOT CLEANING OPERATIONS USING PERCHLOROETHYLENE OR PETROLEUM SOLVENTS (i.e.,dry cleaning)**

31. Surface coating for maintenance purposes such as roll/brush/pad coating, painting with aerosol cans, spray airless, and conventional spray painting

32. Emissions from lube oil, seal oil, or hydraulic fluid storage tanks and equipment as long as not emitting VOCs or HAPs

33. Lubricating pumps, sumps, and systems

34. Fuel/VOC storage tanks with less than or equal to 1000 gallons capacity having a true vapor pressure at storage conditions less than 1.5 psia. This includes Fuel Oils Nos. 2 - 6, Nos. 2-GO - 4-GO, Diesel Fuel Oils Nos. 2-D - 4-D, and Kerosene.

35. Storage and use of chemicals unless otherwise regulated by an applicable state or federal regulation. These chemicals include, but not limited to: alum, ammonia, biocides, corrosion inhibitors, dechlorination chemicals, inorganic salts, acids or bases to include caustic and sulfuric acid, coagulants, flocculants, precipitants, surfactants, anti-foam chemicals, sealing inhibitors, oxygen scavengers, phosphates, polyelectrolytes, limestone slurry, lime and lime slurry, flue gas desulfurization system slurry, and sulfur slurry; propane and acetylene under pressure

36. Mobile source emissions from cars, trucks, forklifts, courier vehicles, front loaders, graders, cranes, carts, hydrostatic and hydraulic testing equipment, maintenance trucks, helicopters, locomotives, marine vessels, portable generators moveable by hand, portable pumps, portable air compressors, portable welding machines, and portable fuel tanks

37. Other on and off road mobile sources (i.e. coal stacker & reclaimer)

38. Well servicing/workover rigs and associated equipment

39. Well drilling rigs and associated equipment

40. Aircraft ground support (AGE) equipment, including but not limited to portable power generators, lights, and HVAC support

41. Vehicle exhaust from maintenance or repair shops

42. Storage and use of products or equipment for maintaining motor vehicles operated at the site (including but not limited to antifreeze and fuel additives) not regulated under Title VI, CFC rules)

43. Analysis/laboratory activities emissions from the following: air contaminant detectors, air contaminant recorders, combustion controllers, combustion shut-off devices, product analyzers, laboratory analyzers, continuous emissions monitors, other analyzers (water quality), and emissions associated with sampling activities. Also, emissions from bench scale laboratory equipment and laboratory equipment used exclusively for chemical and physical analysis, including assorted vacuum producing devices and vents but **NOT** lab fume hoods or vents

44. Emissions from non-contact cooling towers (cooling water that has not been in contact with other materials or fluids containing regulated air pollutants)

45. Emissions from tanks containing separated water produced from oil and gas operations

46. Water and wastewater treatment and transportation system

47. Pit, ponds, sumps, or wastewater conveyance facilities

48. Emissions from skimmer pits, oil/water separators, and maintenance of filter separators

49. Emissions from the removal of sludge or sediment from pits, ponds, sumps, or wastewater conveyance facilities

50. Site assessment work, including but not limited to, the evaluation of waste disposal or remediation sites

51. Emissions from fire or emergency response equipment and training to include use of fire control equipment including equipment for testing and training, engines used exclusively for firefighting, and open burning of materials or fuels associated with firefighting training. Buildings burned for firefighting training must still adhere to NESHAP for Asbestos.

52. Emissions from instrument systems utilizing air or natural gas

53. Emissions from battery recharging areas

54. Vent emissions from gas streams used as buffer or seal gas in rotating pump and compressor seals

55. Emissions from natural gas odorizing activities

56. Emissions from pneumatic starters on reciprocating engines, turbines, compressors, or other equipment

57. Emissions from pipeline maintenance pigging activities

58. Emissions from residential housing units, dormitories, and multifamily dwellings to include fuel burning for the purposes of heating except prohibited open burning

59. Woodworking utilized for hobby purposes or maintenance of grounds or buildings

60. Aircraft movement, including on-ground engine run-up, take-off, landings, and touch and go fuel jettisoning

61. Commercial gasoline dispensing stations, including those located within the physical boundaries of a Title V source, unless otherwise covered by applicable state and federal regulations

62. Washing of mobile sources to include aircraft

63. Sealing or cutting plastic film or foam with heat or wires

64. Carbon dioxide blasting equipment in degreasing or depainting

65. High pressure water depainting operations and aqueous industrial spray washers

66. Equipment used exclusively to store or hold dry natural gas

67. Blast cleaning equipment utilized in a temporary mode

68. Equipment used for inspection of metal products

69. Die casting machines

70. Foundry sand mold forming equipment to which no heat is applied, and from which no organics are emitted

71. Vacuum cleaning systems used exclusively for industrial, commercial, or residential housekeeping purposes, except those systems used to collect particulate matter subject to 252:100 and hazardous and/or toxic air contaminants

72. Industrial and/or municipal wastewater treatment processes (excluding combustion or incineration equipment), land farms, storage silos for dry material(sludges), composting, or grease trap waste handling or treatment

73. Outdoor kerosene heaters

74. Equipment used exclusively to mill or grind coatings and holding compounds where all materials charged are in paste form (unless HAP emission)

75. Gas flares or flares used solely to indicate danger to the public (e.g. road hazard)

76. Maintenance, upkeep, and replacement types of activities, including those not altering the capacity of process, combustion or control equipment, and which do not increase regulated pollutant emissions unless subject to NESHAP or NSPS

77. Exhaust from food preparation for on-site/off-site human consumption (e.g. restaurants, fast food) or on-site retail sale

78. Exhaust containing only water and carbon dioxide, e.g. emissions from steam vents and steam leaks

79. Emergency use generators, unless utilized for more than 24 consecutive hours or utilized in excess of 576 hours per year, and associated fuel storage tankage

80. Emergency relief vents, stacks and ventilating systems except any with potential to emit vinyl chloride located at a facility where ethylene dichloride, vinyl chloride and/or polyvinyl chloride are produced or any emergency relief vents, stacks and ventilating systems for which a NESHAPs has been established

81. Herbicide and pesticide activities except for manufacturing and formulation for commercial sale

82. Cold storage refrigerator equipment

83. Equipment used for portable steam cleaning

84. Equipment associated with electrical power transmission which do not involve fuel-burning activities using transformers and substations

85. Industrial battery recharging and maintenance operations for batteries utilized within the facility only

86. Warehouse activities including the storage of packaged raw materials and finished goods

87. Lubricants and waxes used for machinery and other equipment lubrication and emission from lubricating oil or hydraulic fluid storage tanks and equipment

88. Solid waste disposal containers, e.g. dumpsters

89. Environmental field sampling operations

90. All electric powered generators, chillers, air compressors, and pumps

91. Asbestos and lead renovation, demolition, and disposal operations (NESHAP Subpart M for Asbestos still applicable)

92. Road sanding and salting operations

93. Runway and aircraft de-icing activities, including de-icer storage tanks unless otherwise regulated

94. Clean steam condensate and steam relief vents

95. Boiler water treatment operations

96. Non-routine clean out of tanks, lift stations, and equipment for the purposes of worker entry or in preparation for maintenance or decommissions

97. Sampling connections used exclusively to withdraw materials for testing and analysis, including air contaminant detectors and vent lines

98. Equipment used exclusively for rolling, forging, pressing, spinning, drawing, or extruding either hot or cold metals unless their emissions exceed any applicable regulated amount

99. Ozonization process or process equipment including ozone generation for water treatment processes

100. Unpaved roadways and parking areas

101. Tank trucks, railcars, and trailers loading and unloading

102. Cleaning, polishing, and housekeeping activities associated with custodial duties

103. Machine blowdown with air for cleaning/maintenance

104. Sanitary sewerage and storm water runoff collection systems

105. Stacks or vents to prevent escape of sewer gases from domestic waste through plumbing traps

106. Emissions from the blowdown of compressors or other vessels containing natural gas or liquid hydrocarbons for the purpose of maintenance due to emergency circumstances

107. Oxygen storage tanks and associated equipment

108. Covered cold solvent degreasers not subject to federal emission standards (e.g. NESHAPs or NSPS)

109. Compressed gas cylinders and gases utilized for equipment calibration and testing

110. Fire extinguishers and fire extinguishing systems

111. Backup power batteries

112. Horse stable operations designed for use by facility personnel only

113. Solid waste landfill operations

114. Animal kennels

115. Gravel, sand and dirt storage for use in on-site construction projects

116. Ultrasonic cleaning operations which do not utilize volatile organic compounds

117. Molten salt bath descaling operations

118. Emissions from materials, e.g. pharmaceuticals and disinfectants, except an incinerator, used by an infirmary or clinic to care primarily for the personnel at the facility

119. Emissions from dredging pits, ponds, sumps, or other wastewater conveyance facilities

120. Emissions from engine crankcase vents and equipment lubricating sumps

121. Touch-up painting operations where paints/coatings are applied at less than one quart per hour

122. Processes used for the curing of fiberglass or paint products, except when emitting more than one pound per hour of volatile organic compounds

123. Emissions from components (e.g. valves, connectors, pump seals, etc.) additions regulated by a fugitive monitoring program where the total increase is less than one ton per year of any criteria pollutant or the de minimis set forth in 252:100-41-43. The component additions must be identified in the next scheduled monitoring report required by the applicable requirements.

124. Vehicle exhaust from motor vehicle or mobile equipment maintenance or repair shops

125. Use of products for the purpose of maintaining motor vehicles operated by the facility, not including air conditioning units of such vehicles(i.e., antifreeze, fuel additives, etc.)

126. Non-routine clean out of tanks and equipment for the purposes of worker entry or in preparation for maintenance or decommissions

127. Fugitive emissions of jet fuels associated with aircraft fuel cell and fuel bladder repair

128. RCRA Solid Waste Management Units subject to 40 CFR Part 265, Subparts AA, BB, and CC

129. Operations previously determined to be de minimis pursuant to OAC 252:100-7-2(b)(3) or 252:100-41-43(a)(5)

130. De minimis refrigerant releases

131. Deaerator units associated with boilers or hot water heating systems

132. Blowdown from compressed air lines

133. Natural gas water heating systems for fixed vehicle wash racks

134. Bathroom/toilet vent emissions

135. Tobacco smoking rooms and areas

136. Storage tanks, reservoirs, and pumping and handling equipment of any size containing soaps, vegetable oil, grease, animal fat, and nonvolatile aqueous salt solutions, provided appropriate lids and covers are utilized

137. Equipment used to mix and package soaps, vegetable oil, grease, animal fat, and nonvolatile aqueous salt solutions, provided appropriate lids and covers are utilized

138. Equipment used exclusively to slaughter animals, but **not** including other equipment at slaughterhouses, such as rendering cookers, boilers, heating plants, incinerators, and electrical power generating

139. Electric or steam-heated drying ovens and autoclaves, but not the emissions from the articles or substances being processed in the ovens or autoclaves or the boilers delivering the steam

140. Carbon monoxide lasers, used only on metals and other materials which do not emit HAP in the process

141. Laser trimmers using dust collection to prevent fugitive emissions

142. Shock chambers

143. Humidity chambers

144. Solar simulators

145. Process water filtration systems and demineralizers

146. Demineralized water tanks and demineralizer vents

147. Fugitive emissions related to movement of passenger vehicles provided the emissions are not counted for applicability purposes or any required fugitive dust control plan or its equivalent is submitted

148. Steam sterilizers**PART 60 NSPS SUBPARTS**

**A** General Provisions

**B** Adoption and Submittal of State Plans for Designated Facilities

**C** Emission Guidelines and Compliance Times

**Cb** Munici­pal Waste Combustors before December 19, 1995

**Cd** Sulfuric Acid Production Units

**D** Fossil-Fuel Fired Steam Generators for Which Construction is Commenced after August 17, 1971

**Da** Electric Utility Steam Generat­ing Units for Which Construction Is Commenced After September 18, 1978

**Db** Industrial-Commercial-Institutional Steam Generating Units

**Dc** Small Industrial-Commercial-Institutional Steam Generating Units

**E** Incinerators

**Ea** Municipal Waste Combustors before September 20, 1994

**Eb** Municipal Waste Combustors after September 20, 1994

**F** Standard of Performance for Portland Cement Plants

**G** Nitric Acid Plants

**H** Sulfuric Acid Plants

**I** Asphalt Concrete Plants

**J** Petroleum Refineries

**K** Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After June 11, 1973, and Prior to May 19, 1978

**Ka** Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After May 18, 1978, and Prior to July 23, 1984

**Kb** Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Re-construction, or Modification Commenced after July 23, 1984

**L** Secondary Lead Smelters

**N** Primary Emissions from Basic Oxygen Process Furnaces for Which Construction is Commenced after June 11, 1973

**Na** Secondary Emissions from Basic Oxygen Process Steelmaking Facilities for Which Construction Commenced After Jan. 20, 1983

**O** Sewage Treatment Plants

**P** Primary Copper Smelters

**Q** Primary Zinc Smelters

**R** Primary Lead Smelters

**S** Primary Aluminum Reduction Plants

**T** Phosphate Fertilizer Industry: Wet-Process Phosphoric Acid Plants

**U** Phosphate Fertilizer Industry: Superphosphoric Acid Plants

**V** Phosphate Fertilizer Industry: Diammonium Phosphate Plants

**W** Phosphate Fertilizer Industry: Triple Superphosphate Plants

**X** Phosphate Fertilizer Industry: Granular Triple Superphosphate Storage Facilities

**Y** Coal Preparation Plants

**Z** Ferroallay Production Facilities

**AA** Steel Plants: Electric Arc Furnace: Constructed After October 21, 1974 and Before August 17, 1983

**AAA** Steel Plants: Electric Arc Furnaces and Argon-Oxygen Decarburization Vessels Constructed After August 7, 1983

**BB** Kraft Pulp Mills

**CC** Glass Manufacturing Plants

**DD** Grain Elevators

**EE** Surface Coating of Metal Furniture

**GG** Stationary Gas Turbines

**HH** Lime Manufacturing Plants

**KK** Lead-Acid Battery Manufacturing Plants

**LL** Metallic Mineral Processing Plants

**MM** Automobile and Light-Duty Truck Surface Coating

**NN** Phosphate Rock Plants

**PP** Ammonium Sulfate Manufacture

**QQ** Graphic Arts Industry: Publication Rotogravure Printing

**RR** Pressure Sensitive Tape and Label Surface Coating

**SS** Industrial Surface Coating: Large Appliances

**TT** Metal Coil Surface Coating

**UU** Asphalt Processing and Asphalt Roofing Manufacture

**VV** Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry

**WW** Beverage Can Surface Coating Industry

**XX** Bulk Gasoline Terminals

**AAA** New Residential Wood Heaters

**BBB** Rubber Tire Manufacturing Industry

**DDD** Volatile Organic Compound (VOC) Emissions from the Polymer Manufacturing Industry

**FFF** Flexible Vinyl and Urethane Coating and Printing

**GGG** Equipment Leaks of VOC in Petroleum Refiners

**HHH** Synthetic Fiber Production Facilities

**III** Volatile Organic Compound (VOC) Emissions from the Synthetic Organic Chemical Manufacturing Industry (SOCMI) Air Oxidation Unit Processes

**JJJ** Petroleum Dry Cleaners

**KKK** Equipment Leaks of VOC From Onshore Natural Gas Processing Plants

**LLL** Onshore Natural Gas Processing; SO2 Emissions

**NNN** Volatile Organic Compound (VOC) Emissions From Synthetic Organic Chemical Manufacturing Industry (SOCMI) Distillation Operations

**OOO** Nonmetallic Mineral Processing Plants

**PPP** Wool Fiberglass Insulation Manufacturing Plants

**QQQ** VOC Emissions From Petroleum Refinery Wastewater Systems

**SSS** Magnetic Tape Coating Facilities

**TTT** Industrial Surface Coating: Surface Coating of Plastic Parts for Business Machines

**UUU** Calciners and Dryers in Mineral Industries

**VVV** Polymeric Coating of Supporting Substrates Facilities

**WWW** Municipal Solid Waste (MSW) landfills

**PART 61 NESHAP SUBPARTS**

**A** General Provisions

**B** Radon Emissions from Underground Uranium Mines

**C** Beryllium

**D** Beryllium Rocket Motor Firing

**E** Mercury

**F** Vinyl Chloride

**H** Emissions of Radionuclides other than Radon from Dept. of Energy Facilities

**I** Radionuclide Emissions From Facilities Licensed by the Nuclear Regulatory Commission and Federal Facilities Not Covered by Subpart H

**J** Equipment Leaks (Fugitive Emission Sources) of Benzene

**K** Radionuclide Emissions from Elemental Phosphorus Plants

**L** Benzene Emissions from Coke By-Product Recovery Plants

**M** Asbestos

**N** Inorganic Arsenic Emissions from Glass Manufacturing Plants

**O** Inorganic Arsenic Emissions from Primary Copper Smelters

**P** Inorganic Arsenic Emissions from Arsenic Trioxide and Metallic Arsenic Production Facilities

**Q** Radon Emissions from Department of Energy Facilities

**R** Radon Emissions from Phosphogypsum Stacks

**T** Radon Emissions from the Disposal of Uranium Mill Tailings

**V** Equipment Leaks (Fugitive Emission Sources)

**W** Radon Emissions from Operating Mill Tailings

**Y** Benzene Emissions from Benzene Storage Vessels

**BB** Benzene Emissions from Benzene Transfer Operations

**FF** Benzene Waste Operations

**PART 63 NESHAP SUBPARTS**

MACT STANDARDS

**Currently Effective (3/20/96)**

**F** Synthetic Organic Chemical Manufacturing Industry (SOCMI)

**G** SOCMI Process Vents, Storage Vessels, Transfer Operations, and Waste Water

**H** SOCMI Organic Chemical Equipment Leaks

**I** SOCMI Certain Processes Subject to the Negotiated Regulation for Organic Chemical Equipment Leaks

**L** Coke Oven Batteries

**M** Dry Cleaners Using Perchloroethylene

**N** Chromium Emissions From Hard and Decorative Chromium Electroplating and Chromium Anodizing Tanks

**O** Ethylene Oxide for Sterilization Facilities

**Q** Hazardous Air Pollutants for Industrial Process Cooling Towers

**R** Gasoline Distribution Facilities (Bulk Gasoline Terminals and Pipeline Breakout Stations)

**T** Halogenated Solvent Cleaning

**W** Hazardous Air Pollutants for Epoxy Resins Production and Non-Nylon Polyamides Production

**X** Hazardous Air Pollutants From Secondary Lead Smelting

**Y** Marine Tank Vessel Loading Operations

**CC** Hazardous Air Pollutants From Petroleum Refineries

**EE** Magnetic Tape Manufacturing Operations

**GG** Aerospace Manufacturing and Rework Facilities

**II** Ship Building

**JJ** Wood Furniture

**To Be Effective by November of 1996**

**U** Polymers and Resins I

**V** Polymers and Resins IV

**KK** Printing and Publishing

(?) Off Site Waste Treatment

**7 Year MACT Standards**  - statutory date 11/15/97

Dates in parenthesis are target promulgation dates.

Agriculture Chemicals Production

Acrylic/Modacrylic Fibers Production

Chlorine Production

Ferroalloys Production (12/15/96)

Flexible Polyurethane Foam Production (4/25/97)

Manufacture of Tetrahydrobenzaldehyde (formerly known as Butadiene Dimers Production)

Mineral Wool Production (4/04/97)

Nylon 6 Production

Oil & Natural Gas Production (2/28/97)

Petroleum Refineries - catalytic cracking (fluid and others) units, catalytic reforming units, and sulfur plant units

Pharmaceuticals Production (11/15/97)

Polycarbonates Production

Polyether Polyols Production (11/11/97)

Polymers & Resins III

Portland Cement Manufacturing (03/21/97)

Primary Aluminum Production (11/15/96)

Primary Copper smelting (12/30/96)

Primary Lead Smelting

Pulp & Paper Production (05/24/96)

Reinforced Plastic Composites Production

Secondary Aluminum Production (06/28/97)

Steel Pickling - hcl process (11/30/96)

Wool Fiberglass Manufacturing (6/14/97)

Public Owned Treatment Works (POTW) (12/31/96)

**10 Year MACT Projects** - statutory date - 11/15/00

Aerosol Can-Filling Facilities

Alkyd Resins Production

Alumina Processing

Ammonium Sulfate Production - Caprolactam By-Product Plants

Antimony Oxides Manufacturing

Asphalt Concrete Manufacturing

Asphalt Processing

Asphalt Roofing Manufacturing

Asphalt/Coal Tar Application - Metal Pipes auto and Light Duty Truck (Surface Coating)

Bakers Yeast Manufacturing

Benzltrimethylammonium Chloride Production

Boat Manufacturing

Butadiene - Furfural Contrimer (R-11)

Carbonyl Sulfide Production

Carboxymethylcellulose Production

Cellophane Production

Cellulose Ethers Production

Cellulose Food Casing Manufacturing

Chelating Agents Production

Chlorinated Paraffins Productions

Chromium Refractories Productions

Clay Products Manufacturing

Coke By-Product Plants

Coke Ovens: Pushing, Quenching and Battery Stacks

Dodecanedioic Acid Production

Dry Cleaning (Petroleum Solvent)

Engine Test Facilities

Ethylidene Norbornene Production

Explosives Production

Flat Wood Paneling (Surface Coating)

Fume Silica Production

Hazardous Waste Incineration

Hydrazine Production

Hydrochloric Acid Production

Hydrogen Fluoride Production

Industrial Boilers

Institutional/Commercial Boilers

Integrated Iron & Steel Manufacturing

Iron Foundries

Large Appliance (Surface Coating)

Lead Acid Battery Manufacturing

**TITLE III HAPs**

**CAS#** **CHEMICAL**

75070 Acetaldehyde

60355 Acetamide

75058 Acetonitrile

98862 Acetophenone

53963 2-Acetylaminofluorene

107028 Acrolein

79061 Acrylamide

79107 Acrylic acid

107131 Acrylonitrile

107051 Allyl chloride

92671 4-Aminobiphenyl

62533 Aniline

90040 o-Anisidine

1332214 Asbestos

71432 Benzene(including benzene from gasoline)

92875 Benzidine

98077 Benzotrichloride

100447 Benzyl chloride

92524 Biphenyl

1178 Bis(2-ethylhexyl)phthalate(DEHP)

542881 Bis(chloromethyl)ether

75252 Bromoform

106990 1,3-Butadiene

156627 Calcium cyanamide

133062 Captan

63252 Carbaryl

75150 Carbon disulfide

56235 Carbon tetrachloride

463581 Carbonyl sulfide

120809 Catechol

133904 Chloramben

57749 Chlordane

7782505 Chlorine

79118 Chloroacetic acid

532274 2-Chloroacetophenone

108907 Chlorobenzene

510156 Chlorobenzilate

67663 Chloroform

107302 Chloromethyl methylether

126998 Chloroprene

1319773 Cresols/Cresylic acid (isomers and mixture)

95487 o-Cresol

108394 m-Cresol

106445 p-Cresol

98828 Cumene

94757 2,4-D, salts and esters

3547044 DDE

334883 Diazomethane

132649 Dibenzofurans

96128 1,2-Dibromo-3-chloropropane

84742 Dibutylphthalate

106467 1,4-Dichlorobenzene(p)

91941 3,3-Dichlorobenzidene

111444 Dichloroethyl ether (Bis(2-chloroethyl)ether)

542756 1,3-Dichloropropene

62737 Dichlorvos

111422 Diethanolamine

121697 N, N-Diethyl aniline (N,N-Dimethylaniline)

64675 Diethyl sulfate

119904 3,3-Dimethoxybenzidine

60117 Dimethyl aminoazobenzene

119937 3,3-Dimethyl benzidine

79447 Dimethyl carbamoyl chloride

68122 Dimethyl formamide

57147 1,1-Dimethyl hydrazine

131113 Dimethyl phthalate

77781 Dimethyl sulfate

534521 4,6-Dinitro-o-cresol and salts

51285 2,4-Dinitrophenol

121142 2,4-Dinitrotoluene

123911 1,4-Dioxane (1,4-Diethylene-oxide)

122667 1,2-Diphenylhydrazine

106898 Epichlorohydrin (1-Chloro-2,3-epoxypropane)

106887 1,2-Epoxybutane

140885 Ethyl acrylate

100414 Ethyl benzene

51796 Ethyl carbamate (Urethane)

75003 Ethyl chloride (Chloroethane)

106934 Ethylene dibromide (Dibromoethane)

107062 Ethylene dichloride (1,2-Dichloroethane)

107211 Ethylene glycol

151564 Ethylene imine (Aziridine)

75218 Ethylene oxide

96457 Ethylene thiourea

75343 Ethylidene dichloride (1,1-Dichloroethane)

50000 Formaldehyde

76448 Heptachlor

118741 Hexachlorobenzene

87683 Hexachlorobutadiene

77474 Hexachlorocyclo-pentadiene

67721 Hexachloroethane

822060 Hexamethylene-1,6-diisocyanate

680319 Hexamethyl-phosphoramide

110543 Hexane

302012 Hydrazine

7647010 Hydrochloric acid

7664393 Hydrogen fluoride (Hydrofluoric acid)

123319 Hydroquinone

78591 Isophorone

58899 Lindane (all isomers)

108316 Maleic anhydride

67561 Methanol

72435 Methoxychlor

74839 Methyl bromide (Bromomethane)

74873 Methyl chloride (Chloromethane)

71556 Methyl chloroform (1,1,1-Trichloroethane)

78933 Methyl ethyl ketone (2-Butanone)

60344 Methyl hydrazine

74884 Methyl iodide (iodomethane)

108101 Methyl isobutyl ketone (Hexone)

624839 Methyl isocyanate

80626 Methyl methacrylate

1634044 Methyl tert butyl ether

101144 4,4-Methylene bis(2-chloroaniline)

75092 Methylene chloride (Dichloromethane)

101688 Methylene diphenyl diisocyanate (MDI)

101779 4,4-Methylenedianiline

91203 Naphthalene

98953 Nitrobenzene

92933 4-Nitrobiphenyl

100027 4-Nitrophenol

79469 2-Nitropropane

684935 N-Nitroso-N-methylurea

62759 N-Nitrosodimethylamine

59892 N-Nitrosomorpholine

56382 Parathion

82688 Pentachloronitrobenzene (Quintobenzene)

87865 Pentachlorophenol

108952 Phenol

106503 p-Phenylenediamine

75445 Phosgene

7803512 Phosphine

7723140 Phosphorus

85449 Phthalic anhydride

1336363 Polychlorinated biphenyls (Aroclors)

1120714 1,3-Propane sultone

57578 beta-Propiolactone

123386 Propionaldehyde

114261 Propoxur (Baygon)

78875 Propylene dichloride (1,2-Dichloropropane)

75569 Propylene oxide

75558 1,2-Propylenimine (2-Methyl aziri-dine)

91225 Quinoline

106514 Quinone

100425 Styrene

96093 Styrene oxide

1746016 2,3,7,8-Tetrachlorodi-benzo-p-dioxin

79345 1,1,2,2-Tetrachloroethane

127184 Tetrachloroethylene (Perchloroethylene)

7550450 Titanium tetrachloride

108883 Toluene

95807 2,4-Toluene diamine

584849 2,4-Toluene diisocyanate

95534 o-Toluidine

8001352 Toxaphene (chlorinated camphene)

120821 1,2,4-Trichlorobenzene

79005 1,1,2-Trichloroethane

79016 Trichloroethylene

95954 2,4,5-Trichlorophenol

88062 2,4,6-Trichlorophenol

121448 Triethylamine

1582098 Trifluralin

540841 2,2,4-Trimethylpentane

108054 Vinyl acetate

593602 Vinyl bromide

75014 Vinyl chloride

75354 Vinylidene chloride (1,1-Dichloroethylene)

1330207 Xylenes (isomers and mixture)

95476 o-Xylenes

108383 m-Xylenes

106423 p-Xylenes

0 Antimony Compounds

0 Arsenic Compounds (inorganic including arsine)

0 Beryllium Compounds

0 Cadmium Compounds

0 Chromium Compounds

0 Cobalt Compounds

0 Coke Oven Emissions

0 Cyanide Compounds1

0 Glycol ethers2

0 Lead Compounds

0 Manganese Compounds

0 Mercury Compounds

0 Fine mineral fibers3

0 Nickel Compounds

0 Polycylic Organic Matter4

0 Radionuclides (including radon)5

0 Selenium Compounds

**NOTE:** Unless otherwise specified, this listing is defined as including any unique chemical substance that contains the named chemical (i.e., antimony, arsenic, etc.) as part of that chemical's infrastructure. For those above which contain the word "compounds" and for glycol ethers, the following applies:

**1** X'CN where X = H' or any other group where a formal dissociation may occur. For example KCN or Ca(CN)2

**2** Includes mono- and di-ethers of ethylene glycol, diethylene glycol, and triethylene glycol R(OCH2CH2)n-OR' where R=alkyl or aryl groups n = 1, 2, or 3 R' = R, H, or groups which, when removed, yield glycol ethers with the structure: R(OCH2CH)n-OH. Polymers are excluded from the glycol category.

**3** Includes mineral fiber emissions from facilities manufacturing or processing glass, rock, or slag fibers (or other mineral derived fibers) of average diameter 1 micrometer or less.

**4** Includes organic compounds with more than one benzene ring, and which have a boiling point greater than or equal to 100E C.

**5** A type of atom which spontaneously undergoes radioactive decay.

**EPA MONITORING METHODS LIST**

Choose the type of monitoring that is appropriate for the emission unit or the facility. Any proposed method other than those listed below must be fully explained, justified, and documented.

A. Compliance Demonstration by Continuous Emissions Monitoring (CEM).

sulfur dioxide (SO2), nitrogen oxides (NOx), oxygen (O2), carbon dioxide (CO2), total reduced sulfur (TRS), opacity, hydrogen chloride (HCl), carbon monoxide (CO), flow, hydrogen sulfide (H2S), VOCs.

B. Compliance Demonstrations by Periodic Emission Monitor­ing using Portable monitors

SO2, NOx, O2, CO2, CO, HCl, H2S, VOC, flow, moisture, combustibles, combustion efficiency

C. Compliance Demonstration by Monitoring Control System Parameters or Operating Parameters of a process

Baghouse: pressure drop across baghouse, broken bag detector, opacity

Mechanical collectors: pressure drop across collector, hopper full detector, opacity

Electrostatic precipitators: primary and secondary voltage, primary and secondary currents, spark rate, broken wire detector, Rap cycle frequency, resistivity measurement, inlet water flow, total solids, opacity

Thermal incinerator: firebox temperature

Catalytic incinerator: catalyst bed temperature

Flare: pilot light detector, temperature after flame zone

Particulate scrubber: pressure drop across scrubber and demister, scrubber fluid recirculation rate, pump discharge pressure, pump motor current

Absorber for gases: pH of fluid, fluid recirculation rate, air flow, pressure drop across absorber and demister, fluid temperature

Carbon adsorber: steam mass flow rate per regeneration cycle, carbon bed temperature

Condenser: condenser exit temperature, amount of solvent recovered daily charging rate, production rate, hours of operation, secondary chamber temperature, kiln or dryer exit temperature, burner combustion efficiency, power consumption, static pressure, fuel usage rate, water injection rate

D. Compliance Demonstration by Monitoring Maintenance Procedures

Sludge solids testing, electrostatic precipitator cleaning frequency, sludge mercury testing, blacklight inspection of baghouses, VOC leak testing, control equipment inspection frequency, soot blowing frequency, inspection of operating parameters, fugitive dust control, reid vapor pressure testing, water quality testing

E. Compliance Demonstration by Stack Testing.

EPA Method 1&2: flow (S-type pitot tubes, hot-wire anemometer) EPA Method 10: CO (analyzer)

EPA Method 3: CO2, O2, CO (Orsat, Fyrite) EPA Method 16: TRS (gas chromatograph)

EPA Method 4: Moisture (Wet bulb-Dry bulb, Impingers) EPA Method 16A: TRS (impingers)

EPA Method 5: PM EPA Method 16B: TRS (gas chromatograph)

EPA Method 6: SO2 (Impingers) EPA Method 18: VOC (gas chromatograph)

EPA Method 6B: SO2 (24 hour average) EPA Method 21: VOC leaks (analyzer)

EPA Method 6C: SO2 (Analyzer) EPA Method 25A: VOC (analyzer with FID)

EPA Method 7E: NOx (Analyzer) EPA Method 25B: VOC (NDIR analyzer)

EPA Method 9: Opacity (Visible emissions reader)

F. Compliance Demonstration by Fuel Sampling and Analysis (FSA).

Coal sampling, waste oil sampling, tire derived fuel sampling, coke sampling, sewage sludge sampling, paper sludge sampling, landfill gas sampling, refuse derived fuel sampling

G. Compliance Demonstration by Recordkeeping

Testing and monitoring records, records of malfunction, compliance schedule records, as-applied coating & ink records, process hours of operation records, transfer efficiency records, fuel usage records, production records, as-applied coating & ink composition records.