1.0 External Combustion

1.1 Boilers
1.1.1 Boiler: < or = 20.0 MMBtu/hr, Natural Gas or Propane Fired *RESCINDED* (10/26/2009)
1.1.2 Boiler: > 20.0 MMBtu/hr, Natural gas fired, base-loaded or with small load swings. *RESCINDED* (10/26/2009)
1.1.3 Boiler - > 20.0 MMBtu/hr, Natural gas fired, with highly variable loads or high turndown ratios. *RESCINDED* (10/26/2009)
1.1.4 Digester Gas Fired Boiler *RESCINDED* (10/26/2009)
1.1.5 Boiler-Dual Fuel for Facilities Requiring Liquid Backup Fuel *RESCINDED* (10/26/2009)
1.1.6 Boiler - Fired with a High-Ammonia Fuel *RESCINDED* (10/26/2009)
1.1.7 Limited Use Boiler - Natural Gas Fired, < 9 Billion Btu/yr *RESCINDED* (10/26/2009)
1.1.8 Biomass-fired Boiler - Grate Systems *RESCINDED* (10/26/2009)

1.2 Steam Generators
1.2.1 Oilfield Steam Generator (> or =20 MMBtu/hr) (03/24/2014)
1.2.2 Steam Generator - >20.0 MMBtu/Hr Vertically Oriented w/Counterflow Heat Transfer *RESCINDED* (10/26/2009)
1.2.3 Oilfield Steam Generator/TEOR Gas Incinerator **RESCINDED - part of 5/04 update to guideline 1.2.1** (05/01/2004)

1.3 Fluidized-bed Combustors
1.3.1 Fluidized-Bed Combustor => 272 MMBtu/hr, Cogeneration Operation, Fired with Delayed Petroleum Coke (DPC) (08/27/2005)
1.3.2 Fluidized Bubbling Bed Combustor (biomass-fired) *RESCINDED* (03/12/2012)

1.4 Flares
1.4.1 Waste Gas Flare - 15.3 MMBtu/hr, Serving a Tank Vapor Control System *RESCINDED* (11/07/2016)
1.4.2 Waste Gas Flare - Incinerating Produced Gas *RESCINDED* (11/07/2016)
1.4.3 Landfill Gas Vapor Collection System *RESCINDED* (11/07/2016)
1.4.4 Digester Gas-Fired Flare *RESCINDED* (11/07/2016)
1.4.5 Oilfield Waste Gas Incinerator *RESCINDED* (11/07/2016)
1.4.6 Biogas-Fired Flare: = or > 10.9 MMBtu/hr, Limited Use * RESCINDED* (11/07/2016)
1.4.7 Waste Gas Flare - Oilfield Well Drilling and Testing Operation, < 50 MMscf/day *RESCINDED* (11/07/2016)
1.4.8 Refinery Flare *RESCINDED* (11/07/2016)
1.5 Furnaces
1.5.1 Fiberglass Production Furnace and Manufacturing Line, Natural Gas-Fired (08/17/2006)
1.5.2 Flat Glass Production Float Furnace (04/26/2006)
1.5.3 Existing flat glass furnace with a 3R system and a backup thermal De-NOx system (04/08/1996)
1.5.4 Metal Melting Crucible/Furnace (06/18/1996)
1.5.5 Glass Bottle Label Curing Lehr - < 10 MMBtu/hr, Natural Gas Fired (10/19/2000)
1.5.6 Metal Heat Treatment Oven** (10/15/2014)
1.5.7 Glass Furnace Forehearth (08/17/2006)
1.5.8 Container Glass Production - Container Glass Distributor (06/19/2006)
1.5.9 Container Glass Melting Furnace (12/09/2014)
1.5.10 Container Glass Annealing Lehr (10/09/2018)
1.5.11 Container Glass Production - Mold Swabbing Operation (06/16/2006)
1.5.12 Secondary Aluminum Melting Furnace (06/19/2012)
1.5.13 Aluminum Diecasting Furnace (03/07/2016)
1.6 Food & Ag Products Ovens, etc.
1.6.1 Vegetable Roasting Operation (02/05/2005)
1.6.2 Oven - Tortilla, <= 5 MMBtu/hr (06/23/2005)
1.6.3 Snack Chip Fryer with Indirect-Fired Heat Transfer System (02/21/2020)
1.6.4 Oven - Snack Food (06/16/1999)
1.6.5 Cornnut (tm) cooker (07/05/1996)
1.6.6 Peanut Roasting Operation (05/13/1999)
1.6.7 Pistachio Roasting Operation (01/27/1994)
1.6.8 Nut and Seed Column Dryer (03/13/2015)
1.6.9 Dryer - Almond Processing, < 10 MMBtu/hr (10/30/1996)
1.6.10 Oven - Wheat Drying, < or = 10 MMBtu/hour (07/30/1998)
1.6.11 Direct-Fired Dairy Products Spray Dryer (05/09/2019)
1.6.12 Dryer - Whey, Filtermat, < 50 MMBtu/hr (04/22/1999)
1.6.13 Dehydrator - Vegetable, Continuous Process (06/26/1998)
1.6.14 Dehydrator Tunnel - Fruit, Natural Gas Fired (05/18/1998)
1.6.15 Dryer - Seed Processing, < 20 MMBtu/hr (08/26/1999)
1.6.16 Food Preparation Oven, <800 degrees Fahrenheit, = or < 3.7 MMBtu/hr (07/10/1998)
1.6.17 Chicken Fryer - Natural Gas-Fired, Continuous Process, = or < 7 tons/hr (12/06/1999)
1.6.18 Meat Smokehouse - Natural Gas-Fired, < or = 2 MMBtu/hr (05/30/2000)
1.6.19 Feather Meal Processing Rotary Dryer - Natural Gas Fired, High Ammonia Environment (07/11/2001)
1.6.20 Flake Cereal Dryer - < 20 MMBtu/hr, Conveyor-fed (10/31/2002)
1.6.21 Wood Drying Kiln (08/15/2006)
1.6.22 Pistachio, Almond, and Walnut Dryers (<10 MMBtu/hr and <2,160 hr/yr) (07/10/2007)
1.6.23 Commercial Bakery Oven (02/12/2008)
1.6.24 Blood Drying Operation (04/18/2012)
1.6.25 Rotary Kiln Dryer for Poultry Litter* Processing (03/25/2008)
1.6.26 Direct-Fired Conveyorized Hotdog Cooking Oven (07/02/2012)
1.6.27 Indirect-fired Impingement Meatball Cooking Oven (07/12/2012)

1.7 Industrial Ovens
1.7.1 Oven - Polyethylene Curing, = or < 20 MMBtu/hr (04/03/2000)
1.7.2 Oven - Plastisol curing/fusing, = or < 2.5 MMBtu/hr (08/19/1996)
1.7.3 Oven - Parts Cleaning, Burnoff or Burnout (08/13/1999)
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1.8 Petroleum Product Combustion Devices
1.8.1 Refinery Heater, fired on refinery fuel gas and/or natural gas (< or = 50 MM Btu/hr) **RESCINDED** (10/26/2009)
1.8.2 Refinery Heater, fired on refinery fuel gas and/or natural gas (> 50 MM Btu/hr) **RESCINDED** (10/26/2009)
1.8.3 Gas Dehydration - Glycol Reboiler **RESCINDED** (10/26/2009)
1.8.4 Heater Treater < 20 MMBtu/hr, Natural Gas Fired **RESCINDED** (10/26/2009)
1.8.5 Process Heater (non-refinery, < or = 20 MMBtu/hr) **RESCINDED** (10/26/2009)

1.9 Misc. Combustion Devices
1.9.1 Metal Parts Washer - Natural Gas-fired (01/27/1998)
1.9.2 Sulfuric Acid Plant Start-up Heater - < 15 MMBtu/hr (07/02/1996)
1.9.3 Crematory - Natural Gas Fired (06/01/2005)
1.9.4 Dryer - Natural Gas Fired, Solvent-Laden Towels, = or < 950 lb towels/day (10/04/1999)
1.9.5 Gas Absorption Chiller - Natural Gas Fired, < 20 MMBtu/hr (10/04/1999)
1.9.6 Asphalt-Surface-Repair Heater, Propane Fired, < 20 MMBtu/hr (01/06/2000)
1.9.7 Auxiliary Burner System, Dryer, Natural Gas Fired, < 20 MMBtu/hr (03/14/2000)
1.9.8 Municipal-waste Incinerator - < 750 lb waste/hr feed rate (04/14/2000)
1.9.9 Molded Paper Products Dryer - Natural Gas Fired, < 20 MMBtu/hr (02/20/2001)
1.9.10 Mineral Products Spray Dryer - Natural Gas Fired, < or = 20 MMBtu/hr (02/02/2001)
1.9.11 Commercial Laundry Dryer - < 5 MMBtu/hr, Natural Gas Fired (02/19/2003)
1.9.12 Transportable Diesel-Fired Nitrogen Vaporizer (10/04/2005)
1.9.13 Blood Meal Processing Ring Dryer Burner (10/19/2006)
1.9.14 Natural Gas Fired Dryer with High Turndown Ratio** (02/09/2007)
1.9.15 Jet Aircraft Fire Training Facility (08/26/2009)
1.9.16 Power Oxidizer - VOC Incineration and Power Generation, < or = 35 MMBtu/hr (04/26/2016)
1.9.17 Stationary Air Curtain Incinerator (01/30/2017)
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2.0 Remediation and Waste Disposal

2.1 Soil Remediation
2.1.1 Soil Remediation Operation - Thermal Oxidizer (03/17/1997)
2.1.2 Soil Remediation Operation - I.C. Engine (06/18/1992)
2.1.3 Soil Remediation Operation - Carbon Adsorption (09/15/1993)
2.1.4 Extracted Soil Remediation using Steam Stripping/Flushing and 4-Stage Carbon Adsorption, > or = 40 tons/hr (11/21/1995)
2.1.5 Soil Remediation Operation - Above-ground Bioremediation (06/23/1992)
2.1.6 Soil Remediation Operation - Boiler, = or < 4.2 MMBtu/hr (10/20/1995)
2.1.7 Soil Remediation Operation - Thermal Soil Desorber (08/24/1998)

2.2 Waste Disposal
2.2.1 Non-hazardous Wastewater Receiving, Treatment, and Impoundment (07/30/2003)
2.2.2 Landfill - VOC-Contaminated Soil (06/30/1999)
2.2.3 Cheese Wastewater Digester (06/28/2004)

2.3 Contaminated Water Remediation
2.3.1 Contaminated Water Remediation - Mobile Air Stripper, = or > 750 cfm Air Stream (08/09/1995)
3.0 Internal Combustion Engines

3.1 Emergency IC Engines
3.1.1 Emergency Diesel-Fired IC Engine (06/13/2019)
3.1.4 Emergency Diesel-Fired IC Engine Powering a Fire Pump (03/02/2020)
3.1.5 Emergency Gas-Fired IC Engine (07/16/2018)
3.1.7 Emergency Gasoline-Fired I.C. Engine (07/29/1999)

3.2 Limited/Special Use Engines
3.2.1 Diesel I.C. Engine - > 449 hp, used for testing of crankcase emission controls (01/09/1995)
3.2.2 Limited Use (1,000 hr/yr max) Diesel-Fired IC Engine - Located at a Stationary Source, non-emergency, non-Transportable, and not used to drive an electrical generator (11/08/2002)
3.2.3 Diesel Fired IC Engine - < 700 hp, Serving a Deep Water Channel Dredging Operation, and Not Used to Drive an Electrical Generator (08/02/1996)
3.2.5 Diesel I.C. Engine - Used for starting a Gas Turbine (03/05/2001)
3.2.8 Limited Life (1,000 hr total max life) Diesel-Fired IC Engine - < 600 bhp, and Not Used to Drive an Electrical Generator (09/09/1999)
3.2.11 Transportable Compression - Ignited IC Engines (Non-Agricultural)* (08/11/2014)

3.3 Fulltime IC Engines
3.3.1 Diesel Fired IC Engine - < 600 hp, Transportable Metal Contaminated Soil Processing Operation (03/21/1996)
3.3.12 Non-Agricultural Fossil** Fuel-Fired IC Engines > 50 bhp ***RESCINDED 3/7/19 - pending BACT guideline revision in progress*** (03/07/2019)
3.3.14 Full-time Rich-burn IC Engine, Syngas-fueled* (01/12/2009)
3.3.15 Waste Gas-Fired IC Engine** (03/06/2013)
3.3.16 Ag Stationary Compression-Ignited IC Engine (06/01/2006)
3.3.17 Ag Transportable Compression-Ignited IC Engine (06/01/2006)
3.3.18 Landfill Gas-Fired Lean Burn IC Engine < 500 bhp, Stationary (04/27/2015)
3.4 Gas Turbines

3.4.1 Gas Turbine - = or > 47 MMBtu/hr, Variable Load, Without Heat Recovery (10/01/2002)

3.4.2 Gas Turbine - = or > 50 MW, Uniform Load, with Heat Recovery (10/01/2002)

3.4.3 Gas Turbine with Heat Recovery (= > 3 MW and = < 10 MW) (01/18/2005)

3.4.4 Limited Use (< 877 hours per year) Gas Fired Turbine = or < 26 MW, without Heat Recovery (04/05/2001)

3.4.6 Gas Turbine - > 10 MW and < 50 MW, Uniform Load, with Heat Recovery (09/30/2009)

3.4.7 Gas Turbine - = or > 50 MW , Uniform Load, without Heat Recovery (10/01/2002)

3.4.8 Gas Turbine - < 50 MW, Uniform Load, Without Heat Recovery (10/01/2002)

3.4.9 Gas Turbine - < 3 MW, Uniform Load, With or Without Heat Recovery (10/01/2002)

3.4.10 Oxy-Fuel Combustor Powering a Steam Turbine, Power Output < 3 MW, without Heat Recovery, Uniform and Variable Load, Research Facility (11/21/2006)

3.4.11 Diesel-Fired Emergency Standby Turbine (03/05/2015)
4.0 Evaporative Loss Sources

4.1 Dry Cleaners
4.1.2 Petroleum Solvent Dry Cleaning (04/08/2004)

4.2 Motor Vehicle Coating
4.2.1 Automotive Spray Painting Operation, < 5.0 MMBtu/hr** (03/23/2010)
4.2.2 Group II Vehicles Spray Painting Operation - Vehicles requiring a Color Match (07/15/1998)
4.2.3 Mobile Equipment Coating Operation - Multiple Location, <= 20,000 lb-VOC/year (03/23/2010)
4.2.4 Trailer Coating Operation (12/23/1996)
4.2.5 Limited Aircraft Coating Operation - Maintenance and Refinishing of Metal Parts on Aircraft, < 20 Gallons/day. (04/23/2002)
4.2.6 Aerospace Parts Coating Operation (01/16/1997)
4.2.7 Aerospace and Metal Parts Coating Operating - Solid Film Lubricant for computer, medical specialty, and aerospace metal parts and products (11/12/1998)
4.2.8 Recreational Marine Vessel (Pleasure Craft) Coating (12/05/2003)
4.2.9 Aerospace Parts Coating Operation - Plasma Spray Application (06/11/2001)
4.2.10 Motor Vehicle Chassis Coating Operation - Electrodeposition with Curing Oven (09/19/2019)
4.2.11 Motor Vehicle Assembly (OEM) Adhesives Application Operation - Glass Installation (Non-Spray Application) (04/30/2018)
4.2.12 Small Scale Motor Vehicle Assembly (OEM) Coating Operation with a Booth Heater, < 2,000 lb-VOC/year (04/30/2018)
4.3 Metal Parts and Products Coating

4.3.1 Metal Parts and Products Coating - Air Dried (excluding specialty coating as defined in Rule 4603) (03/18/1999)

4.3.2 Metal Parts and Products Coating - Heat Dried (12/09/1997)

4.3.5 Metal Parts and Products Coating Operations (using specialty coatings as defined by Rule 4603) (11/26/1996)

4.3.6 Metal Parts Coating - Shipping/Storage Containers (11/20/2010)

4.3.7 Powder Coating Operation = or > 1.5 MMBtu/hr (10/30/2000)

4.3.8 Metal Product Coating - Large Steel Structures, < 64 lb VOC/day, Outdoor Coating Operation (07/03/2001)

4.3.9 Metal Product Coating - Large Steel Structures, = or < 64 lb VOC/day, Indoor Operation (03/03/1999)

4.3.10 Metal Products Coating - Sheet Metal for Can Manufacturing, Major Source for VOC (02/16/2001)

4.3.11 Metal Products Coating - Touch-up, 6.2 lb VOC/day (09/29/1995)

4.3.12 Metal Products Coating - High Gloss, Air-Dried, = or < 30 lb/day Facility-wide VOC coating emissions (08/02/1995)

4.3.13 Metal Products Coating - Metal Frames and Exterior Wooden Wall Panels for Modular Buildings (05/16/2001)

4.3.14 Side Seam Stripe Spray Coating Operation for 3-Piece Metal Can Manufacturing at a Facility-wide Can Manufacturing Rate of >= 180,000 Can/hr (07/14/2005)

4.3.15 Dip Coating of Steel Joists (11/04/2003)

4.3.16 Coated Steel Storage/Drying Operation (11/04/2003)

4.3.17 "Bright Dip" Aluminum Surface Finishing Operation (03/13/2008)

4.3.18 Metal Product Coating - Metal Rod Dip Coating, Air-Dried (10/04/2011)

4.4 Wood Parts and Products Coating

4.4.1 Wood Products Coating Operation - Non-Continuous Batch Coating (10/16/1996)

4.4.2 Wood Products Coating Operation - Continuously-fed Booth, = or < 5000 square feet material coated/day (05/12/2000)

4.4.3 Wood Products Coating Operation - Custom Replica Furniture, < or = 400 lb VOC/day (11/13/2000)

4.4.4 Wood Products Coating Operation - Exterior Wooden Wall Panels for Modular Buildings (03/06/1997)
4.5 Misc. Coating
4.5.1 Paper Roll-Coating - Heatset (01/21/1998)
4.5.2 Coating Operation - Large Concrete Structure Manufacturing, Outdoor Application (03/12/1998)
4.5.3 Coating Operation - Fiberglass Utility Poles, = or > 90 lb/day of VOC emissions (05/04/1995)
4.5.4 Plastic Parts and Products Coating (12/16/1999)
4.5.5 Coating Operation - Small Concrete Products (10/16/2002)
4.5.6 Coating Operation - Clay-based, Cat Litter , Heat Dried (03/12/2001)
4.5.7 Coating of Flat Sheet Glass (for non-transparent coatings) (07/10/2003)
4.5.8 Weatherproofing Coating Application (Electronic Components) (03/03/2008)
4.5.9 Vinyl Window and Patio Door Assembly Glazing Table (03/20/2008)
4.5.10 Glass Bottle Coating Operation (09/20/2016)

4.6 Fuel Dispensing
4.6.1 Motor Vehicle Gasoline Storage and Dispensing Operation (08/24/2018)
4.6.3 Motor Vehicle Gasoline Storage and Dispensing Operation - Bulk plants with Diesel fuel switch loading (10/30/1997)
4.6.4 Non-Motor Vehicle Fuel Storage and Dispensing Operation (08/24/2018)
4.6.5 Aviation Fuel Dispensing Facility (08/24/2018)
4.6.6 LPG Cylinder Refilling System (05/24/2018)

4.7 Printing & Graphic Arts
4.7.1 Offset Lithographic Printing - Publication Printing, High-end Graphics, Heatset using with a Drying Oven (06/25/1999)
4.7.2 Offset Lithographic Printing - Non-heat Set Press (10/15/2010)
4.7.5 Flexographic printing - Heatset inks on low-porosity glossy paper and plastic film (02/25/1998)
4.7.6 Screen Printer with natural gas-fired dryer (01/21/1998)
4.7.7 Screen Print - Ultraviolet (UV) coating with Curing Lamp(s) (08/09/2002)
4.7.8 Printing Operation - Data and Communication Cable Insulation, (11/20/1996)
4.7.9 Flexographic Printer - High-end graphics printing on Clay coated Paper, = or < 23 tons VOC/year (10/07/1999)
4.7.10 Printing Plate Manufacturing (06/21/2000)
4.7.11 Rotogravure Printing Operation (07/31/2000)
4.7.12 Flexographic Printing - High-end graphics, Heat-set Inks, on High-Porosity Material (04/17/2001)
4.7.15 Flexographic Printing - Corrugated Boxes, Low-end Graphics (09/22/2006)
4.8 Resin, Fiberglass & Plastic Products

4.8.1 Fiberglass Boat Manufacturing Operation (< 120 gallons/day and < 25 tons VOC per year) (12/07/2006)

4.8.2 Polyester Resin Products - Synthetic Marble Casting (05/01/1997)

4.8.3 Polyester Resin Products - Compression Molding of Plumbing Fixtures with fillers mixed in a closed system, = or < 2,900 gallons resin/day (06/10/1996)

4.8.4 Polyester Resin Products - Gel Coating of Plumbing Fixtures = or < 100 gallon resin/day (04/12/1996)

4.8.5 Polyester Resin Products - Chop Spray, Spray, and Hand Lay-Up, < or = 600 gallons resin/day (05/25/2005)

4.8.6 Fiberglass Products Manufacturing - Utility Poles, = or < 6,000 lb/day of raw resin (05/04/1995)

4.8.7 Fiberglass Products Manufacturing - Fiberglass Mat Dryer and Curing Oven (01/25/1999)

4.8.8 Polyester Resin Application - Boat & Marine Vessel Repair Operations (Pleasure Crafts Only) (12/05/2003)

4.8.9 Fiberglass Products Manufacturing - Fiberglass Mat Forming (01/25/1999)

4.8.10 Expandable Polystyrene (EPS) Molding Operation - Pre-expander unit, = or < 20 Tons/day (11/08/1995)

4.8.11 Polyester Resin Application - Concrete Block Surface Laminating, = or < 4000 Blocks laminated/day (01/22/1997)


4.8.13 Polyethylene Foam Extrusion Operation (01/20/2000)

4.8.14 Expanded Polystyrene Products - Fluff Storage Silo, = or < 18 tons of foam/day (02/17/2000)

4.8.15 Existing Polystyrene Foam Sheet Extrusion Operation – Using VOC Blowing Agents to Produce Food Service Products. (02/17/2000)

4.8.16 Polyvinyl chloride (PVC) Products Manufacturing - Material Blending Operation (04/03/2000)

4.8.17 Polyethylene Products Manufacturing - Rotational Molding Operation (11/22/2000)

4.8.18 Expanded Polystyrene Foam Products - Vertical, water-quenched extruder; food-grade products. (10/07/2001)


4.8.21 Corrosion-Resistant Polyester Resin Application - Metal Products, < 75 gallons/day (07/02/2003)

4.8.22 Polyisocyanurate (PIR) Insulated Panel Manufacturing Operation Consisting of Pentamat, Laminator, and Panel Saws (02/14/2019)

4.8.23 Finished Polyisocyanurate Product Storage Area (09/10/2003)

4.8.24 Fiberglass Mold Manufacturing (Tooling) Operation (06/04/2004)

4.8.25 Pneumatic Conveying - PVC Material (06/02/2005)

4.8.26 Finished Polyethylene Product Storage Area (05/31/2018)
4.9 Adhesives

4.9.1 Adhesives Application Operation - Tire Retreading (07/10/1996)
4.9.2 Adhesive Application Operation - Rubber Parts and Products, Brush Applied (09/11/1997)
4.9.3 Adhesive Application Process - Foam Products (05/27/1997)
4.9.4 Adhesive Application Process - Non-Porous Materials, Specialty Contact Adhesives, Spray Application (04/03/2000)
4.9.5 Adhesive Application Process - Wooden case manufacturing (11/05/1998)
4.9.6 Paper Carton Manufacturing - Printing and Adhesive Application (11/28/2000)
4.9.7 Corrugated PVC Sheet Products - Special Contact Adhesive, Roller Applied (08/03/2001)
4.9.8 Adhesive Application Process – Wooden Door Assembly, Roller applied (11/20/2001)
4.9.10 Adhesive Application for Multi-Wall Packaging Manufacturing (11/18/2004)
4.9.11 Adhesive Application Operation - Bonding of Fiberglass Boat Hulls and Decks, Non-Atomizing Application (11/03/2005)
4.9.12 Corrugated Box Gluer (08/29/2018)
4.9.13 Corrugated Board Manufacturing (Corrugator) (08/29/2018)
4.9.14 Wood Parts and Products Subfloor Adhesive Application Operation (06/06/2019)

4.10 Cleaning & Degreasing

4.10.1 Parts Cleaner - Electrical Components, Isopropyl Alcohol, = or > 440 sq. in. surface area of isopropyl alcohol (04/19/1995)
4.10.2 Cold cleaner/degreaser - Metal Products, Batch Loaded, = or < 1 gal/day solvent usage (07/01/1995)
4.10.3 Parts Cleaner - Rubber Parts and Products (01/23/2000)
4.10.4 Parts Cleaner/degreaser - Automotive Parts, Portable unit, < 10 Gallon remote reservoir (12/03/1997)
4.10.5 Medical Grade Silicon Products - Wipe Cleaning Operation (08/16/1999)
4.10.6 Metal Parts, Open-top, Powder Coating Stripping Tank (11/19/2001)
4.10.7 Metal Parts and Products Cleaning - Open-top, Heated, Vapor Degreaser (08/19/2002)
4.11 Misc. Manufacturing

4.11.1 Rubber Tire Manufacturing - Steel Belt Milling/Calendar (no cementing/gluing performed) (09/09/1996)

4.11.2 Non-woven Polyester Foam Production - = or < 1800 lb Foam/hr (10/11/1996)

4.11.3 Cardboard Box Laminator (09/22/2006)

4.11.4 Organic Liquid Storage Tanks - Non-petroleum and non-petrochemical facilities, = or < 19,800 gallons capacity (12/22/1998)

4.11.5 Circuit Board Manufacturing - Soldermask Operation (06/18/1997)

4.11.6 Railcar Unloading - Transfer of Non-petroleum Organic Liquids into Delivery Vehicles (07/11/1996)

4.11.7 Shop Towel Laundering Consisting of Sorting Tables, Washing Machines, and Wastewater Treatment System (05/09/2016)

4.11.8 Rubber Tire Retreading - Curing Chamber (autoclave) (12/27/1999)

4.11.9 Rubber Tire Retreading - Buffing Operation (Tread Removal) (12/27/1999)

4.11.10 Circuit Board Manufacturing – Flux Application for Wave Soldering Machine (02/15/2002)

4.11.11 Fructose Reclamation System - Process Vent (09/22/2006)

4.12 Chemical Processing

4.12.1 Chemical Plants - Valves & Connectors (11/26/2006)


4.12.3 Chemical Evaporator/Dryer/Oven (08/28/2019)

4.12.4 Ethanol Fermentation Process Tanks Including: Fermentation Tanks and Beerwell Storage Tanks (02/17/2004)

4.12.5 Emission Units (Excluding Wet Cake Dryer) Involved in the Ethanol Distillation and Wet Cake Process (02/17/2004)


4.12.7 Distillers Dried Grains with Solubles (DDGS) Cooler (08/16/2006)

4.12.8 Ethanol Wet Cake Storage and Loadout Operation (01/23/2007)

4.12.9 Ethanol Production: Solar Drying of Distillers Cake (07/18/2016)
5.0 Food and Agriculture Industry

5.1 Material Handling Systems
5.1.1 Feed Mill - Dry Grain Transfer from Receiving Pit to Storage, = or > 4,000 tons/day (02/13/1996)
5.1.2 Feed Mill - Truck Loadout (03/12/1998)
5.1.3 Grain & Feed Transfer Operation - Transportable Auger (09/17/1997)
5.1.4 Receiving and Storage and Operation - Corn, > or = 112 tons/day (06/27/1991)
5.1.5 Railcar Receiving Pit - Dry Grain/Products, = or > 1,800 tons/day (11/24/1998)
5.1.6 Ship Unloading System - Bulk Cottonseed Receiving Hopper (05/22/2000)
5.1.7 Railcar Unloading - Transportable, material conveying equipment (02/17/2000)
5.1.8 Non-Delinted Cottonseed - Truck Loadout Operation (12/06/2004)

5.2 Nut & Grain Processing
5.2.1 Almond Hulling - = or > 5 tons/hr (06/14/1993)
5.2.2 Almond Processing - Sizing Operation (08/23/2001)
5.2.3 Pistachio Nut Processing - Precleaning Operation, > or = 375 ton/day in-hull pistachios (01/30/1995)
5.2.4 Feed Mill - Grain Grinding, Dry Process (03/06/2020)
5.2.5 Feed Mill - Grain Cleaner with Aspirator (03/06/2020)
5.2.6 Feed Mill - High Moisture Grain Pelletizing & Drying Operation (02/22/1999)
5.2.7 Grain Cooler - Feed Mill, Steam Softened for Grain Rolling or Pelletizing Operations (03/12/1998)
5.2.8 Propylene Oxide Fumigation - Fumigation Chamber (12/09/2002)
5.2.9 Propylene Oxide Fumigation - Off-gassing Process** (07/01/2002)
5.2.10 Wet Corn Mill - High Moisture Gluten Dryer (05/08/2003)
5.2.11 Rice Mill - Protein Drying and Bagging Operation (06/20/2003)
5.2.12 Phosphine Fumigation of Nuts, Dried Fruit, Grain, and Beans (01/23/2013)
5.2.13 Walnut Receiving and Precleaning (12/28/2010)

5.3 Cotton & Fiber Processing
5.3.1 Cotton Gin Operation (06/25/2007)
5.3.2 Cotton Gin - Natural Gas-Fired Dryer, = or < 8 MMBtu/hr Burner (06/30/2000)
5.3.3 Cotton Seed Delinting (12/26/1996)
5.3.4 Vegetable/Cotton Seed Decortication Process, > or = 1400 tons/day (03/25/1997)
5.3.5 Kenaf Fiber Processing - Separation Operation, = or > 3.0 MMBtu/hr burner, = or > 72 ton raw material/day (06/19/1995)
5.4 Fruit, Vegetable, Seed Processing, & Equipment  
5.4.1 Fruit Storage & SO2 Fumigation - = or > 21,760 cu. ft. Fumigation Rooms (05/31/1995)  
5.4.2 Fruit Drying & SO2 Fumigation Operation, = or > 21760 ft³ Fumigation Rooms (07/08/1994)  
5.4.3 Dry Bean Processing - Methyl Bromide Fumigation Chamber, < or = 14,400 cubic feet (02/27/1996)  
5.4.4 Fruit Roll Manufacturing - Mixing/Processing, = or > 86,000 lb mash/day (12/15/1995)  
5.4.5 Garlic and Onion Seed Processing - = or > 100,000 lb/day (05/05/1987)  
5.4.6 Garlic Grading Line, < 30 lb PM10/day (06/26/1996)  
5.4.7 Sunflower Seeds - Processing with Brine Solution & Roasting (07/16/1998)  
5.4.8 Fruit Fumigation - Ethanol Soaking Tank (06/21/2000)  
5.4.9 Tomato Powder Manufacturing (11/18/2003)  
5.4.10 Dried Fruit SO2 Fumigation Operation (06/28/2004)  
5.4.11 Onion Grading and Packing Line (06/23/2005)  
5.4.12 Methyl Bromide Fumigation Chamber < 100,000 lb-CH₃Br/year** (03/29/2017)  
5.4.13 Wine Storage Tank - Non-Wood Material** (09/07/2018)  
5.4.14 Wine Fermentation Tank (10/06/2009)  
5.4.15 Distilled Spirits Storage Tank (11/02/2011)  
5.4.16 Ethanol Evaporator System (04/18/2012)  
5.4.17 Wine Storage Tank - Wood Material (09/18/2019)  
5.4.18 Methyl Bromide Fumigation Chamber > or = 100,000 lb-CH₃Br/year (03/29/2017)  

5.5 Snack Food Processing  
5.5.1 Snack Chip Steam-heated Conditioning Units - Fryer and De-oiler (01/15/2003)  
5.5.2 Tortilla Chip Line- Ambient Air Cooler, = or < 3300 lb/hr (10/01/1995)  
5.5.3 Panning (Engrossing) Operation** (08/25/2008)  
5.5.4 Polishing Operation** (08/20/2008)  

5.6 Misc. Processes & Equip  
5.6.1 Yeast Fermenter (08/08/1998)  
5.6.2 Animal Feed Supplement Manufacturing - Palm Oil & Calcium Oxide Process (02/17/2004)  
5.6.3 Animal Feed Supplements - Steam-Heated Molasses Cooker (06/07/2002)  
5.6.4 Bakery Waste Products Dryer (01/08/2004)  
5.6.5 Broiler House ** Moved to 5.7.1** (02/01/2006)  

5.7 Animal Feeding Operations  
5.7.1 Broiler House (02/01/2006)  
5.7.2 Poultry Layer House (02/05/2013)  
5.7.3 Turkey House (11/23/2011)
5.8 Dairies/Cattle

5.8.1 Milking Parlor (12/18/2013)
5.8.2 Cow Housing - Freestall and Saudi-Style Barns (12/18/2013)
5.8.3 Cow Housing - Open Corrals (03/17/2015)
5.8.4 Cow Housing - Loafing Barns (03/17/2015)
5.8.5 Cow Housing - Area for Baby Calves (0-3 months) (12/18/2013)
5.8.6 Liquid Manure Handling - Lagoon/Storage Pond (12/18/2013)
5.8.7 Liquid Manure Handling - Liquid/Slurry Land Application (12/18/2013)
5.8.8 Solid Manure Handling - Storage/Separated Solids Piles (12/18/2013)
5.8.9 Solid Manure Handling - Land Application (12/18/2013)
5.8.10 Feed Storage and Handling - Silage Piles (12/18/2013)
5.8.11 Feed Storage and Handling - Feed/TMR (12/18/2013)
5.8.12 Dairy Manure Digester with Backup/Emergency Flare (08/02/2018)
6.0 Mineral and Biomass Products

6.1 Sand & Gravel Operations
6.1.2 Sand, Gravel, Aggregate, Recycled Asphalt & Recycled Concrete: Processing, Crushing, Screening and Storage Operations (07/31/2018)
6.1.3 Sand Dryer - Fluidized Bed (06/12/1996)
6.1.5 Rotary Aggregate Dryer - Remote Location Where Commercial Natural Gas is Not Available, (< or =) 15 tons aggregate/hr or (< or =) 22.7 MMBtu/hr burner (04/13/1995)
6.1.6 Bulk Storage and Handling - Non-White Commodities*
One Acre or Greater Storage Area (06/26/1998)

6.2 Portland Concrete
6.2.2 Concrete Batch Plant (07/31/2018)
6.2.3 Portland cement bagging machine - Dry Mix, (= or >) 1292 tons/day of cement or (= or >) 1292 tons/day of concrete or (= or >) 1292 tons/day of cement plus concrete (10/13/1998)
6.2.4 Portland Concrete Products Manufacturing - Tumbler (01/16/2001)
6.2.5 Portland Concrete Products Processing – Roof Tile Coating, Continuous Feed Booth (02/15/2002)
6.2.6 Portland Concrete Batch Plant - Auger Mixing System, = or < 360 cy/day (11/26/2002)
6.2.7 Concrete Roofing Trim Tile Mold Releasing Oil Application Operation (02/11/2005)

6.3 Asphaltic Concrete
6.3.1 Asphaltic Concrete - Mix Plant (08/23/2018)
6.3.2 Asphalt Treating Unit (09/30/1996)
6.3.4 Asphalt Shingle Mfg. - Dry Material Receiving, Storage, and Processing Operations (10/10/2019)
6.3.5 Asphalt Roofing Shingle Mfg. - Process Heater, = or > 8 MMBtu/hr (02/24/1995)
6.3.6 Asphalt Roofing Product Mfg. - Coating Operation, > 100 tons/day (03/18/2002)
6.3.7 Asphalt-Based Roofing Products - Mixer (03/21/1996)
6.4 Composting & Biomass

6.4.1 Composted Materials - Screening, Transportable, Wood Waste Processing (04/03/1998)

6.4.2 Tub Grinder - Transportable, Wood Waste Processing (04/03/1998)

6.4.3 Green Waste, Wood Waste, and Composted Material - Transfer & Screening (07/16/2018)

6.4.4 Unit: Composted Materials - Potting Soil Mixing and Bagging Operation (02/02/1998)

6.4.5 Biomass - Fuel Receiving, Handling, and Storage (07/31/2015)

6.4.6 Composted Materials - Hydromulch Dryer (09/14/1999)

6.4.7 Co-Composting with Green and Food Materials and Biosolids **RESCINDED** (11/21/2018)

6.4.8 Manure Composting (< 20,000 wet-tons/year) (12/19/2016)

6.4.9 Co-Composting Operation with Green and Food Materials and Manure: < 20,000 ton/year throughput **RESCINDED** (11/21/2018)

6.4.10 *RESERVED* for future Organic Materials (Green, Wood, and Food Materials) Composting (09/17/2015)

6.4.11 Co-Composting with Green and Food Materials and Manure: > or = 20,000 ton/year **RESCINDED** (11/21/2018)

6.4.14 Biosolids Storage (Not Intended for Composting) (06/16/2016)

6.5 Misc. Mineral Products

6.5.1 Synthetic-Stone Products Manufacturing (01/08/1999)
San Joaquin Valley
Unified Air Pollution Control District

7.0 Petroleum/Gas Industry

7.1 Petroleum Production
7.1.1 Thermally Enhanced Oil Recovery - Steam Drive Oil Wells** (03/11/1994)
7.1.2 Thermally Enhanced Oil Recovery - Small Producer, Cyclic Injected Steam Enhanced Oil Well Pilot Test, < or = 10 Cyclic Wells, < or = 180 days of Total Operation (08/11/1995)
7.1.3 Petroleum Production - Small Producers, Cyclic Wells, < or = 4 Cyclic Wells (09/05/1996)
7.1.6 Petroleum Production - Sand Removal Basin for Heavy Crude Oil (10/26/1993)
7.1.7 Sludge Dewatering, Various Locations (04/27/2004)
7.1.8 Petroleum Production - Mobile Degassing Operation for Storage Tank with low H2S content, using an I.C. Engine as a control device (03/27/1995)
7.1.9 Petroleum Production - Mobile Degassing Operation for Storage Tank with low H2S content, using a Thermal Oxidizer as a control device (03/19/1999)
7.1.10 Organic Liquid Loading Rack (07/19/2018)
7.1.13 Petroleum Storage Tank and Pipeline De-Gassing - Mobile Operation (05/24/2002)
7.1.14 Light Crude Oil Unloading Rack (09/21/2006)
7.1.15 Biodiesel/Glycerol Production Operation (05/29/2007)

7.2 Petroleum Refining
7.2.1 Petroleum/Gas Processing - Induced Draft Evaporative Cooling Tower, 18,000 gpm (01/01/1995)
7.2.2 Petroleum Refining - Valves & Connectors (11/27/2006)
7.2.3 Petroleum Refining - Pump and Compressor Seals (11/27/2006)
7.2.4 Petroleum Refineries and Chemical Plants - Swivel Joints Handling Volatile Organic Compounds, > 20,000 gallons/day throughput (11/27/2006)
7.2.5 Petroleum Refineries and Chemical Plants - Diesel Fuel Processing, Sulfur Recovery Plant, < 20 tons Sulfur/day (03/14/2000)
7.2.6 Petroleum Refineries and Chemical Plants - Diesel Fuel Processing, Sulfur Recovery Plant, = or > 20 tons Sulfur/day (11/01/2000)
7.2.7 Natural Gas Processing Plant - Valves, Connectors, and Compressor and Pump Seals (Subject to Rule 4403) < or = 100 Million SCF/Day (11/27/2006)
7.2.8 Catalyst Regeneration - Fluid Catalytic Cracking Unit (09/01/2006)

7.3 Storage Tanks
7.3.1 Petroleum and Petrochemical Production - Fixed Roof Organic Liquid Storage or Processing Tank, < 5,000 bbl Tank capacity ** (10/01/2002)
7.3.2 Petroleum and Petrochemical Production - Fixed Roof Organic Liquid Storage or Processing Tank, = or > 5,000 bbl Tank capacity ** (10/01/2002)
7.3.3 Petroleum and Petrochemical Production - Floating Roof Organic Liquid Storage or Processing Tank, = or > 471 bbl Tank capacity, = or > 0.5 psia TVP (10/01/2002)
8.0  Miscellaneous Sources

8.1  Wood and Paper Products
  8.1.1  Woodworking Equipment (07/19/2018)
  8.1.2  Corrugated Cardboard Manufacturing - Waste Handling System (03/22/1998)
  8.1.3  Paper Handling - Paper Grinding Operation, = or > 60 tons paper/day (04/15/1995)
  8.1.4  Cardboard Sawing (11/17/2006)
  8.1.5  Crusher (08/06/2012)

8.2  Mineral and Metal Products
  8.2.1  Petroleum Coke Handling - Receiving, Storage, and Loadout (02/19/2020)
  8.2.2  Chrome Plating Operation - Hard Chrome Plating, = or > 5.00 MM Amp-hr/yr (07/01/1995)
  8.2.3  Chrome Plating Operation - Decorative Chrome Plating (07/21/2000)
  8.2.4  Chrome Plating Operation - Limited Operation
          (= or < 500,000 Amp-hr/yr) (07/18/2000)
  8.2.5  Munitions Cartridge Case Manufacturing - Metal Processing Tanks (01/10/2001)
  8.2.6  Brass/Bronze Foundry > or = 300 lb/hr brass/bronze process rate (07/18/2006)
8.3 Specialty Sources and Operations

8.3.1 Flat glass manufacturing - Adipic acid spraying system to coat flat glass before storage (05/17/1996)
8.3.2 Animal Matter Rendering Plant (02/21/1998)
8.3.3 Standby LPG Fuel Supply System - = or > 30 MMBtu/hr (04/11/2003)
8.3.4 Metal Parts and Product Fabrication - Plasma Arc Cutting Torch (02/05/2003)
8.3.5 Satellite thruster testing operation (10/07/1998)
8.3.6 Phosphate Fertilizer Manufacturing - Transportable, = or < 40 tons/hour (10/02/1998)
8.3.7 Plastic and Polymeric Material Processing - Grinding (09/04/2019)
8.3.8 Explosives Detonation Chamber (10/10/2019)
8.3.9 Glass Packing and Cullet Handling Operation - For Flat Glass Manufacturing (03/03/2000)
8.3.10 Cooling Tower - Induced Draft, Evaporative Cooling (06/19/2000)
8.3.11 Laser Cutting System (11/13/2008)
8.3.12 Helicopter Engine Test Cell (09/24/2001)
8.3.13 Carpet Padding Manufacturing – Fabric Fiber Separating Operation (04/15/2002)
8.3.14 Tire Recycling Operation - Ground Tire Material Processing (08/28/2019)
8.3.15 Solder Paste Manufacturing (07/23/2003)
8.3.16 Repair and Maintenance or Emergency Ammonia Venting Operation (=< 100 hr/yr operation) (09/28/2004)
8.3.17 Sulfur Powder Manufacturing (<= 4 MMBtu/hr Gas Generator) (02/02/2006)
8.3.18 Explosives Detonation - when unrestrained detonations or outdoor environmental conditions are required **(Rescinded: 3-06-07)** (11/09/2006)
8.3.19 Metal Grinding Operations (12/20/2007)
8.3.20 On-line Chemical Vapor Deposition Process** (08/25/2008)
8.3.21 Abrasive Blasting Cabinet (07/23/2015)

8.4 Material Handling and Storage

8.4.1 Dry Material Storage and Conveying Operation, 100 tons/day (10/20/1992)
8.4.2 Wet Material Storage and Conveying Operation, 200 tons/day (09/29/1992)
8.4.3 Dry Material Handling Operation - Mixing, Blending, Milling, or Storage (04/02/2012)
8.4.4 Mulch and Soil Bagging Operation (Receiving, Outdoor Storage, and Bagging Line Hopper) (01/27/2004)