

Environmental Protection Agency

Pt. 438, App. A

EFFLUENT LIMITATIONS—Continued
[BPT]

Regulated parameter	Maximum daily ¹
2. O&G (as HEM)	46

¹ mg/L (ppm).

§ 438.13 Effluent limitations attainable by application of the best control technology for conventional pollutants (BCT).

Except as provided at 40 CFR 125.30 through 125.32, any existing point source subject to this subpart must achieve the following effluent limitation representing the application of

BCT: Limitations for TSS, O&G (as HEM) and pH are the same as the corresponding limitation specified at § 438.12.

§ 438.15 New source performance standards (NSPS).

New point sources subject to this subpart must achieve the new source performance standards (NSPS) for TSS, O&G (as HEM), and pH, which are the same as the corresponding limitation specified at § 438.12. The performance standards apply with respect to each new point source that commences discharge after June 12, 2003.

APPENDIX A TO PART 438—TYPICAL PRODUCTS IN METAL PRODUCTS AND MACHINERY SECTORS

AEROSPACE	AIRCRAFT	BUS & TRUCK
Guided Missiles & Space Vehicle	Aircraft Engines & Engine Parts	Bus Terminal & Service Facilities
Guided Missile & Space Vehicle Prop	Aircraft Frames Manufacturing	Courier Services, Except by Air Freight Truck Terminals, W/ or W/O Maintenance.
Other Space Vehicle & Missile Parts	Aircraft Parts & Equipment	Intercity & Rural Highways (Buslines)
	Airports, Flying Fields, & Services	Local & Suburban Transit (Bus & subway)
		Local Passenger. Trans. (Lim., Amb., Sight See)
		Local Trucking With Storage
		Local Trucking Without Storage
		Motor Vehicle Parts & Accessories
		School Buses
		Trucking
		Truck & Bus Bodies
		Truck Trailers

ELECTRONIC EQUIPMENT	HARDWARE	HOUSEHOLD EQUIPMENT
Communications Equipment Connectors for Electronic Applications Electric Lamps Electron Tubes Electronic Capacitors Electronic Coils & Transformers Electronic Components Radio & TV Communications Equipment Telephone & Telegraph Apparatus	Architectural & Ornamental Metal Work Bolts, Nuts, Screws, Rivets & Washers Crowns & Closures Cutlery Fabricated Metal Products Fabricated Pipe & Fabricated Pipe Fittings Fabricated Plate Work (Boiler Shops) Fabricated Structural Metal Fasteners, Buttons, Needles & Pins Fluid Power Valves & Hose Fittings Hand & Edge Tools Hand Saws & Saw Blades Hardware Heating Equipment, Except Electric Industrial Furnaces & Ovens Iron & Steel Forgings Machine Tool Accessories & Measuring Devices Machine Tools, Metal Cutting Types Machine Tools, Metal Forming Types Metal Shipping Barrels, Drums, Kegs, Pails Metal Stampings Power Driven Hand Tools Prefabricated Metal Buildings & Components Screw Machine Products Sheet Metal Work Special Dies & Tools, Die Sets, Jigs, Etc. Steel Springs Valves & Pipe Fittings Wire Springs	Commercial, Ind. & Inst. Elec. Lighting Fixtures Current-Carrying Wiring Devices Electric Housewares & Fans Electric Lamps Farm Freezers Household Appliances Household Cooking Equipment Household Refrig. & Home & Farm Freezers Household Laundry Equipment Household Vacuum Cleaners Lighting Equipment Noncurrent-Carrying Wiring Devices Radio & Television Repair Shops Radio & Television Sets Except Comm. Types Refrig. & Air Cond. Serv. & Repair Shops Residential Electrical Lighting Fixtures

INSTRUMENTS	MOBILE INDUSTRIAL EQUIPMENT	MOTOR VEHICLE
Analytical Instruments Automatic Environmental Controls Coating, Engraving, & Allied Services Dental Equipment & Supplies Ophthalmic Goods Fluid Meters & Counting Devices Instruments to Measure Electricity Laboratory Apparatus & Furniture Manufacturing Industries Measuring & Controlling Devices Optical Instruments & Lenses Orthopedic, Prosthetic, & Surgical Supplies Pens, Mechanical Pencils, & Parts Process Control Instruments Search & Navigation Equipment Surgical & Medical Instruments & Apparatus Watches, Clocks, Associated Devices & Parts	Construction Machinery & Equipment Farm Machinery & Equipment Garden Tractors & Lawn & Garden Equipment Hoist, Industrial Cranes & Monorails Industrial Trucks, Tractors, Trailers, Tanks & Tank Components Mining machinery & equipment, except oil field	Auto Exhaust System Repair Shops Automobile Dealers (new & used) Auto. Dealers (Dunebuggy, Go-cart, Snowmobile) Automobile Service (includes Diag. & Insp. Cntrs.) Automotive Equipment Automotive Glass Replacement Shops Automotive Repairs Shops Automotive Stampings Automotive Transmission Repair Shops Carburetors, Pistons Rings, Values Electrical Equipment for Motor General Automotive Repair Shops Mobile Homes Motor Vehicle & Automotive Bodies Motor Vehicle Parts & Accessories Motorcycle Dealers Motorcycles Passenger Car Leasing Recreational & Utility Trailer Dealers Taxicabs Top & Body Repair & Paint Shops Travel Trailers & Campers Vehicles Vehicular Lighting Equipment Welding Shops (includes Automotive)
INSTRUMENTS OFFICE MACHINE	ORDNANCE	PRECIOUS METALS & JEWELRY
Calculating & Accounting Equipment Computer Maintenance & Repair Computer Peripheral Equipment Computer Related Services Computer Rental & Leasing Computer Storage Devices Computer Terminals Electrical & Electronic Repair Electronic Computers Office Machines Photographic Equipment & Supplies	Ammunition Ordnance & Accessories Small Arms Small Arms Ammunition	Costume Jewelry Jewelers' Materials & Lapidary Work Jewelry, Precious Metal Musical Instruments Silverware, Plated Ware, & Stainless

RAILROAD	SHIPS & BOATS	STATIONARY INDUSTRIAL EQUIPMENT
Line-Haul Railroads Railcars, Railway Systems Switching & Terminal Stations	Boat Building & Repairing Deep Sea Domestic Transportation of Freight Deep Sea Passenger Transportation, Except by Ferry Freight Transportation on the Great Lakes Marinas Ship Building & Repairing Towing & Tugboat Service Water Passenger Transportation Ferries Water Transportation of Freight Water Transportation Services	Air & Gas Compressors Automatic Vending Machines Ball & Roller Bearings Blowers & Exhaust & Ventilation Fans Commercial Laundry Equipment Conveyors & Conveying Equipment Electric Industrial Apparatus Elevators & Moving Stairways Equipment Rental & Leasing Food Product Machinery Fluid Power Cylinders & Actuators Fluid Power Pumps & Motors General Industrial Machinery Heavy Construction Equipment Rental Industrial Machinery Industrial Patterns Industrial Process Furnaces & Ovens Internal Combustion Engines Measuring & Dispensing Pumps Mechanical Power Transmission Equipment Metal Working Machinery Motors & Generators Oil Field Machinery & Equipment Packaging Machinery Paper Industries Machinery Printing Trades Machinery & Equipment Pumps & Pumping Equipment Refrigeration & Air & Heating Equipment Relays & Industrial Controls Rolling Mill Machinery & Equipment Scales & Balances, Except Laboratory Service Industry Machines Special Industry Machinery Speed Changers, High Speed Drivers & Gears Steam, Gas, Hydraulic Turbines, Generator Units Switchgear & Switchboard Apparatus Textile Machinery Transformers Welding Apparatus Woodworking Machinery

<p>MISCELLANEOUS METAL PRODUCTS Miscellaneous Fabricated Wire Products Miscellaneous Metal Work Miscellaneous Repair Shops & Related Services Miscellaneous Transportation Equipment</p>	
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APPENDIX B TO PART 438—OILY OPERATIONS DEFINITIONS

NOTE: The definitions in this appendix shall not be used to differentiate between the six “core” metal finishing operations (*i.e.*, Electroplating, Electroless Plating, Anodizing, Coating (chromating, phosphating, and coloring), Chemical Etching and Milling, and Printed Circuit Board Manufacture) and forty “ancillary” process operations listed at 40 CFR 433.10(a).

Abrasive Blasting involves removing surface film from a part by using abrasive directed at high velocity against the part. Abrasive blasting includes bead, grit, shot, and sand blasting, and may be performed either dry or with water. The primary applications of wet abrasive blasting include: Removing burrs on precision parts; producing satin or matte finishes; removing fine tool marks; and removing light mill scale, surface oxide, or welding scale. Wet blasting can be used to finish fragile items such as electronic components. Also, some aluminum parts are wet blasted to achieve a fine-grained matte finish for decorative purposes. In abrasive blasting, the water and abrasive typically are reused until the particle size diminishes due to impacting and fracture.

Adhesive Bonding involves joining parts using an adhesive material. Typically, an organic bonding compound is used as the adhesive. This operation usually is dry; however, aqueous solutions may be used as bonding agents or to contain residual organic bonding materials.

Alkaline Cleaning for Oil Removal is a general term for the application of an alkaline cleaning agent to a metal part to remove oil and grease during the manufacture, maintenance, or rebuilding of a metal product. This unit operation does not include washing of the finished products after routine use (as defined in “Washing (Finished Products)” in this appendix), or applying an alkaline cleaning agent to remove nonoily contaminants such as dirt and scale (as defined in “Alkaline Treatment Without Cyanide” in this appendix and “Alkaline Treatment With Cyanide” in appendix C of this part). Wastewater generated includes spent cleaning solutions and rinse waters.

(1) Alkaline cleaning is performed to remove foreign contaminants from parts. This operation usually is done prior to finishing (*e.g.*, electroplating).

(2) Emulsion cleaning is an alkaline cleaning operation that uses either complex chemical enzymes or common organic solvents (*e.g.*, kerosene, mineral oil, glycols, and benzene) dispersed in water with the aid of an emulsifying agent. The pH of the solvent usually is between 7 and 9, and, depending on the solvent used, cleaning is performed at temperatures from room temperature to 82 °C (180 °F). This operation often is used as a replacement for vapor degreasing.

Alkaline Treatment Without Cyanide is a general term used to describe the application of an alkaline solution not containing cyanide to a metal surface to clean the metal surface or prepare the metal surface for further surface finishing.

Aqueous Degreasing involves cleaning metal parts using aqueous-based cleaning chemicals primarily to remove residual oils and greases from the part. Residual oils can be from previous operations (*e.g.*, machine coolants), oil from product use in a dirty environment, or oil coatings used to inhibit corrosion. Wastewater generated by this operation includes spent cleaning solutions and rinse waters.

Assembly/Disassembly involves fitting together previously manufactured or rebuilt parts or components into a complete metal product or machine or taking a complete metal product or machine apart. Assembly/disassembly operations are typically dry; however, special circumstances can require water for cooling or buoyancy. Also, rinsing may be necessary under some conditions.

Burnishing involves finish sizing or smooth finishing a part (previously machined or ground) by displacing, rather than removing, minute surface irregularities with smooth point or line-contact, fixed or rotating tools. Lubricants or soap solutions can be used to cool the tools used in burnishing operations. Wastewater generated during burnishing include process solutions and rinse water.

Calibration is performed to provide reference points for the use of a product. This unit operation typically is dry, although water may be used in some cases (*e.g.*, pumping water for calibration of a pump). Water