

<p>RAILROAD</p> <p>Line-Haul Railroads Railcars, Railway Systems Switching & Terminal Stations</p>	<p>SHIPS & BOATS</p> <p>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</p>	<p>STATIONARY INDUSTRIAL EQUIPMENT</p> <p>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>
<p>MISCELLANEOUS METAL PRODUCTS</p> <p>Miscellaneous Fabricated Wire Products Miscellaneous Metal Work Miscellaneous Repair Shops & Related Services Miscellaneous Transportation Equipment</p>		

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.