

WAC 296-17A-1801 Classification 1801.

1801-08 Ore or lead smelting, sintering or refining, N.O.C.; Calcium carbide manufacturing; Steel or iron rolling mills, rolling mills, N.O.C.; Metal recovering, refining, or reprocessing

Applies to:

- Businesses smelting, sintering, or refining lead or ores not covered by another classification (N.O.C.).
- Businesses manufacturing calcium carbide.
- Businesses operating iron or steel rolling mills.
- Businesses recovering, refining, or reprocessing metals. (These are secondary processors or reprocessors to primary metal producers. The primary producer uses ore to manufacture metal. The secondary processors or reprocessors use course metal to recover, refine, or reproduce refined metals.)

Processes include, but are not limited to:

- **Smelting lead ore:** The smelting process uses heat and chemical reactions to fuse or separate metallic elements. The lead ore most commonly mined is galena, which is the sulfide of lead. The process begins by crushing, washing, and screening the ore. In its raw form, the ore is often mixed with other metalliferous minerals, such as sphalerite, copper pyrites, and iron pyrites. There may be various steps of milling, concentration, or amalgamation (floatation) to separate the galena from the sphalerite and other minerals. The roasting or sintering takes place in rotary kilns or other types of furnaces. The material is sintered, converted into lumps called sinter, and then mixed with coke and placed into a shaft furnace. The material is de-silvertized by adding metallic zinc and raising the temperature to dissolve the silver into the zinc, which floats to the top and can then be removed. The molten metal is cast into ingots. The ingots may go through further refining processes or be considered a finished product.

- **Smelting ores:** Smelting and sintering are refining processes that use different properties of heat and chemical reactions to fuse or separate metallic elements. Temperatures are usually lower than 1400 degrees Fahrenheit. Ore comes in a variety of forms such as, but not limited to, pellets, particles, molds, and briquettes. The process begins by crushing, washing, and screening. There are various steps of milling, concentration, or amalgamation. The sintering process takes place in rotary kilns or other types of furnaces. The material is converted into lumps and placed into a shaft furnace. The molten metal ore is cast or recast into ingots. The ingots go through further refining processes.

- **Calcium carbide production:** Calcium carbide is a crystalline material produced by heating pulverized limestone or quicklime with carbon and used to generate acetylene gas, as a dehydrating agent, and used to make graphite and hydrogen.

- **Metal rolling:** In a rolling mill, ingots and slabs of steel are rolled between rollers where they undergo an increase in length and a corresponding reduction in depth. A single piece of metal may pass through the same or a different set of rollers several times to obtain the desired length and width.

- **Rolling mills for pipes are in two categories:** Welded pipes and seamed pipes. Welded pipes are produced from a steel strip, which is bent to a tubular shape and whose edges are joined by welding. Seamed pipes are produced from cast or rolled billets at rolling temperature.

There are different processes for both kinds of manufacturing. Whatever method is used the metals are heated to temperatures up to 1400 degrees Fahrenheit.

- **Recovering, refining, and reprocessing:** Secondary metal processors or reproducers recover, refine, or reproduce refined metals from coarse metal. Types of metal include, but are not limited to, gold, aluminum, silver, lead, and zinc. Metal comes in various forms to include cast ingots, dross, and scrap material. The scrap material and dross are recycled to extract reusable metallic elements. Metals are reprocessed, which can include adding alloys and other elements or recasting the metals into different shapes and sizes. Metals are weighed, sorted, and sifted through a variety of screens and include crushing as needed. Materials are placed in an oven or furnace and chemicals and alloys added. Metal is placed in molds and cooled by air or water. Finished products are inspected, graded, weighed, packaged, and shipped.

- This classification includes the incidental buying and selling of scrap metal.

Work activities include, but are not limited to:

- Washing, crushing, mixing, sintering, and smelting lead or ore;
- Rolling steel or iron;
- Manufacturing calcium carbide or acetylene gas;
- Buying or selling metal;
- Refining, recovering, or reprocessing metal;
- Welding and seaming of metal pipes.

Equipment used, but not limited to:

- Buckets;
- Conveyors;
- Forklifts;
- Frontloaders;
- Furnaces;
- Hoists;
- Ladles;
- Personal protective equipment;
- Rakes;
- Scales.

Exclusions:

- Aluminum smelting operations are classified in 1802;
- Ore reduction is classified in 1701;
- Open pit or underground mining operations are classified in the classification applicable to the mining performed;
- Businesses manufacturing pipe or tube from iron or steel by drawing or bending are classified in 5101;
- Scrap metal dealers are classified in 0604; and
- Business compacting or recycling metal containers, such as aluminum or tin cans, are classified in 2102.

[Statutory Authority: RCW 51.04.020 and 51.16.035. WSR 23-23-155, § 296-17A-1801, filed 11/21/23, effective 1/1/24. WSR 07-01-014, recodified as § 296-17A-1801, filed 12/8/06, effective 12/8/06. Statutory Authority: RCW 51.16.035. WSR 99-18-068, § 296-17-552, filed 8/31/99, effective 10/1/99; WSR 98-18-042, § 296-17-552, filed 8/28/98, effective 10/1/98; WSR 88-12-050 (Order 88-06), § 296-17-552, filed 5/31/88, effective 7/1/88; WSR 85-24-032 (Order 85-33), § 296-17-552,

filed 11/27/85, effective 1/1/86; Order 73-22, § 296-17-552, filed 11/9/73, effective 1/1/74.]