
Precious Metal Reclamation

Iowa Waste Reduction Center / University of Northern Iowa
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40 CFR 266, Subpart F

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Do these regulations apply to my operation?

These regulations apply if your facility generates, stores, or transports recyclable metal wastes to reclaim economically significant amounts of gold, silver, platinum, palladium, iridium, osmium, rhodium, ruthenium, or any combination of these. Typical waste streams that would be subject to these regulations include:

- Spent photographic fixer solution containing silver in concentrations greater than 5 mg/l.
- Processed (i.e. shredded, ground, burned, or smelted) printed circuit boards that are hazardous and contain economically significant amounts of gold or platinum.
- Spent tin/lead solder used in circuit board manufacturing with recoverable amounts of gold.
- Spent cyanide solution from a gold plating operation.

Waste streams that are not subject to these regulations include:

- Metallic silver recovered from an electrolytic unit; and
- Silver bearing sludge recovered from an ion exchange unit (40 CFR 261.2 (c) (3)).

General Requirements

Recyclable materials from which precious metals are recovered are exempt from full hazardous waste regulation. Facilities that generate these materials are subject to administrative requirements only, including:

- Obtain an EPA Identification Number;
- Comply with record keeping requirements;
- Manifest off-site shipments of metal for recovery; and
- Comply with land disposal restrictions notifications requirements.

What are the benefits of precious metal reclamation...

- Cost Saving – depending on the market value of the metals, precious metal reclamation from wastes can greatly reduced disposal cost.
- Reduced regulatory burden – because of the materials value, only the administrative requirements must be met.

Generator Requirements

Storage – What are the Labeling, Record Keeping, and Storage Quantity Requirements?

Containers and aboveground tanks used to store precious metal wastes destined for recycling should be in good condition and not leaking. Leaking containers must be repaired or replaced. Containers should be labeled identifying the contents (i.e. silver-bearing waste). Further

container regulation is exempted, regardless of hazardous waste generator category, because it is assumed the waste is valuable enough that the generator will store it in a manner to prevent losses.

Shipping - What are the shipping requirements?

Shipment of hazardous wastes containing regulated precious metals requires a hazardous waste manifest.

Record Keeping - What records do I need to keep and for how long?

A generator must be able to document that 75% of the accumulated material is recycled. The generator must also maintain an inventory of precious metals on-site that includes:

- The volume of the material stored at the beginning of the calendar year;
- The amount generated or received during the year; and
- The amount remaining at the end of the calendar year.

Hazardous waste manifests should be retained for five years after waste disposal. It is recommended to maintain annual precious metal inventories for at least five years.

If a facility is speculatively accumulating hazardous waste containing precious metals (not recycling 75% of the wastes annually), full hazardous waste regulations apply.