

**DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT
DIVISION OF MUNICIPAL and RESIDUAL WASTE**

GENERAL PERMIT WMGR031

Processing of Metal-Bearing Wastes

**Issued: May 12, 2016
Expires: May 12, 2026**

GENERAL PERMIT NUMBER WMGR031
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A. Description:

The approval herein granted is limited to the processing and beneficial use of metallic grinding swarfs, metallic turnings, metal grindings, metal cuttings, metal stampings, metal plate, metal wire, metal powders, metal sludges, tungsten carbide, spent catalysts, Raney Nickel catalysts, precious metals catalysts and metallic filter cakes ("metal-bearing waste") through retorting, static bed open drying, belt furnace thermal processing, rotary furnace oxidation, magnetic separation, washing, filtering, centrifugation, mechanical separation, carbon dioxide separation and passive oil/water separation.

The permittee is authorized to blend processed metal-bearing wastes for the purpose of achieving larger homogeneous lot sizes for shipping and handling convenience of the intended end-user.

B. Determination of Applicability Requirements:

A person or municipality that proposes to operate under the terms and conditions of this general permit after the date of permit issuance must apply for and obtain a "Determination of Applicability" ("DOA") from the appropriate Department Regional Office (see attached list) prior to commencing authorized activities under this general permit. A completed application on forms available from the Department must be submitted to the appropriate Department Regional Office. A check in the amount identified on Form 20 (Application for a Municipal or Residual Waste General Permit) shall be made payable to the "Commonwealth of Pennsylvania." No activities shall commence unless approved, in writing, by the Department.

C. Operating Conditions:

1. The permittee is not authorized by this permit to process by retorting any waste containing in excess of one percent samarium, praseodymium, neodymium or other Lanthanide Series metal, due to their reactive nature, without written approval from the Department. Approval is granted for the processing of rare earth metals using the other methods specified in Section A, relating to description, so long as the material is not a hazardous waste and will not be heated in a closed container or vessel.
2. All activities conducted under the authorization granted in this permit shall be conducted in accordance with the permittee's application. Except to the extent that the permit states otherwise, the permittee shall operate the facility as described in the approved application.

GENERAL PERMIT NUMBER WMGR031
Processing of Metal-Bearing Wastes

3a. For retort processing only, no waste shall be processed if the total metals content is below 20 percent, if the flashpoint is below 140°F, or if any of the following levels are exceeded:

<u>Constituent</u>	<u>Maximum Level</u>
Aluminum	
metallic	10%
oxide	100%
Arsenic	100 mg/kg
Carbon	10%
Chromium	25%
Cutting Fluids (Water Soluble)	60%
Fatty Amines	60%
Hafnium	35%
Oil	70%
Petroleum Distillates	50%
Silicon & Silicon Oxides	50%
Sulfolane	10%
Sulfur	18%
Titanium	
metallic	5%
oxide	100%
Water	80%
Zirconium	25%

Should an individual sample of a waste exceed the above limits, the waste may be resampled and the waste analysis determination may be based on the 90 percent upper confidence level for each constituent using *Test Methods for Evaluating Solid Waste* (EPA SW-846) as guidance for the statistical treatment of data.

b. For non-retort processing only, no waste shall be processed if the material does not meet at least one of the following:

- i. The precious metal content must be over 0.05 percent by weight;
- ii. The combined metal or oxide forms of Ni, Co, Mo, W, V, Cu, Zn, Al, Ti, Si, Fe, B, Cr, Mg, Mn, Zr, Nb, Ta, Sn, Ga, In, or Hf in total must be over five percent by weight; or
- iii. The rare earth metals content must be over ten percent by weight.

4. The chemical analyses required in this general permit shall be performed by a laboratory that is in compliance with the Pennsylvania Environmental Laboratory Accreditation Act, Act of 2002, No. 90, 27 Pa C.S. §4101 et. seq.

GENERAL PERMIT NUMBER WMGR031
Processing of Metal-Bearing Wastes

5. Beginning with the first shipment and every twelfth truckload thereafter, the permittee shall prepare a representative composite sample, taking one grab sample from every tenth drum (10% of drums) or one grab sample for every five cubic yards of a bulk shipment. The compositing of samples will be performed only for drums containing the same metals and volatiles from the same generator. Composite samples shall be analyzed for the appropriate parameters in Condition C.3 to demonstrate the waste is acceptable for processing.
6. All waste received by the permittee shall be screened prior to processing. At a minimum, the following screening procedures shall be performed:
 - a. Each truckload of waste received for processing shall undergo a visual screening for parameters to include color, physical state, phases, odor and texture to see if it is consistent with what is expected. This shall involve the removal of all drum lids and rings for inspection. Suspect or atypical looking waste shall be flagged and held for testing or shall be returned to the generator.
 - b. At the time of the above visual screening, the permittee will measure the pH with a handheld meter or pH indicator paper to verify that the waste does not exhibit the hazardous characteristic of corrosivity. If the pH is not between 2.1 and 12.4, the material shall be flagged, held and sampled for laboratory testing or shall be shipped using a licensed transporter to a facility authorized to accept the waste.
 - c. At the time of the above visual screening, the permittee will measure the radioactivity level on the container with a calibrated radiation dose rate instrument of sufficient sensitivity to measure radiation exposure levels of 10 microroentgen (background) to 50 milliroentgen per hour to verify that the waste does not contain significant radioactive material. Instrumentation must be operated in accordance with the Department's guidance titled, "*Final Guidance Document on Radioactivity Monitoring at Solid Waste Processing and Disposal Facilities*," DEP Document Number 250-3100-001, with regards to calibration, readout, operation, and user training. Should the shipment contain a level of radioactivity 10 microroentgen per hour above the average local background, the permittee shall prohibit personnel access to the material and contact the Department's Regional Office for instructions.
 - d. Starting with the first shipment of Raney Nickel catalyst received from a particular generator (supplier) and every 12 truckloads thereafter or every 3 years, whichever comes first, a representative sample shall be tested for exothermic potential using Differential Scanning Calorimetry as described in the permittee's application. If an exothermic reaction is observed at 150°C or less, the waste shall be returned to the generator or shipped using a licensed transporter to a facility authorized to accept the waste.
7. Starting with the first shipment received from a particular generator (supplier) and every 12 truckloads thereafter or every 3 years, whichever comes first, or if there is a known change in feedstock materials or process, the permittee shall conduct the following analyses:

GENERAL PERMIT NUMBER WMGR031
Processing of Metal-Bearing Wastes

- a. A representative sample shall be tested using EPA Method 1312 (TCLP) for metals (As, Ba, Cd, Cr, Pb, Hg, Se, Ag). TCLP testing shall not be required for solid metal scrap such as wire, metal plate, steel tabs, metal turnings and chips so long as it is in metal form (not in oxide form), is not a powder, is not a finely divided grinding, or does not contain more than five percent moisture by weight. Additionally, whole constituent testing of Raney Nickel catalyst for arsenic and lead shall be done initially for each new source and the data submitted for Department review. Follow-up whole constituent testing for arsenic and lead shall be done as directed by the Department following its review of the data.
- b. A representative sample shall be tested for flashpoint using EPA Method 1010 or 1030, unless the permittee demonstrates that the waste does not have the potential to flash or burn or the flashpoint of the waste is below 140°F, by meeting the following three conditions:
 - i. The MSDS sheet does not list any potentially flammable constituents such as alcohols, amines, oils and organic constituents;
 - ii. The permittee confirms that the waste is nonflammable by subjecting a sample of the waste to a direct flame from a propane or oxyacetylene torch for 15 seconds, and no visible signs of a self-sustaining flame are observed; and
 - iii. The permittee has no knowledge of any flammable components in the waste.

If the results of TCLP or flashpoint determinations indicate the waste is a hazardous waste, the waste shall be shipped using a licensed transporter to a facility authorized to accept the waste and future shipments of the waste will not be accepted by the permittee until subsequent testing demonstrates the waste is not hazardous.

8. The permittee is authorized to process small trial lots or samples of wastes that are described under Section A, relating to description, of this general permit from new sources provided that the permittee complies with the following:
 - a. The waste is received and accepted for the express purpose of evaluating a new waste stream to determine if it is technically and economically feasible for the permittee to process and deliver the processed waste to the end user;
 - b. The waste is not processed using the retort method;
 - c. The permittee reviews the MSDS and generator information for the waste to determine if it is hazardous waste. If the waste is hazardous waste, it must be returned to the generator or shipped to a facility authorized to accept the waste;
 - d. The permittee determines the pH and radioactivity of the small lots, as specified under Condition C.6b and c;
 - e. The small lots undergo an internal test burn to simulate the permittee's open furnace drying process before accepting the waste for trial processing;
 - f. The small lot waste shipment does not exceed 2,500 pounds (approximately 4 drums) and is only accepted on a one-time basis. Multiple shipments cannot be accepted under this condition; and

GENERAL PERMIT NUMBER WMGR031
Processing of Metal-Bearing Wastes

g. Following the initial processing of the one-time small lot waste stream, any further shipments accepted for processing by the permittee are subject to all other conditions of this general permit.

9. Prior to processing, incoming waste shall not be mixed with any different waste.

10. The permittee shall not accept hazardous waste.

If a Raney Nickel catalyst received by the permittee is characterized as hazardous waste by the generator, but testing demonstrates that the waste is not hazardous, the permittee may still accept the waste provided the generator agrees that the waste may be handled as residual waste and the permittee is granted approval from the Waste Management Program at the Department's appropriate regional office. If such waste is shipped under a hazardous waste manifest, the permittee may accept the waste at the permittee's facility by indicating on the manifest that the waste does not meet the criteria of a listed or characteristic hazardous waste in 40 CFR Part 261, as incorporated by reference in 25 Pa. Code 261a.1.

11. The waste shall not be mixed with other types of solid wastes, including hazardous waste, municipal waste, or special handling waste.

12. The permittee shall not process any waste that contains any other constituent that would pose a threat to human health or the environment when processed.

13. This permit does not authorize and shall not be construed as an approval to discharge any waste, wastewater, or runoff from the site of processing to the land or waters of the Commonwealth.

14. The permittee shall comply with the fugitive emissions standards adopted under 25 Pa. Code Sections 123.1 and 123.2.

15. Nothing in this permit shall be construed to supersede, amend, or authorize a violation of any of the provisions of any valid and applicable local law, ordinance, or regulation, provided that said local law, ordinance, or regulation is not preempted by the Pennsylvania Solid Waste Management Act, 35 P.S. §6018.101 et seq., or the Municipal Waste Planning, Recycling and Waste Reduction Act of 1988, 53 P.S. §4000.101 et seq.

16. As a condition of this permit, the permittee shall obtain from all landowners of his place of business where processing activities will occur, on a form provided by the Department, the authority to conduct the activities authorized by this permit and consent to allow authorized employees or agents of the Department to enter the permit area. This authorization and consent shall be obtained prior to the processing of waste at this location and be submitted to the Department (see address in Section B, relating to determination of applicability requirements) via certified mail.

GENERAL PERMIT NUMBER WMGR031
Processing of Metal-Bearing Wastes

17. As a condition of this permit and of the permittee's authority to conduct the activities authorized by this permit, the permittee hereby consents to allow authorized employees or agents of the Department, without advance notice or search warrant, upon presentation of appropriate credentials and without delay, to have access and to inspect all areas or permittee controlled adjacent areas where solid waste management activities are being or will be conducted. This authorization and consent shall include consent to collect samples of waste, water, or gases; to take photographs; to perform measurements, surveys, and other tests; to inspect any monitoring equipment; to inspect the methods of operation; and to inspect and/or copy documents, books, and papers required by the Department to be maintained or produced. (See Sec. 608 and 610(7) of the Solid Waste Management Act, 35 P.S. Section 6018.608 and 6018.610(7).) This condition in no way limits any other powers granted to the Department under the Solid Waste Management Act.
18. Failure of the measures herein approved to perform as intended, or as designed, or in compliance with the applicable laws, rules and regulations and terms and conditions of this permit, for any reason, shall be grounds for the revocation or suspension of the permittee's approval to operate under this permit.
19. Any independent contractors or agents retained by the permittee in the completion of activities authorized under this permit shall be subject to prior compliance history review by the Department as specified by the Pennsylvania Solid Waste Management Act of 1980.
20. The activities authorized by this permit shall not harm or present a threat of harm to the health, safety or welfare of the people or environment of this Commonwealth. The Department may modify, suspend, revoke or reissue the authorization granted in this permit if it deems necessary to prevent harm or the threat of harm to the public health, or the environment.
21. Any person that operates under the provisions of this permit shall immediately notify the Department (see address in Section B, relating to determination of applicability requirements") via certified mail of any changes in the following:
 - a. The company name, address, owners, operators and responsible officials;
 - b. The location of any facility;
 - c. Land ownership and the right to enter and operate on any land occupied by a facility;
 - d. The system used to process metallic grinding swarf, spent catalyst, or metallic filter cake; and
 - e. The status of any permit issued by the Department or federal government under the environmental protection acts.
22. Facilities shall not be located:
 - a. Within 300 yards of a building owned by a school district or parochial school used for instructional purposes, existing prior to the date the Department received an

GENERAL PERMIT NUMBER WMGR031
Processing of Metal-Bearing Wastes

administratively complete application, unless a written waiver is obtained from the current property owner of the school.

- b. Within 300 yards of a park or playground, existing prior to the date the Department received an administratively complete application, unless a written waiver is obtained from the current property owner of the park.
- c. Within 50 feet of a property line unless the permittee demonstrates that the actual processing of waste is not occurring within that distance or the owners of the occupied dwelling has provided a written waiver consenting to the facility being closer than 50 feet.
- d. Within 300 feet measured horizontally from an occupied dwelling unless the owner of the dwelling has provided a written waiver consenting to the facility being closer than 300 feet.

- 23. Equipment used for the processing of waste shall be maintained in good operating condition.
- 24. Processing units shall be set up and operated in a manner that prevents spills, leaks, or other releases.
- 25. Storage of waste by the permittee shall be in a manner that complies with 25 Pa. Code Chapter 299 (relating to the storage of residual waste). Residues from the processing of waste shall be stored and managed in a manner that complies with 25 Pa. Code Chapter 299 or 25 Pa. Code Chapter 262 (relating to requirements for generators of hazardous waste), whichever is applicable.
- 26. The permittee shall immediately notify the Department's Emergency Hotline at (717) 787-4343 and the appropriate DEP regional office in the event of a discharge of waste or any residue from processing and shall take appropriate immediate action to protect the health and safety of the public and the environment. Spills of less than 10 gallons of waste need not be immediately reported, but should be recorded as specified in Condition C.28.
- 27. Records of any analytical evaluations conducted on the waste, and processed wastes pursuant to the residual waste regulations and this permit shall be kept by the permittee at the permittee's place of business for a minimum of 5 years after the analyses were performed and shall be available to the Department for inspection. At a minimum, these records shall include information on the dates of testing, each parameter tested, the results, the laboratory name and accreditation number, and analytical methodologies utilized.
- 28. The permittee shall maintain records that contain: the name, address, and phone number of each source of incoming waste, the date of processing and quantity of waste processed at each location, the results of the visual observations and testing as required in Conditions C.5, 6 and 7, and the name, address, and phone number of each customer who beneficially uses the processed wastes. The permittee shall also maintain records of all spills and releases that contain: location, date, time, identification and quantity of spilled or released material, and a description of how the material was cleaned up. These records shall be retained by the permittee at the permittee's place of business for a minimum of 5 years from the date the records were generated and shall be available to the Department for inspection.
- 29. The permittee shall maintain at the permitted facility an updated copy of a Preparedness, Prevention, and Contingency (PPC) plan for the facility prepared in accordance with the most

GENERAL PERMIT NUMBER WMGR031 **Processing of Metal-Bearing Wastes**

recent edition of the Department's "Guidelines for the Development and Implementation of Environmental Emergency Response Plans". The PPC plan shall be updated at least every 5 years.

30. Processed metallic grinding swarfs, metallic turnings, metal grindings, metal cuttings, metal stampings, metal plate, metal wire, metal powders, metal sludges, tungsten carbide, spent catalysts, Raney Nickel catalysts, precious metals catalysts and metallic filter cakes is no longer a waste, provided it is used as an ingredient in the manufacturing of steel and other metal alloys, it meets the specifications of the manufacturer, and it is not accumulated speculatively pursuant to 25 Pa. Code § 287.1.

D. Renewal:

A person or municipality that plans to continue the operations authorized under this general permit, after the expiration date indicated on the approval for coverage page, shall file a complete application for permit renewal at least 180 days before the expiration date of this general permit unless permission has been granted by the Department for submission at a later date. The renewal application shall include a completed (i) General Information Form (Authorization Application for a Residual or Municipal Waste General Permit Application), (ii) Form B (Professional Certification), (iii) Form 20 (Application for a Municipal or Residual Waste General Permit), (iv) Form 27 (Acceptance of General Permit Conditions), and (v) bonding worksheets, and (vi) a DOA application fee in the amount identified in Section A (General Information) of the Form 20 must be submitted to the appropriate Department Regional Office. A check shall be made payable to the "Commonwealth of Pennsylvania." A copy of the renewal application shall also be sent to the attention of the Department's Bureau of Waste Management, Division of Municipal and Residual Waste, Rachel Carson State Office Building, 400 Market Street, P.O. Box 69170, Harrisburg, PA 17106-9170.

In the event that a timely and complete application for renewal has been submitted and the Department is unable, through no fault of the permittee, to reissue the general permit or approval for coverage before its current coverage expiration date, the terms and conditions of the approved coverage will automatically continue and will remain fully effective and enforceable pending the issuance or denial of the renewal for permit coverage, provided the permittee is, and has been, operating in compliance with the terms and conditions of the general permit.

**Department of Environmental Protection
Regional Offices
(and Counties Served)**

- I. Bucks, Chester, Delaware, Montgomery, Philadelphia.

Southeast Regional Office

2 East Main Street
Norristown, PA 19401
Phone: (484) 250 - 5960

- II. Carbon, Lackawanna, Lehigh, Luzerne, Monroe, Northampton, Pike, Schuylkill, Susquehanna, Wayne, Wyoming.

Northeast Regional Office

2 Public Square
Wilkes-Barre, PA 18711-0790
Phone: (570) 826 – 2516

- III. Adams, Bedford, Berks, Blair, Cumberland, Dauphin, Franklin, Fulton, Huntingdon, Juniata, Lancaster, Lebanon, Mifflin, Perry, York.

Southcentral Regional Office

909 Elmerton Avenue
Harrisburg, PA 17110-8200
Phone: (717) 705 – 4706

- IV. Bradford, Cameron, Centre, Clearfield, Clinton, Columbia, Lycoming, Montour, Northumberland, Potter, Snyder, Sullivan, Tioga, Union.

Northcentral Regional Office

208 West 3rd Street - Suite 101
Williamsport, PA 17701
Phone: (570) 327 – 3653

- V. Allegheny, Armstrong, Beaver, Cambria, Fayette, Greene, Indiana, Somerset, Washington, Westmoreland.

Southwest Regional Office

400 Waterfront Drive
Pittsburgh, PA 15222-4745
Phone: (412) 442 – 4000

- VI. Butler, Clarion, Crawford, Elk, Erie, Forest, Jefferson, Lawrence, McKean, Mercer, Venango, Warren.

Northwest Regional Office

230 Chestnut Street
Meadville, PA 16335-3481
Phone: 814-332-6848