



Archived Publication

This information provided in this document is for reference. Please be aware that the information in this document may be outdated or superseded by additional information.



The Multi-Sector General Permit for Stormwater Discharges Associated with Industrial Activity (2000 MSGP), issued in October 2000, expired at midnight on October 30, 2005. A new permit, the 2008 Multi-Sector General Permit (2008 MSGP) was issued on September 29, 2008. Visit www.epa.gov/npdes/stormwater/msgp to view the final 2008 MSGP and supporting documents.



Part 4 - Sector-Specific Requirements for Industrial Activity

Subsection F - Sector F - Primary Metals

F.1 Covered Stormwater Discharges.

The requirements in Subsection F of Attachment 1 apply to stormwater discharges associated with industrial activity from primary metals facilities, as identified by the SIC Codes specified under Sector F in Table D-1 of Appendix D of the permit.

F.2 Industrial Activities Covered by Sector F.

Facilities under Sector F are primarily engaged in the following types of activities

- F.2.1 steel works, blast furnaces, and rolling and finishing mills, including steel wire drawing and steel nails and spikes; cold-rolled steel sheet, strip, and bars; and steel pipes and tubes;
- F.2.2 iron and steel foundries, including gray and ductile iron, malleable iron, steel investment, and steel foundries not elsewhere classified;
- F.2.3 primary smelting and refining of nonferrous metals, including primary smelting and refining of copper, and primary production of aluminum;
- F.2.4 secondary smelting and refining of nonferrous metals;
- F.2.5 rolling, drawing, and extruding of nonferrous metals, including rolling, drawing, and extruding of copper; rolling, drawing, and extruding of nonferrous metals except copper and aluminum; and drawing and insulating of nonferrous wire;
- F.2.6 nonferrous foundries (castings), including aluminum die-casting, nonferrous die-casting except aluminum, aluminum foundries, copper foundries, and nonferrous foundries except copper and aluminum;
- F.2.7 miscellaneous primary metal products, not elsewhere classified, including metal heat treating and primary metal products not elsewhere classified;

Activities covered include but are not limited to stormwater discharges associated with cooking operations, sintering plants, blast furnaces, smelting operations, rolling mills, casting operations, heat treating, extruding, drawing, or forging all types of ferrous and nonferrous metals, scrap, and ore.

F.3 Stormwater Pollution Prevention Plan (SWPPP) Requirements.

In addition to the following requirements, you must also comply with the requirements listed in Part 2 of the permit.

- F.3.1 *Drainage Area Site Map.* (See also Part 2.1.2) Identify where any of the following activities may be exposed to precipitation or surface runoff: storage or disposal of wastes such as spent solvents and baths, sand, slag and dross; liquid storage tanks and drums; processing areas including pollution control equipment (e.g., baghouses); and storage areas of raw material such as coal, coke, scrap, sand, fluxes, refractories, or metal in any form. In addition, indicate where an accumulation of significant amounts of particulate matter could occur from such sources as furnace or oven emissions, losses from coal and coke handling operations, etc., and that could result in a discharge of pollutants to waters of the United States.
- F.3.2 *Inventory of Exposed Material.* (See also Part 2.1.5.2) Include in the inventory of materials handled at the site that potentially may be exposed to precipitation or runoff, areas where deposition of particulate matter from process air emissions or losses during material-handling activities are possible.
- F.3.3 *Good Housekeeping Measures.* (See also Part 2.1.5.1) As part of your good housekeeping program, include a cleaning and maintenance program for all impervious areas of the facility where particulate matter, dust, or debris may accumulate, especially areas where material loading and unloading, storage, handling, and processing occur; and the paving of areas where vehicle traffic or material storage occur but where vegetative or other stabilization methods are not practicable (institute a sweeping program in these areas too). For unstabilized areas where sweeping is not practicable, consider using stormwater management devices such as sediment traps, vegetative buffer strips, filter fabric fence, sediment filtering boom, gravel outlet protection, or other equivalent measures that effectively trap or remove sediment.
- F.3.4 *Inspections.* (See also Part 2.1.5.5) Conduct inspections monthly and address all potential sources of pollutants, including (if applicable) air pollution control equipment (e.g., baghouses, electrostatic precipitators, scrubbers, and cyclones), for any signs of degradation (e.g., leaks, corrosion, or improper operation) that could limit their efficiency and lead to excessive emissions. Consider monitoring air flow at inlets and outlets (or use equivalent measures) to check for leaks (e.g., particulate deposition) or blockage in ducts. Also inspect all process and material handling equipment (e.g., conveyors, cranes, and vehicles) for leaks, drips, or the potential loss of material; and material storage areas (e.g., piles, bins, or hoppers for storing coke, coal, scrap, or slag, as well as chemicals stored in tanks and drums) for signs of material losses due to wind or stormwater runoff.

F.4 Monitoring and Reporting Requirements. (See also Part 3 of the permit.)

Table F-1. Sector-specific Numeric Effluent Limitations and Benchmark Monitoring			
Subsector (Discharges may be subject to requirements for more than one sector/subsector)	Parameter	Benchmark Monitoring Cutoff Concentration¹	Effluent Limitation Guidelines
Steel Works, Blast Furnaces, and Rolling and Finishing Mills (SIC 3312-3317)	Total Recoverable Aluminum	0.75 mg/L	--
	Total Recoverable Zinc ²	0.12 mg/L	--
	Total Suspended Solids (TSS)	100 mg/L	--
Iron and Steel Foundries (SIC 3321-3325)	Total Recoverable Aluminum	0.75 mg/L	--
	Total Suspended Solids (TSS)	100 mg/L	--
	Total Recoverable Copper ³	0.014 mg/L	--
	Total Recoverable Iron	1.0 mg/L	--
	Total Recoverable Zinc ²	0.12 mg/L	--
Rolling, Drawing, and Extruding of Nonferrous Metals (SIC 3351-3357)	Total Recoverable Copper ³	0.014 mg/L	--
	Total Recoverable Zinc ²	0.12 mg/L	--
	Total Suspended Solids (TSS)	100 mg/L	--
Nonferrous Foundries (SIC 3363-3369)	Total Recoverable Copper ³	0.014 mg/L	--
	Total Recoverable Zinc ²	0.12 mg/L	--
	Total Suspended Solids (TSS)	100 mg/L	--
Primary Smelting and Refining of Nonferrous Metals; Secondary Smelting and Refining of Nonferrous Metals; and Miscellaneous Primary Metal Products (SIC 3331-3339, 3341, 3398, 3399)	Total Suspended Solids (TSS)	100 mg/L	--

¹You must monitor quarterly in the first year of your coverage for each benchmark parameter (see Part 3.2.2.1). For each parameter, no additional benchmark monitoring is required if the average of your 4 monitoring values does not

exceed the benchmark (see Part 3.2.2.3). However, for each parameter there are additional requirements if the average of your four monitoring values exceeds the benchmark (see Part 3.2.2.4).

² The benchmark value of zinc is determined as a function of hardness (in units of mg/L) in the water column. The value given in Table F-1 (i.e. 0.12 mg/L) corresponds to a hardness of 100 mg/L and should be used if you either did not analyze water hardness, other hardness data are not available, or the water hardness is less than 100 mg/L. If a laboratory analysis indicates that the water hardness is below 100 mg/L, then you should use the benchmark for 100 mg/L. If a laboratory analysis indicates that the water hardness is greater than 100 mg/L, then the following equation may be used to determine the benchmark value for zinc:

$$\text{Benchmark} = (e^{[(0.8473)(\ln \text{hardness}) + 0.884]})/1000$$

Example: Laboratory analysis of your water sample indicates the hardness is 175 mg/L.

$$\begin{aligned} \text{Benchmark} &= (e^{[(0.8473)(\ln 175) + 0.884]})/1000 \\ &= (e^{5.26})/1000 \\ &= 192.51/1000 \\ &= 0.19 \text{ mg/L} \end{aligned}$$

The following are example benchmark values for zinc:

<u>Hardness (mg/L)</u>	<u>Benchmark value (mg/L)</u>
100	0.12
125	0.14
150	0.17
175	0.19
200	0.22
225	0.24
250	0.26

³ The benchmark value of copper is determined as a function of hardness (in units of mg/L) in the water column. The value given in Table F-1 (i.e. 0.014 mg/L) corresponds to a hardness of 100 mg/L and should be used if you either did not analyze water hardness, other hardness data are not available, or the water hardness is less than 100 mg/L. If a laboratory analysis indicates that the water hardness is below 100 mg/L, then you should use the benchmark for 100 mg/L. If a laboratory analysis indicates that the water hardness is greater than 100 mg/L, then the following equation may be used to determine the benchmark value for copper:

$$\text{Benchmark} = (e^{[(0.9422)(\ln \text{hardness}) - 1.700]})/1000$$

Example: Laboratory analysis of your water sample indicates the hardness is 175 mg/L.

$$\begin{aligned} \text{Benchmark} &= (e^{[(0.9422)(\ln 175) - 1.700]})/1000 \\ &= (e^{3.166})/1000 \\ &= 23.72/1000 \\ &= 0.024 \text{ mg/L} \end{aligned}$$

The following are example benchmark values for copper:

<u>Hardness (mg/L)</u>	<u>Benchmark value (mg/L)</u>
100	0.014
125	0.017

150	0.021
175	0.024
200	0.027
225	0.030
250	0.033