

Subsection AA - Sector AA-Fabricated Metal Products.

AA.1 Covered Stormwater Discharges.

The requirements in Subsection AA apply to stormwater discharges associated with industrial activity from fabricated metal products facilities as identified by the Activity Code specified under Sector AA in Table D-1 of Appendix D of the permit.

AA.2 Industrial Activities Covered by Sector AA.

Permittees under Sector AA are primarily engaged in the following types of activities:

AA.2.1 fabricated metal products; except for electrical related industries;

AA.2.2 fabricated metal products; except machinery and transportation equipment; and

AA.2.3 jewelry, silverware, and plated ware.

AA.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.

AA.3.1 Drainage Area Site Map. (See also Part 2.1.2) Identify where any of the following may be exposed to precipitation or surface runoff: raw metal storage areas; finished metal storage areas; scrap disposal collection sites; equipment storage areas; retention and detention basins; temporary and permanent diversion dikes or berms; right-of-way or perimeter diversion devices; sediment traps and barriers; processing areas, including outside painting areas; wood preparation; recycling; and raw material storage.

AA.3.2 Spills and Leaks. (See also Part 2.1.4.3) When listing significant spills and leaks, pay attention to the following materials (at a minimum): chromium, toluene, pickle liquor, sulfuric acid, zinc and other water priority chemicals, and hazardous chemicals and wastes.

AA.3.3 Potential Pollutant Sources. (See also Part 2.1.4) Describe the following additional sources and activities that have potential pollutants associated with them: loading and unloading operations for paints, chemicals, and raw materials; outdoor storage activities for raw materials, paints, empty containers, corn cobs, chemicals, and scrap metals; outdoor manufacturing or processing activities such as grinding, cutting, degreasing, buffing, and brazing; onsite waste disposal practices for spent solvents, sludge, pickling baths, shavings, ingot pieces, and refuse and waste piles.

AA.3.4 Good Housekeeping Measures. (See also Part 2.1.5.1)

AA.3.4.1 Raw Steel Handling Storage. Describe and implement measures for controlling

or recovering scrap metals, fines, and iron dust. Include measures for containing materials within storage handling areas.

AA.3.4.2 Paints and Painting Equipment. Describe and implement measures to prevent or minimize exposure of paint and painting equipment to stormwater.

AA.3.5 Spill Prevention and Response Procedures. (See also Part 2.1.5.5) Ensure that the necessary equipment to implement a cleanup is available to personnel. The following areas should be addressed

AA.3.5.1 Metal Fabricating Areas. Describe and implement measures for maintaining clean, dry, orderly conditions in these areas. Consider using dry clean-up techniques.

AA.3.5.2 Storage Areas for Raw Metal. Describe and implement measures to keep these areas free of conditions that could cause spills or leakage of materials. Consider the following (or their equivalents): maintaining storage areas so that there is easy access in the event of a spill, and labeling stored materials to aid in identifying spill contents.

AA.3.5.3 Receiving, Unloading, and Storage Areas. Describe and implement measures to prevent spills and leaks, plan for quick remedial clean up, and instruct employees on clean-up techniques and procedures.

AA.3.5.4 Storage of Equipment. Describe and implement measures for preparing equipment for storage and the proper storage of equipment. Consider the following (or their equivalents): protecting equipment with covers, storing equipment indoors, and cleaning potential pollutants from equipment to be stored outdoors.

AA.3.5.5 Metal Working Fluid Storage Areas. Describe and implement measures for storage of metal working fluids.

AA.3.5.6 Cleaners and Rinse Water. Describe and implement measures to control and clean up spills of solvents and other liquid cleaners, control sand buildup and disbursement from sand-blasting operations, and prevent exposure of recyclable wastes. Substitute environmentally benign cleaners when possible.

AA.3.5.7 Lubricating Oil and Hydraulic Fluid Operations. Consider using monitoring equipment or other devices to detect and control leaks and overflows. Consider installing perimeter controls such as dikes, curbs, grass filter strips, or equivalent measures.

AA.3.5.8 Chemical Storage Areas. Describe and implement proper storage methods that prevent stormwater contamination and accidental spillage. Include a program to inspect containers and identify proper disposal methods.

AA.3.6 Inspections. (See also Part 2.1.5.6) At a minimum, include the following areas in all inspections: raw metal storage areas, finished product storage areas, material and chemical storage areas, recycling areas, loading and unloading areas, equipment storage areas, paint areas, and vehicle fueling and maintenance areas.

AA.3.7 Comprehensive Site Compliance Evaluation. (See also Part 3.1) As part of your evaluation, also inspect areas associated with the storage of raw metals, spent solvents and chemicals storage areas, outdoor paint areas, and drainage from roof. Potential pollutants include chromium, zinc, lubricating oil, solvents, aluminum, oil and grease, methyl ethyl ketone, steel, and related materials.

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

Subsector (Discharges may be subject to requirements for more than one sector/subsector)	Parameter	Benchmark Monitoring Concentration¹	Effluent Limit Guidelines
Fabricated Metal Products, except Coating (SIC 3411-3499; 3911-3915)	Total Recoverable Aluminum	0.75 mg/L	--
	Total Recoverable Iron	1.0 mg/L	--
	Total Recoverable Zinc ²	0.12 mg/L	--
	Total Suspended Solids (TSS)	100 mg/L	--
	Nitrate plus Nitrite Nitrogen	0.68 mg/L	--
Fabricated Metal Coating and Engraving (SIC 3479)	Total Recoverable Zinc ²	0.12 mg/L	--
	Total Suspended Solids (TSS)	100 mg/L	--
	Nitrate plus Nitrite Nitrogen	0.68 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 AA-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
