

**APPENDIX I.AA - Storm Water Discharges Associated with Industrial Activity from Fabricated Metal Products Manufacturing Facilities**

A. Coverage of This Section.

1. Discharges Covered Under This Section. The requirements listed under this Part shall apply to storm water discharges from the following activities:

**Table I.AA.1 – Sector AA: Fabricated Metal Products Manufacturing Facilities**

SIC Code	Activity Represented
3411 – 3499 (Except 3479)	Fabricated Metal Products, Except Machinery and Transportation Equipment, and Coating, Engraving, and Allied Services
3911 – 3915	Jewelry, Silverware, and Plated Ware
3479	Fabricated Metal Coating and Engraving

2. Sector Specific Limitations on Coverage. There are no additional limitations on coverage other than those listed in *Part I.C.*
3. Sector Specific Prohibition of Non-Stormwater Discharges. There are no additional prohibited non-stormwater discharges beyond those in *Part I.D* of this permit.

B. Sector Specific Control Measures and Effluent Limits.

In addition to the control measures and effluent limits in *Part III*, the permittee shall implement the following to minimize pollutant discharges, as applicable:

1. Good Housekeeping. Good housekeeping measures in storage areas, loading and unloading areas, and material handling areas shall be designed to:
  - a. Minimize the generation of, or recover and properly manage, scrap metals, fines, and iron dust from metal fabrication areas using dry clean-up techniques where feasible.
  - b. Minimize the exposure of paint and painting equipment to stormwater.
2. Spill Prevention and Response Procedures. Spill prevention and response procedures shall include ensuring the necessary equipment to implement a cleanup is available to personnel. The permittee should consider the materials located at the facility, to include, but not be limited to, chromium, toluene, pickle liquor, sulfuric acid, zinc and other water priority chemicals and hazardous chemicals and wastes. The permittee shall address the following areas, where applicable:
  - a. Metal Fabricating Areas. Implement measures for maintaining clean, dry, orderly conditions in these areas. Use of dry clean-up techniques should be used where feasible.
  - b. Storage Areas for Raw Metal. Implement measures to keep these areas free of conditions that could cause, or impede appropriate and timely response to, spills or leakage of materials. Storage areas should be maintained for easy access in the event of a spill, and stored materials should be clearly labeled to aid in identifying spill contents.
  - c. Metal Working Fluid Storage Areas. Implement measures to minimize the potential for stormwater contamination from storage areas for metal working fluids.

- d. Cleaners and Rinse Water. Implement measures to control and cleanup spills of solvents and other liquid cleaners, control sand buildup and disbursement from sand-blasting operations, prevent exposure of recyclable wastes, and substitute environmentally benign cleaners for traditional cleaners when possible.
- e. Lubricating Oil and Hydraulic Fluid Operations. Implement measures such as the following to minimize the potential for stormwater contamination from lubricating oil and hydraulic fluid operations, where feasible:
  - 1) Using monitoring equipment to detect and control leaks and overflows; and
  - 2) Installing perimeter controls such as dikes, curbs, grass filter strips, or other equivalent measures.
- f. Chemical Storage Areas. Implement practices and procedures to minimize stormwater contamination and accidental spillage in chemical storage areas and identify a program to inspect containers and identify proper disposal and spill controls.

C. Sector Specific Inspection Requirements.

In addition to the inspection requirements in *Part IV.A*, the permittee shall also inspect the following areas and activities, if they take place at the facility:

1. Raw metal storage areas;
2. Finished product storage areas;
3. Material and chemical storage areas;
4. Spent solvents and chemical storage areas;
5. Recycling areas;
6. Loading and unloading areas;
7. Equipment storage areas;
8. Paint areas;
9. Drainage from roof and vehicle fueling and maintenance areas; and
10. Potential sources of pollutants (i.e. chromium, zinc, lubricating oil, solvents, aluminum, oil and grease, methyl ethyl ketone, steel, and related materials).

D. Sector Specific Plan Requirements.

1. Site Map. In addition to the requirements in *Part VII.D.3*, the site map shall also include the location of the following, if applicable:
  - a. Raw metal storage areas;
  - b. Finished metal storage areas;
  - c. Scrap disposal collection sites;
  - d. Equipment storage areas;
  - e. Retention and detention basins;
  - f. Temporary and permanent diversion dikes or berms;
  - g. Right-of-way or perimeter diversion devices;

- h. Sediment traps and barriers;
  - i. Processing areas, including outside painting areas;
  - j. Wood preparation;
  - k. Recycling; and
  - l. Raw material storage.
2. **Summary of Potential Pollutant Sources.** In addition to the requirements in *Part VII.D.4*, the Plan summary of potential pollutant sources inventory shall also include the following, as applicable:
- a. Loading and unloading operations for paints, chemicals, and raw materials;
  - b. Outdoor storage activities for raw materials, paints, empty containers, corn cobs, chemicals, and scrap metals;
  - c. Outdoor manufacturing or processing activities such as grinding, cutting, degreasing, buffing, and brazing; and
  - d. Onsite waste disposal practices for spent solvents, sludge, pickling baths, shavings, ingot pieces, and refuse and waste piles.

E. **Monitoring Requirements.**

1. **Analytical Benchmark Monitoring.** The following analytical benchmark monitoring parameters shall apply specifically to sector AA facilities. Parameters found in this Part apply to both primary industrial activities and any co-located industrial activities. The facility may be subject to the requirements of more than one of the following:

**Table I.AA.2 – Analytical Benchmark Monitoring Parameters for Fabricated Metal Products, Except Coating (SIC 3411 – 3499; 3911 – 3915)**

Parameter	Benchmark Monitoring Concentration
Total Recoverable Aluminum	1.1 mg/L
Total Recoverable Zinc (freshwater)	Hardness Dependent <sup>1</sup>
Total Recoverable Zinc (saltwater) <sup>2</sup>	0.090 mg/L
Nitrate plus Nitrite Nitrogen	0.68 mg/L

<sup>1</sup>. The freshwater analytical benchmark monitoring values of some metals are dependent on water hardness. For these parameters, permittees must determine the hardness of the receiving water to identify the applicable 'hardness range' for determining the analytical benchmark monitoring value applicable to the facility. Hardness dependent analytical benchmark monitoring shall follow the table below:

Freshwater Hardness Range	Zinc (mg/L)
0.00 – 24.99 mg/L	0.037
25 – 24.99 mg/L	0.052
50 – 74.99 mg/L	0.080
75 – 99.99 mg/L	0.107
100 – 124.99 mg/L	0.132
125 – 149.99 mg/L	0.157

150 – 174.99 mg/L	0.181
175 – 199.99 mg/L	0.204
200 – 224.99 mg/L	0.227
225 – 249.99 mg/L	0.249
250+ mg/L	0.260

If hardness cannot be determined (groundwater or inaccessible waterbodies), use the most conservative values (0-24.99 mg/L range).

- <sup>2</sup>. Saltwater benchmark values apply to stormwater discharges into saline waters where indicated.

**Table I.AA.3 – Analytical Benchmark Monitoring Parameters for Fabricated Metal Coating and Engravings (SIC 3479)**

Parameter	Benchmark Monitoring Concentration
Total Recoverable Zinc (freshwater)	Hardness Dependent <sup>1</sup>
Total Recoverable Zinc (saltwater) <sup>2</sup>	0.090 mg/L
Nitrate plus Nitrite Nitrogen	0.68 mg/L

- <sup>1</sup>. The freshwater analytical benchmark monitoring values of some metals are dependent on water hardness. For these parameters, permittees must determine the hardness of the receiving water to identify the applicable ‘hardness range’ for determining the analytical benchmark monitoring value applicable to the facility. Hardness dependent analytical benchmark monitoring shall follow the table below:

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250+ mg/L	0.260

If hardness cannot be determined (groundwater or inaccessible waterbodies), use the most conservative values (0-24.99 mg/L range).

- <sup>2</sup>. Saltwater benchmark values apply to stormwater discharges into saline waters where indicated.

2. Numeric Effluent Limitation Monitoring. There are no numeric effluent limitation parameters for Sector AA facilities in this permit. Any additional monitoring and reporting requirements shall be based on the nature of activities at the facility and the facility stormwater discharges, in accordance with *Part V.D.2*.