

APPENDIX I.F - Storm Water Discharges Associated with Industrial Activity from Primary Metals 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.F.1 – Sector F: Primary Metals Facilities

SIC Code	Activity Represented
3312 – 3317	Steel Works, Blast Furnaces, and Rolling and Finishing Mills
3321 – 3325	Iron and Steel Foundries
3331 – 3339	Rolling, Drawing, and Extruding of Nonferrous Metals
3341	Nonferrous Foundries (Castings)
3351 – 3357	Primary Smelting and Refining of Nonferrous Metals
3363 – 3369	Secondary Smelting and Refining of Nonferrous Metals
3398, 3399	Miscellaneous Primary Metal Products

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 at the facility shall include the establishment of the following:
 - a. A maintenance program for all impervious areas of the facility where particulate matter, dust, or debris may accumulate, to encompass, as appropriate, areas where material loading and unloading, storage, handling, and processing occur;
 - b. Stabilization of unpaved areas using vegetation or paving where there is vehicle traffic or where material loading and unloading, storage, handling and processing occurs, unless not practical;
 - c. Implementation of control measures, where feasible, for paved areas of the facility where particulate matter, dust or debris may accumulate, to minimize the discharge of pollutants in stormwater. Control measures may include, but are not limited to:
 - 1) Sweeping or vacuuming at regular intervals; and
 - 2) Washing down the area and collecting and/or treating and properly disposing of the washdown water.

- d. Implementation of stormwater management devices, where feasible, for unstabilized areas or for stabilized areas where sweeping, vacuuming, or washing down is not possible, to minimize the discharge of particulate matter, dust, or debris or other pollutants in stormwater. Stormwater management devices may include, but are not limited to:
 - 1) Sediment traps;
 - 2) Vegetative buffer strips;
 - 3) Filter fabric fence;
 - 4) Sediment filtering boom;
 - 5) Gravel outlet protection; and
 - 6) Other equivalent measures that effectively trap or remove sediment.

C. Sector Specific Inspection Requirements.

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

1. Air Pollution Control Equipment. Air pollution control equipment (i.e. bag houses, electrostatic precipitators, scrubbers, cyclones) shall be inspected, if used, for any signs of degradation (i.e. leaks, corrosion, or improper operation) that could limit their efficiency and lead to excessive emissions. The permittee shall consider monitoring air flow at inlets and outlets, or using equivalent measures, to check for leaks or blockages in ducts.
2. Process and Material Handling Equipment. All process and material handling equipment (i.e. conveyors, cranes, and vehicles) for the presence of leaks, drips, or the potential loss of material.
3. Material Storage Areas. Material storage areas (i.e. piles, bins, or hoppers for storing coke, coal, scrap, or slag, as well as chemicals stored in tanks and drums) for signs of material loss due to wind or stormwater.

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. Storage or disposal of wastes such as spent solvents and baths, sand, slag and dross;
 - b. Liquid storage tanks and drums;
 - c. Processing areas including pollution control equipment (e.g., baghouses); and
 - d. Storage areas of raw material such as coal, coke, scrap, sand, fluxes, refractories or metal in any form.
 - e. 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 could result in a discharge of pollutants in stormwater.
2. Summary of Potential Pollutant Sources. In addition to the requirements in *Part VII.D.4*, the Plan summary of potential pollutant sources shall also include the following in the inventory, as applicable:
 - a. Areas where there is potential for deposition of particulate matter from process air emissions or losses during material-handling activities.

E. Monitoring Requirements.

1. Analytical Benchmark Monitoring. The following analytical benchmark monitoring parameters shall apply specifically to sector F 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.F.2 – Analytical Benchmark Monitoring Parameters for Steel Works, Blast Furnaces, and Rolling and Finishing Mills (SIC 3312 – 3317)

Parameter	Benchmark Monitoring Concentration
Total Recoverable Aluminum	1.1 mg/L
Total Recoverable Zinc (freshwater)	Hardness Dependent ²
Total Recoverable Zinc (saltwater) ³	0.090 mg/L

- ¹. 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).

- ². Saltwater benchmark values apply to stormwater discharges into saline waters where indicated.

Table I.F.3 – Analytical Benchmark Monitoring Parameters for Iron and Steel Foundries (SIC 3321 – 3325)

Parameter	Benchmark Monitoring Concentration
Total Recoverable Aluminum	1.1 mg/L
Total Suspended Solids ¹	100 mg/L

Total Recoverable Copper (freshwater)	0.00519 mg/L
Total Recoverable Copper (saltwater) ²	0.0048 mg/L
Total Recoverable Zinc (freshwater)	Hardness Dependent ³
Total Recoverable Zinc (saltwater) ²	0.090 mg/L

- ¹ Sampling for total suspended solids is not required for stormwater discharges that are infiltrating to groundwater.
- ² Saltwater benchmark values apply to stormwater discharges into saline waters where indicated.
- ³ 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).

Table I.F.4 – Analytical Benchmark Monitoring Parameters for Rolling, Drawing, and Extruding of Nonferrous Metals (SIC 3351 – 3357)

Parameter	Benchmark Monitoring Concentration
Total Recoverable Copper (freshwater)	0.00519 mg/L
Total Recoverable Copper (saltwater) ¹	0.00480 mg/L
Total Recoverable Zinc (freshwater)	Hardness Dependent ²
Total Recoverable Zinc (saltwater) ¹	0.090 mg/L

- ¹ Saltwater benchmark values apply to stormwater discharges into saline waters where indicated.
- ² 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).

Table I.F.5 – Analytical Benchmark Monitoring Parameters for Nonferrous Foundries (SIC 3363 – 3369)

Parameter	Benchmark Monitoring Concentration
Total Recoverable Copper (freshwater)	0.00519 mg/L
Total Recoverable Copper (saltwater) ¹	0.00480 mg/L
Total Recoverable Zinc (freshwater)	Hardness Dependent ²
Total Recoverable Zinc (saltwater) ¹	0.090 mg/L

¹. Saltwater benchmark values apply to stormwater discharges into saline waters where indicated.

². 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).

2. Numeric Effluent Limitation Monitoring. There are no numeric effluent limitation parameters for Sector F 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*.