MINNESOTA POLLUTION CONTROL AGENCY

**National Pollutant Discharge Elimination System (NPDES)/**

**State Disposal System (SDS) Permit Program Fact Sheet**

**Permit Reissuance**

**MNR050000**

| | |
|---|---|
| **Facility name:** | Industrial Stormwater General Permit |
| **Current permit expiration date:** | March 31, 2025 |
| **Public comment period begins:** | January 27, 2025 |
| **Public comment period ends:** | February 26, 2025 |
| **Receiving water:** | Statewide |
| **Permitting contact:** | **General Permit for Industrial Stormwater Multi-Sector (ISW)**<br>**Industrial Division**<br>**Minnesota Pollution Control Agency**<br>**520 Lafayette Road North**<br>**St. Paul, MN 55155-4194**<br>**(651) 757-2997**<br>**SW.permit.mpca@state.mn.us** |

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## Purpose and participation

**Applicable statutes**
This fact sheet has been prepared according to the 40 CFR § 124.8 and 124.56 and Minn. R. 7001.0100, subp. 3 in regards to a draft National Pollutant Discharge Elimination System (NPDES)/State Disposal System (SDS) permit to control pollution generated from runoff associated with industrial activities discharging into waters of the State of Minnesota.

**Purpose**
This fact sheet outlines the principal issues related to the preparation of this draft permit and documents the decisions that were made in the determination of the conditions of this permit. This permit will be a reissuance of a previous general permit, which will expire on March 31st, 2025. The Minnesota Pollution Control Agency (MPCA) Commissioner has made a preliminary determination to issue this permit for a period of five years.

**Public participation**
You may submit written comments on the terms of the draft permit or on the Commissioner's preliminary determination. Your written comments must include the following:

1. A statement of your interest in the permit application or the draft permit.
2. A statement of the action you wish the Minnesota Pollution Control Agency (MPCA) to take, including specific references to sections of the draft permit that you believe should be changed.
3. The reasons supporting your position, stated with sufficient specificity as to allow the Commissioner to investigate the merits of your position.

You may also request that the MPCA Commissioner hold a public informational meeting. A public informational meeting is an informal meeting which the MPCA may hold to help clarify and resolve issues.

In accordance with Minn. R. 7000.0650 and Minn. R. 7001.0110, your petition requesting a public informational meeting must identify the matter of concern and must include the following: items one through three identified above; a statement of the reasons the MPCA should hold the meeting; and the issues you would like the MPCA to address at the meeting.

In addition, you may submit a petition for a contested case hearing. A contested case hearing is a formal hearing before an administrative law judge. Your petition requesting a contested case hearing must include a statement of reasons or proposed findings supporting the MPCA decision to hold a contested case hearing pursuant to the criteria identified in Minn. R. 7000.1900, subp. 1, and a statement of the issues proposed to be addressed by a contested case hearing and the specific relief requested. To the extent known, your petition should include a proposed list of witnesses to be presented at the hearing, a proposed list of publications, references, or studies to be introduced at the hearing, and an estimate of time required for you to present the matter at hearing.

You must submit all comments, requests, and petitions during the public comment period identified on page one of this notice. All written comments, requests, and petitions received during the public comment period will be considered in the final decisions regarding the permit. If the MPCA does not receive any written comments, requests, or petitions during the public comment period, the Commissioner or other MPCA staff as authorized by the Commissioner will make the final decision concerning the draft permit.

**Comments, petitions, and/or requests must be submitted by the last day of the public comment period to:**

Multi-Sector General Permit for Industrial Stormwater
Minnesota Pollution Control Agency
520 Lafayette Road North
St. Paul, MN 55155-4194
SW.permit.mpca@state.mn.us

The permit will be reissued the MPCA determines that the proposed Permittee or Permittees will, with respect to the facility or activity to be permitted, comply or undertake a schedule to achieve compliance with all applicable state and federal pollution control statutes and rules administered by the MPCA and the conditions of the permit and that all applicable requirements of Minn. Stat. ch. 116D and the rules promulgated thereunder have been fulfilled.

More detail on all requirements placed on the facility may be found in the Permit document.

## General Permit Authority

Minn. R. 7001.0210 provides authority to the MPCA to issue a single permit to a category of permittees whose activities are the same or substantially similar. This single NPDES/SDS permit that can apply to numerous facilities is referred to as a general permit. Title 40 CFR § 122.28 and Minn. R. 7001.0210 allows for the issuance of general permits to regulate categories of discharges if the sources within each category:

a. Involve the same or substantially similar types of operations.

b. Discharge the same types of wastes.

c. Require the same effluent limitations or operating conditions.

d. Require the same or similar monitoring.

e. Are more appropriately controlled under a general permit rather than under individual permits.

The MPCA has reviewed data to determine if a category, or categories, of facilities which discharge stormwater associated with industrial activities meet the stipulated criteria for development of a general permit for such activities.

**Permit Authorization**

This permit authorizes stormwater discharges associated with industrial activity for any primary SIC code and/or narrative activities and co-located industrial activities as defined in 40 CFR § 122.26 (b)(14)(i- ix and xi), which includes ten categories of industrial activity required to obtain an industrial stormwater permit. These 10 categories of industry are broken down into 29 sectors, based on Primary Standard Industrial Classification (SIC) code or narrative activity. This general permit covers facilities within the boundary of the State of Minnesota that discharge stormwater from facilities with industrial activities described in federal regulation, 40 CFR 122.26(b)(14) to waters of the State of Minnesota. The 29 sectors covered by this general permit are listed in Table 1 below:

**Table 1. Sectors Included in the 2025 ISW General Permit**

| Sector | Sector Description |
|---|---|
| **A** | Timber Products |
| **B** | Paper and Allied Products Manufacturing |
| **C** | Chemical and Allied Products Manufacturing |
| **D** | Asphalt Paving and Roofing Materials and Lubricant Manufacturing |
| **E** | Glass, Clay, Cement, Concrete, and Gypsum Products |
| **F** | Primary Metals |
| **G** | Metal Mining (Ore Mining and Dressing) |
| **H** | Coal Mines and Coal Mining Related Facilities |
| **I** | Oil and Gas Extraction and Refining |
| **J** | Mineral Mining and Dressing |
| **K** | Hazardous Waste Treatment, Storage, or Disposal Facilities |
| **L** | Landfills and Land Application Sites |
| **M** | Automobile Salvage Yards |
| **N** | Scrap Recycling and Waste Recycling Facilities |
| **O** | Steam Electric Generating Facilities |
| **P** | Land Transportation and Warehousing |
| **Q** | Water Transportation |
| **R** | Ship and Boat Building and Repair Yards |
| **S** | Air Transportation |
| **T** | Treatment Works |
| **U** | Food and Kindred Products |
| **V** | Textile Mills, Apparel, and Other Fabric Products Manufacturing |
| **W** | Furniture and Fixtures |
| **X** | Printing and Publishing |
| **Y** | Rubber, Miscellaneous Plastic Products, and Miscellaneous Manufacturing Industries |
| **Z** | Leather Tanning and Finishing |
| **AA** | Fabricated Metal Products |
| **AB** | Transportation Equipment and Industrial or Commercial Machinery |
| **AC** | Electronic and Electrical Equipment and Components, Photographic and Optical Goods |

This permit will replace the NPDES/SDS MNR050000 Industrial Stormwater Multi-Sector General Permit, which will expire on March 31, 2025. When this permit is reissued, it will provide the regulatory mechanism for NPDES/SDS authorization of controlled industrial stormwater discharges from all of the facilities described by 40 CFR 122.26(b)(14)(i-ix and xi).

## Prohibitions and Limitations of Authorization

This permit does not authorize the following activities, discharges, or releases:

1. This permit does not authorize the following activities, discharges, or releases:

a. Non-stormwater discharges

b. Non-contact cooling water

c. Domestic and industrial wastewater and process wastewater. For example, wash water, commercial equipment and/or vehicle cleaning.

d. Biosolids.

e. Spills of any substance that may cause water pollution as defined in Minn. Stat. 115.01, subd. 13.

f. Placement of fill into waters of the state requiring local, state, or federal authorizations (such as U.S. Army Corps of Engineers Section 404 Permits, Department of Natural Resources Public Waters Work Permits, or Local Governmental Unit Wetland Conservation Act replacement plans or determinations).

g. Piping and drainage systems for process wastewater and floor drains from process areas that lead to the stormwater drainage system must be separated from the storm drainage system to prevent any inadvertent discharge of pollutants. The Permittee shall obtain a separate NPDES/SDS permit for process wastewater discharges.

h. Non-stormwater discharges mixed with stormwater.

i. Stormwater discharges from any portion of the facility where stormwater discharge has authorization under an NPDES/SDS permit.

j. Stormwater discharges associated with construction activity as defined in 40 CFR 122.26(b)(14)(x) and (b)(15).

k. Discharges to impaired water(s) when a USEPA-approved Total Maximum Daily Load (TMDL) report applies a Waste Load Allocation of zero (0) to a specific facility or industrial activity.

l. Discharges to an impaired water when a USEPA-approved TMDL report has identified a specific facility or industrial activity that requires stormwater control measures, BMP provisions, or compliance schedules not contained in this permit for that impaired water.

m. Industrial stormwater discharges flowing to prohibited waters, as defined in Minn. R. 7050.0335.

n. Any discharges or activities described under "limitation on authorization" in the sector-specific requirements of the permit. [40 CFR 122.26, Minn. R. 7090,
Minn. Stat. 115.01, Subd. 13, Minn. Stat. 116.D].

2. This permit does not replace or satisfy any environmental review requirements, including those under the Minnesota Environmental Policy Act (Minn. Stat. ch. 116D), or the National Environmental Policy Act (42 U.S.C. 4321 - 4370 f). The Stormwater Pollution Prevention Plan (SWPPP) must include any stormwater mitigation measures proposed to be
part of the final project in any environmental review.

3. This permit does not replace or satisfy any review requirements for endangered or threatened species, from new or expanded discharges that adversely impact or contribute to adverse impacts on a listed endangered or threatened species, or adversely modify a designated critical habitat.

4. This permit does not replace or satisfy any review requirements for historic places or archeological sites, from new or expanded discharges which adversely affect properties listed or eligible for listing in the National Register of Historic Places or affecting known or discovered archeological sites.

5. This permit covers all areas of the State of Minnesota except land wholly within the boundaries of a federally recognized Indian Reservation owned by a tribe or a tribal member or land held in trust by the federal government for a tribe or tribal member. [Minn. R. 7090]

## How to Obtain General Permit Coverage

Prior to submitting the permit application, permit applicants must develop a SWPPP. Permit applicants may obtain coverage under this general permit by submitting an application using MPCA's e-services system. Applicants must certify that a SWPPP has been prepared and that all of the information entered on the application is accurate. For most projects, permit coverage will become effective once the application is received and the fee has been processed. This typically takes one to three days. If the application is considered complete and the MPCA determines that the facility is eligible for coverage under the general permit, the MPCA will send permittees, via email, a notice of coverage. These documents are also made available to the public immediately upon approval on the MPCA's website. Authorization to conduct activities under the general permit does not begin until the permittee receives written confirmation from the MPCA.

## General Description of Permitted Activities

The Minnesota Pollution Control Agency (Agency) is proposing to issue the National Pollutant Discharge Elimination System (NPDES)/State Disposal System (SDS) Industrial Stormwater Multi-Sector General Permit MNR050000 for discharges associated with industrial activity, under the provisions of Minn. R. ch. 7001.0210. This permit is issued under the following additional authorities: Section 402, Clean Water Act, as amended; Minn. Stat. chs. 115 and 116, as amended; and Minn. R. chs. 7001 and 7090.

Potential applicants for this permit are public and private facility Owners/Operators whose facilities have stormwater discharges as described in 40 CFR 122.26(b)(14)(i-ix and xi). This permit is proposed to be issued as a general permit in accordance with 40 CFR 122.28 and Minn. R. 7001.0210, subp. 3. The facilities discharging industrial stormwater as defined in 40 CFR 122.26(b)(14)(i-ix and xi) are facilities with:

Substantially similar operations, emissions, activities, discharges or facilities.

Discharges, emissions, processes, handling, or disposal of the same types of wastes.

Emissions, activities, discharges, or facilities subject to the same or substantially similar standards, limitations, and operating requirements.

Operations, emissions, activities, discharges, or facilities that are subject to the same or substantially similar monitoring requirements.

As an alternative to obtaining this permit, the Owner/Operator of a facility who is able to provide a storm-resistant shelter to protect all industrial materials and industrial activities from exposure to rain, snow, snowmelt, and runoff can obtain the No Exposure exclusion. The Owner/Operator of a facility identified within a SIC code listed in Appendix D of the draft permit must provide verification that they have sampled stormwater for per-and polyfluoroalkyl substances (PFAS) using Method 1633 at least
four times, 72-hours apart, prior to applying for a No Exposure exclusion. By Dec. 21, 2025, the Owner/Operator of a facility seeking a No Exposure exclusion must complete the required PFAS monitoring and analysis, submit the averaged results of those samples to the MPCA, and apply for the No Exposure exclusion. The averaged results of the PFAS samples must be below the identified thresholds (Table 2) to qualify for No Exposure. If these requirements are not met, the facility will be required to apply for an industrial stormwater permit. An Owner/Operator who submits a No Exposure exclusion certification and maintains this condition of No Exposure will be excluded from NPDES/SDS permit requirements for industrial stormwater discharges for a period of five years.

**Table 2. PFAS Monitoring Thresholds**

| PFAS Monitoring Thresholds | Special Thresholds: Within 1 mile of a DWSMA or a Class 1 Drinking Water |
|---|---|
| 10 ng/L for PFOA<br>10 ng/L for PFOS | 4 ng/L for PFOS<br>4 ng/L for PFOA<br>10 ng/L for PFHxS<br>10 ng/L for PFNA<br>10 ng/L for HFPO-DA (commonly known as GenX chemicals) |

This permit requires the implementation of stormwater control measures, including Best Management Practices (BMPs) and operational activities that keep the stormwater clean and free from contaminants. These practices will also slow the velocity of stormwater or retain as much of the stormwater on the facility as possible, to reduce the stormwaters contribution to peak stream flows and to minimize the potential to transport sediment and pollutants from industrial facilities to waters of the state.

This general permit is intended to regulate stormwater (rain, snow, and snowmelt) runoff which comes into contact with industrial activities and significant materials (materials which have the potential to cause contamination). The quantities and types of stormwater discharged are dependent on many variables, including the type of industrial activity that the facility is engaged in (sector of industry), the size of the industrial facility and surrounding footprint, and the type and intensity of the runoff event. Because there are twenty-nine sectors of industry covered by the permit, there is a wide variety of pollutants of concern and those pollutants are based on the type of industrial operation being regulated and the materials it uses. A full description of the monitoring parameters required for each sector are listed in Appendix B.

## Basis for Benchmark Monitoring, Effluent Limitations, and PFAS Monitoring Thresholds

This permit is the regulatory mechanism to reduce, minimize, or eliminate contaminated stormwater discharge so that water quality standards are met. This is accomplished through the facility's implementation of stormwater control measures, and through Permittee benchmark monitoring and effluent limit monitoring of the stormwater discharges for pollutants that are specific to each of the twenty-nine different industrial sectors. Stormwater discharge monitoring results compared against specified benchmark monitoring results are used to guide adaptive management of the facility's stormwater control measures. As a result, there is assurance that if a facility has effective stormwater control measures and benchmark values are met, the facility's stormwater discharges will not cause or contribute to an exceedance of water quality standards.

This permit contains effluent limits as required by the Clean Water Act (CWA). The CWA requires that discharges from existing facilities, at a minimum, must meet technology-based effluent limitations reflecting the currently available technology to control pollutants in a discharge. In cases where technology-based effluent limits are not sufficient to ensure that water quality standards will be attained in the receiving water, the CWA (Section 303(b)(1)(c)) and NPDES regulations (40 CFR 122.44(d)) require the Agency develop more stringent, water quality-based effluent limits designed to ensure that water quality standards are attained. Both technology-based and water quality-based effluent limitations are implemented in this permit.

*Technology-Based Effluent Limitations*

Technology-based effluent limitations (TBELs) are in many cases established by the U.S. Environmental Protection Agency (USEPA) in regulations known as effluent limitations guidelines (ELGs). The USEPA establishes these regulations for specific industry categories or subcategories after conducting an in-depth analysis of that industry. Where effluent limitations have not been promulgated through ELGs, best professional judgment is used to develop limits. Listed below are the industrial activities regulated in the permit with an effluent limit developed by the USEPA.

**Table 3. Industrial Activities with an Effluent Limit Developed by USEPA**

| Regulated Discharge | 40 CFR Section | Sector |
|---|---|---|
| **Discharges resulting from spray down or intentional wetting of logs at wet deck storage areas** | Part 429, Subpart I | A |
| **Runoff from phosphate fertilizer manufacturing facilities that comes into contact with any raw materials, finished product, by-products or waste products (SIC 2874)** | Part 418, Subpart A | C |
| **Runoff from asphalt emulsion facilities** | Part 443, Subpart A | D |
| **Runoff from material storage piles at cement manufacturing facilities** | Part 411, Subpart C | E |
| **Runoff from hazardous waste and non-hazardous waste landfills** | Part 44, Subparts A and B | K, L |
| **Runoff From Coal Storage Piles At Steam Electric** | Part 423 | O |

| | | |
|---|---|---|
| **Generating Facilities** | | |
| **Existing and new primary airports[9] with 1,000 or more annual non-propeller aircraft departures that discharge wastewater associated with airfield pavement deicing that contains urea commingled with stormwater.** | Part 449, Subpart A | S |

In addition to the ELGs, other effluent limits are established in the permit. Because of the nature of stormwater discharges, it is often infeasible to calculate numeric effluent limits to demonstrate the appropriate levels of control. In such situations, 40 CFR 122.44(k) authorizes the Agency to include non-numeric effluent limits, in the form of requirements for control measures (which include BMPs in this permit) as TBELs. The regulation recognizes that stormwater control measures can be reasonably necessary to carry out the purposes and intent of the CWA. Stormwater discharges can be highly intermittent, are usually characterized by very high flows occurring over relatively short time intervals and are triggered by uncontrollable precipitation events. Most TBELs in this permit are narrative (non-numeric) limits. By proper implementation of stormwater control measures, which minimize the pollutant levels in discharges, these narrative limits provide an adequate level of control.

The permit requires that applicable control measures, including BMPs, be implemented at a site. Control measures which the Permittee must utilize, that are listed in the permit include: good housekeeping, eliminating and reducing exposure of industrial activities and significant materials, erosion prevention and sediment control, and management of runoff.

*Water Quality-Based Effluent Limits*

Water quality-based effluent limits (WQBELs) control discharges to ensure that water quality standards will be attained in the receiving water. In some cases, the TBELs in this permit ensure compliance with water quality standards; and therefore, more stringent additional WQBELs are not necessary. However, additional WQBELs (i.e., added permit requirements) are necessary to ensure that further discharges to impaired waters do not cause or contribute to a violation of water quality standards.

WQBELs are also found in the form of additional more stringent stormwater control requirements for antidegradation waters defined by Minn. R. 7050.0265 and Minn. R. 7050.0270. These requirements are necessary to comply with antidegradation rules and can be found in Part IX of the permit.

*PFAS Thresholds*

While drafting this general permit, the U. S. Environmental Protection Agency (EPA) established legally enforceable Maximum Contaminant Levels (MCLs) for six PFAS analytes in drinking water. As a result, water quality criteria for PFAS analytes: PFOA, PFOS, PFHxS, PFNA, and HFPO-DA (commonly known as GenX chemicals), took effect in Minnesota specifically for Class 1 Waters of the State as the Minnesota Legislature outlined in Minnesota Session Law – 2023, Chapter 60, Sec. 33. This general permit incorporates the MCLs as thresholds for facilities with primary SIC Codes associated with PFAS that are within one mile of a Class 1 Water of the State and/or a Drinking Water Supply

Management Area (DWSMA). All other facilities with a primary SIC Code associated with PFAS were given the 2022 PFAS Monitoring Plan's conservative threshold of 10 ng/L for PFOA and PFOS because no federal limits for PFOA and PFOS have been established outside of the MCLs.

**Monitoring**

The Industrial Stormwater Multi-Sector General Permit uses monitoring in two distinct manners: 1) as an indicator to determine if stormwater controls/BMPs that the Permittee has implemented at the facility are performing effectively; and 2) to demonstrate compliance with any numeric technology-based or water quality-based effluent limits.

Under this permit, the narrative effluent limits, technology based effluent limits (TBELs) & water quality-based effluent limits (WQBELs) are met through adaptive management in response to inspections and benchmark monitoring. The monitoring is intended to give quantitative estimates of pollutant concentrations in industrial stormwater discharges which can be compared to benchmark values. This method assures that the facility will be properly managing the stormwater which contacts industrial materials and activities. Analytical monitoring also allows the Agency to have numeric data for future program consideration.

Benchmark values are used as indicators to determine whether the stormwater control measures used to meet TBELs and WQBELs are working effectively. Along with gauging stormwater control performance, they act as an indicator of possible toxicity and help in identifying facilities which may require individual permits. Benchmark values do not directly represent compliance with water quality standards.

**Parameters to be Sampled.**

In order to determine which parameters must be sampled for their facilities, Permittees should review the permit, which states the parameters which must be sampled for each industrial sector and subsector. Permittees must ascertain all the sector/subsectors which apply to their facilities and conduct sampling for all parameters in the applicable sector/subsector. Finally, facilities must determine whether additional requirements are applicable because they are affected by special USEPA requirements due to a facility's proximity to an impaired water.

**Table 4. Parameters Sampled by Various Sectors**

| Parameters Sampled | | |
|---|---|---|
| Alpha Terpineol | Chromium | Pentachlorophenol |
| Aluminum | Copper | pH |
| Ammonia | Cyanide | Phenol |
| Aniline | Ethylbenzene | Phosphorus |
| Antimony | Fluoride | Pyridine |
| Arsenic | Lead | Selenium |
| Benzene | Naphthalene | Silver |

| | | |
|---|---|---|
| Benzoic Acid | Nickel | Toluene |
| Cadmium | Nitrate + Nitrate Nitrogen | Total Suspended Solids (TSS) |
| Carbonaceous Biochemical Oxygen Demand (CBOD) | Oil & Grease | Xylene |
| Chemical Oxygen Demand (COD) | P-cresol | Zinc |

**Table 5. PFAS Monitoring Parameters for Facilities with a Primary SIC Code Associated with PFAS**

| **PFAS Monitoring Parameters (40 analytes contained in Method 1633)** | | |
|---|---|---|
| PFBA | PFPeA | PFHxA |
| PFHpA | PFOA | PFNA |
| PFDA | PFUnA | PFDoA |
| PFTrDA | PFTeDA | PFBS |
| PFPeS | PFHxS | PFHpS |
| PFOS | PFNS | PFDS |
| PFDoS | PFOSA | PFEESA |
| 4:2FTS | 6:2FTS | 8:2FTS |
| PFMBA | NMeFOSA | NMeFOSAA |
| NEtFOSA | NEtFOSAA | NMeFOSE |
| NEtFOSE | HFPO-DA (GenX Chemicals) | ADONA |
| PFMPA | NFDHA | 3:3FTCA |
| 9Cl-PF3ONS | 11Cl-PF3OUdS | 5:3FTCA |
| 7:3FTCA | | |

Sector-specific sampling requirements can be found in Appendix B of this fact sheet.

**USEPA Effluent Limits**

In complying with Minn. R. 7053.0225, subp. 1 (A), the Agency has also complied with the USEPA technology-based determinations of appropriate effluent limits in this permit. The USEPA technology based ELGs are published at 40 CFR pts. 411, 418, 423, 436, 429, 443, and 445, and are applied to the applicable sectors as effluent limits. The following table below lists the parameters, values in daily maximums and monthly averages.

**Table 6. Applicable Effluent Limits & Associated Sectors**

| Parameter | Daily Maximum (mg/L unless otherwise noted) | Monthly Average (mg/L) | Applicable Sector(s) |
|---|---|---|---|
| **Alpha Terpineol** | 0.042 | 0.019 | K |
| **Alpha Terpineol** | 0.033 | 0.016 | L |
| **Ammonia** | 10.0 | 4.9 | K, L |
| **Aniline** | 0.024 | 0.015 | K |
| **Arsenic** | 1.1 | 0.54 | K |
| **Benzoic Acid** | 0.119 | 0.073 | K |
| **Benzoic Acid** | 0.12 | 0.071 | L |
| **BOD** | 220 | 56 | K |
| **BOD** | 140 | 37 | L |
| **Chromium** | 1.1 | 0.46 | K |
| **Fluoride** | 75 | 25 | B |
| **Naphthalene** | 0.059 | 0.022 | K |
| **Oil & Grease** | 15 | 10 | D |
| **p-Cresol** | 0.024 | 0.015 | K |
| **p-Cresol** | 0.025 | 0.014 | L |
| **pH** | 6-9 Standard Units | | D, E, J, K, L |
| **Phenol** | 0.048 | 0.029 | K |
| **Phenol** | 0.026 | 0.015 | L |

| | | | |
|---|---|---|---|
| **Phosphorus** | 105 | 35 | B |
| **Pyridine** | 0.72 | 0.25 | K |
| **TSS** | No debris greater than 1-inch round opening | N/A | A |
| **TSS** | 23 | 15 | D |
| **TSS** | 50 | N/A | E |
| **TSS** | 45 | 25 | J |
| **TSS** | 88 | 27 | K, L |
| **Zinc** | 0.535 | 0.296 | K |
| **Zinc** | 0.20 | 0.11 | L |

*Benchmark Values*

Benchmark monitoring does not directly indicate compliance with water quality standards. However, exceedances of benchmark values that are based on Final Acute Value (FAV) water quality standards indicate a potential discharge of a pollutant in a toxic amount. These cases warrant adaptive management of stormwater controls and could lead to further action such as a requirement for an individual permit.

The MPCA has established rules regarding processing permits and for setting water quality and effluent limitations. The rules cover all aspects of MPCA permit issuance, but the rules referenced below are the primary rules relied upon for setting benchmark values in this permit.

**Minnesota Rules:**

**7050.0210** = General Standards for Waters of the State.

**7050.0218** = Methods for Determination of Criteria for Toxic Pollutants, for Which Numeric Standards Not Promulgated.

**7050.0220 =** Specific Water Quality Standards by Associated Use Classes.

**7052.0100** = Lake Superior Basin Water Standards.

**7053.0205** = General Requirements for Discharges to Waters of the State.

**7053.0215** = Requirements for Point Source Discharges of Sewage.

**7053.0225** = Requirements for Point Source Discharges of Industrial or Other Wastes.

**7053.0255** = Phosphorus Effluent Limits for Point Source Discharges of Sewage, Industrial, and Other Wastes**.**

**Table 7. Basis for Benchmark Values**

| Parameter | Value (mg/L unless noted) | Standard FAV (Final acute value) or SDR (State Discharge Restrictions) | Basis for the source | Benchmark Value Applicable? |
|---|---|---|---|---|
| **Aluminum** | 1.5 | FAV | 7050.0220 | E, F, H, M, N, Q, AA |
| **Ammonia** | 2.8 | SDR | 7053.0205, 7053.0225, 7053.0215, subp. 1 | I, K, L, S, U |
| **Antimony** | 0.180 | FAV | 7050.0220 | G |
| **Arsenic** | 0.680 | FAV | 7052.0100 | A, G, K |
| **Benzene** | 9.0 | FAV | 7050.0220 | M |
| **Cadmium** | 0.0078 | FAV | 7050.0220 (TH = 100 mg/L) | G, K |
| **CBOD** | 25 | SDR | 7053.0205, 7053.0225, and 7053.0215 | C, G, K, L, S, T, U, Z |
| **Chromium** | 3.5 | FAV | 7050.0220 (TH based on Cr as Cr +3) | A, K, Z |
| **COD** | 120 | Discharge Requirements | USEPA | A, B, K, N, S, U |
| **Copper** | 0.028 | FAV | 7052.0100, TH 100 | A, F, G, N, AC |
| **Cyanide** | 0.045 | FAV | 7052.0100 | K |
| **Ethylbenzene** | 3.7 | FAV | 7050.0220 | M |
| **Hardness** | N/A | N/A | 7050.0220 (toxicity varies with total hardness for seven metals: Cd, Cr, Cu, Pb, Ni, Ag, Zn) | --- |
| **Lead** | 0.164 | FAV | 7050.0220, TH 100 | C, G, K, M, N, Q, Y, AC |
| **Nickel** | 0.938 | FAV | 7052, TH 100 | G |

| | | | | |
|---|---|---|---|---|
| **Nitrite + Nitrate** | 0.68 | Discharge Requirements | USEPA | G |
| **Oil & Grease** | Free of visible oil | SDR | 7053.0205, 7053.0225, and 7053.0215 | D |
| **Pentachlorophenol** | 0.011 | FAV | 7050.0220 based on pH 6.5 | A |
| **pH** | 6.0-9.0 SU | SDR | 7053.0205, 7053.0225, and 7053.0215 | D, E, G, H, I, K, L, N |
| **Phosphorus** | 1.0 | SDR | 7053.0205; 7053.0255 subp. 3 | C, U |
| **Selenium** | 0.040 | FAV | 7050.0220 | G, K |
| **Silver** | 0.0041 | FAV | 7050.0220 TH 100 | G, K, X |
| **Toluene** | 2.7 | FAV | 7050.0220 | M |
| **TSS** | 100 | Discharge Requirements | USEPA | A, B, C, D, E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z, AA, AB, AC |
| **Xylene** | 2.8 | FAV | 7050.0220 | M |
| **Zinc** | 0.234 | FAV | 7050.0220 TH 100 | A, C, F, G, I, K, L, N, Q, Y, AA |

*Calculating Hardness in Discharge Waters for Hardness-Dependent Metals*

Benchmark values for seven metals are established in the permit as FAV values taken at 100 mg/l total hardness. This value is presumed reliable because generally the effluent will be rainwater. Since toxicity varies with hardness for these parameters, reporting total hardness with the benchmark values and adjusting the benchmark values accordingly is acceptable.

Minn. R. 7050.0222 allows adjustment of the benchmark values for seven hardness-dependent metals (cadmium, chromium+3, copper, lead, nickel, silver, and zinc). The permit requires monitoring for total chromium, but the Agency assumes that all chromium in stormwater runoff will be in the chromium+3 form.

For any sectors required to collect benchmark value samples for a hardness-dependent metal, the permit includes "hardness ranges" from which benchmark values can be determined. The Permittees may use the default value of 100 mg/l total hardness or use another range if that is appropriate for the Permittee's discharge. To determine which hardness range to use, data must be collected on the hardness of the facility's effluent. Once the site-specific hardness

data have been collected, the corresponding benchmark value for each metal is determined by comparing where the hardness data fall within 25 mg/L ranges, as shown in Table 8 below.

**Table 8. Benchmark Values for Hardness Dependent Metals**

| **Standard** | **Minn. R 7050.0222 Class 2A** | **Minn. R 7050.0222 Class 2A&2B** | **Minn. R 7052.0100** | **Minn. R 7050.0222 Class 2A&2B** | **Minn. R 7052.0100** | **Minn. R 7050.0222 Class 2A&2B** | **Minn. R 7050.0222 Class 2A&2B** |
|---|---|---|---|---|---|---|---|
| **Hardness in mg/L total** | Cadmium Cd | ***Chromium + 3 Cr3** | **Copper Cu** | **Lead Pb** | **Nickel Ni** | **Silver Ag** | **Zinc Zn** |
| **100 or less** | 0.0078 | 3.4690 | 0.0280 | 0.1637 | 0.9383 | 0.0041 | 0.2341 |
| **>100-125** | 0.0090 | 3.8204 | 0.0313 | 0.1902 | 1.0366 | 0.0050 | 0.2586 |
| **>125-150** | 0.0112 | 4.5028 | 0.0479 | 0.2455 | 3.7133 | 0.0070 | 0.3066 |
| **>150-175** | 0.0136 | 5.1630 | 0.0560 | 0.3037 | 4.2770 | 0.0094 | 0.3532 |
| **>175-200** | 0.0159 | 5.8049 | 0.0641 | 0.3644 | 4.8275 | 0.0120 | 0.3987 |
| **>200-225** | 0.0184 | 6.4316 | 0.0722 | 0.4274 | 5.3667 | 0.0148 | 0.4433 |
| **>225-250** | 0.0208 | 7.0450 | 0.0801 | 0.4924 | 5.8962 | 0.0180 | 0.4871 |
| **>250-275** | 0.0233 | 7.6467 | 0.0881 | 0.5593 | 6.4172 | 0.0213 | 0.5302 |
| **>275-300** | 0.0258 | 8.2382 | 0.0959 | 0.6279 | 6.9306 | 0.0250 | 0.5727 |
| **>300-325** | 0.0284 | 8.8205 | 0.1038 | 0.6983 | 7.4371 | 0.0288 | 0.6146 |
| **>325-350** | 0.0309 | 9.3943 | 0.1116 | 0.7701 | 7.9374 | 0.0329 | 0.6560 |
| **>350-375** | 0.0335 | 9.9605 | 0.1194 | 0.8435 | 8.4321 | 0.0372 | 0.6970 |
| **>375-400** | 0.0361 | 10.5197 | 0.1271 | 0.9182 | 8.9215 | 0.0417 | 0.7375 |
| **>400** | 0.0375 | 10.7968 | 0.1310 | 0.9561 | 9.1644 | 0.0440 | 0.7576 |

## Changes for the 2025 Permit

This draft permit will replace the previous permit set to expire March 31, 2025. Many of the permit provisions were rewritten, combined, or split apart without changing the policy, meaning or expectation, however, some other changes included updates to monitoring requirements, best management practice implementation, and defined authorizations. The following is a summary of the permit revisions proposed for the 2025 general permit:

1. **Salt storage, management, and use at the facility (If present at the facility):** Added requirement to document within the SWPPP how the facility employees and/or hired contractors will minimize runoff from the use of salt or other de-icing/anti-icing materials used on the facility property.

2. **Management of Runoff:** Added language requiring outlet protection measures to prevent erosion at stormwater discharge locations. Added language requiring permittees to take action to prevent the discharge of stormwater to or from areas that have been impacted by the release of a pollutant or contaminant. This includes preventing potential pollutant mobilization through subsurface soils.

3. **BMP Maintenance:** Added requirement for maintenance plans for stormwater sedimentation and infiltration basins to be included in within the permittee's SWPPP. The plans must include but aren't limited to information detailing how the basin will be maintained and monitored to ensure effectiveness. The plans must include a description of the minimal maintenance frequency that will be implemented. There shall be no outflow from the stormwater sedimentation basin while sediment is being removed from the basin. Permanent erosion control, such as rip rap, splash pads, or gabions shall be installed at the outlet(s) to prevent downstream erosion.

4. **Employee Training Program:** Added language that requires that facility employees are familiar with facility specific stormwater plans, requirements, and BMPs. Added language to include training for employees who are responsible for conducting winter maintenance.

5. **General SWPPP Requirements:** Added SWPPP requirements from other sections into the general SWPPP requirement section. Added requirement to document BMPs used to manage runoff diverting stormwater around areas that may contain pollutants. Added requirement to document within the SWPPP the date it was implemented and last modified.

6. **SWPPP Modification Requirements:** Added requirement to modify SWPPP within 30 days if one of the following occurs:

    a. There is construction or a change in design, operation, or maintenance at the facility that affects stormwater management or compliance with this permit.

    b. The Permittee identifies a monitoring location that is within one mile of an impaired water, including newly listed impaired waters.

    c. A routine inspection, compliance evaluation, or visual inspection identifies deficiencies in the SWPPP and/or BMPs.

    d. Additional stormwater control measures and BMPs are necessary to meet applicable water quality standards or to address exceedances of benchmark values.

    e. There is an unauthorized discharge from the facility. If the SWPPP modification is because of a release or unauthorized discharge, update the SWPPP to include a description and date of the release, the circumstances leading to the release, actions taken in response to the release, and measures to prevent the recurrence of such releases. Unauthorized releases and discharges are subject to the reporting requirements in the Stormwater Control Measures section of this permit.

f. There is a change in personnel responsible for managing the SWPPP, implementing BMPs, conducting monthly visual inspections, or collecting stormwater samples at the facility.

7. **Special and Impaired Waters SWPPP Requirements.** The SWPPP must document all stormwater BMPs that are implemented to comply with Part X of the permit when an impaired or special water is identified within one mile of an industrial facility's benchmark monitoring location and where the identified impaired or special water receives discharge from the industrial facility's stormwater monitoring location. The SWPPP must contain the following components:

    a. Industrial stormwater volume reduction and/or pollutant concentration reduction BMPs, designed to restrict industrial stormwater discharges to the designated water.

    b. The SWPPP must include calculations to demonstrate the effectiveness of the chosen BMPs in reducing volume and/or pollutant concentrations.

    c. A narrative discussion describing how the Permittee will monitor and maintain the BMPs the Permittee uses to ensure the industrial facility will sustain restricted industrial stormwater discharges.

8. **Where to Collect a Sample; Number of Samples**. Added language requiring that the benchmark monitoring location(s) selected by the Permittee shall be in a location that:

    a. Is after the final down-gradient BMP from the source of industrial activity or significant materials, but prior to discharging from the Permittee's operational control.

    b. Minimizes or eliminates sampling of stormwater from off-site sources (run-on).

    c. Yields a sample that best represents the contribution of pollutants the Permittee is required to monitor for in accordance with the Benchmark Monitoring Requirements section of the permit, and that receives discharge from an area of industrial activities, processes, and significant materials exposed to stormwater.

    d. Added language requiring that if the Permittee submits an administrative modification to their permit, benchmark sampling will still be required for the calendar quarter in which the administrative modification was submitted to the MPCA.

9. **When to Collect a Sample**. Added language making it clear that the permittee should collect samples in each of the first 4 quarters after receiving coverage. Requires permittee to document an explanation in the stormwater monitoring report if unable to collect a stormwater sample.

10. **How to Collect a Sample**. Added language to clarify the expectation for sheet flow sampling and creating a collection point to concentrate runoff when necessary to collect a sample.

11. **Unable to Collect a Sample.** Repeated requirement for permittee to document an explanation in the stormwater monitoring report if unable to collect a stormwater sample.

12. **Benchmark Values Met.** Added language to clarify that the average of four consecutive quarterly samples are required to determine whether benchmark values were met. Added language explaining that a new impairment

to a receiving waterbody can restart benchmark monitoring if the impairment is for a required parameter that is listed in the facilities sector-specific benchmark values, even if the benchmark was previously met.

13. **Benchmark Monitoring for New Impairment Listing to A Receiving Water.** Added language describing the conditions that a new impairment to a receiving waterbody would start or restart benchmark value monitoring. Added requirement that prior to the first full calendar quarter following the USEPA-approved listing of the impaired water, the Permittee shall submit an administrative modification application to restart benchmark monitoring. Then the Permittee shall begin the additional monitoring for the pollutant(s) of impairment or its appropriate surrogate(s).

14. **Surrogates: Pollutant of Impairment.** Added nitrate impairment to surrogate list for nitrite plus nitrate, total (as N) monitoring.

15. **Benchmark Values Exceeded**. Added language if any single benchmark monitoring sample is 4 times over the benchmark value, it is considered an exceedance of the benchmark value. Then the permittee needs to complete the steps required after a benchmark value exceedance described in 50.3.

16. **Benchmark Monitoring Waivers.** Added language to make it clear that a benchmark monitoring waiver may be submitted during a coverage modification only.

17. **Effluent Monitoring Procedures and Sample Collection Methods**. Added language requiring effluent monitoring location(s) selected by the Permittee shall be in a location that:

    a. The two samples need to be at least 30 days apart.

18. **Effluent Limit Exceedances.** Removed language referencing grace periods that was not enforceable permit language.

19. **Industrial Stormwater Ponds.** Updated the title of the Recommended Pond Design Criteria to the newest version.

20. **Sector C. Chemical and Allied Products Manufacturing. Good Housekeeping** Added requirement to store wet cake, modified wet cake, and dried distillers' grains in an enclosed structure. Added requirement to immediately clean up any tracked or spilled organic materials that are subject to potential stormwater contact. Added requirement to remove any material tracked onto the road surface within one day of discovery. Added language prohibiting the use of detergents, emulsifiers, or dispersants to clean up spilled product except where necessary to comply with state or federal safety regulations. Added requirement to inspect the facility's stormwater infrastructure, BMPs, and milling areas weekly.

21. **Sector P. Land Transportation and Warehousing**. **Good Housekeeping**. Added language requiring permittee to prevent traction sand and traction sand loading areas from coming into contact with stormwater. Added requirement to implement sediment removal to ensure that traction sand is not discharged to surface waters.

22. **Sector U. Food and Kindred Products**. **Limitations on Authorization**. Added sugar beet piling sites to the list of examples that are prohibited from discharging wastewater or other sources of non-stormwater mixed with stormwater.

23. **Part IX. General provisions**. **Operation and Maintenance**. Removed all language about backup facilities.

24. **Part X. Additional requirements for discharges to impaired and special (prohibited, restricted, other) waters.** Added language prohibiting discharges of stormwater to impaired waters unless the permittee complies with the provisions in the section. Added language prohibiting a facility's stormwater from creating a nuisance condition. Added language that requires permittees to implement stormwater control measures and BMPs in order to prevent excessive pollutants from affecting an impaired water. Added SWPPP requirements for impaired waters, including BMPs designed specifically to address an impairment, any calculations to demonstrate the effectiveness of the chosen BMPs, and a narrative describing how the permittee will monitor and maintain BMPs long term to ensure their effectiveness.

    Added: If TSS is listed as a required benchmark monitoring parameter for the Permittee's industrial sector(s) in Appendix B., a benchmark value of 65 mg/L for Total Suspended (TSS) applies to the discharge at a benchmark monitoring location, instead of 100 mg/L as specified in the sector requirements of Appendix B. If the Permittee has a waiver from the requirements to conduct benchmark monitoring, the benchmark value does not apply.

25. **Additional Required BMPs.** Added language to make it clear that a facility is only required to sample for TSS for outstanding resource value and impaired waters if TSS is listed as a parameter that they are required to sample for in that facility's sector requirements. Removed language listing examples for BMPs.

26. **Part XIII. Definitions and abbreviations**. Removed language in the Benchmark Monitoring definition that was guidance for where a permittee should choose as a benchmark monitoring location. Added the definition of Benchmark Value. Added the definition of Effluent Limit. Removed language in the Effluent Monitoring definition that was guidance for where a permittee should choose as an effluent monitoring location. Added MN Rule 7090.0080 Subp. 6 to Facility definition. Added definition of Measurable Runoff Event.

27. **Appendix B: Sector-specific benchmark values and effluent limitations.** Removed iron as a sample parameter in all sectors to align with EPAs decision to suspend benchmark monitoring thresholds for iron on a lack of documented acute toxicity.

28. **Part XII. Per-and polyfluoroalkyl (PFAS) Monitoring and Reporting Requirements**. Added language requiring any industrial facility with a primary SIC code listed in Appendix D of the permit to monitor for PFAS using the procedures listed in Part XII as identified below.

    PART XII. PER-AND POLYFLUOROALKYL (PFAS) MONITORING AND REPORTING REQUIREMENTS

    The Permittee of a facility with a primary SIC Code listed in Appendix D shall monitor for PFAS in stormwater at its facility's area(s) of concern (AOC). The permittee shall abide by all requirements and monitor for PFAS using the procedures outlined in this section of the Permit.

    SWPPP and PFAS Stormwater Monitoring Plan Requirements

    The Permittee must develop and implement a PFAS Stormwater Monitoring Plan for its facility, which must be reviewed and updated annually. The PFAS Stormwater Monitoring Plan must provide a detailed description of the facility's AOC monitoring location(s) and significant materials within the AOC. The PFAS

Stormwater Monitoring Plan must include a facility map. The PFAS stormwater monitoring plan must be included in the facility's SWPPP and made available to the MPCA within 72 hours of a request for review.

The facility map must identify the following:

1. All identified area(s) of concern boundaries.

2. All AOC monitoring locations.

3. Drinking Water Supply Management Areas within 1 mile.

4. Class 1 Waters of the State, as defined in Minn. R. 7050.0140, that are within one mile of the facility that receive stormwater discharge from the facility.

The Permittee must identify in the facility's PFAS Stormwater Monitoring Plan the individual(s) responsible for conducting the facility's PFAS stormwater monitoring. The responsible individual(s) must conduct sampling in accordance with the U.S. EPA's Method 1633.

Where to Collect a PFAS Sample; Number of Samples.

The Permittee shall monitor for PFAS by collecting stormwater samples from each of the facility's area(s) of concern (AOC) as identified in the facility's PFAS stormwater monitoring plan. The permittee shall collect samples where stormwater leaves the area of concern at the most representative location.

PFAS Stormwater samples must be collected for at least four calendar quarters. Sampling requirements begin the first full calendar quarter following the facility's coverage issuance date. Sample quarters do not need to be concurrent.

When to Collect a PFAS Sample.

Permittees shall collect PFAS stormwater samples in each of the first four calendar quarters after receiving coverage. Permittees must collect samples from a measurable runoff event or acceptable snowfall event at the Area(s) of Concern, provided there is a gap of three days between measurable runoff events.

To the extent feasible, the Permittee shall attempt to collect a stormwater sample within the first

30 minutes upon the discharge reaching the area(s) of concern monitoring location(s).

How to Collect a PFAS Sample.

All stormwater samples collected for the purpose of analyzing PFAS must be collected and analyzed in accordance with the U.S. EPA's Method 1633 requirements.

The Permittee must have its PFAS stormwater monitoring samples analyzed in accordance with U.S. EPA's Method 1633. The laboratory analyzing the samples must also be certified by the Minnesota Department of Health (MDH) and/or registered with the MPCA or be another MPCA-approved accredited lab.

The Permittee's responsible individual(s) shall collect stormwater in the form of precipitation from a measurable runoff event (rain) from each of the facility's AOC location(s). If the Permittee collects more than one sample per quarter, then the results must be averaged within the quarter.

Snow samples collected for PFAS analysis must be collected by an individual from an MDH certified laboratory using the protocols provided in the current edition of the MPCA's Industrial Stormwater Per- and polyfluoroalkyl substances (PFAS) Snow Sampling Guidance document. If more than one snow sample is collected per quarter, then the results must be averaged within the quarter.

Reporting PFAS Monitoring Results.

The Permittee must submit PFAS monitoring data to the MPCA no later than the 21st day of the month following the sampling quarter.

The Permittee shall submit PFAS sampling results as follows:

Submit a quarterly PFAS Stormwater Monitoring Report to the MPCA, even if there is not a collectable amount of snow and/or measurable runoff sufficient to obtain a sample. In the absence of a collectable amount of snow and/or measurable runoff event during a quarter due to weather conditions and/or site soil characteristics, the Permittee shall complete the appropriate sections of a PFAS Stormwater Monitoring Report, providing an explanation as to why a sample was not able to be collected, and submit the report to the MPCA.

Unable to Collect a PFAS Sample.

In the absence of a measurable runoff event or acceptable snowfall event during a calendar quarter due to weather conditions, the Permittee shall complete the appropriate sections of a PFAS Monitoring Report, by providing an explanation as to why a sample was not able to be collected and submit the report to the MPCA. [Minn. R. 7090]

PFAS Monitoring Thresholds.

After collecting and analyzing four separate quarterly samples, one per calendar quarter for each AOC location, the Permittee shall average the PFOS and PFOA values, in ng/L, found at each AOC location. If the Permittee collects more than one sample per quarter, then the results must be averaged within the quarter.

For averaging purposes, the Permittee must use a value of zero for any sample result the laboratory reports that is less than the method detection limit. For results the laboratory reports as falling between the method detection level and the quantitation limit (i.e.: a confirmed detection, but below the level that can be reliably quantified), the Permittee shall use a value halfway between zero and the quantitation limit.

If the averaged results are at or greater than the following thresholds, the Permittee shall be required to complete and implement a PFAS Source and Exposure Reduction Plan (SERP).

1. 10 ng/L for PFOS
2. 10 ng/L for PFOA

An exceedance of these threshold(s) does not constitute a violation(s).

If the facility is in or within one mile of a Drinking Water Supply Management Area (DWSMA) as defined in Minn. R. 4720.5100, subp. 13. and/or is within one mile of a Class 1 Water of the State as defined in

Minn. R. 7050.0221, which receives discharge from a facility's AOC location, the thresholds for PFOA and PFOS are reduced, and other PFAS analytes have thresholds listed below:

1. 4 ng/L for PFOS
2. 4 ng/L for PFOA
3. 10 ng/L for PFHxS
4. 10 ng/L for PFNA
5. 10 ng/L for HFPO-DA (commonly known as GenX chemicals) [Minn. R. 7090]

If monitoring shows frequent detection of other PFAS analytes at concentration levels of concern, the MPCA may also require the Permittee to complete and implement a PFAS SERP for those PFAS analytes.

PFAS Source and Exposure Reduction Plan Requirements.

The Permittee, if required, shall complete and begin implementing a PFAS source and exposure reduction plan (SERP) within 180 days of its final sampling quarter.

The Permittee must utilize the current version of the SERP template provided by the MPCA.

The Permittee shall review and update its SERP annually and submit its implemented PFAS SERP or a draft of its PFAS SERP as part of its Industrial Stormwater Annual Report.

**Table 9. Draft Permit Appendix D. Per-and polyfluoroalkyl substances (PFAS) Monitoring Primary SIC Codes. Listed all the SIC codes that will be required to sample for PFAS.**

| Sector | SIC Code | SIC – Nar. Act. Description * |
|---|---|---|
| B | 2621 | Paper Mills |
| B | 2656 | Sanitary Food Containers, Except Folding |
| B | 2671 | Packaging Paper and Plastics Film, Coated and Laminated |
| B | 2672 | Paper; Coated and Laminated, Nec |
| B | 2673 | Bags: Plastic, Laminated, and Coated |
| C | 2821 | "Fluoro-polymer resins manufacturing (Plastics Materials, Synthetic Resins, and Nonvulcanizable Elastomers)"/Plastics Materials and Resins |
| C | 2824 | Manmade Organic Fibers, Except Cellulosic |
| C | 2842 | Specialty Cleaning, Polishing, and Sanitation Preparations |
| C | 2844 | Perfumes, Cosmetics, and Other Toilet Preparations |
| C | 2851 | Paints, Varnishes, Lacquers, Enamels, and Allied Products |

| | | |
|---|---|---|
| C | 2899 | Chemicals and Chemical Preparations, Not Elsewhere Classified |
| D | 2952 | Asphalt Felts and Coatings |
| D | 2992 | Lubricating Oils and Greases |
| F | 3399 | Primary Metal Products, Not Elsewhere Classified |
| I | 2911 | Petroleum Refining |
| N | 5093 | Scrap and Waste Materials |
| S | 4581 | Airports, Flying Fields, and Services |
| V | 2221 | Broadwoven Fabric Mills, Manmade Fiber and Silk |
| V | 2262 | Finishers of Broadwoven Fabrics of Manmade Fiber and Silk |
| V | 2273 | Carpets and Rugs |
| V | 2295 | Coated Fabrics, Not Rubberized |
| V | 2297 | Non-woven Fabrics |
| V | 2299 | Textile goods, Not Elsewhere Classified |
| V | 2299 | Textile goods, Not Elsewhere Classified |
| V | 2299 | Textile Goods, Nec |
| V | 2385 | Waterproof Outerwear |
| V | 3131 | Boot and Shoe Cut Stock and Findings |
| V | 3161 | Luggage |
| V | 3172 | Personal Leather Goods, Nec |
| V | 3199 | Leather Goods, Nec |
| X | 2752 | Commercial Printing, Lithographic |
| X | 2796 | Platemaking and Related Services |
| Y | 3069 | Fabricated Rubber Products, Nec |
| Y | 3081 | Unsupported Plastics Film and Sheet |
| Y | 3082 | Unsupported Plastics Profile Shapes |
| Y | 3083 | Laminated Plastics Plate, Sheet, and Profile Shapes |
| Z | 3111 | Leather Tanning and Finishing |
| AA | 3471 | Electroplating, Plating, Polishing, Anodizing, and Coloring |
| AA | 3497 | Metal Foil and Leaf |
| AB | 3567 | Industrial Furnaces and Ovens |
| AB | 3589 | Service Industry Machinery, Not Elsewhere Classified |
| AB | 3599 | Industrial and Commercial Machinery and Equipment, Not Elsewhere Classified |
| AC | 3674 | Semiconductors and Related Devices |
| AC | 3695 | "Magnetic Tape Manufacturing Operations"/Magnetic and Optical Recording Media |
| AC | 3841 | Surgical and Medical Instruments and Apparatus |
| AC | 3861 | Photographic Equipment and Supplies |

**References:**

United States Environmental Protection Agency, Office of Water. "U.S. EPA NPDES Permit Writers' Manual," EPA-833-B-96-003. September 2010.

United States Environmental Protection Agency. "2015 Multi-Sector General Permit for Stormwater Discharges Associated with Industrial Activity (MSGP) – Fact Sheet." 2015.

Minnesota Pollution Control Agency. "Fact Sheet for the National Pollutant Discharge Elimination System/State Disposal System Multi-Sector General Permit for Industrial Stormwater Activity," November 2010.

**Appendix A. Authorized Sectors of Industrial Activities**

Eligibility for this permit is limited to facilities with an industrial activity (SIC code(s) or narrative activity) as defined in 40 CFR § 122.26(b)(14)(i)-(xi). Industrial activities have been grouped into 29 sectors as summarized in this Appendix. All references to sectors or subsectors in this permit refer to these groupings. Note: Narrative activities are those industrial activities that are described by a narrative (rather than an SIC code) and/or having a numeric effluent limit. Examples include, but are not limited to, sectors E, K, L, O, and T.

* Standard Industrial Classification (SIC) codes and **Narrative Activities** (Nar. Act.) are defined by 122.26 (b)(14)(i)-(xi), except (x)

| Sector | Sector Description | Subsector | Subsector Description | SIC – Nar. Act. * | SIC – Nar. Act. Description * |
|---|---|---|---|---|---|
| A | Timber Products | A1 | General Sawmills/Planing Mills | 2421 | Sawmills and Planing Mills, General |
| | | A2 | Wood Preserving | 2491 | Wood Preserving |
| | | A3 | Log Storage and Handling | 2411 | Logging |
| | | A4 | Discharges From Wet Decking Storage Areas | ANEL1 | Discharges From Wet Decking Storage Areas |
| | | A5 | Hardwood Dimension and Flooring Mills | 2426 | Hardwood Dimension and Flooring Mills |
| | | | | 2429 | Special Product Sawmills, Not Elsewhere Classified |
| | | | | 2431 | Millwork |
| | | | | 2435 | Hardwood Veneer and Plywood |
| | | | | 2436 | Softwood Veneer and Plywood |
| | | | | 2439 | Structural Wood Members, Not Elsewhere Classified |
| | | | | 2448 | Wood Pallets and Skids |
| | | | | 2449 | Wood Containers, Not Elsewhere Classified |
| | | | | 2451 | Mobile Homes |
| | | | | 2452 | Prefabricated Wood Buildings and Components |
| | | | | 2493 | Reconstituted Wood Products |

* Standard Industrial Classification (SIC) codes and **Narrative Activities** (Nar. Act.) are defined by 122.26 (b)(14)(i)-(xi), except (x)

| Sector | Sector Description | Subsector | Subsector Description | SIC – Nar. Act. * | SIC – Nar. Act. Description * |
|---|---|---|---|---|---|
| | | | | 2499 | Wood Products, Not Elsewhere Classified |
| | | | | 2441 | Nailed and Lock Corner Wood Boxes and Shook |
| B | Paper and Allied Products Manufacturing | B1 | Pulp, Paper, Cardboard, Converted Paper and Paperboard Products | 2611 | Pulp Mills |
| | | | | 2621 | Paper Mills |
| | | | | 2631 | Paperboard Mills |
| | | | | 2652 | Setup Paperboard Boxes |
| | | | | 2653 | Corrugated and Solid Fiber Boxes |
| | | | | 2655 | Fiber Cans, Tubes, Drums, and Similar Products |
| | | | | 2656 | Sanitary Food Containers, Except Folding |
| | | | | 2657 | Folding Paperboard Boxes, Including Sanitary |
| | | | | 2671 | Packaging Paper and Plastics Film, Coated and Laminated |
| | | | | 2672 | Coated and Laminated Paper, Not Elsewhere Classified |
| | | | | 2673 | Plastics, Foil, and Coated Paper Bags |
| | | | | 2674 | Uncoated Paper and Multiwall Bags |
| | | | | 2675 | Die-Cut Paper and Paperboard and Cardboard |
| | | | | 2676 | Sanitary Paper Products |
| | | | | 2677 | Envelopes |
| | | | | 2678 | Stationery, Tablets, and Related Products |

* Standard Industrial Classification (SIC) codes and **Narrative Activities** (Nar. Act.) are defined by 122.26 (b)(14)(i)-(xi), except (x)

| Sector | Sector Description | Subsector | Subsector Description | SIC – Nar. Act. * | SIC – Nar. Act. Description * |
|---|---|---|---|---|---|
| | | | | 2679 | Converted Paper and Paperboard Products, Not Elsewhere Classified |
| C | Chemical and Allied Products Manufacturing | C1 | Runoff from phosphate fertilizer manufacturing<br><br>facilities that comes into contact with any raw<br><br>materials, finished product, by-products or waste<br><br>products | CNEL2 | Runoff from phosphate fertilizer manufacturing<br><br>facilities that comes into contact with any raw<br><br>materials, finished product, by-products or waste<br><br>products |
| | | C2 | Agricultural Chemicals | 2873 | Nitrogenous Fertilizers |
| | | | | 2874 | Phosphatic Fertilizers |
| | | | | 2875 | Fertilizers, Mixing Only |
| | | | | 2879 | Pesticides and Agricultural Chemicals, Not Elsewhere Classified |
| | | C3 | Industrial Inorganic Chemicals | 2812 | Alkalies and Chlorine |
| | | | | 2813 | Industrial Gases |
| | | | | 2816 | Inorganic Pigments |
| | | | | 2819 | Industrial Inorganic Chemicals, Not Elsewhere Classified |
| | | C4 | Soaps, Detergents, Cosmetics, Perfumes | 2841 | Soap and Other Detergents, Except Specialty Cleaners |
| | | | | 2842 | Specialty Cleaning, Polishing, and Sanitation Preparations |
| | | | | 2843 | Surface Active Agents, Finishing Agents, Sulfonated Oils, and Assistants |

* Standard Industrial Classification (SIC) codes and **Narrative Activities** (Nar. Act.) are defined by 122.26 (b)(14)(i)-(xi), except (x)

| Sector | Sector Description | Subsector | Subsector Description | SIC – Nar. Act. * | SIC – Nar. Act. Description * |
|---|---|---|---|---|---|
| | | | | 2844 | Perfumes, Cosmetics, and Other Toilet Preparations |
| | | C5 | Plastics, Synthetics, Resins | 2821 | Plastics Materials, Synthetic Resins, and Nonvulcanizable Elastomers |
| | | | | 2822 | Synthetic Rubber (Vulcanizable Elastomers) |
| | | | | 2823 | Cellulosic Manmade Fibers |
| | | | | 2824 | Manmade Organic Fibers, Except Cellulosic |
| | | | | 3952 | Lead Pencils, Crayons, and Artists' Materials |
| | | C6 | Medicinal Chemicals and Botanical Products | 2833 | Medicinal Chemicals and Botanical Products |
| | | | | 2834 | Pharmaceutical Preparations |
| | | | | 2835 | In Vitro and In Vivo Diagnostic Substances |
| | | | | 2836 | Biological Products, Except Diagnostic Substances |
| | | | | 2851 | Paints, Varnishes, Lacquers, Enamels, and Allied Products |
| | | | | 2861 | Gum and Wood Chemicals |
| | | | | 2865 | Cyclic Organic Crudes and Intermediates, and Organic Dyes and Pigments |
| | | | | 2869 | Industrial Organic Chemicals, Not Elsewhere Classified |
| | | | | 2891 | Adhesives and Sealants |
| | | | | 2892 | Explosives |
| | | | | 2893 | Printing Ink |
| | | | | 2895 | Carbon Black |

* Standard Industrial Classification (SIC) codes and **Narrative Activities** (Nar. Act.) are defined by 122.26 (b)(14)(i)-(xi), except (x)

| Sector | Sector Description | Subsector | Subsector Description | SIC – Nar. Act. * | SIC – Nar. Act. Description * |
|---|---|---|---|---|---|
| | | | | 2899 | Chemicals and Chemical Preparations, Not Elsewhere Classified |
| | | C7 | Ethanol Facilities | 2869 | Industrial Organic Chemicals, Not Elsewhere Classified |
| D | Asphalt Paving and Roofing Materials and Lubricant Manufacturing | D1 | Asphalt Paving and Roofing Materials | 2951 | Asphalt Paving Mixtures and Blocks |
| | | | | 2952 | Asphalt Felts and Coatings |
| | | D2 | Discharges from Production of Asphalt Emulsions Areas | DNEL3 | Asphalt Paving Mixtures and Blocks |
| | | | | DNEL3 | Asphalt Felts and Coatings |
| | | D3 | Miscellaneous Products of Petroleum and Coal | 2992 | Lubricating Oils and Greases |
| | | | | 2999 | Products of Petroleum and Coal, Not Elsewhere Classified |
| E | Glass, Clay, Cement, Concrete, and Gypsum Products | E1 | Clay Products Manufacturers | 3251 | Brick and Structural Clay Tile |
| | | | | 3253 | Ceramic Wall and Floor Tile |
| | | | | 3255 | Clay Refractories |
| | | | | 3259 | Structural Clay Products, Not Elsewhere Classified |
| | | | | 3261 | Vitreous China Plumbing Fixtures and China and Earthenware Fittings and Bathroom Accessories |
| | | | | 3262 | Vitreous China Table and Kitchen Articles |
| | | | | 3263 | Fine Earthenware (Whiteware) Table and Kitchen Articles |
| | | | | 3264 | Porcelain Electrical Supplies |
| | | | | 3269 | Pottery Products, Not Elsewhere Classified |

* Standard Industrial Classification (SIC) codes and **Narrative Activities** (Nar. Act.) are defined by 122.26 (b)(14)(i)-(xi), except (x)

| Sector | Sector Description | Subsector | Subsector Description | SIC – Nar. Act. * | SIC – Nar. Act. Description * |
|---|---|---|---|---|---|
| | | E2 | Concrete and Gypsum Product Manufacturers | 3271 | Concrete Block and Brick |
| | | | | 3272 | Concrete Products, Except Block and Brick |
| | | | | 3273 | Ready-Mixed Concrete |
| | | | | 3274 | Lime |
| | | | | 3275 | Gypsum Products |
| | | E3 | Cement Manufacturing Facility, Material Storage Runoff | CMF | Cement Manufacturing Facility, Material Storage Runoff |
| | | E4 | Glass, Stone, Abrasive, and Asbestos Manufacturing | 3211 | Flat Glass |
| | | | | 3221 | Glass Containers |
| | | | | 3229 | Pressed and Blown Glass and Glassware, Not Elsewhere Classified |
| | | | | 3231 | Glass Products, Made of Purchased Glass |
| | | | | 3241 | Cement, Hydraulic |
| | | | | 3281 | Cut Stone and Stone Products |
| | | | | 3291 | Abrasive Products |
| | | | | 3295 | Minerals and Earths, Ground or Otherwise Treated |
| | | | | 3296 | Mineral Wool |
| | | | | 3297 | Nonclay Refractories |
| | | | | 3299 | Nonmetallic Mineral Products, Not Elsewhere Classified |
| F | Primary Metals | F1 | Steel Works, Blast Furnaces, and Rolling and Finishing Mills | 3312 | Steel Works, Blast Furnaces (Including Coke Ovens), and Rolling Mills |
| | | | | 3313 | Electrometallurgical Products, Except Steel |

* Standard Industrial Classification (SIC) codes and **Narrative Activities** (Nar. Act.) are defined by 122.26 (b)(14)(i)-(xi), except (x)

| Sector | Sector Description | Subsector | Subsector Description | SIC – Nar. Act. * | SIC – Nar. Act. Description * |
|---|---|---|---|---|---|
| | | | | 3315 | Steel Wiredrawing and Steel Nails and Spikes |
| | | | | 3316 | Cold-Rolled Steel Sheet, Strip, and Bars |
| | | | | 3317 | Steel Pipe and Tubes |
| | | F2 | Iron and Steel Foundries | 3321 | Gray and Ductile Iron Foundries |
| | | | | 3322 | Malleable Iron Foundries |
| | | | | 3324 | Steel Investment Foundries |
| | | | | 3325 | Steel Foundries, Not Elsewhere Classified |
| | | F3 | Rolling, Drawing, and Extruding of Nonferrous Metals | 3351 | Rolling, Drawing, and Extruding Of Copper |
| | | | | 3353 | Aluminum Sheet, Plate, and Foil |
| | | | | 3354 | Aluminum Extruded Products |
| | | | | 3355 | Aluminum Rolling and Drawing, Not Elsewhere Classified |
| | | | | 3356 | Rolling, Drawing, and Extruding of Nonferrous Metals, Except Copper and Aluminum |
| | | | | 3357 | Drawing and Insulating of Nonferrous Wire |
| | | F4 | Nonferrous Foundries | 3363 | Aluminum Die-Castings |
| | | | | 3364 | Nonferrous Die-Castings, Except Aluminum |
| | | | | 3365 | Aluminum Foundries |
| | | | | 3366 | Copper Foundries |
| | | | | 3369 | Nonferrous Foundries, Except Aluminum and Copper |
| | | F5 | Primary & Secondary | 3331 | Primary Smelting and Refining of Copper |

* Standard Industrial Classification (SIC) codes and **Narrative Activities** (Nar. Act.) are defined by 122.26 (b)(14)(i)-(xi), except (x)

| Sector | Sector Description | Subsector | Subsector Description | SIC – Nar. Act. * | SIC – Nar. Act. Description * |
|---|---|---|---|---|---|
| | | | Smelting and Refining of Nonferrous Metals and Miscellaneous Primary Metal Products | 3334 | Primary Production of Aluminum |
| | | | | 3339 | Primary Smelting and Refining of Nonferrous Metals, Except Copper and Aluminum |
| | | | | 3341 | Secondary Smelting and Refining of Nonferrous Metals |
| | | | | 3398 | Metal Heat Treating |
| | | | | 3399 | Primary Metal Products, Not Elsewhere Classified |
| G | Metal Mining (Ore Mining and Dressing) | G1 | Active Copper Ore Mining, Dressing Facilities | 1021 | Copper Ores |
| | | G2 | Active Metal Mining Facilities | 1011 | Iron Ores |
| | | | | 1021 | Copper Ores |
| | | | | 1031 | Lead and Zinc Ores |
| | | | | 1041 | Gold Ores |
| | | | | 1044 | Silver Ores |
| | | | | 1061 | Ferroalloy Ores, Except Vanadium |
| | | | | 1081 | Metal Mining Services |
| | | | | 1094 | Uranium-Radium-Vanadium Ores |
| | | | | 1099 | Miscellaneous Metal Ores, Not Elsewhere Classified |
| H | Coal Mines and Coal Mining-Related Facilities | H1 | Coal Mines and Related Areas | 1221 | Bituminous Coal and Lignite Surface Mining |
| | | | | 1222 | Bituminous Coal Underground Mining |
| | | | | 1231 | Anthracite Mining |

* Standard Industrial Classification (SIC) codes and **Narrative Activities** (Nar. Act.) are defined by 122.26 (b)(14)(i)-(xi), except (x)

| Sector | Sector Description | Subsector | Subsector Description | SIC – Nar. Act. * | SIC – Nar. Act. Description * |
|---|---|---|---|---|---|
| | | | | 1241 | Coal Mining Services |
| I | Oil and Gas Extraction and Refining | I1 | Oil and Gas Extraction | 1311 | Crude Petroleum and Natural Gas |
| | | | | 1321 | Natural Gas Liquids |
| | | | | 1381 | Drilling Oil and Gas Wells |
| | | | | 1382 | Oil and Gas Field Exploration Services |
| | | | | 1389 | Oil and Gas Field Services, Not Elsewhere Classified |
| | | I2 | Oil Refining | 2911 | Petroleum Refining |
| J | Mineral Mining and Dressing | J1 | Sand and Gravel Mining | 1442 | Construction Sand and Gravel |
| | | | | 1446 | Industrial Sand |
| | | J2 | Dimension, Crushed Stone, Nonmetallic Minerals | 1411 | Dimension Stone |
| | | | | 1422 | Crushed and Broken Limestone |
| | | | | 1423 | Crushed and Broken Granite |
| | | | | 1429 | Crushed and Broken Stone, Not Elsewhere Classified |
| | | | | 1481 | Nonmetallic Minerals Services, Except Fuels |
| | | | | 1499 | Miscellaneous Nonmetallic Minerals, Except Fuels |
| | | J3 | Clay, Ceramic, Refractory Materials, Chemical and Fertilizer Mineral Mining | 1455 | Kaolin and Ball Clay |
| | | | | 1459 | Clay, Ceramic, and Refractory Minerals, Not Elsewhere Classified |
| | | | | 1474 | Potash, Soda, and Borate Minerals |
| | | | | 1475 | Phosphate Rock |

* Standard Industrial Classification (SIC) codes and **Narrative Activities** (Nar. Act.) are defined by 122.26 (b)(14)(i)-(xi), except (x)

| Sector | Sector Description | Subsector | Subsector Description | SIC – Nar. Act. * | SIC – Nar. Act. Description * |
|---|---|---|---|---|---|
| | | | | 1479 | Chemical and Fertilizer Mineral Mining, Not Elsewhere Classified |
| K | Hazardous Waste Treatment, Storage, or Disposal Facilities | K1 | Industrial Activity Code HZ.<br><br>Benchmark Parameters Only Applicable To Discharges Not Subject To Effluent Limitations In 40 CFR Part 445 Subpart A | HZ1 | Industrial Activity Code HZ.<br><br>Benchmark Parameters Only Applicable To Discharges Not Subject To Effluent Limitations In 40 CFR Part 445 Subpart A |
| | | K2 | Discharges From Hazardous Waste Landfills Subject To Effluent Limitations In 40 CFR Part 445 Subpart A | HZ2 | Discharges From Hazardous Waste Landfills Subject To Effluent Limitations In 40 CFR Part 445 Subpart A |
| L | Landfills and Land Application Sites | L1 | Municipal Solid Waste Landfill (MSWLF) Areas Closed in Accordance with 40 CFR 258.60 | LF1 | Municipal Solid Waste Landfill (MSWLF) Areas Closed in Accordance with 40 CFR 258.60 |
| | | L2 | Any Open Or Closed Non-Hazardous Waste Landfills And Land Application Sites, Which Do Not Discharge To **Surface Water(s)**, **Stormwater** That Has Directly Contacted Solid Waste | LF2 | Any Open Or Closed Non-Hazardous Waste Landfills And Land Application Sites, Which Do Not Discharge To **Surface Water(s)**, **Stormwater** That Has Directly Contacted Solid Waste |
| | | L3 | Any Landfill That Discharges To **Surface Water**(s), **Stormwater** That Has Directly Contacted Solid Waste (pursuant to 40 CFR pt. 445, subp. B.) | LF3 | Any Landfill That Discharges To **Surface Water**(s), **Stormwater** That Has Directly Contacted Solid Waste (pursuant to 40 CFR pt. 445, subp. B.) |
| M | Automobile Salvage Yards | M1 | Automobile Salvage Yards | 5015 | Motor Vehicle Parts, Used |

* Standard Industrial Classification (SIC) codes and **Narrative Activities** (Nar. Act.) are defined by 122.26 (b)(14)(i)-(xi), except (x)

| Sector | Sector Description | Subsector | Subsector Description | SIC – Nar. Act. * | SIC – Nar. Act. Description * |
|---|---|---|---|---|---|
| N | Scrap Recycling and Waste Recycling Facilities | N1 | Scrap Recycling Facilities | 5093 | Scrap and Waste Materials |
| O | Steam Electric Generating Facilities | O1 | Coal Fired and Oil Fired Steam Electric Generating Facilities | SE1 | Coal Fired and Oil Fired Steam Electric Generating Facilities |
| | | O2 | Nuclear, Natural Gas Fired, And Any Other Fuel Source Used For Steam Electric Generation | SE2 | Nuclear, Natural Gas Fired, And Any Other Fuel Source Used For Steam Electric Generation |
| | | O3 | Runoff from coal storage piles at steam electric generating facilities | SE3 | Runoff from coal storage piles at steam electric generating facilities |
| P | Land Transportation and Warehousing | P1 | Rail Transportation Facilities | 4011 | Railroads, Line-Haul Operating |
| | | | | 4013 | Railroad Switching and Terminal Establishments |
| | | P2 | Petroleum Bulk Oil Stations and Terminals | 5171 | Petroleum Bulk stations and Terminals |
| | | P3 | Motor Vehicle Facilities | 4111 | Local and Suburban Transit |
| | | | | 4119 | Local Passenger Transportation, Not Elsewhere Classified |
| | | | | 4121 | Taxicabs |
| | | | | 4131 | Intercity and Rural Bus Transportation |
| | | | | 4141 | Local Bus Charter Service |
| | | | | 4142 | Bus Charter Service, Except Local |
| | | | | 4151 | School Buses |
| | | | | 4173 | Terminal and Service Facilities for Motor Vehicle Passenger Transportation |

* Standard Industrial Classification (SIC) codes and **Narrative Activities** (Nar. Act.) are defined by 122.26 (b)(14)(i)-(xi), except (x)

| Sector | Sector Description | Subsector | Subsector Description | SIC – Nar. Act. * | SIC – Nar. Act. Description * |
|---|---|---|---|---|---|
| | | | | 4212 | Local Trucking Without Storage |
| | | | | 4213 | Trucking, Except Local |
| | | | | 4214 | Local Trucking With Storage |
| | | | | 4215 | Courier Services, Except by Air |
| | | | | 4226 | Special Warehousing and Storage, Not Elsewhere Classified |
| | | | | 4231 | Terminal and Joint Terminal Maintenance Facilities for Motor Freight Transportation |
| | | | | 4311 | United States Postal Service |
| | | P4 | Warehousing and Storage: General Warehousing, Farm Product Warehousing, Refrigerated Warehousing | 4221 | Farm Product Warehousing and Storage |
| | | | | 4222 | Refrigerated Warehousing and Storage |
| | | | | 4225 | General Warehousing and Storage |
| Q | Water Transportation | Q1 | Water Transportation Facilities | 4412 | Deep Sea Foreign Transportation of Freight |
| | | | | 4424 | Deep Sea Domestic Transportation of Freight |
| | | | | 4432 | Freight Transportation on the Great Lakes-St. Lawrence Seaway |
| | | | | 4449 | Water Transportation of Freight, Not Elsewhere Classified |
| | | | | 4481 | Deep Sea Transportation of Passengers, Except by Ferry |
| | | | | 4482 | Ferries |
| | | | | 4489 | Water Transportation of Passengers, Not Elsewhere Classified |

* Standard Industrial Classification (SIC) codes and **Narrative Activities** (Nar. Act.) are defined by 122.26 (b)(14)(i)-(xi), except (x)

| Sector | Sector Description | Subsector | Subsector Description | SIC – Nar. Act. * | SIC – Nar. Act. Description * |
|---|---|---|---|---|---|
| | | | | 4491 | Marine Cargo Handling |
| | | | | 4492 | Towing and Tugboat Services |
| | | | | 4493 | Marinas |
| | | | | 4499 | Water Transportation Services, Not Elsewhere Classified |
| R | Ship and Boat Building and Repair Yards | R1 | Ship and Boat Building and Repairing Yards | 3731 | Ship Building and Repairing |
| | | | | 3732 | Boat Building and Repairing |
| S | Air Transportation | S1 | Airports that use more than 100,000 gallons or more of glycol-based deicing/anti-icing chemicals and/or 100 tons or more of urea on an average annual basis. | 4512 | Air Transportation, Scheduled |
| | | | | 4513 | Air Courier Services |
| | | | | 4522 | Air Transportation, Nonscheduled |
| | | | | 4581 | Airports, Flying Fields, and Airport Terminal Services |
| | | S2 | Airports that use less than 100,000 gallons of glycol-based deicing/anti-icing chemicals and/or less than 100 tons of urea on an average annual basis. | 4512 | Air Transportation, Scheduled |
| | | | | 4513 | Air Courier Services |
| | | | | 4522 | Air Transportation, Nonscheduled |
| | | | | 4581 | Airports, Flying Fields, and Airport Terminal Services |
| | | S3 | Existing and new primary airports with 1,000 or more annual jet departures that discharge wastewater associated with airfield pavement deicing that contains urea commingled with stormwater. | SNEL4 | Air Transportation, Scheduled |
| | | | | SNEL4 | Air Courier Services |
| | | | | SNEL4 | Air Transportation, Nonscheduled |
| | | | | SNEL4 | Airports, Flying Fields, and Airport Terminal Services |
| T | Treatment Works | T1 | Treatment Works | TW | Treatment Works |

* Standard Industrial Classification (SIC) codes and **Narrative Activities** (Nar. Act.) are defined by 122.26 (b)(14)(i)-(xi), except (x)

| Sector | Sector Description | Subsector | Subsector Description | SIC – Nar. Act. * | SIC – Nar. Act. Description * |
|---|---|---|---|---|---|
| U | Food and Kindred Products | U1 | Grain Mill Products | 2041 | Flour and Other Grain Mill Products |
| | | | | 2043 | Cereal Breakfast Foods |
| | | | | 2044 | Rice Milling |
| | | | | 2045 | Prepared Flour Mixes and Doughs |
| | | | | 2046 | Wet Corn Milling |
| | | | | 2047 | Dog and Cat Food |
| | | | | 2048 | Prepared Feed and Feed Ingredients for Animals and Fowls, Except Dogs and Cats |
| | | U2 | Fats and Oils Products | 2074 | Cottonseed Oil Mills |
| | | | | 2075 | Soybean Oil Mills |
| | | | | 2076 | Vegetable Oil Mills, Except Corn, Cottonseed, and Soybean |
| | | | | 2077 | Animal and Marine Fats and Oils |
| | | | | 2079 | Shortening, Table Oils, Margarine, and Other Edible Fats and Oils, Not Elsewhere Classified |
| | | U3 | Food and Tobacco Products, Food Preparation Facilities | 2011 | Meat Packing Plants |
| | | | | 2013 | Sausages and Other Prepared Meat Products |
| | | | | 2015 | Poultry Slaughtering and Processing |
| | | | | 2021 | Creamery Butter |
| | | | | 2022 | Natural, Processed, and Imitation Cheese |
| | | | | 2023 | Dry, Condensed, and Evaporated Dairy Products |

* Standard Industrial Classification (SIC) codes and **Narrative Activities** (Nar. Act.) are defined by 122.26 (b)(14)(i)-(xi), except (x)

| Sector | Sector Description | Subsector | Subsector Description | SIC – Nar. Act. * | SIC – Nar. Act. Description * |
|---|---|---|---|---|---|
| | | | | 2024 | Ice Cream and Frozen Desserts |
| | | | | 2026 | Fluid Milk |
| | | | | 2032 | Canned Specialties |
| | | | | 2033 | Canned Fruits, Vegetables, Preserves, Jams, and Jellies |
| | | | | 2034 | Dried and Dehydrated Fruits, Vegetables, and Soup Mixes |
| | | | | 2035 | Pickled Fruits and Vegetables, Vegetable Sauces and Seasonings, and Salad Dressings |
| | | | | 2037 | Frozen Fruits, Fruit Juices, and Vegetables |
| | | | | 2038 | Frozen Specialties, Not Elsewhere Classified |
| | | | | 2051 | Bread and Other Bakery Products, Except Cookies and Crackers |
| | | | | 2052 | Cookies and Crackers |
| | | | | 2053 | Frozen Bakery Products, Except Bread |
| | | | | 2061 | Cane Sugar, Except Refining |
| | | | | 2062 | Cane Sugar Refining |
| | | | | 2063 | Beet Sugar |
| | | | | 2064 | Candy and Other Confectionery Products |
| | | | | 2066 | Chocolate and Cocoa Products |
| | | | | 2067 | Chewing Gum |
| | | | | 2068 | Salted and Roasted Nuts and Seeds |
| | | | | 2082 | Malt Beverages |

* Standard Industrial Classification (SIC) codes and **Narrative Activities** (Nar. Act.) are defined by 122.26 (b)(14)(i)-(xi), except (x)

| Sector | Sector Description | Subsector | Subsector Description | SIC – Nar. Act. * | SIC – Nar. Act. Description * |
|---|---|---|---|---|---|
| | | | | 2083 | Malt |
| | | | | 2084 | Wines, Brandy, and Brandy Spirits |
| | | | | 2085 | Distilled and Blended Liquors |
| | | | | 2086 | Bottled and Canned Soft Drinks and Carbonated Waters |
| | | | | 2087 | Flavoring Extracts and Flavoring Syrups, Not Elsewhere Classified |
| | | | | 2091 | Canned and Cured Fish and Seafoods |
| | | | | 2092 | Prepared Fresh or Frozen Fish and Seafoods |
| | | | | 2095 | Roasted Coffee |
| | | | | 2096 | Potato Chips, Corn Chips, and Similar Snacks |
| | | | | 2097 | Manufactured Ice |
| | | | | 2098 | Macaroni, Spaghetti, Vermicelli, and Noodles |
| | | | | 2099 | Food Preparations, Not Elsewhere Classified |
| | | | | 2111 | Cigarettes |
| | | | | 2121 | Cigars |
| | | | | 2131 | Chewing and Smoking Tobacco and Snuff |
| | | | | 2141 | Tobacco Stemming and Redrying |
| V | Textile Mills, Apparel, and Other Fabric Products Manufacturing | V1 | Textile, Fabric, & Apparel Manufacturing, Leather & Leather Products | 2211 | Broadwoven Fabric Mills, Cotton |
| | | | | 2221 | Broadwoven Fabric Mills, Manmade Fiber and Silk |
| | | | | 2231 | Broadwoven Fabric Mills, Wool (Including Dyeing and Finishing) |

* Standard Industrial Classification (SIC) codes and **Narrative Activities** (Nar. Act.) are defined by 122.26 (b)(14)(i)-(xi), except (x)

| Sector | Sector Description | Subsector | Subsector Description | SIC – Nar. Act. * | SIC – Nar. Act. Description * |
|---|---|---|---|---|---|
| | | | | 2241 | Narrow Fabric and Other Smallware Mills: Cotton, Wool, Silk, and Manmade Fiber |
| | | | | 2251 | Women's Full-Length and Knee-Length Hosiery, Except Socks |
| | | | | 2252 | Hosiery, Not Elsewhere Classified |
| | | | | 2253 | Knit Outerwear Mills |
| | | | | 2254 | Knit Underwear and Nightwear Mills |
| | | | | 2257 | Weft Knit Fabric Mills |
| | | | | 2258 | Lace and Warp Knit Fabric Mills |
| | | | | 2259 | Knitting Mills, Not Elsewhere Classified |
| | | | | 2261 | Finishers of Broadwoven Fabrics of Cotton |
| | | | | 2262 | Finishers of Broadwoven Fabrics of Manmade Fiber and Silk |
| | | | | 2269 | Finishers of Textiles, Not elsewhere Classified |
| | | | | 2273 | Carpets and Rugs |
| | | | | 2281 | Yarn Spinning Mills |
| | | | | 2282 | Yarn Texturizing, Throwing, Twisting, and Winding Mills |
| | | | | 2284 | Thread Mills |
| | | | | 2295 | Coated Fabrics, Not Rubberized |
| | | | | 2296 | Tire Cord and Fabrics |
| | | | | 2297 | Non-woven Fabrics |
| | | | | 2298 | Cordage and Twine |

* Standard Industrial Classification (SIC) codes and **Narrative Activities** (Nar. Act.) are defined by 122.26 (b)(14)(i)-(xi), except (x)

| Sector | Sector Description | Subsector | Subsector Description | SIC – Nar. Act. * | SIC – Nar. Act. Description * |
|---|---|---|---|---|---|
| | | | | 2299 | Textile goods, Not Elsewhere Classified |
| | | | | 2311 | Men's and Boys' Suits, Coats, and Overcoats |
| | | | | 2321 | Men's and Boys' Shirts, Except Work Shirts |
| | | | | 2322 | Men's and Boys' Underwear and Nightwear |
| | | | | 2323 | Men's and Boys' Neckwear |
| | | | | 2325 | Men's and Boys' Separate Trousers and Slacks |
| | | | | 2326 | Men's and Boys' Work Clothing |
| | | | | 2329 | Men's and Boys' Clothing, Not Elsewhere Classified |
| | | | | 2331 | Women's, Misses', and Juniors' Blouses and Shirts |
| | | | | 2335 | Women's, Misses', and Juniors' Dresses |
| | | | | 2337 | Women's, Misses', and Juniors' Suits, Skirts, and Coats |
| | | | | 2339 | Women's, Misses', and Juniors' Outerwear, Not Elsewhere Classified |
| | | | | 2341 | Women's, Misses', Children's, and Infants' Underwear and Nightwear |
| | | | | 2342 | Brassieres, Girdles, and Allied Garments |
| | | | | 2353 | Hats, Caps, and Millinery |
| | | | | 2361 | Girls', Children's, and Infants' Dresses, Blouses, and Shirts |
| | | | | 2369 | Girls', Children's, and Infants' Outerwear, Not Elsewhere Classified |

* Standard Industrial Classification (SIC) codes and **Narrative Activities** (Nar. Act.) are defined by 122.26 (b)(14)(i)-(xi), except (x)

| Sector | Sector Description | Subsector | Subsector Description | SIC – Nar. Act. * | SIC – Nar. Act. Description * |
|---|---|---|---|---|---|
| | | | | 2371 | Fur Goods |
| | | | | 2381 | Dress and Work Gloves, Except Knit and All-Leather |
| | | | | 2384 | Robes and Dressing Gowns |
| | | | | 2385 | Waterproof Outerwear |
| | | | | 2386 | Leather and Sheep-Lined Clothing |
| | | | | 2387 | Apparel belts |
| | | | | 2389 | Apparel and Accessories, Not Elsewhere Classified |
| | | | | 2391 | Curtains and Draperies |
| | | | | 2392 | House furnishing, Except Curtains and Draperies |
| | | | | 2393 | Textile Bags |
| | | | | 2394 | Canvas and Related Products |
| | | | | 2395 | Pleating, Decorative and Novelty Stitching, and Tucking for the Trade |
| | | | | 2396 | Automotive Trimmings, Apparel Findings, and Related Products |
| | | | | 2397 | Schiffli Machine Embroideries |
| | | | | 2399 | Fabricated Textile Products, Not Elsewhere Classified |
| | | | | 3131 | Boot and Shoe Cut Stock and Findings |
| | | | | 3142 | House Slippers |
| | | | | 3143 | Men's Footwear, Except Athletic |

* Standard Industrial Classification (SIC) codes and **Narrative Activities** (Nar. Act.) are defined by 122.26 (b)(14)(i)-(xi), except (x)

| Sector | Sector Description | Subsector | Subsector Description | SIC – Nar. Act. * | SIC – Nar. Act. Description * |
|---|---|---|---|---|---|
| | | | | 3144 | Women's Footwear, Except Athletic |
| | | | | 3149 | Footwear, Except Rubber, Not Elsewhere Classified |
| | | | | 3151 | Leather Gloves and Mittens |
| | | | | 3161 | Luggage |
| | | | | 3171 | Women's Handbags and Purses |
| | | | | 3172 | Personal Leather Goods, Except Women's Handbags and Purses |
| | | | | 3199 | Leather Goods, Not Elsewhere Classified |
| W | Furniture and Fixtures | W1 | Furniture and Fixtures | 2434 | Wood Kitchen Cabinets |
| | | | | 2511 | Wood Household Furniture, Except Upholstered |
| | | | | 2512 | Wood Household Furniture, Upholstered |
| | | | | 2514 | Metal Household Furniture |
| | | | | 2515 | Mattresses, Foundations, and Convertible Beds |
| | | | | 2517 | Wood Television, Radio, Phonograph, and Sewing Machine Cabinets |
| | | | | 2519 | Household Furniture, Not Elsewhere Classified |
| | | | | 2521 | Wood Office Furniture |
| | | | | 2522 | Office Furniture, Except Wood |
| | | | | 2531 | Public Building and Related Furniture |
| | | | | 2541 | Wood Office and Store Fixtures, Partitions, |

* Standard Industrial Classification (SIC) codes and **Narrative Activities** (Nar. Act.) are defined by 122.26 (b)(14)(i)-(xi), except (x)

| Sector | Sector Description | Subsector | Subsector Description | SIC – Nar. Act. * | SIC – Nar. Act. Description * |
|---|---|---|---|---|---|
| | | | | | Shelving, and Lockers |
| | | | | 2542 | Office and Store Fixtures, Partitions, Shelving, and Lockers, Except Wood |
| | | | | 2591 | Drapery Hardware and Window Blinds and Shades |
| | | | | 2599 | Furniture and Fixtures, Not Elsewhere Classified |
| X | Printing and Publishing | X1 | Printing and Publishing | 2711 | Newspapers: Publishing, or Publishing and Printing |
| | | | | 2721 | Periodicals: Publishing, or Publishing and Printing |
| | | | | 2731 | Books: Publishing, or Publishing and Printing |
| | | | | 2732 | Book Printing |
| | | | | 2741 | Miscellaneous Publishing |
| | | | | 2752 | Commercial Printing, Lithographic |
| | | | | 2754 | Commercial Printing, Gravure |
| | | | | 2759 | Commercial Printing, Not Elsewhere Classified |
| | | | | 2761 | Manifold Business Forms |
| | | | | 2771 | Greeting Cards |
| | | | | 2782 | Blankbooks, Looseleaf Binders and Devices |
| | | | | 2789 | Bookbinding and Related Work |
| | | | | 2791 | Typesetting |
| | | | | 2796 | Platemaking and Related Services |

* Standard Industrial Classification (SIC) codes and **Narrative Activities** (Nar. Act.) are defined by 122.26 (b)(14)(i)-(xi), except (x)

| Sector | Sector Description | Subsector | Subsector Description | SIC – Nar. Act. * | SIC – Nar. Act. Description * |
|---|---|---|---|---|---|
| Y | Rubber, Miscellaneous Plastic Products, and Miscellaneous Manufacturing Industries | Y1 | Fabricated Rubber Products | 3011 | Tires and Inner Tubes |
| | | | | 3021 | Rubber and Plastics Footwear |
| | | | | 3052 | Rubber and Plastics Hose and Belting |
| | | | | 3053 | Gaskets, Packing, and Sealing Devices |
| | | | | 3061 | Molded, Extruded, and Lathe-Cut Mechanical Rubber Goods |
| | | | | 3069 | Fabricated Rubber Products, Not Elsewhere Classified |
| | | Y2 | Plastic Products | 3081 | Unsupported Plastics Film and Sheet |
| | | | | 3082 | Unsupported Plastics Profile Shapes |
| | | | | 3083 | Laminated Plastics Plate, Sheet, and Profile Shapes |
| | | | | 3084 | Plastics Pipe |
| | | | | 3085 | Plastics Bottles |
| | | | | 3086 | Plastics Foam Products |
| | | | | 3087 | Custom Compounding of Purchased Plastics Resins |
| | | | | 3088 | Plastics Plumbing Fixtures |
| | | | | 3089 | Plastics Products, Not Elsewhere Classified |
| | | | | 3931 | Musical Instruments |
| | | | | 3942 | Dolls and Stuffed Toys |
| | | | | 3944 | Games, Toys, and Children's Vehicles, Except Dolls and Bicycles |
| | | | | 3949 | Sporting and Athletic Goods, Not Elsewhere |

* Standard Industrial Classification (SIC) codes and **Narrative Activities** (Nar. Act.) are defined by 122.26 (b)(14)(i)-(xi), except (x)

| Sector | Sector Description | Subsector | Subsector Description | SIC – Nar. Act. * | SIC – Nar. Act. Description * |
|---|---|---|---|---|---|
| | | | | | Classified |
| | | | | 3951 | Pens, Mechanical Pencils, and Parts |
| | | | | 3953 | Marking Devices |
| | | | | 3955 | Carbon Paper and Inked Ribbons |
| | | | | 3961 | Costume Jewelry and Costume Novelties, Except Precious Metal |
| | | | | 3965 | Fasteners, Buttons, Needles, and Pins |
| | | | | 3991 | Brooms and Brushes |
| | | | | 3993 | Signs and Advertising Specialties |
| | | | | 3995 | Burial Caskets |
| | | | | 3996 | Linoleum, Asphalted-Felt-Base, and Other Hard Surface Floor Coverings, Not Elsewhere Classified |
| | | | | 3999 | Manufacturing Industries, Not Elsewhere Classified |
| Z | Leather Tanning and Finishing | Z1 | Leather Tanning and Finishing | 3111 | Leather Tanning and Finishing |
| AA | Fabricated Metal Products | AA1 | Fabricated Metal Products | 3411 | Metal Cans |
| | | | | 3412 | Metal Shipping Barrels, Drums, Kegs, and Pails |
| | | | | 3421 | Cutlery |
| | | | | 3423 | Hand and Edge Tools, Except Machine Tools and Handsaws |
| | | | | 3425 | Saw Blades and Handsaws |

* Standard Industrial Classification (SIC) codes and **Narrative Activities** (Nar. Act.) are defined by 122.26 (b)(14)(i)-(xi), except (x)

| Sector | Sector Description | Subsector | Subsector Description | SIC – Nar. Act. * | SIC – Nar. Act. Description * |
|---|---|---|---|---|---|
| | | | | 3429 | Hardware, Not Elsewhere Classified |
| | | | | 3431 | Enameled Iron and Metal Sanitary Ware |
| | | | | 3432 | Plumbing Fixture Fittings and Trim |
| | | | | 3433 | Heating Equipment, Except Electric and Warm Air Furnaces |
| | | | | 3441 | Fabricated Structural Metal |
| | | | | 3442 | Metal Doors, Sash, Frames, Molding, and Trim Manufacturing |
| | | | | 3443 | Fabricated Plate Work (Boiler Shops) |
| | | | | 3444 | Sheet Metal Work |
| | | | | 3446 | Architectural and Ornamental Metal Work |
| | | | | 3448 | Prefabricated Metal Buildings and Components |
| | | | | 3449 | Miscellaneous Structural Metal Work |
| | | | | 3451 | Screw Machine Products |
| | | | | 3452 | Bolts, Nuts, Screws, Rivets, and Washers |
| | | | | 3462 | Iron and Steel Forgings |
| | | | | 3463 | Nonferrous Forgings |
| | | | | 3465 | Automotive Stampings |
| | | | | 3466 | Crowns and Closures |
| | | | | 3469 | Metal Stampings, Not Elsewhere Classified |
| | | | | 3471 | Electroplating, Plating, Polishing, Anodizing, and Coloring |

* Standard Industrial Classification (SIC) codes and **Narrative Activities** (Nar. Act.) are defined by 122.26 (b)(14)(i)-(xi), except (x)

| Sector | Sector Description | Subsector | Subsector Description | SIC – Nar. Act. * | SIC – Nar. Act. Description * |
|---|---|---|---|---|---|
| | | | | 3482 | Small Arms Ammunition |
| | | | | 3483 | Ammunition, Except for Small Arms |
| | | | | 3484 | Small Arms |
| | | | | 3489 | Ordnance and Accessories, Not Elsewhere Classified |
| | | | | 3491 | Industrial Valves |
| | | | | 3492 | Fluid Power Valves and Hose Fittings |
| | | | | 3493 | Steel Springs, Except Wire |
| | | | | 3494 | Valves and Pipe Fittings, Not Elsewhere Classified |
| | | | | 3495 | Wire Springs |
| | | | | 3496 | Miscellaneous Fabricated Wire Products |
| | | | | 3497 | Metal Foil and Leaf |
| | | | | 3498 | Fabricated Pipe and Pipe Fittings |
| | | | | 3499 | Fabricated Metal Products, Not Elsewhere Classified |
| | | | | 3911 | Jewelry, Precious Metal |
| | | | | 3914 | Silverware, Plated Ware, and Stainless Steel Ware |
| | | | | 3915 | Jewelers' Findings and Materials, and Lapidary Work |
| | | AA2 | Fabricated Metal Coating and Engraving | 3479 | Coating, Engraving, and Allied Services, Not Elsewhere Classified |
| AB | Transportatio | AB1 | Transportation | 3511 | Steam, Gas, and Hydraulic Turbines, and |

* Standard Industrial Classification (SIC) codes and **Narrative Activities** (Nar. Act.) are defined by 122.26 (b)(14)(i)-(xi), except (x)

| Sector | Sector Description | Subsector | Subsector Description | SIC – Nar. Act. * | SIC – Nar. Act. Description * |
|---|---|---|---|---|---|
| | n Equipment and Industrial or Commercial Machinery | | Equipment and Industrial or Commercial Machinery | | Turbine Generator Set Units |
| | | | | 3519 | Internal Combustion Engines, Not Elsewhere Classified |
| | | | | 3523 | Farm Machinery and Equipment |
| | | | | 3524 | Lawn and Garden Tractors and Home Lawn and Garden Equipment |
| | | | | 3531 | Construction Machinery and Equipment |
| | | | | 3532 | Mining Machinery and Equipment, Except Oil and Gas Field Machinery and Equipment |
| | | | | 3533 | Oil and Gas Field Machinery and Equipment |
| | | | | 3534 | Elevators and Moving Stairways |
| | | | | 3535 | Conveyors and Conveying Equipment |
| | | | | 3536 | Overhead Traveling Cranes, Hoists, and Monorail Systems |
| | | | | 3537 | Industrial Trucks, Tractors, Trailers, and Stackers |
| | | | | 3541 | Machine Tools, Metal Cutting Types |
| | | | | 3542 | Machine Tools, Metal Forming Types |
| | | | | 3543 | Industrial Patterns |
| | | | | 3544 | Special Dies and Tools, Die Sets, Jigs and Fixtures, and Industrial Molds |
| | | | | 3545 | Cutting Tools, Machine Tool Accessories, and Machinists' Precision Measuring Devices |
| | | | | 3546 | Power-Driven Hand Tools |

* Standard Industrial Classification (SIC) codes and **Narrative Activities** (Nar. Act.) are defined by 122.26 (b)(14)(i)-(xi), except (x)

| Sector | Sector Description | Subsector | Subsector Description | SIC – Nar. Act. * | SIC – Nar. Act. Description * |
|---|---|---|---|---|---|
| | | | | 3547 | Rolling Mill Machinery and Equipment |
| | | | | 3548 | Electric and Gas Welding and Soldering Equipment |
| | | | | 3549 | Metalworking Machinery, Not Elsewhere Classified |
| | | | | 3552 | Textile Machinery |
| | | | | 3553 | Woodworking Machinery |
| | | | | 3554 | Paper Industries Machinery |
| | | | | 3555 | Printing Trades Machinery and Equipment |
| | | | | 3556 | Food Products Machinery |
| | | | | 3559 | Special Industry Machinery, Not Elsewhere Classified |
| | | | | 3561 | Pumps and Pumping Equipment |
| | | | | 3562 | Ball and Roller Bearings |
| | | | | 3563 | Air and Gas Compressors |
| | | | | 3564 | Industrial and Commercial Fans and Blowers and Air Purification Equipment |
| | | | | 3565 | Packaging Machinery |
| | | | | 3566 | Speed Changers, Industrial High-Speed Drives, and Gears |
| | | | | 3567 | Industrial Process Furnaces and Ovens |
| | | | | 3568 | Mechanical Power Transmission Equipment, Not Elsewhere Classified |
| | | | | 3569 | General Industrial Machinery and |

* Standard Industrial Classification (SIC) codes and **Narrative Activities** (Nar. Act.) are defined by 122.26 (b)(14)(i)-(xi), except (x)

| Sector | Sector Description | Subsector | Subsector Description | SIC – Nar. Act. * | SIC – Nar. Act. Description * |
|---|---|---|---|---|---|
| | | | | | Equipment, Not Elsewhere |
| | | | | 3581 | Automatic Vending Machines |
| | | | | 3582 | Commercial Laundry, Dry Cleaning, and Pressing Machines |
| | | | | 3585 | Air-Conditioning and Warm Air Heating Equipment and Commercial and Industrial Refrigeration Equipment |
| | | | | 3586 | Measuring and Dispensing Pumps |
| | | | | 3589 | Service Industry Machinery, Not Elsewhere Classified |
| | | | | 3592 | Carburetors, Pistons, Piston Rings, and Valves |
| | | | | 3593 | Fluid Power Cylinders and Actuators |
| | | | | 3594 | Fluid Power Pumps and Motors |
| | | | | 3596 | Scales and Balances, Except Laboratory |
| | | | | 3599 | Industrial and Commercial Machinery and Equipment, Not Elsewhere Classified |
| | | | | 3711 | Motor Vehicles and Passenger Car Bodies |
| | | | | 3713 | Truck and Bus Bodies |
| | | | | 3714 | Motor Vehicle Parts and Accessories |
| | | | | 3715 | Truck Trailers |
| | | | | 3716 | Motor Homes |
| | | | | 3721 | Aircraft |
| | | | | 3724 | Aircraft Engines and Engine Parts |

* Standard Industrial Classification (SIC) codes and **Narrative Activities** (Nar. Act.) are defined by 122.26 (b)(14)(i)-(xi), except (x)

| Sector | Sector Description | Subsector | Subsector Description | SIC – Nar. Act. * | SIC – Nar. Act. Description * |
|---|---|---|---|---|---|
| | | | | 3728 | Aircraft Parts and Auxiliary Equipment, Not Elsewhere Classified |
| | | | | 3743 | Railroad Equipment |
| | | | | 3751 | Motorcycles, Bicycles, and Parts |
| | | | | 3761 | Guided Missiles and Space Vehicles |
| | | | | 3764 | Guided Missile and Space Vehicle Propulsion Units and Propulsion Unit Parts |
| | | | | 3769 | Guided Missile Space Vehicle Parts and Auxiliary Equipment, Not Elsewhere Classified |
| | | | | 3792 | Travel Trailers and Campers |
| | | | | 3795 | Tanks and Tank Components |
| | | | | 3799 | Transportation Equipment, Not Elsewhere Classified |
| AC | Electronic and Electrical Equipment and Components, Photographic and Optical Goods | AC1 | Electronic, Electrical, Photographic, and Optical Goods | 3571 | Electronic Computers |
| | | | | 3572 | Computer Storage Devices |
| | | | | 3575 | Computer Terminals |
| | | | | 3577 | Computer Peripheral Equipment, Not Elsewhere Classified |
| | | | | 3578 | Calculating and Accounting Machines, Except Electronic Computers |
| | | | | 3579 | Office Machines, Not Elsewhere Classified |
| | | | | 3812 | Search, Detection, Navigation, Guidance, Aeronautical, and Nautical Systems and Instruments |

* Standard Industrial Classification (SIC) codes and **Narrative Activities** (Nar. Act.) are defined by 122.26 (b)(14)(i)-(xi), except (x)

| Sector | Sector Description | Subsector | Subsector Description | SIC – Nar. Act. * | SIC – Nar. Act. Description * |
|---|---|---|---|---|---|
| | | | | 3821 | Laboratory Apparatus and Furniture |
| | | | | 3822 | Automatic Controls for Regulating Residential and Commercial Environments and Appliances |
| | | | | 3823 | Industrial Instruments for Measurement, Display, and Control of Process Variables; and Related Products |
| | | | | 3824 | Totalizing Fluid Meters and Counting Devices |
| | | | | 3825 | Instruments for Measuring and Testing of Electricity and Electrical Signals |
| | | | | 3826 | Laboratory Analytical Instruments |
| | | | | 3827 | Optical Instruments and Lenses |
| | | | | 3829 | Measuring and Controlling Devices, Not Elsewhere Classified |
| | | | | 3841 | Surgical and Medical Instruments and Apparatus |
| | | | | 3842 | Orthopedic, Prosthetic, and Surgical Appliances and Supplies |
| | | | | 3843 | Dental Equipment and Supplies |
| | | | | 3844 | X-Ray Apparatus and Tubes and Related Irradiation Apparatus |
| | | | | 3845 | Electromedical and Electrotherapeutic Apparatus |
| | | | | 3851 | Ophthalmic Goods |
| | | | | 3861 | Photographic Equipment and Supplies |

* Standard Industrial Classification (SIC) codes and **Narrative Activities** (Nar. Act.) are defined by 122.26 (b)(14)(i)-(xi), except (x)

| Sector | Sector Description | Subsector | Subsector Description | SIC – Nar. Act. * | SIC – Nar. Act. Description * |
|---|---|---|---|---|---|
| | | | | 3873 | Watches, Clocks, Clockwork Operated Devices, and Parts |
| | | AC2 | Electronic & Electrical Equipment & Components, except Computers | 3612 | Power, Distribution, and Specialty Transformers |
| | | | | 3613 | Switchgear and Switchboard Apparatus |
| | | | | 3621 | Motors and Generators |
| | | | | 3624 | Carbon and Graphite Products |
| | | | | 3625 | Relays and Industrial Controls |
| | | | | 3629 | Electrical Industrial Apparatus, Not Elsewhere Classified |
| | | | | 3631 | Household Cooking Equipment |
| | | | | 3632 | Household Refrigerators and Home and Farm Freezers |
| | | | | 3633 | Household Laundry Equipment |
| | | | | 3634 | Electric Housewares and Fans |
| | | | | 3635 | Household Vacuum Cleaners |
| | | | | 3639 | Household Appliances, Not Elsewhere Classified |
| | | | | 3641 | Electric Lamp Bulbs and Tubes |
| | | | | 3643 | Current-Carrying Wiring Devices |
| | | | | 3644 | Noncurrent-Carrying Wiring Devices |
| | | | | 3645 | Residential Electric Lighting Fixtures |
| | | | | 3646 | Commercial, Industrial, and Institutional Electric Lighting Fixtures |

* Standard Industrial Classification (SIC) codes and **Narrative Activities** (Nar. Act.) are defined by 122.26 (b)(14)(i)-(xi), except (x)

| Sector | Sector Description | Subsector | Subsector Description | SIC – Nar. Act. * | SIC – Nar. Act. Description * |
|---|---|---|---|---|---|
| | | | | 3647 | Vehicular Lighting Equipment |
| | | | | 3648 | Lighting Equipment, Not Elsewhere Classified |
| | | | | 3651 | Household Audio and Video Equipment |
| | | | | 3652 | Phonograph Records and Prerecorded Audio Tapes and Disks |
| | | | | 3661 | Telephone and Telegraph Apparatus |
| | | | | 3663 | Radio and Television Broadcasting and Communications Equipment |
| | | | | 3669 | Communications Equipment, Not Elsewhere Classified |
| | | | | 3671 | Electron Tubes |
| | | | | 3672 | Printed Circuit Boards |
| | | | | 3674 | Semiconductors and Related Devices |
| | | | | 3675 | Electronic Capacitors |
| | | | | 3676 | Electronic Resistors |
| | | | | 3677 | Electronic Coils, Transformers, and Other Inductors |
| | | | | 3678 | Electronic Connectors |
| | | | | 3679 | Electronic Components, Not Elsewhere Classified |
| | | | | 3691 | Storage Batteries |
| | | | | 3692 | Primary Batteries, Dry and Wet |

* Standard Industrial Classification (SIC) codes and **Narrative Activities** (Nar. Act.) are defined by 122.26 (b)(14)(i)-(xi), except (x)

| Sector | Sector Description | Subsector | Subsector Description | SIC – Nar. Act. * | SIC – Nar. Act. Description * |
|---|---|---|---|---|---|
| | | | | 3694 | Electrical Equipment for Internal Combustion Engines |
| | | | | 3695 | Magnetic And Optical Recording Media |
| | | | | 3699 | Electrical Machinery, Equipment, and Supplies, Not Elsewhere |

**Appendix B: Sector-Specific Benchmark Values and Effluent Limitations**

Permittees may be subject to requirements for more than one sector or subsector.

*All footnotes are located on the last page of this Appendix B.

**Table A-1**

| Subsector | Parameter | Benchmark Values | Effluent limits |
|---|---|---|---|
| A1<br>General Sawmills/Planing Mills | COD (Chemical Oxygen Demand) | 120 mg/L | N/A |
| | Solids, Total Suspended (TSS) | 100 mg/L [2] | N/A |
| | Zinc, Total (as Zn) | 0.234 mg/L [1] | N/A |
| A2<br>Wood Preserving | Arsenic, Total (as As) | 0.680 mg/L | N/A |
| | Chromium, Total (as Cr) | 3.5 mg/L [1] | N/A |
| | Copper, Total (as Cu) | 0.028 mg/L [1] | N/A |
| | Pentachlorophenol (PCP) | 0.011 mg/L | N/A |
| | Solids, Total Suspended (TSS) | 100 mg/L [2] | N/A |
| A3<br>Log Storage and Handling | Solids, Total Suspended (TSS) | 100 mg/L [2] | N/A |
| A4<br>Discharges From Wet Decking Storage Areas | Debris | N/A | ≤2.54cm (1 inch) instantaneous maximum (visual assessment) [3] |
| | pH[4] | N/A | 6.0 SU, instantaneous minimum<br>9.0 SU, instantaneous maximum |

| | | | |
|---|---|---|---|
| A5<br><br>Hardwood Dimension and Flooring Mills | COD (Chemical Oxygen Demand) | 120 mg/L | N/A |
| | Solids, Total Suspended (TSS) | 100 mg/L [2] | N/A |

**Table B-1**

| Subsector | Parameter | Benchmark Values |
|---|---|---|
| B1<br><br>Pulp, Paper, Cardboard, Converted Paper and Paperboard Products | COD (Chemical Oxygen Demand) | 120 mg/L |
| | Solids, Total Suspended (TSS) | 100 mg/L [2] |

**Table C-1**

| Subsector | Parameter | Benchmark Values | Effluent Limits |
|---|---|---|---|
| C1<br><br>Phosphate Subcategory of Agricultural Chemicals | Fluoride, Total (as F) | N/A | 75 mg/L calendar year maximum |
| | | | 25 mg/L calendar year average |
| | Phosphorus, Total (as P) | N/A | 105 mg/L calendar year maximum |
| | | | 35 mg/L calendar year average |
| C2<br><br>Agricultural Chemicals | Lead, Total (as Pb) | 0.164 mg/L [1] | N/A |
| | Phosphorus, Total (as P) | 1.0 mg/L | N/A |
| | Solids, Total Suspended (TSS) | 100 mg/L [2] | N/A |
| | Zinc, Total (as Zn) | 0.234 mg/L [1] | N/A |
| C3<br><br>Industrial Inorganic | Aluminum, Total (as Al) | 1.5 mg/L | N/A |
| | Solids, Total Suspended (TSS) | 100 mg/L [2] | N/A |

| Subsector | Parameter | Benchmark Values | Effluent Limits |
|---|---|---|---|
| Chemicals | Zinc, Total (as Zn) | 0.234 mg/L [1] | N/A |
| C4<br>Soaps, Detergents, Cosmetics,<br>Perfumes | Solids, Total Suspended (TSS) | 100 mg/L [2] | N/A |
| | Zinc, Total (as Zn) | 0.234 mg/L [1] | N/A |
| C5<br>Plastics, Synthetics, Resins | BOD, Carbonaceous 05 Day (20 Deg C) | 25 mg/L | N/A |
| | Solids, Total Suspended (TSS) | 100 mg/L [2] | N/A |
| | Zinc, Total (as Zn) | 0.234 mg/L [1] | N/A |
| C6<br>Medicinal Chemicals and Botanical Products | Solids, Total Suspended (TSS) | 100 mg/L [2] | N/A |
| C7<br>Ethanol Facilities | BOD, Carbonaceous 05 Day (20 Deg C) | 25 mg/L | N/A |
| | Solids, Total Suspended (TSS) | 100 mg/L [2] | N/A |

**Table D-1**

| Subsector | Parameter | Benchmark Values | Effluent Limits |
|---|---|---|---|
| D1<br>Asphalt Paving and Roofing Materials | Solids, Total Suspended (TSS) | 100 mg/L [2] | N/A |
| D2<br>Discharges from Production of Asphalt Emulsions | Oil & Grease, Total | N/A | 15 mg/L calendar year maximum |
| | | | 10 mg/L calendar year average |
| | pH | N/A | 6.0 SU, instantaneous minimum |

| | | | |
|---|---|---|---|
| Areas | | | 9.0 SU, instantaneous maximum |
| | Solids, Total Suspended (TSS) | N/A | 23 mg/L calendar year maximum |
| | | | 15 mg/L calendar year average |
| D3<br>Miscellaneous Products of Petroleum and Coal | Solids, Total Suspended (TSS) | 100 mg/L [2] | N/A |

**Table E-1**

| Subsector | Parameter | Benchmark Values | Effluent Limits |
|---|---|---|---|
| E1<br>Clay Products Manufacturers | Aluminum, Total (as Al) | 1.5 mg/L | N/A |
| | Solids, Total Suspended (TSS) | 100 mg/L [2] | N/A |
| E2<br>Concrete and Gypsum Product Manufacturers | Solids, Total Suspended (TSS) | 100 mg/L [2] | N/A |
| E3<br>Cement Manufacturing Facility, Material Storage Runoff | pH | N/A | 6.0 SU, instantaneous minimum<br>9.0 SU, instantaneous maximum |
| | Solids, Total Suspended (TSS) | N/A | 50 mg/L calendar year maximum |
| E4<br>Glass, Stone, Abrasive, and Asbestos Manufacturing | Solids, Total Suspended (TSS) | 100 mg/L [2] | N/A |

**Table F-1**

| Subsector | Parameter | Benchmark Values |
|---|---|---|
| F1<br>Steel Works, Blast Furnaces, and Rolling and Finishing Mills | Aluminum, Total (as Al) | 1.5 mg/L |
| | Solids, Total Suspended (TSS) | 100 mg/L [2] |
| | Zinc, Total (as Zn) | 0.234 mg/L [1] |
| F2<br>Iron and Steel Foundries | Aluminum, Total (as Al) | 1.5 mg/L |
| | Copper, Total (as Cu) | 0.028 mg/L [1] |
| | Solids, Total Suspended (TSS) | 100 mg/L [2] |
| | Zinc, Total (as Zn) | 0.234 mg/L [1] |
| F3<br>Rolling, Drawing, and Extruding of Nonferrous Metals | Copper, Total (as Cu) | 0.028 mg/L [1] |
| | Solids, Total Suspended (TSS) | 100 mg/L [2] |
| | Zinc, Total (as Zn) | 0.234 mg/L [1] |
| F4<br>Nonferrous Foundries | Copper, Total (as Cu) | 0.028 mg/L [1] |
| | Solids, Total Suspended (TSS) | 100 mg/L [2] |
| | Zinc, Total (as Zn) | 0.234 mg/L [1] |
| F5<br>Primary & Secondary Smelting and Refining of Nonferrous Metals and Miscellaneous Primary Metal Products | Solids, Total Suspended (TSS) | 100 mg/L [2] |

**Table G-1**

| Subsector | Parameter | Benchmark Values |
|---|---|---|
| G1<br>Active Copper Ore Mining, Dressing Facilities | COD (Chemical Oxygen Demand) | 120 mg/L |
| | Nitrite Plus Nitrate, Total (as N) | 0.68 mg/L |
| | Solids, Total Suspended (TSS) | 100 mg/L [2] |

**Table G-2**

Sector-Specific Benchmark Monitoring Values from Waste Rock and Overburden Piles at Active Metal Mining Facilities. Discharges may be subject to requirements for more than one sector or subsector.

| Subsector | Parameter | Benchmark Values |
|---|---|---|
| G2<br>Active Metal Mining Facilities | Antimony, Total (as Sb) | 0.18 mg/L |
| | Arsenic, Total (as As) | 0.680 mg/L |
| | Cadmium, Total (as Cd) [1] | 0.0078 mg/L [5] |
| | Copper, Total (as Cu) [1] | 0.028 mg/L [5] |
| | Lead, Total (as Pb) [1] | 0.164 mg/L [5] |
| | Nickel, Total (as Ni) [1] | 0.938 mg/L [5] |
| | pH [4] | 6.0-9.0 SU |
| | Selenium, Total (as Se) | 0.040 mg/L |
| | Silver, Total (as Ag) [1] | 0.0041 mg/L [5] |
| | Solids, Total Suspended (TSS) | 100 mg/L [2] |
| | Zinc, Total (as Zn) [1] | 0.234 mg/L [5] |

**Table H-1**

| Subsector | Parameter | Benchmark Values |
|---|---|---|
| H1<br>Coal Mines and Related Areas | Aluminum, Total (as Al) | 1.5 mg/L |
| | pH [4] | 6.0-9.0 SU |
| | Solids, Total Suspended (TSS) | 100 mg/L [2] |

**Table I-1**

| Subsector | Parameter | Benchmark Values |
|---|---|---|
| I1<br>Oil and Gas Extraction | pH [4] | 6.0-9.0 SU |
| | Solids, Total Suspended (TSS) | 100 mg/L [2] |

| | | |
|---|---|---|
| I2<br><br>Oil Refining | Nitrogen, Ammonia, Total (as N) | 2.8 mg/L |
| | Solids, Total Suspended (TSS) | 100 mg/L [2] |
| | Zinc, Total (as Zn) | 0.234 mg/L [1] |

**Table J-1**

| Subsector | Parameter | Benchmark Values |
|---|---|---|
| J1<br><br>Sand and Gravel Mining | Solids, Total Suspended (TSS) | 100 mg/L [2] |
| J2<br><br>Dimension, Crushed Stone, Nonmetallic Minerals | Solids, Total Suspended (TSS) | 100 mg/L [2] |
| J3<br><br>Clay, Ceramic, Refractory Materials, Chemical and Fertilizer Mineral Mining | Solids, Total Suspended (TSS) | 100 mg/L [2] |

**Table K-1**

| Subsector | Parameter | Benchmark Values | Effluent Limits |
|---|---|---|---|
| K1<br><br>Industrial Activity Code HZ.<br><br>Benchmark Parameters Only Applicable To Discharges Not Subject To Effluent Limitations In 40 CFR Part 445 Subpart A | Arsenic, Total (as As) | 0.680 mg/L | N/A |
| | BOD, Carbonaceous 05 Day (20 Deg C) | 25 mg/L | N/A |
| | Cadmium, Total (as Cd) | 0.0078 mg/L [1] | N/A |
| | Chromium, Total (as Cr) | 3.5 mg/L [1] | N/A |
| | COD (Chemical Oxygen Demand) | 120 mg/L | N/A |
| | Cyanide, Total (as CN) | 0.045 mg/L | N/A |
| | Lead, Total (as Pb) | 0.164 mg/L | N/A |

| Subsector | Parameter | Benchmark Values | Effluent Limits |
|---|---|---|---|
| | | [1] | |
| | Nitrogen, Ammonia, Total (as N) | 2.8 mg/L | N/A |
| | | | |
| | pH [4] | 6.0-9.0 SU | N/A |
| | Selenium, Total (as Se) | 0.040 mg/L | N/A |
| | Silver, Total (as Ag) | 0.0041 mg/L [1] | N/A |
| | Solids, Total Suspended (TSS) | 100 mg/L [2] | N/A |
| | Zinc, Total (as Zn) | 0.234 mg/L [1] | N/A |
| K2[6]<br><br>Discharges From Hazardous Waste Landfills Subject To Effluent Limitations In 40 CFR Part 445 Subpart A | Alpha-Terpineol | N/A | 0.042 mg/L calendar year maximum |
| | | | 0.019 mg/L calendar year average |
| | Aniline | N/A | 0.024 mg/L calendar year maximum |
| | | | 0.015 mg/L calendar year average |
| | Arsenic, Total (as As) | N/A | 1.1 mg/L calendar year maximum |
| | | | 0.54 mg/L calendar year average |
| | Benzoic Acid | N/A | 0.119 mg/L calendar year maximum |
| | | | 0.073 mg/L calendar year average |
| | BOD, Carbonaceous 05 Day (20 Deg C) | N/A | 220 mg/L calendar year maximum |
| | | | 56 mg/L calendar year average |
| | Chromium, Total (as Cr) | N/A | 1.1 mg/L calendar year maximum |
| | | | 0.46 mg/L calendar year average |

| Subsector | Parameter | Benchmark Values | Effluent Limits |
|---|---|---|---|
| | Naphthalene | N/A | 0.059 mg/L calendar year maximum |
| | | | 0.022 mg/L calendar year average |
| | Nitrogen, Ammonia, Total (as N) | N/A | 10 mg/L calendar year maximum |
| | | | 4.9 mg/L calendar year average |
| | p-Cresol | N/A | 0.024 mg/L calendar year maximum |
| | | | 0.015 mg/L calendar year average |
| | pH | N/A | 6.0 SU, instantaneous minimum<br>9.0 SU, instantaneous maximum |
| | Phenol | N/A | 0.048 mg/L calendar year maximum |
| | | | 0.029 mg/L calendar year average |
| | Pyridine | N/A | 0.072 mg/L calendar year maximum |
| | | | 0.025 mg/L calendar year average |
| | Solids, Total Suspended (TSS) | N/A | 88 mg/L calendar year maximum |
| | | | 27 mg/L calendar year average |
| | Zinc, Total (as Zn) | N/A | 0.535 mg/L calendar year maximum |
| | | | 0.296 mg/L calendar year average |

**Table L-1**

| Subsector | Parameter | Benchmark Values | Effluent Limits |
|---|---|---|---|
| L1 | Solids, Total | 100 mg/L [2] | N/A |

| Subsector | Parameter | Benchmark Values | Effluent Limits |
|---|---|---|---|
| Municipal Solid Waste Landfill (MSWLF) Areas Closed In Accordance With 40 CFR § 258.60 | Suspended (TSS) | | |
| L2<br><br>Any Open Or Closed Non-Hazardous Waste Landfills And Land Application Sites, Which Do Not Discharge To **Surface Water(s)**, **Stormwater** That Has Directly Contacted Solid Waste. | Solids, Total Suspended (TSS) | 100 mg/L [2] | N/A |
| L3 [6]<br><br>Any Landfill That Discharges To **Surface Water**(s), **Stormwater** That Has Directly Contacted Solid Waste (pursuant to 40 CFR pt. 445, subp. B.) | BOD, Carbonaceous 05 Day (20 Deg C) | 25 mg/L | 140 mg/L calendar year maximum |
| | | | 37 mg/L calendar year average |
| | Solids, Total Suspended (TSS) | 100 mg/L [2] | 88 mg/L calendar year maximum |
| | | | 27 mg/L calendar year average |
| | Nitrogen, Ammonia, Total (as N) | 2.8 mg/L | 10 mg/L calendar year maximum |
| | | | 4.9 mg/L calendar year average |
| | Alpha-Terpineol | N/A | 0.033 mg/L calendar year maximum |
| | | | 0.016 mg/L calendar year average |
| | Benzoic acid | N/A | 0.12 mg/L calendar year maximum |
| | | | 0.071 mg/L calendar year average |
| | P-Cresol | N/A | 0.025 mg/L calendar year maximum |
| | | | 0.014 mg/L calendar year average |
| | Phenol | N/A | 0.026 mg/L calendar year maximum |

| Subsector | Parameter | Benchmark Values | Effluent Limits |
|---|---|---|---|
| | | | 0.015 mg/L calendar year average |
| | Zinc, Total (as Zn) | 0.234 mg/L [1] | 0.20 mg/L calendar year maximum |
| | | | 0.11 mg/L calendar year average |
| | pH [4] | 6.0-9.0 SU | 6.0 SU, instantaneous minimum<br>9.0 SU, instantaneous maximum |

**Table M-1**

| Subsector | Parameter | Benchmark Values |
|---|---|---|
| M1<br>Automobile Salvage Yards | Aluminum, Total (as Al) | 1.5 mg/L |
| | Benzene | 9.0 mg/L |
| | Ethylbenzene | 3.7 mg/L |
| | Lead, Total (as Pb) | 0.164 mg/L [1] |
| | Solids, Total Suspended (TSS) | 100 mg/L [2] |
| | Toluene | 2.7 mg/L |
| | Xylene | 2.8 mg/L |

**Table N-1**

| Subsector | Parameter | Benchmark Values |
|---|---|---|
| N1<br>Scrap Recycling Facilities | Aluminum, Total (as Al) | 1.5 mg/L |
| | COD (Chemical Oxygen Demand) | 120 mg/L |
| | Copper, Total (as Cu) | 0.028 mg/L [1] |
| | Lead, Total (as Pb) | 0.164 mg/L [1] |
| | pH [4] | 6.0-9.0 SU |
| | Solids, Total Suspended (TSS) | 100 mg/L [2] |

| | | |
|---|---|---|
| | Zinc, Total (as Zn) | 0.234 mg/L [1] |

**Table O-1**

| Subsector | Parameter | Benchmark Values | Effluent Limits |
|---|---|---|---|
| O1<br>Coal Fired and Oil Fired Steam Electric Generating Facilities | Solids, Total Suspended (TSS) | 100 mg/L [2] | N/A |
| O2<br>Nuclear, Natural Gas Fired, And Any Other Fuel Source Used For Steam Electric Generation | Solids, Total Suspended (TSS) | 100 mg/L [2] | N/A |
| O3<br>Runoff From Coal Storage Piles At Steam Electric Generating Facilities | pH | N/A | 6.0 SU, instantaneous minimum<br>9.0 SU, instantaneous maximum |
| | Solids, Total Suspended (TSS) | N/A | 50 mg/L calendar year maximum [7] |

**Table P-1**

| Subsectors | Parameter | Benchmark Values |
|---|---|---|
| P1<br>Rail Transportation Facilities | Solids, Total Suspended (TSS) | 100 mg/L [2] |
| P2<br>Petroleum Bulk Oil Stations and Terminals | Solids, Total Suspended (TSS) | 100 mg/L [2] |
| P3 | Solids, Total Suspended (TSS) | 100 mg/L [2] |

| | | |
|---|---|---|
| Motor Vehicle Facilities | | |
| P4 [8]<br><br>Warehousing and Storage: General Warehousing, Farm Product Warehousing, Refrigerated Warehousing | Solids, Total Suspended (TSS) | 100 mg/L [2] |

**Table Q-1**

| Subsector | Parameter | Benchmark Values |
|---|---|---|
| Q1<br><br>Water Transportation Facilities | Aluminum, Total (as Al) | 1.5 mg/L |
| | Lead, Total (as Pb) | 0.164 mg/L [1] |
| | Solids, Total Suspended (TSS) | 100 mg/L [2] |
| | Zinc, Total (as Zn) | 0.234 mg/L [1] |

**Table R-1**

| Subsector | Parameter | Benchmark Values |
|---|---|---|
| R1<br><br>Ship and Boat Building and Repairing Yards | Solids, Total Suspended (TSS) | 100 mg/L [2] |

**Table S-1**

| Subsector | Parameter | Benchmark Values | Effluent Limits |
|---|---|---|---|
| S1<br><br>Airports that use glycol-based deicing/anti-icing chemicals and/or urea. | BOD, Carbonaceous 05 Day (20 Deg C) | 25 mg/L | N/A |
| | Chemical Oxygen Demand (COD) | 120 mg/L | N/A |
| | Nitrogen, Ammonia, Total (as N) | 2.8 mg/L | N/A |
| | Solids, Total Suspended (TSS) | 100 mg/L [2] | N/A |

| | | | |
|---|---|---|---|
| S2<br><br>Airports that do not use any glycol-based deicing/anti-icing chemicals and/or any urea. | Solids, Total Suspended (TSS) | 100 mg/L [2] | N/A |
| S3<br><br>Existing and new primary airports[9] with 1,000 or more annual non-propeller aircraft departures that discharge wastewater associated with airfield pavement deicing that contains urea commingled with **stormwater**. | Nitrogen, Ammonia, Total (as N) | N/A | 14.7 mg/L, calendar year maximum |

**Table T-1**

| Subsector | Parameter | Benchmark Values |
|---|---|---|
| T1<br><br>Treatment Works | BOD, Carbonaceous 05 Day (20 Deg C) | 25 mg/L |
| | Solids, Total Suspended (TSS) | 100 mg/L [2] |

**Table U-1**

| Subsector | Parameter | Benchmark Values |
|---|---|---|
| U1<br>Grain Mill Products | Solids, Total Suspended (TSS) | 100 mg/L [2] |
| U2<br>Fats and Oils Products | BOD, Carbonaceous 05 Day (20 Deg C) | 25 mg/L |
| | COD (Chemical Oxygen Demand) | 120 mg/L |
| | Nitrogen, Ammonia, Total (as N) | 2.8 mg/L |
| | Solids, Total Suspended (TSS) | 100 mg/L [2] |
| U3<br>Food and Tobacco Products, Food Preparation Facilities | BOD, Carbonaceous 05 Day (20 Deg C) | 25 mg/L |
| | COD (Chemical Oxygen Demand) | 120 mg/L |
| | Nitrogen, Ammonia, Total (as N) | 2.8 mg/L |
| | Phosphorus, Total (as P) | 1.0 mg/L |
| | Solids, Total Suspended (TSS) | 100 mg/L [2] |

**Table V-1**

| Subsector | Parameter | Benchmark Value |
|---|---|---|
| V1<br>Textile, Fabric, & Apparel Manufacturing, Leather & Leather Products | Solids, Total Suspended (TSS) | 100 mg/L [2] |

**Table W-1**

| Subsector | Parameter | Benchmark Value |
|---|---|---|
| W1<br>Furniture and Fixtures | Solids, Total Suspended (TSS) | 100 mg/L [2] |

**Table X-1**

| Subsector | Parameter | Benchmark Values |
|---|---|---|
| X1<br>Printing and Publishing | Silver, Total (as Ag) | 0.0041 mg/L [1] |
| | Solids, Total Suspended (TSS) | 100 mg/L [2] |

**Table Y-1**

| Subsector | Parameter | Benchmark Values |
|---|---|---|
| Y1<br>Fabricated Rubber Products | Lead, Total (as Pb) | 0.164 mg/L [1] |
| | Solids, Total Suspended (TSS) | 100 mg/L [2] |
| | Zinc, Total (as Zn) | 0.234 mg/L [1] |
| Y2<br>Plastic Products | Solids, Total Suspended (TSS) | 100 mg/L [2] |

**Table Z-1**

| Subsector | Parameter | Benchmark Values |
|---|---|---|
| Z1<br>Leather Tanning and Finishing | BOD, Carbonaceous 05 Day (20 Deg C) | 25 mg/L |
| | Chromium, Total (as Cr) | 3.5 mg/L [1] |
| | Solids, Total Suspended (TSS) | 100 mg/L [2] |

**Table AA-1**

| Subsector | Parameter | Benchmark Values |
|---|---|---|
| AA1<br>Fabricated Metal Products | Aluminum, Total (as Al) | 1.5 mg/L |
| | Solids, Total Suspended (TSS) | 100 mg/L [2] |
| | Zinc, Total (as Zn) | 0.234 mg/L [1] |
| AA2<br>Fabricated Metal Coating | Solids, Total Suspended (TSS) | 100 mg/L [2] |
| | Zinc, Total (as Zn) | 0.234 mg/L [1] |

| | | |
|---|---|---|
| and Engraving | | |

**Table AB-1**

| Subsector | Parameter | Benchmark Value |
|---|---|---|
| AB1<br><br>Transportation Equipment and Industrial or Commercial Machinery | Solids, Total Suspended (TSS) | 100 mg/L [2] |

**Table AC-1**

| Subsector | Parameter | Benchmark Values |
|---|---|---|
| AC1<br><br>Electronic, Electrical, Photographic, and Optical Goods | Solids, Total Suspended (TSS) | 100 mg/L [2] |
| AC2<br><br>Electronic & Electrical Equipment & Components, except Computers | Copper, Total (as Cu) | 0.028 mg/L [1] |
| | Lead, Total (as Pb) | 0.164 mg/L [1] |
| | Solids, Total Suspended (TSS) | 100 mg/L [2] |

**Footnotes – Appendix B:**

1. The benchmark values of some metals are influenced by water hardness. For these parameters, the Permittee may determine the hardness of the stormwater discharges to identify the applicable 'hardness range' for determining their benchmark value. See Appendix C for hardness dependent benchmark values in accordance with Minn. R. 7050.0222 and Minn. R. 7052.0100.

2. If the Permittee is required to comply with the additional required BMPs in the Additional Requirements for Discharges to Special (Prohibited, Restricted, Other) and Impaired Waters section of this permit, the benchmark value for Solids, Total Suspended (TSS) is 65 mg/L, instead of 100 mg/L.

3. The Permittee is authorized under this permit to conduct a visual observation sufficient to determine the presence of debris that will not pass through a 2.54 cm (1 inch) round opening and is not required to use a laboratory certified by the MDH or registered by the MPCA for this analysis.

4. For purposes of benchmark pH monitoring, the Permittee is required to report instantaneous results only, and not a calculation of pH averages. pH measurements are logarithmic, and the MPCA will be performing a logarithmic average for this parameter using the instantaneous results submitted.

5. Values given are for total hardness of 100 mg/L only.

6. As set forth at 40 CFR pt. 445 Subpart A, these numeric limitations apply to contaminated stormwater discharges from hazardous waste landfills subject to the provisions of RCRA Subtitle C at 40 CFR pt. 264 (subp. N) and 265 (subp. N) except for any of the following facilities:

    a. landfills operated in conjunction with other industrial or commercial operations when the landfill receives only wastes generated by the industrial or commercial operation directly associated with the landfill;

    b. landfills operated in conjunction with other industrial or commercial operations when the landfill receives wastes generated by the industrial or commercial operation directly associated with the landfill and also receives other wastes, provided that the other wastes received for disposal are generated by a facility that is subject to the same provisions in 40 CFR Subchapter N as the industrial or commercial operation or that the other wastes received are of similar nature to the wastes generated by the industrial or commercial operation;

    c. landfills operated in conjunction with Centralized Waste Treatment (CWT) facilities subject to 40 CFR pt. 437, so long as the CWT facility commingles the landfill wastewater with other non-landfill wastewater for discharge. A landfill directly associated with a CWT facility is subject to this part if the CWT facility discharges landfill wastewater separately from other CWT wastewater or commingles the wastewater from its landfill only with wastewater from other landfills; or

    d. landfills operated in conjunction with other industrial or commercial operations when the landfill receives wastes from public service activities, so long as the company owning the landfill does not receive a fee or other remuneration for the disposal service.

7. If the facility is designed, constructed, and operated to treat the volume of coal pile runoff that is associated with a 10-year, 24-hour rainfall event, any untreated overflow of coal pile runoff from the treatment unit is not subject to the 50 mg/L limitation for total suspended solids.

8. SIC codes 4221-4225 are not limited by vehicle/equipment maintenance.

9. See sector specific definition S.4.d. for primary airport.