Nebraska Department of Environment and Energy

NPDES and State Permits Section

PO Box 98922
Lincoln, NE 68509-8922
Tel. (402) 471-4220
Fax (402) 471-2909

Fact Sheet
General NPDES Permit Authorizing Storm Water Discharges Associated with Industrial Activity
State of Nebraska
NPDES NER920000

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A. Introduction

The Nebraska Department of Environment and Energy (NDEE, or "the Department") is proposing to issue the National Pollutant Discharge Elimination System (NPDES) general permit for storm water discharges associated with industrial activity, or "ISW general permit". The proposed ISW general permit, when finalized, will replace the 2016 ISW general permit NER910000, which was issued on July 18, 2016, and expires on June 30, 2021. The permit contains provisions that require industrial facilities in 29 different industrial sectors to, among other things, implement control measures and develop site-specific storm water pollution prevention plans (SWPPPs) to comply with NPDES requirements. In addition, the ISW general permit includes a thirtieth sector, available for the NDEE to permit additional industrial activities that the Department determines require permit coverage for industrial storm water discharges not included in the other 29 industrial sectors.

Section 405 of the WQA of 1987 added section 402(p) of the Clean Water Act (CWA), which directed the EPA to develop a phased approach to regulate storm water discharges under the NPDES program. EPA published a final regulation on the first phase of this program on November 16, 1990, establishing permit application requirements for "storm water discharges associated with industrial activity". EPA defined the term "storm water discharge associated with industrial activity" in a comprehensive manner to cover a wide variety of facilities, see 40 CFR Part 122.26(b)(14). The State of Nebraska is authorized by the EPA to administer the NPDES storm water permitting program within the state, excluding certain Indian country lands (see Part 9 of the permit), and proposes to issue the ISW general permit NER920000 under this statutory and regulatory authority.

B. Summary of Proposed Changes from 2016 ISW General Permit

The proposed 2021 ISW general permit includes several new or modified requirements. The following lists the more significant changes. See the permit for more specific information on the permit conditions.

1. Content clarifications and edits to improve readability are made throughout the permit.
2. The requirement for submission of the Storm Water Pollution Prevention Plan (SWPPP) with the Notice of Intent (NOI) is added.
3. Electronic reporting language provisions have been updated.
4. All NOIs, Notices of Termination (NOTs), and other reports as they become available are to be submitted electronically on the NDEE website.
5. Storm water-specific effluent limitation guidelines listed in Table 1-1 of the permit are now covered and annual monitoring is included.
6. Conditions applicable to portable facilities is updated, including coverage of site preparation activities and updated testing requirements.
7. Quarterly indicator monitoring is added to certain sectors as "report-only" for pH, Total Suspended Solids (TSS), and Chemical Oxygen Demand (COD).
8. Additional indicator bi-annual monitoring in the first and fourth year of permit coverage is added to certain sectors as "report-only" for polycyclic aromatic hydrocarbons (PAHs).
9. Benchmark monitoring for *total* metals is replaced with *dissolved* metals, except for selenium which is replaced with total recoverable selenium, and the total metals required for landfills in Part 8.K.6.
10. The benchmark monitoring thresholds for magnesium and iron are suspended.
11. The hardness-dependent dissolved metals benchmark values are updated.
12. The requirement to conduct quarterly benchmark monitoring in the fourth year of permit coverage is added, in addition to the requirement of monitoring in the first year of permit coverage as in NER910000.
13. Additional Implementation Measures (AIM) are included for benchmark monitoring exceedances triggering a three-level structure for responses and deadlines.
14. Definitions have been updated to correspond with the EPA *2021 National Pollutant Discharge Elimination System Multi-Sector General Permit for Stormwater Discharges Associated with Industrial Activities* (2021 MSGP) and NDEE regulations.
15. Appendices and attachments to the permit are updated accordingly.

C. Coverage Provided by this General Permit

NDEE Title 119 provides that the storm water discharges associated with industrial activity that discharge to waters of the state must be authorized by a NPDES permit. NDEE Title 119, Chapter 10 sets forth requirements for industrial storm water discharges.

The permittee is authorized to discharge storm water associated with industrial activities into waters of the state of Nebraska, Municipal Separate Storm Sewer Systems (MS4) or combined sewer systems. However, the permittee shall notify the operator of the MS4 of their storm water discharge, if requested or required by the operator. The MS4s are located in cities and urbanized counties with a population of 10,000 or more as determined by the latest Decennial Census by the Bureau of Census. The State's only combined sewer system is located in the city of Omaha. A list of MS4s has been provided as Appendix F of the permit.

The NER920000 general permit is available for storm water discharges from the following 29 sectors of industrial activity (Sector A – Sector AC), as well as any discharge not covered under the 29 sectors (Sector AD) that has been identified by the Department as appropriate for coverage. The sector descriptions are based on Standard Industrial Classification (SIC) codes and Industrial Activity Codes consistent with the definition of "storm water discharge associated with industrial activity" at 40 CFR Part 122.26(b)(14)(i-ix, xi). See Appendix D in the permit for specific information on each sector. The sectors are listed below:

Table FS-1. Categories of Sector That Can Be Covered Under this Permit

Sector A – Timber Products	**Sector P** – Land Transportation
Sector B – Paper and Allied Products Manufacturing	**Sector Q –** Water Transportation
Sector C – Chemical and Allied Products Manufacturing	**Sector R –** Ship and Boat Building or Repairing Yards
Sector D – Asphalt Paving and Roofing Materials Manufactures and Lubricant Manufacturers	**Sector S –** Air Transportation Facilities
Sector E – Glass, Clay, Cement, Concrete, and Gypsum Product Manufacturing	**Sector T –** Treatment Works
Sector F – Primary Metals	**Sector U –** Food and Kindred Products
Sector G – Metal Mining (Ore Mining and Dressing)	**Sector V –** Textile Mills, Apparel, and other Fabric Products Manufacturing
Sector H – Coal Mines and Coal Mining-Related Facilities	**Sector W –** Furniture and Fixtures
Sector I – Oil and Gas Extraction	**Sector X –** Printing and Publishing
Sector J – Mineral Mining and Dressing	**Sector Y –** Rubber, Miscellaneous Plastic Products, and Miscellaneous Manufacturing Industries
Sector K – Hazardous Waste Treatment Storage or Disposal	**Sector Z –** Leather Tanning and Finishing
Sector L – Landfills and Land Application Sites	**Sector AA –** Fabricated Metal Products
Sector M – Automobile Salvage Yards	**Sector AB –** Transportation Equipment, Industrial or Commercial Machinery
Sector N – Scrap Recycling Facilities	**Sector AC –** Electronic, Electrical, Photographic and Optical Goods
Sector O – Steam Electric Generating Facilities	**Sector AD –** Reserved for Facilities Not Covered Under Other Sectors and Designated by the Director

D. Eligibility

1. Permit Area

This permit provides coverage for industrial storm water discharges throughout the State of Nebraska, excluding certain Indian country lands, as set forth in NDEE Title 119, Chapters 2 and 3. Industrial storm

water discharges are covered by this permit rather than the EPA *2021 National Pollutant Discharge Elimination System Multi-Sector General Permit for Stormwater Discharges Associated with Industrial Activities* (2021 MSGP) as the EPA permit covers states without a local department of environmental protection as well as Indian country lands. As Nebraska environmental protection is regulated through NDEE permits, industrial sites discharging storm water and not requiring an individual permit are covered under this general permit.

This permit is applicable throughout the State of Nebraska as set forth in NDEE Title 119, Chapter 25, 001.02A. Statewide application is appropriate because the potential sources are commonly found throughout the state. Applicability is limited to areas of the state where NDEE is the permitting authority, which excludes certain Indian lands throughout the state, see Part 9 of the permit.

2. Eligibility

To be eligible for coverage under the ISW general permit, operators of industrial facilities must meet the eligibility provisions described in Part 1.1 of the permit. If they do not meet all the eligibility requirements, operators may not submit a Notice of Intent (NOI) to be covered by NER920000, and, unless they obtained coverage for those discharges under another permit, those discharges of storm water associated with industrial activity needing permit coverage will be in violation of the CWA and NDEE Title 119.

3. Allowable Storm Water Discharges

This permit authorizes discharges of storm water from industrial activities described in NDEE Title 119, Chapter 2, 002, and Title 119, Chapter 10, 003. Also see Part 1.1.2 of the ISW general permit.

4. Allowable Non-Storm Water Discharges

This permit authorizes certain non-storm water discharges associated with industrial activity, provided that the non-storm water component is in compliance with the eligibility section of the permit. Specifically, operators are required to identify in the SWPPP all allowable sources of non-storm water discharges and must identify and ensure the implementation of appropriate pollution prevention measures for these discharges. Allowable non-storm water discharges include those listed in Part 1.1.3 and sector specific non-storm water discharges authorized in Part 8 of the permit.

5. Prohibited Non-Storm Water Discharges

This permit prohibits non-storm water discharges as listed in Part 8 of the permit.

6. Limitations on Coverage

NDEE Title 119, Chapter 10 specifically excludes discharges covered under other permits, and other non-storm water sources unless identified and authorized in this permit. NDEE Title 119, Chapter 3 also prohibits discharge if conditions cannot ensure compliance with applicable water quality requirements. Not all storm water discharges associated with industrial activity are eligible for coverage under the ISW general permit (e.g., storm water discharges regulated by certain national effluent limitations guidelines). Dischargers must refer to Part 1.1.4 of the permit to determine whether a particular storm water discharge from their site can be covered under NER920000.

7. Endangered and Threatened Species and Critical Habitat Protection

The operator must ensure and document that discharges do not result in adverse modification or destruction to habitat designated as critical by state and federal authorities under the Endangered Species Act (ESA).

8. Historic Properties

Operators are reminded that they must comply with applicable state, tribal, and local laws concerning the protection of historic properties and places.

9. Period of Coverage

This permit is to be issued for a five-year term. This is the maximum time period allowed pursuant to NDEE Title 119, Chapter 16 002. Appendix A of the permit sets forth a reopener clause which allows for

modification, suspension, revocation, or reissuance according to NDEE Title 119, Chapter 24. Part 1.7.2 of the permit allows for modification of the permit attachments during the permit term. Delays or extensions of permit coverage are based on Part 1.3.6 of the ISW general permit.

E. Authorization

Permittees with a storm water discharge associated with industrial activities as defined in the ISW general permit are required to obtain permit coverage (NDEE Title 119, Chapter 10). Submission of a complete and accurate Notice of Intent (NOI) eliminates the need to apply for an individual permit for a regulated discharge, unless the NDEE specifically notifies the discharger that an individual permit application must be submitted. The NOI must be submitted electronically via the NDEE website unless a waiver is obtained. When applicants electronically sign and date the NOI on the NDEE website, they are certifying that they agree to the terms and conditions of the NPDES ISW general permit.

1. NOI Requirements

A NOI must be submitted electronically by operators seeking authorization for storm water discharges from an industrial site under the ISW general permit according to Part 1.3 of the permit. Those required to obtain an individual permit or authorization under a different general permit may not use the ISW NOI, but must instead use the appropriate applications. Requirements are set forth in the NDEE Title 119, Chapter 25.

2. Submission Deadlines

Table 1-2 provides the deadlines for submitting NOIs for permit coverage and the minimum timeframes following NOI submission for discharge authorization for the different discharge categories. Existing dischargers covered by the 2016 ISW general permit NER910000 have 180 days from the issuance date of the NER920000 permit to submit a NOI or terminate coverage on their site.

3. Transfer or Termination of Permit Coverage

When there is a change to the facility's operator, the new operator must submit a new NOI, and the previous operator must submit a NOT form as specified in Part 1.3.4.2 of the permit, as transfers are not authorized.

To terminate coverage, operators must submit a completed NOT electronically via the NDEE website per the requirements of Part 1.4 of the permit. If the Department determines that the NOT is incomplete or that the operator has not satisfied one of the termination conditions in Part 1.4.2, then the notice is not valid, and the operator must continue to comply with the conditions of the permit.

4. Requiring an Individual Permit or an Alternative General Permit

The NDEE may determine that an applicant's storm water discharges from industrial activities are ineligible for coverage under the general permit, and that an individual application as set forth in NDEE Title 119, Chapter 10, 003.01 is required. An individual permit may be called for in circumstances that have a potential to contribute to a water quality excursion, such as numeric effluent limitations resulting from a total maximum daily load (TMDL) of an impaired water way. If a permittee is currently discharging under the ISW general permit, NDEE will provide written notification of the reasoning for this decision, an application form, and a deadline for filing the application.

5. Attainment of Water Quality Standards After Authorization

The permittee shall not discharge pollutants to waters of the state that cause a violation of the standards established in NDEE Titles 117 and 118. All discharges to waters of the state shall be free of toxic substances (acute or chronic) which alone or in combination of other substances, create conditions unsuitable for aquatic life outside the appropriate mixing zone. The EPA's 1996 *Interim Permitting Approach for Water Quality-Based Effluent Limitations on Storm Water Permits* (EPA 833-D-96-001), has determined that BMPs, when properly selected, installed, implemented, and maintained, do provide effluent quality that can meet water quality standards.

F. Control Measures and Effluent Limits

1. Non-Numeric Effluent Limits

The permit contains effluent limits that correspond to required levels of technology-based control for various discharges under the CWA (Best Practicable Control Technology Currently Available (BPT) as set forth in CWA section 304(b)(1); Best Available Technology Economically Achievable (BAT), as set forth in CWA section 304(b)(2); and Best Conventional Pollutant Control Technology (BCT), as set forth in CWA section 304(b)(4), see also definitions in Appendix B of the permit). These limits are included, as applicable, in the sector-specific requirements of Part 8. Where EPA has not yet issued an effluent limitation guideline, EPA determines the appropriate technology-based level of control based on best professional judgment (BPJ, sometimes also referred to as "best engineering judgment") of the permit writer. CWA section 402(a)(1); 40 CFR Part 125.3. For the ISW general permit, most of the technology-based limits are based on EPA's BPJ decision-making in the 2021 MSGP because no ELG applies.

Storm water discharges can be highly intermittent, are usually characterized by high flows occurring over relatively short time intervals, and can carry a variety of pollutants whose source, nature and extent varies. This is in contrast to process wastewater discharges from a particular industrial or commercial facility where the effluent is generally more predictable and can be more effectively analyzed to develop numeric effluent limitations. EPA includes non-numeric effluent limits in NPDES permits, such as the MSGP, such as requirements mandating facilities to "minimize" various types of pollutant discharges, or to implement control measures unless "infeasible." Defining the term "minimize" as "for the purposes of this permit minimize means to reduce and/or eliminate to the extent achievable using control measures that are technologically available and economically practicable and achievable in light of best industry practices." Similarly, "feasible" means "technologically possible and economically practicable and achievable in light of best industry practices." EPA has determined that the technology-based numeric and non-numeric effluent limits in the 2021 MSGP, taken as a whole, constitute BPT for all pollutants, BCT for conventional pollutants, and BAT for toxic and nonconventional pollutants that may be discharged via industrial storm water. The Department, therefore, bases its control measures and effluent limits accordingly.

2. Numeric Effluent Limits

Previously, discharges subject to any of the national storm water-specific effluent limitation guidelines were not covered under the ISW general permit. The ISW general permit, along with the 2021 MSGP, includes coverage for the sectors listed in Table 1-1 of the permit. Annual monitoring is implemented and described in Part 6.2.3 of the permit.

3. Water Quality-Based Effluent Limits

The ISW general permit includes water quality-based effluent limits (WQBELs) to ensure that ISW authorized discharges will be controlled as necessary to meet applicable water quality standards, pursuant to CWA section 301(b)(1)(C) and 40 CFR Part 122.44(d)(1). The provisions of Part 2.2 of the permit constitute the WQBELs of the 2021 MSGP and supplement the permit's technology-based effluent limits in Part 2.1.

4. Conditions Applicable to Portable Facilities

Previously, portable facilities were often required to obtain an additional construction storm water general authorization for each relocation. Technology-based effluent limits applicable to earth-disturbing activities conducted prior to active operation are now covered under the ISW general permit. In addition, portable facilities are required to monitor storm water, with the exception of fourth year monitoring for polycyclic aromatic hydrocarbons (PAHs) and fourth year benchmark monitoring, to ensure the ISW authorized discharges are appropriately controlled, and water quality standards are being met.

G. Corrective Actions and Additional Implementation Measures (AIM)

The ISW general permit retains the corrective action conditions, requirement, and deadlines in Part 3.1 and if any conditions in Part 3.1.1 or 3.1.2 occurs, Part 3.1.3 requires that the operator implement timely fixes so that the condition triggering the issue is resolved. Previously, the 2016 ISW general permit also required corrective action in the event of an exceedance of a benchmark monitoring threshold. The 2016 ISW general permit required the operator to review the SWPPP and adjust storm water control measures, depending on the facility's assessment, to bring any exceedances below the benchmark threshold, and continue monitoring for four additional quarters.

The ISW general permit contains revisions to those corrective actions required for benchmark exceedances, now called Additional Implementation Measures (AIM). The NER920000 AIM requirements keep follow-up actions for benchmark exceedances clear, timely, and proportional to exceedance frequency and duration. The new AIM requirements provide a sequential follow-up process if advancement through the AIM levels is warranted. This process provides more regulatory certainty as to what is required of an operator and in what timeframe once a benchmark triggering event occurs. The new requirements also facilitate the identification of any issues and implementation of any follow-up responses in a timely manner and to ensure that discharges under the permit are sufficiently controlled to protect water quality.

The new AIM process leads the operator through a linear, three-level response triggered by a four-quarter annual average exceedance of a benchmark, or by fewer than four quarterly samples, but where a single sample or the sum of any sample results within the sampling year exceeds the benchmark threshold by more than four times for a parameter, indicating an exceedance is mathematically certain (i.e., the sum of quarterly sample results to date is already more than four times the benchmark threshold). Stepwise advancement through AIM indicates repeated benchmark exceedances and prescribes increasingly robust controls with each subsequent level. In the ISW general permit, AIM levels are sequential, and levels cannot be skipped. In other words, an operator would need to progress from baseline status to Level 1 before progressing to Level 2, and Level 2 before progressing to Level 3. The operator is in the best position to evaluate the initial cause of their benchmark exceedance and should have the opportunity to self-correct in AIM Level 1 before advancing to Level 2 or subsequently to Level 3, in which additional storm water control measures are no longer optional but required.

The AIM requirements apply on a parameter-specific, per discharge point basis and supplement, as opposed to supplant, the technology-based, water quality-based, and remaining provisions of the permit. Regarding annual averages, their calculation (i.e., the clock) is reset upon triggering and complying with each AIM level individually and demonstrating that the relevant discharge is below the benchmark threshold for the exceeded parameter. An operator with sampling results that show a triggering event has occurred must continue benchmark monitoring for the same parameter that caused the triggering event until four additional quarters of monitoring do not prompt a triggering event. In addition to the triggering events noted above, the new AIM requirements also detail the required responses, deadlines for implementing those responses, and allowable exceptions.

H. Inspections and Monitoring

The procedures in the ISW general permit for inspections and monitoring remain relatively unchanged; however, additional required monitoring is implemented. The additional requirements are: "indicator monitoring" for certain sectors as described in Part 6.2.2 of the permit; benchmark monitoring frequency is increased from quarterly in the first year only to quarterly in the first and fourth year of the permit term, see Part 6.2.2.2 permit; and annual effluent limitations monitoring is implemented for certain sectors per Parts 1.1.2.4 and 6.2.3 of the permit.

1. Indicator Monitoring – pH, TSS, and COD

The ISW general permit requires "report-only" indicator monitoring for pH, Total Suspended Solids (TSS), and Chemical Oxygen Demand (COD) for operators in subsectors without benchmark monitoring requirements: B2, C5, D2, E3, F5, I1, J3, L2, N2, O1, P1, R1, T1, U3, V1, W1, X1, Y2, Z1, AB1, AC1,

and AD1. Indicator monitoring for these three parameters will provide a baseline and comparable understanding of industrial storm water discharge quality, potential water quality problems, and storm water control measure effectiveness for these operators.

These three parameters are appropriate as broad, low-cost indicators of storm water pollution, as recommended in the 2019 National Research Council (NRC) study (see the EPA *2021 NPDES MSGP for Stormwater Discharges Associated with Industrial Activities Fact Sheet* for more information):

- "pH detects excess acidic or alkaline substances in the water, and pH excursions indicate corrosive (acidic or basic) and/or toxic concerns. Storm water discharges that are excessively polluted may not exhibit problems with respect to pH. However, pH excursions that are highly acidic or highly alkaline and do not fall into the benchmark range (6.0–9.0) can be indicative of a major polluting event or process failure and can be impactful to receiving waters. Unexpected pH values also can indicate that a storm water treatment system is not operating properly" (NRC, 27-28).
- "Total Suspended Solids (TSS) is a measure of suspended particulate matter in a water sample. Particulate matter can result from erosion of industrial soils, deposited particulate matter on the drainage area, erosion/corrosion of materials present on the site, and general overall site cleanliness. TSS also provides information about possible high concentrations of numerous other pollutants that will partition onto particulate matter, including phosphorus, many heavy metals, and many hydrophobic organic chemicals" (NRC, 28).
- "Chemical Oxygen Demand (COD) is a surrogate measure of organic pollutants in water (through measurement of oxygen demand). It is a conventional water quality parameter with established industrial storm water benchmarks. In addition to the measure of oxygen demand, high COD can also be indicative of oils and hydrocarbon pollution and, as with TSS, can be an indicator of overall site cleanliness. Increases in COD could also indicate problems with the treatment SCM effectiveness, including the need for maintenance" (NRC, 27).

The NRC study states that pH, TSS, and COD are direct measures of water quality and can be indicators of broader water quality problems and the presence of other pollutants. In addition, the study says these parameters can indicate absence, neglect, or failure of a storm water control measure, which can lead to high concentrations of potential pollutants (NRC, 28).

The Department is requiring indicator monitoring for pH, TSS, and COD as "report-only" for operators in the 22 subsectors without sector-specific benchmarks. Indicator monitoring for these subsectors is appropriate, given that the NE910000 permit only required sector-specific benchmark monitoring for around 55 percent of subsectors; the other 45 percent of subsectors did not have any chemical-specific analytical benchmark monitoring, meaning these operators were only conducting visual monitoring and collecting little, if any, numeric data on performance of their storm water control measures to further ensure compliance with water quality standards. The ISW general permit suspends benchmark monitoring for iron, resulting in the elimination of benchmark monitoring requirements for subsectors L2 and O1. With these changes, 22 subsectors under NER920000 without sector-specific benchmark monitoring, around 40 percent of total facilities, are now required to conduct indicator monitoring for pH, TSS, and COD.

Indicator monitoring for applicable operators is required on a quarterly basis for the entirety of permit coverage as "report-only." Unlike sector-specific benchmark monitoring, indicator monitoring cannot be discontinued at any time during permit coverage. Indicator monitoring also does not have a threshold or baseline value for comparison, therefore no follow-up action is triggered or required based on the sampling results in this part. The requirement in Part 2.2.1 to meet applicable water quality standards still applies. Operators may find it useful to evaluate and compare indicator monitoring data over time to identify any fluctuating values and why they may be occurring, and further inform any revisions to your SWPPP/storm water control measures if necessary. The Department encourages operators to proactively use their sampling results to understand where the storm water control measures are working if values are low and improve their storm water management program if values are high, relative to other samples.

The Department emphasizes that indicator monitoring parameters are neither benchmark monitoring nor numeric effluent limitations. However, failure to conduct and retain records of indicator monitoring is a permit violation. This part does not replace or modify any requirement for operators that must monitor for pH, TSS, and/or COD under any other type of required monitoring, including as a sector-specific benchmark, annual monitoring for impaired waters, and annual effluent limitations guidelines monitoring.

2. Indicator Monitoring – PAHs

The ISW general permit requires indicator monitoring for polycyclic aromatic hydrocarbons (PAHs) for the following operators, given the types of activities they may conduct: operators in sectors A (facilities that manufacture, use, or store creosote or creosote-treated wood in areas that are exposed to precipitation), C (SIC Code 2911), D, F, H, I, M, O, P (SIC Codes 4011, 4013, and 5171), Q (SIC Code 4491), R, and S. Facilities in the specified sectors must monitor for PAHs bi-annually (i.e., sample twice per year) in their first and fourth years of permit coverage. The Department and EPA plan to use the monitoring data collected to conduct an initial quantitative assessment of the levels of PAHs in industrial storm water, further identify industrial activities with the potential to discharge PAHs in storm water, and inform future consideration of PAH benchmark monitoring for sectors with the potential to discharge PAHs in storm water.

PAHs are a group of chemicals that are persistent in the environment. PAHs have both natural and man-made sources. Natural sources include wildfires, volcanic eruptions, and degradation of materials within sediments and fossil fuels. Man-made sources include the incomplete burning of organic materials like coal, oil, gas, wood, and garbage, vehicle exhaust, asphalt, coal-tar sealcoat, and creosote (ATSDR, 2011; EPA, 2009; CDC, 2009). PAHs are listed on EPA's Toxic Pollutants list at 40 CFR Part 401.15.

Of the hundreds of known PAHs, EPA has designated 16 as Priority Pollutants: naphthalene, acenaphthylene, acenaphthene, fluorene, phenanthrene, anthracene, fluoranthene, pyrene, benzo[a]anthracene, chrysene, benzo[b]fluoranthene, benzo[k]fluoranthene, benzo[a]pyrene, benzo[g,h,i]perylene, indeno[1,2,3-c,d]pyrene, and dibenz[a,h]anthracene.

Some industrial facilities covered under the ISW general permit use, handle, or generate chemicals and products that could potentially release PAHs into the environment when exposed to precipitation that results in a storm water discharge. EPA reviewed the industrial storm water program's fact sheet series, performed a literature review of industrial activities that have the potential to contribute PAHs in storm water, and conducted an industry analysis of industrial process wastewater discharges. These reviews related to industrial activities informed the 2021 MSGP requirements for specific sectors to perform indicator monitoring for PAHs. Based on information in the industrial storm water fact sheet series, the most common industrial activities with the potential for petroleum hydrocarbon exposure to precipitation that could result in the discharge of PAHs in storm water include the following: materials loading and unloading, storage, handling, and waste management and disposal (18 sectors); equipment/vehicle maintenance, repair, and storage (24 sectors); vehicle fueling (17 sectors); and storage of materials in above-ground tanks (7 sectors). The Department based the inclusion of PAHs monitoring based on the EPA review and the 2021 MSGP.

3. Benchmark Monitoring

This permit requires benchmark monitoring as a gauge of the performance of facilities' storm water control measures and to further ensure compliance with water quality standards. Analytical results from benchmark monitoring are quantitative and therefore can be used to compare results from discharge to discharge and to quantify any improvement in storm water quality attributable to the storm water control measures, or to identify a pollutant that is not being adequately controlled. The benchmark thresholds are the pollutant concentrations above which represent a level of concern. The level of concern is a concentration at which a storm water discharge could potentially impair or contribute to impairing water quality or affect human health from ingestion of water or fish. The benchmarks are also set at a level, that if below, a facility's discharges pose less potential for a water quality concern. As such, the benchmarks provide an appropriate level to determine whether a facility's storm water control measures are successfully implemented.

Benchmark monitoring thresholds for aluminum, antimony, arsenic, beryllium, cadmium, copper, cyanide, lead, mercury, nickel, selenium, silver, and zinc are updated to meet the criteria set forth in NDEE Title 117, *Nebraska Surface Water Quality Standards,* Chapter 4. The benchmark monitoring thresholds for magnesium and iron are suspended based on lack of documented acute toxicity. These revisions are found in the sector specific benchmark monitoring tables in Part 8 of the permit. Total metal limits for Sector K – Hazardous Waste Treatment, Storage, or Disposal Facilities, are maintained to meet the requirements set forth in 40 CFR Part 445.

In the ISW general permit, operators required to conduct sector-specific benchmark monitoring must at a minimum do so quarterly in the first year of permit coverage and again in the fourth year of permit coverage, unless a modified benchmark monitoring schedule is included in the SWPPP for "Facilities in Climates with Irregular Storm Water Discharges", see Part 6.2.2.3 of the permit. The new benchmark monitoring schedule is updated from the 2016 NER910000 permit and extends the minimum benchmark monitoring from four quarters to at least eight quarters under the ISW general permit. The NER910000 permit required only four quarters of benchmark monitoring in the first year of permit coverage, after which benchmark monitoring could be discontinued for the remainder of the permit if the average of four quarters of monitoring was below the benchmark threshold. Requiring monitoring twice during the permit term at the beginning and again towards the end of the permit allows operators to better characterize their industrial storm water discharges and describe industrial storm water control measures performance with additional sampling data throughout their permit coverage.

4. Effluent Limitations Monitoring

Numeric effluent limitations have been included in previous versions of the EPA MSGP; however, were not covered by NER910000. The ISW general permit implements coverage based on national effluent limitation guidelines for certain industry-specific discharges (see Part 1.1.2.4 of the permit). Consistent with minimum monitoring requirements for NPDES permit limits established at 40 CFR Part 122.44(i), operators must monitor for these parameters at least once each year for the duration of permit coverage. Numeric effluent limitations are specified in the sector-specific requirements in Part 8 of the permit. Monitoring for all parameters must be conducted according to the procedures in Part 6.1 of the permit unless otherwise noted.

5. Impaired Waters Monitoring

As in the NER910000 permit, if the storm water discharge is to an impaired water, the monitoring requirements under Part 6.2.4 of the permit are triggered; otherwise, a facility has no obligations under Part 6.2.4.

I. Storm Water Pollution Prevention Plan (SWPPP)

The requirements set forth in this section are based on NDEE Title 119, Chapter 10, the EPA *2021 National Pollutant Discharge Elimination System Multi-Sector General Permit for Stormwater Discharges Associated with Industrial Activities,* and the EPA document, *Developing Your Stormwater Pollution Prevention Plan* (EPA-833-R-06-004, May 2007).

Part 5 of the permit requires operators to develop a SWPPP to document the specific control measures they will use to meet the limits contained in Part 2, and Part 8 (if applicable), as well as to document compliance with other permit requirements (e.g., monitoring, recordkeeping, reporting). The SWPPP itself does not contain effluent limits; rather, it constitutes a tool to assist operators, inspectors, and other authorities in ensuring and documenting that effluent limits are met. Per Part 5.4, this documentation must be kept up-to-date (e.g., with inspection findings, after storm water control measures are modified). Failure to develop and maintain a current SWPPP is a recordkeeping violation of the permit, and is separate and distinct from a violation of any of the other substantive requirements in the permit, such as effluent limits, corrective action, inspections, monitoring, reporting, and sector- or state-specific requirements. Sector-specific SWPPP documentation requirements are also included in Part 8.

To be covered under the ISW general permit, operators must complete a SWPPP prior to submitting an NOI for permit coverage (existing ISW-permitted facilities must update their existing SWPPP). Doing so helps to ensure that operators have (1) taken steps to identify all sources of pollutant discharges via storm water; and (2) implemented appropriate measures to control these discharges in advance of authorization to discharge under the new permit.

J. Reporting and Recordkeeping

1. Electronic Reporting

On October 22, 2015, EPA published the Clean Water Act National Pollutant Discharge Elimination System (NPDES) Electronic Reporting Rule, which requires electronic reporting of NPDES information reports from the permitted facilities. Facilities must submit electronic information required in Appendix A of 40 CFR Parts 127, 122.26(b)(15), and 122.26(b)(14)(x).

2. Retention of Records

The permit requires that all records and reports required by the ISW general permit be retained, including SWPPPs and information used to complete the NOI, for at least 3 years from the termination of coverage or expiration of the permit as per NDEE Title 119, Chapter 14. This period may be extended on request by NDEE.

K. Supporting Documentation

The following documents and regulations were used in the preparation of the draft permit.

1. NDEE Title 115, *Rules of Practice and Procedure*, June 24, 2019.
2. NDEE Title 117, *Nebraska Surface Water Quality Standards*, June 24, 2019.
3. NDEE Title 118, *Ground Water Quality Standards and Use Classifications*, March 27, 2006.
4. NDEE Title 119, *Rules and Regulations Pertaining to the Issuance of Permits under the National Pollutant Discharge Elimination System*, July 2, 2017.
5. NDEE Title 126, *Rules and Regulations Pertaining to Management of Waste*, August 11, 1999.
6. NDEE Title 128, *Nebraska Hazardous Waste Regulations*, July 6, 2016
7. NDEE, *2020 Water Quality Integrated Report*, May 14, 2021.
8. EPA *2021 National Pollutant Discharge Elimination System Multi-Sector General Permit for Stormwater Discharges Associated with Industrial Activity and Fact Sheet* (EPA-HQ-OW-2019-0372; FRL-10019-29-OW, March 1, 2021).
9. *Final National Pollutant Discharge Elimination System Storm Water Multi-Sector General Permit for Industrial Activities* (Federal Register, Vol. 60, No. 189, September 29, 1995).
10. *Technical Support Document for Water Quality-based Toxic Control* (EPA 505/2-90-001 PB91-127415, March 1991).
11. *Developing Your Stormwater Pollution Prevention Plan* (EPA 833-R-06-004, May 2007).
12. *Interim Permitting Approach for Water Quality-Based Effluent Limitations on Storm Water Permits* (EPA 833-D-96-001, September 1996)
13. 40 CFR Parts 122, 124, and 125, NPDES Regulations.
14. Nebraska Nongame and Endangered Species Conservation Act (Neb. Rev. Stat. §§ 37-430 through 317 – 438).

L. Information Requests

Inquiries concerning the draft permit, its basis or the public comment process may be directed to:

Kim Bubb Tel. (402) 471-8830 or (402) 471-4220 Fax: (402) 471-2909

Individuals requiring special accommodations or alternate formats of materials should notify the Department by calling (402) 471-2186. TDD users should call (800) 833-7352 and ask the relay operator to call the Department at (402) 471-2186.

Copies of the application and other supporting material used in the development of the permit are available for review and copying at the Department's office between 8:00 A.M. and 5:00 P.M. on weekdays.

Office Location: 245 Fallbrook Boulevard, Lincoln, Nebraska

Mailing Address: NPDES and State Permits Section
Nebraska Department of Environment and Energy
PO Box 98922
Lincoln, Nebraska 68509-8922

M. Submission of Formal Comments or Requests for Hearing

The date on which the public comment period ends is specified in the public notice. During the public notice period, the public may submit formal comments or objections, and/or petition the Department to hold a public hearing concerning the issuance of the draft permit. All such requests need to: be submitted in written form, state the nature of the issues to be raised, and present arguments and factual grounds to support them. The Department shall consider all written comments, objections and/or hearing petitions, received during the public comment period, in making a final decision regarding permit issuance.

Formal comments, objections and/or hearing requests need to be submitted to:

Kim Bubb; NPDES and State Permits Section

Office Location: 245 Fallbrook Boulevard, Lincoln, Nebraska

Mailing Address: NPDES and State Permits Section
Nebraska Department of Environment and Energy
PO Box 98922
Lincoln, Nebraska 68509-8922