STORM WATER MANAGEMENT
NPDES STORM WATER GENERAL PERMIT NO. 1
Storm Water Discharge Associated with Industrial Activity

A BRIEF GUIDE TO

DEVELOPING STORM WATER POLLUTION PREVENTION PLANS AND BEST MANAGEMENT PRACTICES

SUMMARY GUIDANCE

DECEMBER 2022

IOWA DEPARTMENT OF NATURAL RESOURCES
NPDES Section
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GENERAL PERMIT NO. 1 SUMMARY GUIDANCE - INDEX

WORKSHEETS (page numbers have been omitted from the worksheets)

GLOSSARY

"*Best Management Practices*" or *"BMPs"* means schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of waters of the United States. BMPs also include treatment requirements, operating procedures, and practices to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage.

"Hazardous condition" means any situation involving the actual, imminent, or probable spillage, leakage, or release of a hazardous substance on to the land, into a water of the state, or into the atmosphere, which creates an immediate or potential danger to the public health or safety or to the environment. *Iowa Code 455B.381(4)*

"Hazardous substance" means any substance or mixture of substances that presents a danger to the public health or safety and includes, but in not limited to, a substance that is toxic, corrosive, or flammable, or that is an irritant or that generates pressure through decomposition, heat, or other means. "Hazardous substance" may include any hazardous waste identified or listed by the administrator of the United State Environmental Protection Agency under the Solid Waste Disposal Act as amended by the Resource Conservation and Recovery Act of 1976, or any toxic pollutant listed under section 307 of the federal Water Pollution Control Act as amended to January 1, 1977, or any hazardous substance designated under section 311 of the federal Water Pollution Control Act as amended to January 1, 1977, or any hazardous material designated by the secretary of transportation under the Hazardous Materials Transportation Act. *Iowa Code 455B.381(5)*

"Large and Medium municipal separate storm sewer system" means all municipal separate storm sewers that are either:

(i) located in an incorporated place with a population of 100,000 or more as determined by the latest Decennial Census by the Bureau of Census; or

(ii) located in the counties with unincorporated urbanized populations of 100,000 or more, except municipal separate storm sewers that are located in the incorporated places, townships or towns within such counties; or

(iii) owned or operated by a municipality other than those described in paragraph (i) or (ii) and that are designated by the Department as part of the large or medium municipal separate storm sewer system.

"Municipality" means a city, town, borough, county, parish, district, association, or other public body created by or under State law.

"Significant Materials" means Raw materials; fuels; materials such as solvents, detergents, and plastic pellets; finished materials such as metallic products; raw materials used in food processing or production; hazardous substances designated under section 101(14) of CERCLA; any chemical the facility is required to report pursuant to EPCRA, Section 313; fertilizers; pesticides; and waste products such as ashes, slag, and sludge that have the potential to be released with storm water discharges [40 CFR 122.26(b)(12)].

"Storm water discharge associated with industrial activity" means the discharge from any conveyance that is used for collecting and conveying storm water and that is directly related to manufacturing, processing or raw materials storage areas at an industrial plant. The term does not include discharges from facilities or activities excluded from the NPDES program under 40 CFR Part 122. For the categories of industries identified in this definition, the term includes, but is not limited to, storm water discharges from industrial plant yards; immediate access roads and rail lines used or traveled by carriers of raw materials, manufactured products, waste material, or by-products used or created by the facility; material handling sites; refuse sites; sites used for the application or disposal of process waste waters (as defined at 40 CFR Part 401); sites used for the storage and maintenance of material handling equipment; sites used for residual treatment, storage, or disposal; shipping and receiving areas; manufacturing buildings; storage areas (including tank farms) for raw materials, and intermediate and final products; and areas where industrial activity has taken place in the past and significant materials remain and are exposed to storm water.

For the purposes of this definition, material handling activities include the storage, loading and unloading, transportation, or conveyance of any raw material, intermediate product, final product, by-product, or waste product. The term excludes areas located on plant lands separate from the plant's industrial activities, such as office buildings and accompanying parking lots as long as the drainage from the excluded areas is not mixed with storm water drained from the above described areas. Industrial facilities (including industrial facilities that are Federally, State, or municipally owned or operated) that meet the description of the facilities listed in these paragraphs (i) to (xi) of this definition) include those facilities designated under 40 CFR Section 122.26(a)(1)(v). The following categories of facilities are considered to be engaging in "industrial activity" for purposes of this definition:

(i) Facilities subject to storm water effluent limitations guidelines, new source performance standards, or toxic pollutant effluent standards under 40 CFR Subchapter N (except facilities with toxic pollutant effluent standards which are exempted under paragraph (xi) of this definition);

(ii) Facilities classified within Standard Industrial Classification 24, Industry Group 241 that are rock crushing, gravel washing, log sorting, or log storage facilities operated in connection with silvicultural activities defined in 40 CFR Sections 122.27(b)(2)-(3) and Industry Groups 242 through 249; 26 (except 265 and 267), 28 (except 283), 29, 311, 32 (except 323), 33, 3441, 373; (not included are all other types of silviculture facilities);

(iii) Facilities classified as Standard Industrial Classifications 10 through 14 (mineral industry) including active or inactive mining operations (except for areas of coal mining operations no longer meeting the definition of a reclamation area under 40 CFR Section 434.11(1) because the performance bond issued to the facility by the appropriate SMCRA authority has been released, or except for areas of non-coal mining operations which have been released from applicable state or federal reclamation requirements after December 17, 1990) and oil and gas exploration, production, processing, or treatment operations, or transmission facilities that discharge storm water contaminated by contact with or that has come into contact with, any overburden, raw material, intermediate products, finished products, by-products or waste products located on the site of such operations; (inactive mining operations are mining sites that are not being actively mined, but which have an identifiable owner/operator; inactive mining sites do not include sites where mining claims are being maintained prior to disturbances associated with the extraction, beneficiation, or processing of mined materials, nor sites where minimal activities are undertaken for the sole purpose of maintaining a mining claim);

(iv) Hazardous waste treatment, storage, or disposal facilities, including those that are operating under interim status or a permit under Subtitle C of the Resource Conservation and Recovery Act (RCRA);

(v) Landfills, land application sites, and open dumps that receive or have received any industrial wastes (waste that is received from any of the facilities described under this definition) including those that are subject to regulation under Subtitle D of RCRA;

(vi) Facilities involved in the recycling of materials, including metal scrap yards, battery reclaimers, salvage yards, and automobile junkyards, including, but not limited to, those classified as Standard Industrial Classifications 5015 and 5093;

(vii) Steam electric power generating facilities, including coal handling sites;

(viii) Transportation facilities classified as Standard Industrial Classifications 40, 41, 42 (except 4221-4225), 43, 44, 45 and 5171 which have vehicle maintenance shops, equipment cleaning operations, or airport deicing operations. Only those portions of the facility that are either involved in vehicle maintenance (including vehicle rehabilitation, mechanical repairs, painting, fueling, and lubrication), equipment cleaning operations, airport deicing operations, or which are otherwise identified under paragraphs (i) to (vii) or (ix) to (xi) of this definition are associated with industrial activity;

(ix) Treatment works treating domestic sewage or any other sewage sludge or wastewater treatment device or system used in the storage, treatment, recycling, and reclamation of municipal or domestic sewage, including land dedicated to the disposal of sewage sludge that are located within the confines of the facility, with a design flow of 1.0 mgd or more, or required to have an approved pretreatment program under 40 CFR Part 403. Not included are farmlands, domestic gardens or lands used for sludge management where sludge is beneficially reused and which are not physically located in the confines of the facility, or areas that are in compliance with section 405 of the CWA;

(x) Construction activity including clearing, grading and excavation, except operations that result in the disturbance of less than one acre of total land area. Construction activity also includes the disturbance of less

than one acre of total land area that is a part of a larger common plan of development or sale if the larger common plan will ultimately disturb one acre or more;

(xi) Facilities under Standard Industrial Classifications 20, 21, 22, 23, 2434, 25, 265, 267, 27, 283, 285, 30, 31 (except 311), 323, 34 (except 3441), 35, 36, 37 (except 373), 38, 39, and 4221-4225.

"SWPPP" means storm water pollution prevention plan.

INTRODUCTION

A. ABOUT THIS DOCUMENT

This document contains a step-by-step explanation of the development of an effective Storm Water Pollution Prevention Plan (SWPPP) for Industrial Activities in the State of Iowa. This document is referred to as the Summary Guidance because its primary focus is on the development of the pollution prevention plan. This Summary Guidance is consistent with the requirements in Iowa's NPDES General Permit No. 1 for Storm Water Discharge Associated with Industrial Activity.

Any suggestions or comments on improvements to this document should be forwarded to the to the Storm Water Coordinator at the address on the cover of this document. Questions relating to Iowa's storm water program should also be directed to the Storm Water Coordinator.

B. WHAT TYPE OF INDUSTRIAL ACTIVITIES NEED TO BE COVERED BY A STORM WATER DISCHARGE PERMIT?

Federal regulations require that storm water discharges from certain industrial activities be regulated under an NPDES permit. he NPDES permit, a federal waste water discharge permit, is required for storm water or snow melt runoff that drains from areas where typical industrial activities occur such as plant yards, areas where materials are stored or handled, etc. Generally speaking, businesses primarily engaged in manufacturing, trucking and transportation, construction and mining may be subject to the new storm water program requirements. However, the complete definition of "*storm water discharge associated with industrial activities*" can be found in the Glossary.

C. HOW DOES ONE OBTAIN A NPDES PERMIT FOR A STORM WATER DISCHARGE?

Facilities considered to be "industrial activities" that are subject to the storm water discharge NPDES permitting requirements are encouraged to apply for coverage under Iowa's NPDES General Permit No. 1., which covers storm water discharges from industrial activities, with the exception of activities that cause a land disturbance of one or more acres. General Permit No. 1 is a generic NPDES permit that can cover storm water discharge from most industrial activities.

The general permit contains the terms and conditions, but the permit is not applicable to any particular storm water discharge until a completed Notice of Intent (NOI) is submitted to the Iowa Department of Natural Resources (Department). The NOI links the industrial activity at a particular location with the general permit. When a complete NOI is submitted, the storm water discharge is assumed to be covered under the terms and conditions of the general permit, unless the applicant is notified otherwise by the Department.

D. WHAT IS A STORM WATER POLLUTION PREVENTION PLAN (SWPPP)?

Storm water runoff is part of the natural hydrologic cycle. However, human activities can alter natural drainage patterns and add pollutants to the rainwater and snow melt that run off the earth's surface and enter our nation's rivers, lakes, streams, and coastal waters. In fact, studies have shown that storm water runoff is a major source of the pollutants that are damaging our sport and commercial fisheries, restricting swimming, and affecting the navigability of many of our nation's waters. The purpose of a storm water prevention plan (SWPPP) is to reduce pollution from these facilities where industrial activities occur at the source, before it can cause environmental problems that cost the public and private sectors in terms of lost resources and expensive environmental restoration activities. A SWPPP is required to ensure that pollutants are not making their way into the storm water discharge from a site. SWPPPs require the selection and implementation of Best Management Practices (BMPs). BMPs can consist of a schedule of activities, prohibitions or practices, maintenance procedures, and other management practices to prevent or reduce pollution in runoff from your site. In many cases, BMPs may already be in place and just need to be identified in the SWPPP.

A SWPPP must be developed for each site covered under General Permit No. 1. A SWPPP shall identify the potential sources of pollution which may reasonably be expected to affect the quality of the storm water discharge, and shall describe and ensure the implementation of practices which will be used to reduce the pollutants in the storm water

discharge to assure compliance with the terms and conditions of the general permit. Facilities must implement the provisions of the SWPPP as a condition of General Permit No. 1.

E. WHAT DOES THIS DOCUMENT CONTAIN?

This document is organized as a step-by-step guide for developing a storm water pollution prevention plan (SWPPP) for a storm water discharge covered under General Permit No. 1. This step-by-step guide is presented as seven phases. Each phase focuses on a particular type of information relating to the storm water discharge, and individual steps are identified under each separate phase. The planning process is organized as shown on the chart on the next page.

The seven major phases in developing a SWPPP are:

(1) Planning and Organization;
(2) Pollutant Source Assessment;
(3) Best Management Practice (BMP) Identification;
(4) Implementation;
(5) Evaluation;
(6) General Requirements; and
(7) Special Requirements.

A set of worksheets are provided at the end of this document to further assist in the development of a SWPPP.

Permittees who are subject to reporting requirements under Section 313 for water priority chemicals of the Emergency Planning and Community Right-to-Know Act (EPCRA), (also known as Title III of the Superfund Amendment and Re-authorization Act [SARA]), will have to meet special requirements under General Permit No. 1. These requirements are noted in the guide, and then elaborated upon in Phase 7 - Special Requirements.

SEVEN PHASES FOR DEVELOPING AND IMPLEMENTING A SWPPP FOR INDUSTRIAL ACTIVITIES

PHASE 1
PLANNING AND ORGANIZATION

- Identify Your Pollution Prevention Team or Responsible Party
- Building on Existing Environmental Management Plans

PHASE 2
POLLUTANT SOURCE ASSESMENT

- Develop A Site Map
- Identify Potential Pollutant Sources
- Identify Past Spills and Leaks
- Test for Non-Storm Water Discharges
- Existing Monitoring Data
- Site Evaluation Summary

PHASE 3
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PHASE 5
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- Deadline for SWPPP Preparation
- Required Signatures
- SWPPP Location and Public Access
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- Discharges Through Municipal Separate Storm Sewer Systems
- Section 313 Facilities
- Salt Storage Piles

PHASE 1
PLANNING AND ORGANIZATION

When you begin putting your Storm Water Pollution Prevention Plan (SWPPP) together, there are two steps that will facilitate the development of your SWPPP. These steps are designed to help you organize your staff and make preliminary decisions. These two steps are:

- decide who will be responsible for developing and implementing your SWPPP, and
- look at other existing environmental facility plans to account for consistency and overlap between these other plans with the SWPPP.

A. IDENTIFY YOUR POLLUTION PREVENTION TEAM OR RESPONSIBLE PARTY

As part of developing and implementing your SWPPP, you should:

1. designate a specific individual or team who will develop, implement, maintain, and revise your SWPPP, and
2. identify these individuals and describe each person's responsibilities at the site.

Since facilities differ in size and capacity, the number of team members will also vary. Designating one person may be appropriate as long as that individual is qualified to design and implement the SWPPP. The SWPPP should identify those people on site who are most familiar with the facility and its operations; these people, in turn, should provide structure and direction to the storm water management program. In all cases, someone in a senior management position must have overall responsibility for the SWPPP.

At the end of this guide is an example of an appropriate form on which to list the team member(s). Please see **Worksheet #1 - Pollution Prevention Team Member Roster**. To complete the worksheet, list the pollution prevention team member(s) by name, facility position (title), phone number and email address, and include a brief description of each member's specific responsibilities. This list can be directly incorporated into the SWPPP.

B. BUILDING ON EXISTING ENVIRONMENTAL MANAGEMENT PLANS

The facility may also be subject to other environmental regulations or required plans for environmental protection. These requirements must also be determined and evaluated by the pollution prevention team member(s) for consistency with the requirements in the SWPPP.

Other related plans may include the Preparedness, Prevention and Contingency Plan (40 CFR Parts 264 and 265), the Spill Control and Countermeasures requirements (40 CFR Part 112), the NPDES Toxic Organic Management Plan (40 CFR Parts 413, 433, and 469), and the Occupational Safety and Health Administration (OSHA) Emergency Action Plan (29 CFR Part 1910).

General Permit No. 1 contains the following additional, specific requirements for facilities subject to reporting under SARA Title III, Section 313, for Water Priority Chemicals:

- The SWPPP must designate a person who will be accountable for spill prevention at the facility.
- The designated person is responsible for setting up necessary spill emergency procedures and reporting requirements to isolate, contain, and clean up spills and emergency releases of Section 313 water priority chemicals.

PHASE 2
POLLUTANT SOURCE ASSESSMENT

After identifying who is responsible for developing and implementing your SWPPP and organizing your planning process, proceed to the pollutant source assessment phase. In this phase, you will look at your facility and determine what materials or practices are (or may be) a source of contaminants to the storm water running off your site. To complete this phase, you will:

1. create a map of the facility site to locate pollutant sources and determine storm water management opportunities,
2. identify potential pollutant sources,
3. evaluate past spills and leaks,
4. identify non-storm water discharges and illicit connections,
5. collect or evaluate storm water quality data, and
6. summarize the findings of this assessment.

To select the most appropriate and effective control measures, consider that potential pollutant sources include areas where materials are handled or stored, outdoor processing areas, loading and unloading areas, and on-site waste management and disposal areas.

A. DEVELOPING A SITE MAP

The site map is an illustration of the overall site and location which indicates property boundaries, buildings, and operation or process areas, and provides information on drainage, storm water control structures, and receiving streams. Ideally the map should be drawn to scale; however, your best approximation is sufficient. At a minimum, the site map must include the following information:

- Property boundaries, buildings, and paved areas
- An outline of the drainage area of each storm water outfall, including drainage patterns, direction of flow, and discharge points (outfalls)
- Existing structural control measures (physically constructed features used to control storm water flows)
- On-site surface water bodies, including any neighboring stream, river, lake, or other water body receiving storm water discharges from the site.

The site map must also include the locations of all activities (operation or process areas) and significant materials that may potentially be significant pollutant sources, including:

- Locations of significant materials exposed to storm water
- Locations of spills or leaks (during the past three years)
- Locations for each of the following activities (where exposed to storm water):
  - fueling stations
  - loading and unloading areas
  - vehicle or equipment maintenance and/or cleaning areas
  - liquid storage tanks
  - outside manufacturing or processing areas
  - industrial waste management areas (locations used for treatment, storage, or disposal areas of waste such as landfills, waste piles, treatment plants, disposal areas)
  - storage areas for raw materials, by-products, and finished products.

Locating these features on the map will help you assess where potential storm water pollutants are located on your site, where the pollutants mix with storm water, and where the storm water leaves your site.

Please see **Worksheet #2 - Developing a Site Map** at the end of this guide for additional guidance on developing your site map.

B. IDENTIFY POTENTIAL POLLUTANT SOURCES

1. Material Inventory

   In this part of the Assessment Phase, you will prepare an inventory of significant materials at your site. "*Significant materials*" are substances related to industrial activities such as process chemicals, raw materials, fuels, pesticides, and fertilizers. When these substances are exposed to storm water runoff, they may be carried to a receiving stream with the storm water flow. By using the material inventory, you can identify materials that may be exposed to storm water and identify the measures that you have taken to prevent the contact of these materials with storm water. Maintaining an up-to-date material inventory is an efficient way to identify what materials are handled on-site and which may contribute to storm water contamination.

   Each facility should conduct an inventory of the significant materials at the site. **Worksheet #3 - Material Inventory** (located at the end of this guide) can be used to complete the material inventory.

2. Exposed Materials

   Use the material inventory to identify the materials that have been exposed to storm water in the past three years. Focus on areas where materials are stored, processed, transported, handled, or transferred. Provide a narrative description of the following:

   - methods of storage, location of storage, and on-site disposal methods for these materials;
   - materials management practices used to minimize contact of these materials with storm water runoff;
   - existing structural and non-structural practices used to reduce pollutants in the storm water runoff; and,
   - treatment, if any, that the storm water receives.

   Note: Structural practices include fixed equipment such as berms, detention ponds, or grassed swales. Non-structural practices may include regularly scheduled actions such as sweeping or inspections.

   If any of the significant materials listed on **Worksheet #3 - Material Inventory** are or have been exposed to storm water in the 3 years prior to the effective date of your permit, complete **Worksheet #4 - Description of Exposed Significant Material** and include it in your SWPPP.

C. IDENTIFYING PAST SPILLS AND LEAKS

Provide a list of spills and leaks in the past 3 years which resulted in:

- the existence of a hazardous condition (the definition of hazardous condition can be found in the glossary), and
- whether the spill or leak resulted in the release of a substance that would allow that substance to be exposed to storm water.

Worksheet #5 - History of Hazardous Condition Reporting can help you organize this history of hazardous conditions. When selecting BMPs, you should focus very closely on the site areas = where significant leaks or spills have occurred. You will also want to identify the pollution prevention measures that have been taken, if any, to prevent any reoccurrence of the hazardous condition.

In addition to the history of reportable hazardous conditions, **Worksheet #5 - History of Hazardous Condition Reporting** should be maintained to compile a list of the incidences of any hazardous condition that occur after October 1, 1992.

D. TEST FOR NON-STORM WATER DISCHARGES

The SWPPP must include a certification that all storm water outfalls have been tested or evaluated for the presence of non-storm water discharges. To certify that your facility has been tested or evaluated for non-storm water discharges, you must:

- Identify potential non-storm water discharges.
- Describe the method used and results of any test and/or evaluation for such discharges.
- Indicate the location of the on-site drainage points that were checked during the test or evaluation.

- Provide the date of the test or evaluation.
- If you cannot test or evaluate potential non-storm water discharges, you must complete the information and certification (see **Worksheet #6B**).

Examples of non-storm water discharges include:

- any water used directly in the manufacturing process (process water),
- air conditioner condensate,
- non-contact cooling water,
- vehicle wash water, or
- sanitary wastes.

To check for non-storm water discharges, you can use one of the following three common dry weather tests:

- visual inspection;
- plant schematic review; and/or,
- dye testing.

Worksheet #6A - Non-Storm Water Discharge Assessment and Certification will assist you in conducting a non-storm water discharge assessment and certification for outfalls at your site. If you are unable to test and/or provide certification for the presence of non-storm water discharges, please refer to **Worksheet #6B -Non-Storm Water Discharge Assessment and Failure to Certify**.

E. EXISTING MONITORING DATA

Where existing storm water sampling data are available, the facility must:

(1) provide a summary of any existing storm water sampling data, and
(2) describe the sample collection procedures used.

F. SITE EVALUATION SUMMARY

This step is critical, as it will become the foundation for the rest of the SWPPP. In this step, you will provide a narrative description of activities with a high potential to contaminate storm water at your site. This narrative description will include areas, activities, or materials that may contribute pollutants to storm water runoff from the site. The areas, activities, or materials that will need to be described include those associated with materials loading and unloading, outdoor storage, outdoor manufacturing or processing, on-site waste disposal, and significant dust or particulate generating activities.

The site evaluation summary will also include:

- an identification of the types of pollutants from any existing information on the runoff water quality, if available, and
- an estimation of the types of pollutants likely to be discharged for each drainage area.

Worksheet #7 – Site Evaluation Summary at the end of this guide will assist in completion of this step.

With the information in the site evaluation summary, you can select the most appropriate BMPs to prevent or control pollutants from the identified areas. For each source of storm water pollutants, identify existing management practices and potential BMP options to address the remaining pollutant sources. Factors to consider in selecting BMPs include the toxicity of chemicals; quantity of the chemical used, produced or discharged; the likelihood of contact with storm water and the history of hazardous condition reporting.

PHASE 3
BMP IDENTIFICATION

Once you have identified and assessed potential and existing sources of storm water contamination at your facility, the next step is to identify Best Management Practices (BMPs) that will address the pollutant sources. To satisfy the requirements of this phase, at a minimum, you must incorporate following nine baseline BMPs into your SWPPP:

a. good housekeeping,
b. preventive maintenance,
c. visual inspections,
d. spill prevention and response,
e. sediment and erosion prevention,
f. traditional storm water management practices,
g. BMPs selected from the Site Evaluation Summary (**Worksheet #7**) to address particular pollutant sources or activities on the site,
h. employee training, and
i. record keeping and reporting.

A number of these BMPs are discussed below. **Worksheet #8 - Best Management Practice (BMP) Identification** at the end of this guide can be used to complete this phase.

A. GOOD HOUSEKEEPING

Good housekeeping practices are designed to maintain a clean and orderly work environment. Often the most effective first step towards preventing pollution in storm water from industrial sites involves merely using good common sense to improve the basic housekeeping methods. The following are some simple procedures that a facility can consider incorporating into an effective good housekeeping program:

- Improve operation and maintenance of industrial machinery and processes.
- Implement careful material storage practices.
- Maintain up-to-date material inventory by:
    - Identifying all chemical substances present in the workplace, and
    - Labeling all containers with the name and type of substance, stock number, etc.
- Schedule routine cleanup operations.
- Maintain well-organized work areas.
- Train employees about good housekeeping practices.

B. PREVENTIVE MAINTENANCE

Each permittee must develop a preventive maintenance program that involves (1) inspections and maintenance of storm water management devices and (2) routine inspections of facility operations to detect faulty equipment. Equipment such as tanks, containers, and drums should be checked regularly for signs of deterioration.

SECTION 313, FACILITY PREVENTIVE MAINTENANCE INSPECTION REQUIREMENTS - All areas of the facility must be inspected for all the following at appropriate intervals, as specified in the SWPPP:

- Leaks or conditions that would lead to discharges of Section 313 water priority chemicals;
- Conditions that could lead to direct contact of storm water with raw materials, intermediate materials, waste materials or products; and
- Piping, pumps, storage tanks and bins, pressure vessels, process and material handling equipment, and material bulk storage areas for leaks, wind blowing, corrosion, support or foundation failure, or other deterioration or non-containment.

C. VISUAL INSPECTIONS

Regular visual inspections are your means to ensure that all of the elements of the SWPPP are in place and working properly to prevent pollution of storm water runoff from your facility. Consider the following when conducting visual inspections:

- Designate qualified, trained plant personnel to regularly inspect the facility's equipment and areas, track results of inspections, make necessary changes, and maintain records of all inspections.
- Ensure that inspection records note when inspections were done, who conducted the inspection, what areas were inspected, what problems were found, and what steps were taken to correct any problems.

Keep visual inspection records with the SWPPP.

D. SPILL PREVENTION AND RESPONSE

Areas where spills are likely to occur and their drainage points must be clearly identified in the SWPPP. Ensure that employees are aware of material handling and storage requirements, spill response procedures, and clean up procedures. In addition, ensure that appropriate spill cleanup equipment is available and accessible.

Spill Prevention Plan Considerations:

- Install leak detection devices.
- Adopt good housekeeping practices.
- Perform regular visual inspections to identify areas for potential leaks or spills.
- Reduce, reuse**,** and recycle process materials to minimize waste on-site.

Spill Response Plan Considerations:

- Identify a spill response team to implement the spill response plan.
- Identify safety measures.
- Include procedures for notifying appropriate authorities (police, fire, hospital, Publicly Owned Treatment Works [POTW], etc.) in the event of a spill.
- Describe spill containment, diversion, isolation, and cleanup practices.

SECTION 313, FACILITY SPILL PREVENTION AND RESPONSE REQUIREMENTS - Where a leak or other condition is discovered which may result in significant releases of Section 313 water priority chemicals to the drainage system, corrective action shall be taken immediately or the unit or process shall be shut down until corrective action can be taken.

When a leak or spill of a Section 313 water priority chemical has occurred, the contaminated soil, material, or debris must be removed promptly and disposed of in accordance with Federal, State, and local requirements and as described in the SWPPP. These facilities are also required to designate a person responsible for spill prevention, response, and reporting procedures.

E. SEDIMENT AND EROSION CONTROL

The SWPPP must identify activities that present a potential for significant soil erosion and measures taken to control such erosion.

F. MANAGEMENT OF RUNOFF

In the SWPPP, describe existing storm water runoff controls found at the facility (controls that divert or direct the flow of storm water rather than the pollutant, i.e. using a berm to divert storm water around a storage pile) and the appropriateness of any additional runoff controls that can be implemented to improve the prevention and/or control of polluted storm water. Examples of runoff management controls include: run-on controls, vegetative swales, re-use of collected storm water, infiltration trenches, and detention ponds. Based on an assessment of the potential of various sources at the facility to contribute pollutants to storm water discharges, storm water runoff controls shown to be reasonable and appropriate must be implemented and maintained.

PHASE 4
IMPLEMENTATION

At this point, you have designed your Storm Water Pollution Prevention Plan (SWPPP) and it has been approved by facility management. Under the implementation phase, you must implement the selected storm water BMPs and train all employees to carry out the goals of the SWPPP.

A. IMPLEMENTING APPROPRIATE CONTROLS

In implementing the SWPPP, a facility will:

- Develop a schedule for implementing the storm water pollution prevention controls.
- Assign responsibilities to specific individuals for implementing aspects of the SWPPP and/or monitoring the progress of implementation.
- Ensure that management approves of your implementation schedule and strategy, and schedule regular times for reporting progress to management.

B. EMPLOYEE TRAINING

Permittees must develop an employee training program that covers such topics as spill prevention and response, good housekeeping, and material management practices. The goals of a training program are to teach personnel, at all levels of responsibility, the components and goals of the SWPPP and to create overall sensitivity to storm water pollution prevention concerns. The SWPPP must include a schedule for the training programs.

Section 313, SARA Title III Facility Requirements - There are additional training requirements for employees and contractor personnel who work in areas where Section 313, water priority chemicals are used or stored. These individuals must be trained in the following areas, at least once per year:

- Preventive measures, including spill prevention and response and preventive maintenance;
- Pollution control laws and regulations;
- The SWPPP; and
- Features and operations of the facility that are designed to minimize discharges of Section 313 water priority chemicals, particularly spill prevention procedures.

PHASE 5
EVALUATION

Now that your SWPPP has been put to action, you must keep it up-to-date by regularly evaluating the information you collected in the Pollutant Source Assessment Phase and the controls you selected in the BMP Identification Phase. Specifically, you must conduct visual site inspections, keep records of all inspections and reports, and revise the SWPPP as needed.

A. ANNUAL VISUAL INSPECTION

Qualified personnel must conduct site visual compliance evaluation inspections at appropriate intervals, but at least once a year. As part of the inspection, you must:

- Inspect material handling areas and other potential sources of pollution for evidence of, or the potential for, pollutants entering the drainage system.
- Observe structural storm water management measures, sediment and erosion control measures, and other BMPs to ensure that they are operating correctly.
- Visually inspect equipment (such as spill response equipment) needed to implement the SWPPP.
- Based on the results of the inspection, evaluate the effectiveness of pollution prevention measures (BMPs). For example, determine if your site is cleaner or gauge whether employees are more familiar with good housekeeping measures and spill prevention/response practices.
- Revise the SWPPP as needed within 2 weeks of an inspection and implement any necessary changes within 12 weeks of the inspection.
- Prepare a report summarizing the extent of the inspection, the inspection results, follow-up actions, the date(s) of the inspection, and the personnel who conducted the inspection.
- Sign the report and keep it with the SWPPP for at least three years. Refer to the PHASE 6 - B. Required Signatures portion of this document for a description of who needs to sign the inspection report and the required certification statements.

When the annual site inspections in the SWPPP are impractical because an employee is not stationed on site or does not routinely visit the site, then site inspections shall occur at least once every three years. When the annual site inspections in the SWPPP are impractical for inactive sites (sites where industrial activity is no longer conducted), then site inspections shall occur at least once every five years. After a site becomes inactive, at least one site inspection shall occur within two years.

B. RECORD KEEPING AND INTERNAL REPORTING

A copy of the SWPPP, records of all monitoring information, copies of all reports required by the general permit and all records used to complete the Notice of Intent must be retained for the duration of the permit or for a period of at least three years from the date of the document. Monitoring results shall be retained, and permittees must submit monitoring results to the Department upon request.

C. SWPPP REVISIONS

Major changes in a facility's design, construction, operation, or maintenance will necessitate changes in the SWPPP. The SWPPP will also need to be revised if it proves to be ineffective in achieving the general objectives of controlling pollutants in the storm water discharge.

Facilities covered under General Permit No. 1 that discharge to a municipal separate storm sewer system must comply with the applicable requirements in any municipal storm water management programs developed under the NPDES permit issued to the municipal separate storm sewer system that receives the facility's discharge. The facility will be notified of the requirements resulting from the municipal storm water management program.

PHASE 6
GENERAL REQUIREMENTS

This section provides guidance on some of the administrative requirements for SWPPPs and for coverage under General Permit No. 1.

A. DEADLINES FOR SWPPP PREPARATION

The SWPPP shall be completed before a Notice of Intent (NOI) is submitted to the Department. Full implementation of the SWPPP will be executed concurrently with operations at the facility. In the case of a new facility, the SWPP will be executed with the start of operations at the facility.

B. REQUIRED SIGNATURES

All information either submitted to the Department or the operator of a municipal separate storm sewer system, or that General Permit No. 1 requires be maintained by the permittee, shall be signed in accordance with subrule 567 IAC 64.3(8) as follows:

64.3(8) The person who signs the application for an operation permit shall be:

a. *Corporations*. In the case of corporations, a responsible corporate officer. A responsible corporate officer means: (1) A president, secretary, treasurer, or vice -president in charge of a principal business function, or any other person who performs similar policy or decision-making functions: or (2) The manager of manufacturing, production or operating facilities, if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.

b. *Partnerships*. In the case of a partnership, a general partner.

c. *Sole proprietorships*. In the case of a sole proprietorship, the proprietor.

d. *Municipal, state, federal, or other public agency*. In the case of a municipal, state, or other public facility, either the principal executive officer or the ranking elected official. A principal executive officer of a public agency includes: (1) The chief executive officer of the agency, or (2) A senior executive officer having responsibility for the overall operations of a unit of the agency.

e. *Storm water discharge associated with industrial activity from construction activities*. In the case of a storm water discharge associated with construction activity, either the owner of the site or the general contractor.

The person who signs NPDES reports shall be the same, except that in the case of a corporation or a public body, monitoring reports required under the terms of the permit may be submitted by the person who is responsible for the overall operation of the facility from which the discharge originated.

Any person signing documents required by General Permit No. 1 is required to make the following certification:

Certification Statement

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for known violations.

The certification must include the name and title of the person providing the signature; the name, address and telephone number of the contracting firm; the site address or location; and the date the certification is made.

C. SWPPP LOCATION AND PUBLIC ACCESS

All SWPPPs are required to be maintained on-site. The SWPPP must be made available to the Department upon request. If the storm water from the facility or site discharges to a medium or large municipal storm sewer system, the SWPPP must be made available to the municipal operator of the system.

All SWPPPs received by the Department are considered to be reports that shall be made available to the public. However, the permittee may claim any portion of a SWPPP as confidential in accordance with Iowa Code Chapter 22 and Iowa Administrative Code 561 IAC 2.5.

D. REQUIRED SWPPP MODIFICATIONS

The Department may review the SWPP at any time and may notify the permittee that it does not meet one or more of the minimum standards established by the SWPPP requirements. In this case, the Department will notify the discharger of the changes that must be made to improve the SWPPP. The permittee shall make changes to the SWPPP and shall submit to the Department a written certification that the requested changes have been made. Unless otherwise provided by the Department, the permittee shall have 30 days after such notification to make the necessary changes.

E. NOTICE OF DISCONTINUATION

Storm water dischargers covered under General Permit No. 1 are required to notify the Department that the discharge has been discontinued. This notification is made using the Notice of Discontinuation (NOD) form, which is available on the Department 's Storm Water Permits, Forms and Application Materials webpage at: https://www.iowadnr.gov/Environmental-Protection/Water-Quality/NPDES-Storm-Water/Permits-Guidance-Forms.

Within 30 days of the discontinuance of the discharge, the operator must submit a NOD to the email address indicated on the form.

F. TRANSFERRING COVERAGE UNDER THE PERMIT

If the title is transferred for any facility or activity that has a storm water discharge associated with industrial activity covered under General Permit No. 1, the new owners are subject to all terms and conditions of the general permit. When the title is changed, the Department shall be notified within 30 days with the following information:

(1) Permit authorization number for the storm water discharge that is being transferred.
(2) Name, address, phone number, and email address of the permitted owner.
(3) Name, address, phone number, and email address of the new owner.
(4) Name, address, phone number, and email address of the contact person for the facility.
(5) Date of title transfer.

Submit the information to npdes.mail@iowa.dnr.gov.

PHASE 7
SPECIAL REQUIREMENTS

In addition to the minimum baseline BMPs discussed in the previous phases, facilities may be subject to additional special requirements. Not all facilities will have to include these special requirements in their SWPPP. Be sure to read General Permit No. 1 closely for these special requirements, and review this Phase for additional guidance.

A. SPECIAL REQUIREMENTS FOR DISCHARGES THROUGH MUNICIPAL SEPARATE STORM SEWER SYSTEMS

Industrial facilities that discharge storm water through a municipal separate storm sewer system must comply with any applicable conditions established by the municipality's storm water management program. These facilities will be notified by the municipality of the requirements.

B. SPECIAL REQUIREMENTS FOR SARA TITLE III

In addition to the other special requirements identified in this guide, the following specific control requirements must be practiced for storm water discharge associated with industrial activity where Section 313 water priority chemicals are stored, handled, processed, or transferred:

1. Provide containment, drainage control, and/or diversionary structures. At a minimum, one of the following preventive systems or its equivalent must be used:
   - curbing, culverting, gutters, sewers, or other forms of drainage control to prevent or minimize the potential for storm water run-on to come into contact with significant sources of pollutants, or
   - roofs, covers or other forms of protection to prevent storage piles from exposure to storm water and blowing wind.

2. Provide secondary containment designed to hold the volume of the largest storage tank plus precipitation and drainage from a 10-year, 24-hour precipitation event. The secondary containment system must be sufficiently impervious to contain spilled Section 313 water priority chemicals until they can be removed or treated. If secondary containment is not economically achievable, the discharge shall develop and implement a spill contingency and integrity testing plan (described below) which provides a description of measures that ensure spills or other releases of toxic amounts of Section 313 water priority chemicals do not occur. The spill contingency and integrity plan shall include the following:
   - a detailed description demonstrating that the secondary containment or controls at the truck and rail car loading/unloading areas are not economically feasible;
   - a description of response plans, personnel needs, and methods of mechanical containment;
   - steps to be taken for removal of spilled Section 313 water priority chemicals;
   - access to and availability of sorbents and other equipment;
   - any other information as required by the Department;
   - integrity testing requiring the testing of storage tanks at least once every five years and conducting integrity and leak testing of valves and piping a minimum of every year; and
   - a written and actual commitment of manpower, equipment and materials required to comply with the spill contingency and integrity plan and to expeditiously control and remove quantities of Section 313 water priority chemicals that may result in a toxic discharge.

3. Describe the measures taken to:
   - store a Section 313 water priority chemical in a tank or container made of material and construction compatible with the material stored and conditions of storage (such as pressure and temperature),
   - minimize discharges from material storage areas (other than liquids) that are subject to runoff, leaching, or blowing wind by installing drainage and/or other control measures to minimize the discharge of Section 313 water priority chemicals,
   - minimize discharges from truck and rail car loading/unloading areas for liquid Section 313 water priority chemicals - (use drip pans at locations where spillage may occur such as hose connections, hose reels and

filler nozzles). Drip pans must always be used when making and breaking hose connections. A drip pan system should be installed within the rails of railways to collect spillage from tank cars. Truck loading/unloading docks shall have overhangs or door skirts that enclose the trailer end.

- If the installation of this equipment is economically feasible, these areas must be addressed in the spill contingency and integrity testing plan.
- Prevent discharges from handling/processing/transferring areas and equipment. Ensure that materials used in piping and equipment are compatible with the substances handled. Additional protection, such as covers or guards, to prevent releases from pressure relief vents should be provided as appropriate. Also, provide for visual inspections or leak tests for overhead piping conveying Section 313 water priority chemicals without secondary containment.
- Prevent discharges from all the above areas (by using manually activated valves with drainage controls in all areas, and/or equip the plant with a drainage system to return spilled material to the facility).
- Introduce facility security programs to prevent spills (use fencing, lighting, traffic control, and/or secure equipment and buildings). Facilities shall have the necessary security systems to prevent accidental or intentional entry which could cause a discharge.

C. SPECIAL REQUIREMENTS FOR SALT STORAGE PILES

Salt storage piles at a facility that falls under the definition of storm water discharge associated with industrial activity that are used for deicing or other commercial or industrial purposes shall be enclosed or covered to prevent exposure to precipitation. Please note that piles do not need to be enclosed or covered where storm water is not discharged to waters of the United States.

APPENDIX A
SECTION 313 WATER PRIORITY CHEMICALS

CAS Number	Common Name
75-07-0	Acetaldehyde
107-02-8	Acrolein
107-13-1	Acrylonitrile
309-00-2	Aldrin[1,4:5,8-Dimethanonaphthalene,1,2,3,4,10,10-hexachloro-1,4,4a,5,8,8a hexahydro-(1.alpha.,4.alpha.,4a.beta.,5.alpha.,8.alpha.,8a.beta.)-]
107-05-1	Allyl Chloride
7429-90-5	Aluminum (fume or dust)
7664-41-7	Ammonia
62-53-3	Aniline
120-12-7	Anthracene
7440-36-0	Antimony
7647189	Antimony pentachloride
28300745	Antimony potassium tartrate
7789619	Antimony tribromide
10025919	Antimony trichloride
7783564	Antimony trifluoride
1309644	Antimony trioxide
7440-38-2	Arsenic
1303328	Arsenic disulfide
1303282	Arsenic pentoxide
7784341	Arsenic trichloride
1327533	Arsenic trioxide
1303339	Arsenic trisulfide
1332-21-4	Asbestos (friable)
542621	Barium cyanide
71-43-2	Benzene
92-87-5	Benzidine
100470	Benzonitrile
218019	Benzo(a)phenanthrene
50328	Benzo(a)pyrene
205992	Benzo(b)fluoranthene
205823	Benzo(j)fluoranthene
207089	Benzo(k)fluoranthene
189559	Benzo(rst)pentaphene
56553	Benzo(a)anthracene
100-44-7	Benzyl chloride
7440-41-7	Beryllium
7787475	Beryllium chloride
7787497	Beryllium fluoride
7787555	Beryllium nitrate
111-44-4	Bis(2-chloroethyl) ether
75-25-2	Bromoform
74-83-9	Bromomethane (Methyl bromide)
85-68-7	Butyl benzyl phthalate
7440-43-9	Cadmium
543908	Cadmium acetate
7789426	Cadmium bromide
10108642	Cadmium chloride
7778441	Calcium arsenate
52740166	Calcium arsenite
13765190	Calcium chromate
592018	Calcium cyanide
133-06-2	Captan [1H-Isoindole-1,3(2H)-dione,3a,4,7,7a-tetrahydro-2-[(trichloromethyl)thio]-]
63-25-2	Carbaryl [1-Naphthalenol, methylcarbamate]
75-15-0	Carbon disulfide
1563662	Carbofuran
56-23-5	Carbon tetrachloride
57-74-9	Chlordane [4,7-Methanoindan, 1,2,4,5,6,7,8,8- octachloro-2,3,3a,4,7,7a-hexahydro-]
7782-50-5	Chlorine
59-50-7	4-Chloro 3-methyl phenol p-Chloro-m-cresol
108-90-7	Chlorobenzene
75-00-3	Chloroethane (Ethyl chloride)
67-66-3	Chloroform
74-87-3	Chloromethane (Methyl chloride)
95-57-8	2-Chlorophenol
106-48-9	4-Chlorophenol
75729	Chlorotrifluoromethane
1066304	Chromic acetate
11115745	Chromic acid
10101538	Chromic sulfate
7440-47-3	Chromium
1308-14-1	Chromium (Tri)
10049055	Chromous chloride
7789437	Cobaltous bromide
544183	Cobaltous formate
14017415	Cobaltous sulfamate
7440-50-8	Copper
108-39-4	m-Cresol
9548-7	o-Cresol
106-44-5	p-Cresol
4170303	Crotonaldehyde
1319-77-3	Cresol (mixed isomers)
142712	Cupric acetate
12002038	Cupric acetoarsenite
7447394	Cupric chloride
3251238	Cupric nitrate
5893663	Cupric oxalate
7758987	Cupric sulfate
10380297	Cupric sulfate, ammoniated
815827	Cupric tartrate
57-12-5	Cyanide
506774	Cyanogen chloride
333415	Diazinon
94-75-7	2,4-D [Acetic acid, (2,4-dichlorophenoxy)-]

CAS Number	Common Name
226368	Dibenz(a,h)acridine
224420	Dibenz(a,j)acridene
5385751	Dibenzo(a,e)fluoranthene
192654	Dibenzo(a,e)pyrene
53703	Dibenzo(a,h)anthracene
189640	Dibenzo(a,l)pyrene
191300	Dibenzo(a,h)pyrene
194592	7, H-Dibenzo(c,g)carbazole
106-93-4	1,2-Dibromoethane (Ethylene dibromide)
84-74-2	Dibutyl phthalate
1929733	2,4 D Butoxyethyl ester
94804	2,4 D Butyl ester
2971382	2,4 D Chlorocrotyl ester
1918009	Dicamba
95-50-1	1,2-Dichlorobenzene
541-73-1	1,3-Dichlorobenzene
106-46-7	1,4-Dichlorobenzene
91-94-1	3,3'-Dichlorobenzidine
75-27-4	Dichlorobromomethane
107-06-2	1,2-Dichloroethane (Ethylene dichloride)
75434	Dichlorofluoromethane
540-59-0	1,2-Dichloroethylene
120-83-2	2,4-Dichlorophenol
78-87-5	1,2-Dichloropropane
10061026	trans-1,3-Dichloropropene
542-75-6	1,3-Dichloropropylene
62-73-7	Dichlorvos [Phosphoric acid, 2,2-dichloroethenyl dimethyl ester]
115-32-2	Dicofol [Benzenemethanol, 4-chloro-.alpha.-(4-chlorophenyl)-.alpha.-(trichloromethyl)-]
177-81-7	Di-(2-ethylhexyl) phthalate (DEHP)
84-66-2	Diethyl phthalate
124403	Dimethylamine
57976	7,12-Dimethylbenz(a)anthracene
105-67-9	2,4-Dimethylphenol
131-11-3	Dimethyl phthalate
534-52-1	4,6-Dinitro-o-cresol
51-28-5	2,4-Dinitrophenol
121-14-2	2,4-Dinitrotoluene
606-20-2	2,6-Dinitrotoluene
117-84-0	n-Dioctyl phthalate
122-66-7	1,2-Diphenylhydrazine (Hydrazobenzene)
94111	2,4-D Isopropyl ester
106-89-8	Epichlorohydrin
1320189	2,4-D Propylene glycol butyl ether ester
330541	Diuron
100-41-4	Ethylbenzene
106934	Ethylene dibromide
50-00-0	Formaldehyde

CAS Number	Common Name
CAS Number	Common Name
76-44-8	Heptachlor [1,4,5,6,7,8,8-Heptachloro-3a,4,7,7a-tetrahydro-4,7-methano-1H-indene]
118-74-1	Hexachlorobenzene
319846	alpha-Hexachlorocyclohexane
87-68-3	Hexachloro-1,3-butadiene
77-47-4	Hexachlorocyclopentadiene
67-72-1	Hexachloroethane
7647-01-0	Hydrochloric acid
74-90-8	Hydrogen cyanide
7664-39-3	Hydrogen fluoride
193395	Indeno[1,2,3-cd]pyrene
7439-92-1	Lead
301042	Lead acetate
7784409	Lead arsenate
7645252	" "
10102484	" "
7758954	Lead chloride
13814965	Lead fluoborate
7783462	Lead fluoride
10101630	Lead iodide
10099748	Lead nitrate
7428480	Lead stearate
1072351	" "
52652592	" "
7446142	Lead sulfate
1314870	Lead sulfide
592870	Lead thiocyanate
58-89-9	Lindane [Cyclohexane, 1,2,3,4,5,6-hexachloro(1.alpha.,3.beta.,4.alpha.,5.alpha.,6.beta.)-]
14307258	Lithium chromate
121755	Malathion
108-31-6	Maleic anhydride
592041	Mercuric cyanide
10045940	Mercuric nitrate
7783359	Mercuric sulfate
592858	Mercuric thiocyanate
7782867	Mercurous nitrate
7439-97-6	Mercury
72-43-5	Methoxychlor [Benzene, 1,1'-(2,2,2-trichloroethylidene)bis[4-methoxy-]
80-62-6	Methyl methacrylate
75865	2-Methyllactonitrile
3697243	5-Methylchrysene
298000	Methyl parathion
7786347	Mevinphos
300765	Naled
91-20-3	Naphthalene
7440-02-0	Nickel
15699180	Nickel ammonium sulfate
37211055	Nickel chloride
7718549	" "

12054487	Nickel hydroxide
14216752	Nickel nitrate
CAS Number	**Common Name**
7786814	Nickel sulfate
7697-37-2	Nitric acid
98-95-3	Nitrobenzene
88-75-5	2-Nitrophenol
100-02-7	4-Nitrophenol
5522430	1-Nitropyrene
62-75-9	N-Nitrosodimethylamine
86-30-6	N-Nitrosodiphenylamine
621-64-7	N-Nitrosodi-n-propylamine
56-38-2	Parathion [Phosphorothioic acid, O,O-diethyl-O-(4-nitrophenyl) ester]
87-86-5	Pentachlorophenol (PCP)
85018	Phenanthrene
108-95-2	Phenol
7664-38-2	Phosphoric acid
7723-14-0	Phosphorus (yellow or white)
1336-36-3	Polychlorinated biphenyls (PCBs)
7784410	Potassium arsenate
10124502	Potassium arsenite
7778509	Potassium bichromate
7789006	Potassium chromate
151508	Potassium cyanide
2312358	Propargite
75-56-9	Propylene oxide
91-22-5	Quinoline
7782-49-2	Selenium
7446084	Selenium oxide
7440-22-4	Silver
7761888	Silver nitrate
7631892	Sodium arsenate
7784465	Sodium arsenite
10588019	Sodium bichromate
7775113	Sodium chromate
143339	Sodium cyanide
7632000	Sodium nitrite
10102188	Sodium selenite
7782823	" "
7789062	Strontium chromate
NA	Strychnine & salts
100-42-5	Styrene
7664-93-9	Sulfuric acid
79-34-5	1,1,2,2-Tetrachloroethane
127-18-4	Tetrachloroethylene (Perchloroethylene)
CAS Number	**Common Name**
935-95-5	2,3,5,6-Tetrachlorophenol
78002	Tetraethyl lead
7440-28-0	Thallium
10031591	Thallium sulfate
108-88-3	Toluene
8001-35-2	Toxaphene
52-68-6	Trichlorfon [Phosphonic acid, (2,2,2-trichloro-1-hydroxyethyl)-dimethylester]
120-82-1	1,2,4-Trichlorobenzene
71-55-6	1,1,1-Trichloroethane (Methyl chloroform)
79-00-5	1,1,2-Trichloroethane
79-01-6	Trichloroethylene
95-95-4	2,4,5-Trichlorophenol
88-06-2	2,4,6-Trichlorophenol
121448	Triethylamine
7440-62-2	Vanadium (fume or dust)
108-05-4	Vinyl acetate
75-01-4	Vinyl chloride
75-35-4	Vinylidene chloride
108-38-3	m-Xylene
95-47-6	o-Xylene
106-42-3	p-Xylene
1330-20-7	Xylene (mixed isomers)
7440-66-6	Zinc (fume or dust)
557346	Zinc acetate
14639975	Zinc ammonium chloride
14639986	" " "
52628258	" " "
1332076	Zinc borate
7699458	Zinc bromide
3486359	Zinc carbonate
7646857	Zinc chloride
557211	Zinc cyanide
7783495	Zinc fluoride
557415	Zinc formate
7779864	Zinc hydrosulfite
7779886	Zinc nitrate
127822	Zinc phenolsulfonate
1314847	Zinc phosphide
16871719	Zinc silicofluoride
7733020	Zinc sulfate

Iowa Department of Natural Resources
Worksheets for NPDES Storm Water General Permit #1

Worksheet #1 - Pollution Prevention Team Member Roster

Leader: _____ Title: _____

Office Phone: _____ Email: _____

Responsibilities: _____

Member 1: _____ Title: _____

Office Phone: _____ Email: _____

Responsibilities: _____

Member 2: _____ Title: _____

Office Phone: _____ Email: _____

Responsibilities: _____

Member 3: _____ Title: _____

Office Phone: _____ Email: _____

Responsibilities: _____

Member 4: _____ Title: _____

Office Phone: _____ Email: _____

Responsibilities: _____

Member 5: _____ Title: _____

Office Phone: _____ Email: _____

Responsibilities: _____

Member 6: _____ Title: _____

Office Phone: _____ Email: _____

Responsibilities: _____

Member 7: _____ Title: _____

Office Phone: _____ Email: _____

Responsibilities: _____

Completed by: _____ Title: _____ Date: _____

Worksheet #2 - Developing a Site Map

Instructions: Draw a map of your overall facility site including property boundaries, all buildings, structures, paved areas, and parking lots. Draw the map to scale to the best of your ability. Also include the following on the map:

- An outline of the drainage area of each storm water outfall including:
  - Drainage patterns
  - Direction of flow
  - Discharge points (outfalls)

- Existing structural storm water pollution control measures (physically constructed features used to control storm water flows), such as:
  - Flow diversion structures
  - Retention/detention ponds
  - Vegetative swales
  - Sediment traps

- Name of receiving water (or if through a Municipal Separate Storm Sewer System)

- Location and name of surface water bodies, including any neighboring stream, river, lake, or water body receiving storm water discharges from the site

- Locations of past spills and leaks (during the past three years)

- Locations for each of the following activities (where exposed to storm water):
  - Fueling stations
  - Vehicle/equipment washing and maintenance area Areas for unloading/loading materials
  - Above-ground tank s for liquid storage
  - Industrial waste management area s (landfills, waste piles, treatment plants, disposal area s) Outside storage areas for raw materials, by-products, and finished products
  - Outside manufacturing or processing areas
  - Other areas of concern (specify): _____

Completed by: _____ Title: _____ Date: _____

Worksheet #3 - Material Inventory

Instructions: List all significant materials used, stored, handled, disposed, processed, or produced onsite. Assess and evaluate these materials for their potential to contribute pollutants to storm water runoff. **Complete Worksheet #4 if the material has been exposed to storm water during the last 3 years**.

Name of Material	Where is it located?	Quantity (units)			What is the likelihood of contact with the storm water? What conditions would cause contact with storm water? Explain.	Has any of this material been exposed to storm water in the last three years? (Yes or No)
		Used	Produced	Discharged		
						☐ Yes ☐ No
						☐ Yes ☐ No
						☐ Yes ☐ No
						☐ Yes ☐ No
						☐ Yes ☐ No
						☐ Yes ☐ No
						☐ Yes ☐ No
						☐ Yes ☐ No
						☐ Yes ☐ No
						☐ Yes ☐ No
						☐ Yes ☐ No
						☐ Yes ☐ No
						☐ Yes ☐ No
						☐ Yes ☐ No
						☐ Yes ☐ No
						☐ Yes ☐ No
						☐ Yes ☐ No
						☐ Yes ☐ No
						☐ Yes ☐ No

Completed by: ______________________ Title: ______________________ Date: __________

Worksheet #4 - Description of Exposed Significant Material

Instructions: Based on your material inventory in Worksheet #3, describe the significant materials that were exposed to storm water during the past three years and/or materials that are currently exposed to storm water.

Description of Exposed Significant Material	Period of Exposure	Quantity Exposed (units)	Location (as indicated on the site map)	Method of Storage or Disposal (e.g. pile, drum, tank)	Material Management Practices Used (Provide a narrative description of the materials management practices used that either: minimized contact with storm water, serve as structural or non-structural control measures to reduce pollutants in storm water, or treat storm water)

Completed by: _____ Title: _____ Date: _____

Worksheet #5 - History of Hazardous Condition Reporting

Instructions: Record below all spills and/or leaks of toxic or hazardous pollutants, which resulted in a Hazardous Condition that have occurred at the facility since October 1, 1989.

Date (MM/DD/YYYY)	Name of Material	Location (as indicated on the site map)	Reason for Spill or Leak	Preventative Measure(s) Taken to Prevent Reoccurrence of Spill or Leak

Completed by: _____ Title: _____ Date: _____

Worksheet #6A - Non-Storm Water Discharge Assessment and Certification

Instructions: Test or evaluate your outfalls for non-storm water discharge within 180 days of the discharge authorization date and fill in the table below with the appropriate information. Sign this form to certify the accuracy of the included information. Use the key from your site map to identify each outfall.

Date of Test or Evaluation	Outfall Directly Observed During the Test (identify as indicated on the site map)	Method Used to test or Evaluate Discharge	Describe Results from Test for the Presence of Non-Storm Water Discharge	Identify Potential Significant Sources	Name of Person Who Conducted the Test or Evaluation

Completed by: _____ Title: _____ Date: _____

Certification

I, _____ (responsible corporate official), certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

(Type or Print)

Name: _____ Official Title: _____

Email Address: _____ Phone Number: _____

Signature: _____ Date Signed: _____

Worksheet #6B - Non-Storm Water Discharge Assessment and Failure to Certify Notification

Instructions: If you cannot feasibly test or evaluate an outfall within 180 days of the discharge authorization date, fill in the table below with the appropriate information and sign this form to certify the accuracy of the information. List all outfalls not tested or evaluated, describe any potential sources of non-storm water pollution from listed outfalls, and state the reason(s) why certification is not possible. Use the key from your site map to identify each outfall.

Notice: A copy of this certification must be signed and kept onsite and made available to the Iowa Department of Natural Resources upon request.

Identify Outfall Not Tested or Evaluated	Description of Why Certification is Infeasible	Description of Potential Sources of Non-Storm Water Pollution

Completed by: _____ Title: _____ Date: _____

Certification

I, _____ (responsible corporate official), certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

(Type or Print)

Name: _____ Official Title: _____

Email Address: _____ Phone Number: _____

Signature: _____ Date Signed: _____

Worksheet #7 - Site Evaluation Summary

Instructions: List all identified storm water pollutant sources and describe existing management practices that address these sources.

Activity	Storm Water Pollutant Source	Pollutants of Concern (from existing information of estimation)	Describe Existing BMPs (pollution prevention measures)	Description of New BMP Options (identify BMP options for eliminating remaining sources of pollutants)
Loading / Unloading Operations				
Maintenance Operations / Equipment Cleaning Operations				
Outdoor Storage Operations				
Onsite Practices				
Dust or Particulate Generating Processes				
Above ground Liquid Storage Tanks				

Activity	Storm Water Pollutant Source	Pollutants of Concern (from existing information of estimation)	Describe Existing BMPs (pollution prevention measures)	Description of New BMP Options (identify BMP options for eliminating remaining sources of pollutants)
Outdoor Manufacturing and / or Process Operations				
Others				

Completed by: _____ Title: _____ Date: _____

Worksheet #8 - Best Management Practice (BMP) Identification

Instructions: Describe the Best Management Practices that you have selected to include in your pollution prevention plan. Also describe any additional BMPs (activity specific and site specific BMPs) that you have selected from Worksheet #7. For each of the BMPs, describe actions that will be incorporated into facility operations. Attach additional sheets if necessary.

BMPs	Brief Description of Activities
Good Housekeeping	
Preventative Maintenance	
Visual Inspections	
Spill Prevention Response	
Sediment and Erosion Control	
Storm water Management - Runon	
Storm Water Management - Runoff	
Additional BMPs (Activity specific and site specific chosen from Worksheet #7)	
Employee Training	

Completed by: _____ Title: _____ Date: _____