

# STORM WATER MANAGEMENT FOR INDUSTRIAL ACTIVITIES

A BRIEF GUIDE TO  
DEVELOPING POLLUTION PREVENTION PLANS  
AND BEST MANAGEMENT PRACTICES

## SUMMARY GUIDANCE

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## GLOSSARY

"*Best Management Practices*" - 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. 455B.381(2) 1991, Code of Iowa

"*Hazardous substance*" means any substance or mixture of substances that presents a danger to the public health or safety and includes, but is not limited to, a substance that is toxic, corrosive, or flammable, or that is an irritant or that, in confinement, generates pressure through decomposition, heat, or other means. The following are examples of substances which, in sufficient quantity may be hazardous: acids; alkalis; explosives; fertilizers; heavy metals such as chromium, arsenic, mercury, lead and cadmium; industrial chemicals; paint thinners; paints; pesticides; petroleum products; poisons, radioactive materials; sludges; and organic solvents. "Hazardous substances" 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 (49 CFR 172.101). 455B.381(1) , 1991 Code of Iowa

" *Municipal Separate Storm Sewer System*" means all municipal separate storm sewers that are owned or operated by a municipality.

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

"*Significant Materials*": *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 which is used for collecting and conveying storm water and which 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 paragraphs (i) through (x) of 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 finished products; and areas where industrial activity has taken place in the past and significant materials remain and are exposed to storm water.

For the categories of industries identified in paragraph (xi) of this definition, the term includes only storm water discharges from all the areas (except access roads and rail lines) that are listed in the previous sentence where material handling equipment or activities, raw materials, intermediate products, final products, waste materials, by-products, or industrial machinery are exposed to storm water. For the purposes of this paragraph, material handling activities include the storage, loading and unloading, transportation, or conveyance of any raw material, intermediate product, finished 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)-(xi) of the definition) include those facilities designated under 40 CFR 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 category (xi) of this definition);

(ii) Facilities classified as Standard Industrial Classifications 24 (except 2434), 26 (except 265 and 267), 28 (except 283 and 285), 29, 311, 32 (except 323), 33, 3441, 373;

(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 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, byproducts 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 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 subsection) 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 limited to those classified as Standard Industrial Classification 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)-(vii) or (ix)-(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 403. Not included are farm lands, 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 40 CFR 503;

(x) Construction activity including clearing, grading and excavation activities except: operations that result in the disturbance of less than one acre of total land area which are not part of a larger common plan of development or sale;

(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, 4221-4225, (and which are not otherwise included within categories (ii)-(x)).

# **Developing and Implementing Pollution Prevention Plans for Industrial Activities**

## **SUMMARY GUIDANCE**

### **ABOUT THIS DOCUMENT**

This document contains a step-by-step explanation of the development of an effective Storm Water Pollution Prevention Plan 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.

### **INTRODUCTION**

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

New federal regulations require that storm water discharges from certain industrial activities be regulated under an NPDES permit. The 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. Assistance in understanding who is covered under the new regulations can be obtained by calling the Iowa IDNR at (515)281-8941 and asking for storm water permit assistance.

#### **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 General Permit No. 1. Iowa's General Permit No. 1 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 of the NPDES permit, 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 (IDNR). The NOI links the industrial activity at a particular location with the general permit. When a complete NOI is submitted to the IDNR, 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 IDNR.

## **WHAT IS A POLLUTION PREVENTION PLAN?**

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, recent 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 the pollution prevention plan 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. The pollution prevention plan is required to ensure that pollutants are not making their way into the storm water discharge from your site. The pollution prevention plan requires that you select and implement 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 pollution prevention plan.

A storm water pollution prevention plan must be developed for each site covered under General Permit No. 1. The plan shall identify the potential sources of pollution which may reasonably be expected to affect the quality of the storm water discharge. The plan shall describe and ensure the implementation of practices which will be used to reduce the pollutants in the storm water discharge. Facilities must implement the provisions of the storm water pollution prevention plan required as a condition of General Permit No. 1.

## **WHAT DOES THIS DOCUMENT CONTAIN?**

This document is organized as a step-by-step guide for developing a pollution prevention plan for a storm water discharge covered under Iowa's NPDES General Permit No. 1. This step-by-step guide is presented as 7 phases. Each phase focuses on a particular type of information relating to the storm water discharge. Individual steps are identified under each separate phase. The pollution prevention planning process is organized as shown on the chart on the next page. The seven major phases in developing the pollution prevention plan are:

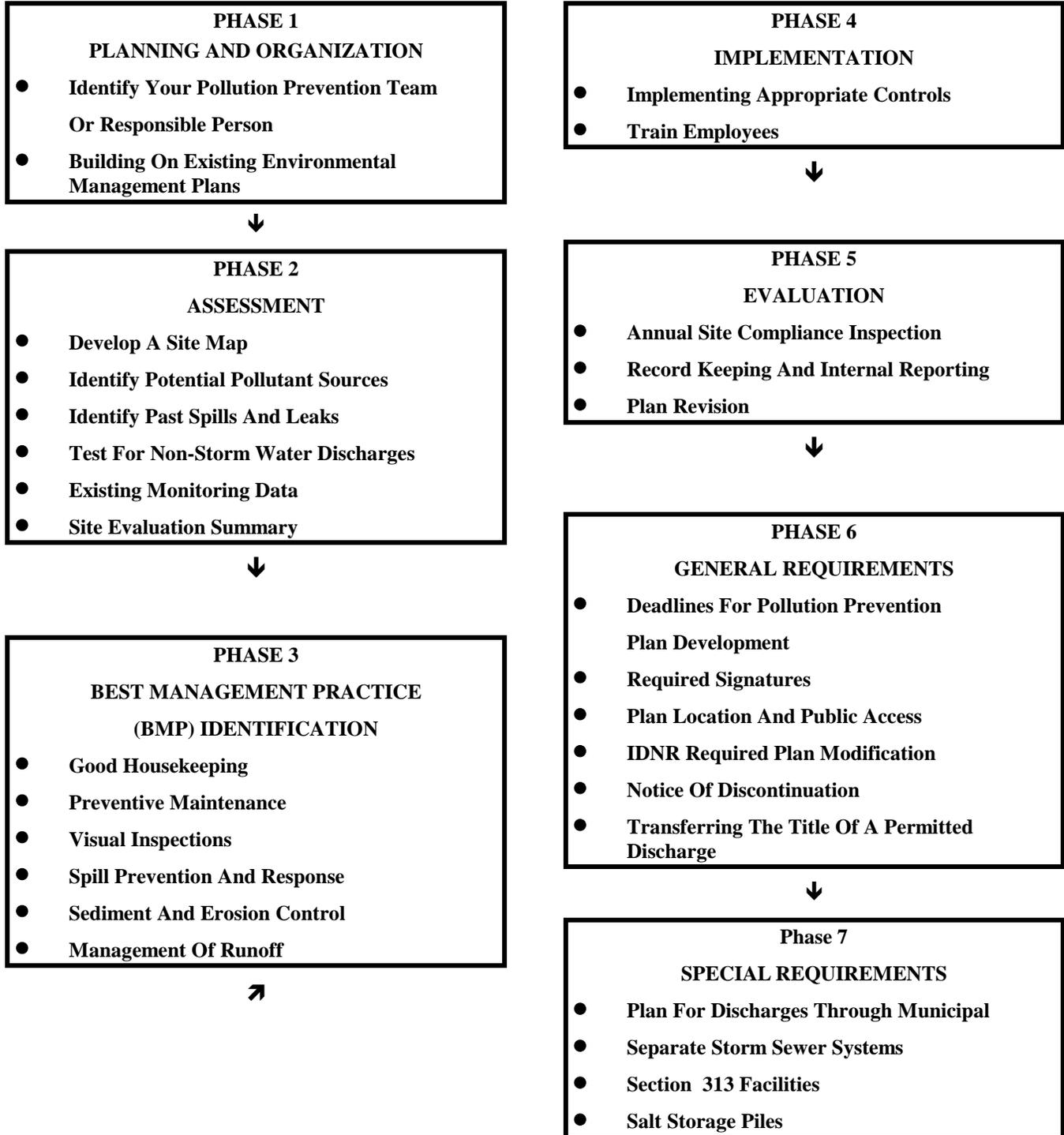
- (1) Planning and Organization,
- (2) Assessment,
- (3) Best Management Practice (BMP) Identification,
- (4) Implementation,
- (5) Evaluation,
- (6) General Requirements, and
- (7) Special Requirements

A set of worksheets and other helpful information are provided at the end of this document to further assist in the development of the pollution prevention plan.

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 Iowa's general

permit. These requirements are distinguished as information in double-lined boxes throughout this guide, and then elaborated upon in phase 7 - Special Requirements.

# SEVEN PHASES FOR DEVELOPING AND IMPLEMENTING A STORM WATER POLLUTION PREVENTION PLAN FOR INDUSTRIAL ACTIVITIES



## **PHASE 1 PLANNING AND ORGANIZATION**

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

- decide who will be responsible for developing and implementing your Storm Water Pollution Prevention Plan, and
- look at other existing environmental facility plans to account for consistency and overlap between these other plans with the storm water pollution prevention plan.

### **(A) IDENTIFY YOUR POLLUTION PREVENTION TEAM OR RESPONSIBLE PARTY**

As part of developing and implementing your pollution plan, you should: (1) designate a specific individual or team who will develop, implement, maintain, and revise your pollution prevention plan, 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 plan. The plan 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 plan.

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

### **(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 Storm Water Pollution Prevention Plan.<sup>1</sup>

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<sup>1</sup> 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 National Pollutant Discharge Elimination System 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).

**ADDITIONAL REQUIREMENTS FOR FACILITIES SUBJECT TO REPORTING UNDER SARA TITLE III, SECTION 313, FOR WATER PRIORITY CHEMICALS<sup>2</sup>**—Iowa's General Permit No. 1 contains the following additional, specific requirements for such facilities:

- The pollution prevention plan 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.

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<sup>2</sup> The list of "Section 313 Water Priority Chemicals" can be found in Appendix A.

## **PHASE 2 ASSESSMENT**

After identifying who is responsible for developing and implementing your plan and organizing your planning process, you should proceed to this next phase - the pollutant source assessment phase. This is where you take a 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:

- A) create a map of the facility site to locate pollutant sources and determine storm water management opportunities,
- B) identify potential pollutant sources,
- C) evaluate past spills and leaks,
- D) identify non-storm water discharges and illicit connections,
- E) collect or evaluate storm water quality data, and
- F) 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 basically an illustration of the overall site and location, and indicates property boundaries, buildings, and operation or process areas, as well as provide information on drainage, storm water control structures, and receiving streams. (Ideally the map should be drawn to scale, however, your best approximation is sufficient.) Locating these features on the map will help you assess where potential storm water pollutants are located on your site, where they mix with storm water and where the storm water leaves your site.

At a minimum, the site map must include information on the following:

- Property boundaries, buildings, paved areas
- An outline of the drainage area of each storm water outfall, including:
  - Drainage patterns
  - Direction of flow
  - 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.

- All activities (operation or process areas) and significant materials that may potentially be significant pollutant sources, including<sup>3</sup>:
  - 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.

**Worksheet #2 - Developing a Site Map** (located at the end of this guide) provides guidance on developing your site map.

**(B) IDENTIFY POTENTIAL POLLUTANT SOURCES**

**1. Material Inventory**

In this part of the Assessment Phase, you will be preparing an inventory of significant materials at your site. "*Significant materials*"<sup>4</sup> 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. 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 problems.

**Each facility should conduct an inventory of "significant materials" at the site. Worksheet #3 - Material Inventory can be used to complete the material inventory.**

By using the material inventory you can identify those substances that may be exposed to storm water and then identify the measures that you have taken to prevent the contact of these materials with storm water.

**2. Exposed Materials**

Use the materials inventory of significant materials to:

- Identify the materials that have been exposed to storm water in the past 3 years (focus on areas where materials are stored, processed, transported, handled, or transferred).

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<sup>3</sup> This information to be included on the site map will be obtained by completing the remaining sections of **Phase 2 - Assessment**, namely the (B) Identify Potential Pollutant Sources, (C) Identifying Past Spills and Leaks, and (F) Site Evaluation Summary..

<sup>4</sup>See complete definition for "*significant materials*" in the Glossary.

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

*(Note: Structural practices are 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 #3A - Description of Exposed Significant Material** and include it in your plan.

### **(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
- the spill or leak resulted in the release of a substance that would allow that substance to be exposed to storm water.

**Worksheet #4- History of "Hazardous Condition" Reporting** (located at the end of this guide) can help you organize this history of hazardous conditions. The areas on your site where significant leaks or spills have occurred are areas on which you should focus very closely when selecting BMPs. 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 #4- 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) NON-STORM WATER DISCHARGES**

The pollution prevention plan 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, notice must still be made by certification.).

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 #5 - Non-Storm Water Discharge Assessment and Certification** (located at the end of this guide) 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 #6 -Non-Storm Water Discharge Assessment and Failure to Certify Notification**.

**(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 Storm Water Pollution Prevention Plan. In this step of the plan you will provide a narrative description of activities with a high potential to contaminate storm water at your site. This description will include areas, activities, or materials including those associated with materials loading and unloading, outdoor storage, outdoor manufacturing or processing, on-site waste disposal, and significant dust or particulate generating activities that may contribute pollutants to storm water runoff from the site. In this site evaluation summary, also include:

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

With this information, one can select the most appropriate BMPs to prevent or control pollutants from these areas.

For each source of storm water pollutants, existing management practices should be identified and potential BMP options to address the remaining pollutant sources should also be identified. 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. Use **WORKSHEET #7 - SITE EVALUATION SUMMARY** located at the end of this guide.

## PHASE 3 BMP SELECTION

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 into your pollution prevention plan the following nine baseline BMPs: (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 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 facility's 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
  - Identify all chemical substances present in the workplace
  - Label all containers showing 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 inspections and maintenance of storm water management devices and 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 the following at appropriate intervals as specified in the plan:

- 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
- 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 plan 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.

These records should be kept with the plan.

**(D) SPILL PREVENTION AND RESPONSE**

Areas where spills are likely to occur and their drainage points must be clearly identified in the storm water pollution prevention plan. You should ensure that employees are aware of material handling and storage requirements, spill response procedures and clean up procedures. Also ensure that there is appropriate spill cleanup equipment and access to that equipment.

**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 immediately taken or the unit or process shut down unit 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 Storm Water Pollution Prevention Plan. These facilities are also required to designate a person responsible for spill prevention, response, and reporting procedures.

**(E) SEDIMENT AND EROSION CONTROL**

The facility's pollution prevention plan must identify activities that present a potential for significant soil erosion and measures taken to control such erosion.

**(F) MANAGEMENT OF RUNOFF**

Permittees must describe existing storm water controls (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) found at the facility and the appropriateness of any additional storm water controls that can be implemented to improve the prevention and control of polluted storm water. Examples 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 plant to contribute pollutants to storm water discharges, storm water 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 and the plan has been approved by facility management. Under the implementation phase, you must (A) implement the selected storm water BMPs, and (B) train all employees to carry out the goals of the plan.

### **(A) IMPLEMENTING APPROPRIATE CONTROLS**

In implementing the plan, a facility will:

- Develop a schedule for implementing the storm water pollution prevention controls.
- Assign specific individuals with responsibility for implementing aspects of the plan 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 storm water pollution prevention plan and to create overall sensitivity to storm water pollution prevention concerns. The plan 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 facility's Storm Water Pollution Prevention Plan**
- **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 Storm Water Pollution Prevention Plan has been put to action, you must keep it up-to-date by regularly evaluating the information you collected in the Assessment Phase and the controls you selected in the Plan Design Phase. Specifically, you must (A) conduct site evaluations, (B) keep records of all inspections and reports, and (C) revise the pollution prevention plan as needed.

### **(A) ANNUAL SITE COMPLIANCE EVALUATION**

Qualified personnel must conduct site compliance evaluations at appropriate intervals, but at least once a year <sup>5</sup>. As part of your compliance evaluations, you are required to carry out the following:

- Inspect storm water drainage areas for evidence of pollutants entering the drainage system.
- 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.
- Observe structural storm water measures, sediment controls, and other storm water BMPs to ensure proper operation. Also, visually inspect equipment needed to implement the plan, such as spill response equipment.
- Revise the plan 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 of the inspection and the personnel who conducted the inspection.
- Sign the report and keep it with the plan. Refer to PHASE 6 - B. Required Signatures of this document for a description of who needs to sign the inspection report along with the required certification statements.

### **(B) RECORD KEEPING AND INTERNAL REPORTING**

A copy of the storm water pollution prevention plan, records of all monitoring information, copies of all reports required by the general permit and records of all data 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 measurement, report, inspection, etc.

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<sup>5</sup>An annual site inspection is required except as follows: at least once in 3 years where an employee is not stationed or does not routinely visit the site, or, at least once in five years where the annual site inspections are shown in the plan to be impractical for inactive sites (sites where industrial activity is no longer conducted). In this latter situation, at least one site inspection shall be conducted two years after such site becomes inactive.

**Note:** Monitoring results shall be retained. Since permits can only be issued for a maximum of five years, these results may be needed in the re-notification (permit renewal) process.

**(C) PLAN REVISIONS**

Major changes in a facility's design, construction, operation, or maintenance will necessitate changes in that facility's Storm Water Pollution Prevention Plan. The plan will also need to be revised if the storm water pollution prevention plan proves to be ineffective in achieving the general objectives of controlling pollutants in the storm water discharge.

Facilities covered under Iowa's NPDES General Permit No. 1 must comply with applicable requirements in municipal storm water management programs developed under NPDES permits issued for the discharge from the municipal separate storm sewer system that receives the facility's discharge. The discharger, however, 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 related to organizing and developing your Storm Water Pollution Prevention Plan. The guidance covers: (A) required signatures, (B) requirements for plan location and access, (C) required plan modifications, (D) Notice of Discontinuation and (E) transferring the permit.

### **(A) REQUIRED SIGNATURES**

All Notices of Intent, storm water pollution prevention plans, reports, certifications or information either submitted to the IDNR or the operator of a large or medium municipal separate storm sewer system must be signed by an "authorized representative," who is a person at or near the top of your facility's management chain (the president, vice president, or manager) who has been delegated the authority to sign and certify this type of document.

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

"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 gathered and evaluated 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."

### **(C) PLAN LOCATION AND PUBLIC ACCESS**

All plans are required to be maintained on-site. The Pollution Prevention Plans must be made available to the IDNR upon request. If the storm water discharges to a medium or large municipal storm sewer system, the plans must be made available to the municipal operator of the system.

All storm water pollution prevention plans received by the IDNR are considered to be reports that shall be made available to the public. However, the permittee may claim any portion of the plan as confidential in accordance with Chapter 22 of the Code of Iowa and Iowa Administrative Code (561)--2.5.

### **(D) IDNR REQUIRED PLAN MODIFICATIONS**

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

#### **(E) NOTICE OF DISCONTINUATION**

A storm water discharge that is covered under the general permit is required to notify the Iowa IDNR that the discharge has been discontinued. This notification is made by providing the IDNR with a Notice of Discontinuation. Within 30 days of the discontinuance of the discharge, the operator must submit the NOD to the IDNR.

Information to be included on the Notice of Discontinuation includes the following:

- the name of the owner/operator to which coverage under the general permit was issued;
- the general permit number and the permit authorization number;
- the date the will be or has been discontinued; and
- a signed certification.

A sample Notice of Discontinuation that can be submitted to the IDNR with the required information can be found at the of this document. The Notice of Discontinuation should be mailed to the following address:

**Storm Water Coordinator  
Iowa Department of Natural Resources  
502 E. 9th Street  
Des Moines, Iowa 50319-0034**

#### **(F) TRANSFERRING THE TITLE OF THE PERMIT**

If the title is transferred of any facility or activity having a "*storm water discharge associated with industrial activity*" covered under Iowa's NPDES General Permit No. 1, the new owners are subject to all terms and conditions of the general permit. When the title is changed, the IDNR shall be notified within 30 days with the following information:

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

## PHASE 7 SPECIAL REQUIREMENTS

In addition to the minimum "baseline" BMPs discussed in previous sections, facilities may be subject to additional "special" requirements. Not all facilities will have to include these special requirements in their Storm Water Pollution Prevention Plan. Be sure to check your permit closely for these conditions. In particular, Iowa's NPDES General Permit No. 1 includes special requirements for: (A) facilities that discharge storm water through municipal separate storm sewer systems; (B) facilities subject to SARA Title III, Section 313, reporting requirements for chemicals classified as "Section 313 water priority chemicals"; and, (C) facilities with salt storage piles.

### **(A) SPECIAL REQUIREMENTS FOR DISCHARGES THROUGH MUNICIPAL SEPARATE STORM SEWER SYSTEMS**

Industrial facilities that discharge storm water through a "*municipal separate storm sewer system*" population 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, SECTION 313, REPORTING FACILITIES FOR CHEMICALS CLASSIFIED AS "SECTION 313 WATER PRIORITY CHEMICALS"**

In addition to the other special requirements identified in this guide by the double-lined boxes, 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 it 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 IDNR;
- 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 used for deicing or other commercial purposes must be enclosed or covered to prevent exposure to storm water (except when salt is being added or removed from the pile). 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**

<u>CAS Number</u>	<u>Common Name</u>		
		207089	Benzo(k)fluoranthene
75-07-0	Acetaldehyde	189559	Benzo(rst)pentaphene
107-02-8	Acrolein	56553	Benzo(a)anthracene
107-13-1	Acrylonitrile	100-44-7	Benzyl chloride
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.)-]	7440-41-7	Beryllium
		7787475	Beryllium chloride
		7787497	Beryllium fluoride
		7787555	Beryllium nitrate
107-05-1	Allyl Chloride	111-44-4	Bis(2-chloroethyl) ether
7429-90-5	Aluminum (fume or dust)	75-25-2	Bromoform
7664-41-7	Ammonia	74-83-9	Bromomethane (Methyl bromide)
62-53-3	Aniline	85-68-7	Butyl benzyl phthalate
120-12-7	Anthracene	7440-43-9	Cadmium
7440-36-0	Antimony	543908	Cadmium acetate
7647189	Antimony pentachloride	7789426	Cadmium bromide
28300745	Antimony potassium tartrate	10108642	Cadmium chloride
7789619	Antimony tribromide	7778441	Calcium arsenate
10025919	Antimony trichloride	52740166	Calcium arsenite
7783564	Antimony trifluoride	13765190	Calcium chromate
1309644	Antimony trioxide	592018	Calcium cyanide
7440-38-2	Arsenic	133-06-2	Captan [1H-Isoindole-1,3(2H)-dione,3a,4,7,7a-tetrahydro-2-[(trichloromethyl)thio]-]
1303328	Arsenic disulfide	63-25-2	Carbaryl [1-Naphthalenol, methylcarbamate]
1303282	Arsenic pentoxide	75-15-0	Carbon disulfide
7784341	Arsenic trichloride	1563662	Carbofuran
1327533	Arsenic trioxide	56-23-5	Carbon tetrachloride
1303339	Arsenic trisulfide	57-74-9	Chlordane [4,7-Methanoindan,1,2,4,5,6,7,8,8-octachloro-2,3,3a,4,7,7a-hexahydro-]
1332-21-4	Asbestos (friable)	7782-50-5	Chlorine
542621	Barium cyanide	59-50-7	4-Chloro 3-methyl phenol
71-43-2	Benzene		p-Chloro-m-cresol
92-87-5	Benzidine	108-90-7	Chlorobenzene
100470	Benzonitrile	75-00-3	Chloroethane (Ethyl chloride)
218019	Benzo(a)phenanthrene		
50328	Benzo(a)pyrene		
205992	Benzo(b)fluoranthene		
205823	Benzo(j)fluoranthene		

67-66-3	Chloroform	53703	Dibenzo(a,h)anthracene
74-87-3	Chloromethane (Methyl chloride)	189640	Dibenzo(a,l)pyrene
95-57-8	2-Chlorophenol	191300	Dibenzo(a,h)pyrene
106-48-9	4-Chlorophenol	194592	7, H-Dibenzo(c,g)carbazole
75729	Chlorotrifluoromethane	106-93-4	1,2-Dibromoethane (Ethylene dibromide)
1066304	Chromic acetate		
11115745	Chromic acid	84-74-2	Dibutyl phthalate
10101538	Chromic sulfate	1929733	2,4 D Butoxyethyl ester
7440-47-3	Chromium	94804	2,4 D Butyl ester
1308-14-1	Chromium (Tri)	2971382	2,4 D Chlorocrotyl ester
10049055	Chromous chloride	1918009	Dicamba
7789437	Cobaltous bromide	95-50-1	1,2-Dichlorobenzene
544183	Cobaltous formate	541-73-1	1,3-Dichlorobenzene
14017415	Cobaltous sulfamate	106-46-7	1,4-Dichlorobenzene
7440-50-8	Copper	91-94-1	3,3'-Dichlorobenzidine
108-39-4	<u>m</u> -Cresol	75-27-4	Dichlorobromomethane
9548-7	<u>o</u> -Cresol	107-06-2	1,2-Dichloroethane (Ethylene dichloride)
106-44-5	<u>p</u> -Cresol	75434	Dichlorofluoromethane
4170303	Crotonaldehyde	540-59-0	1,2-Dichloroethylene
1319-77-3	Cresol (mixed isomers)	120-83-2	2,4-Dichlorophenol
142712	Cupric acetate	78-87-5	1,2-Dichloropropane
12002038	Cupric acetoarsenite	10061026	trans-1,3-Dichloropropene
7447394	Cupric chloride	542-75-6	1,3-Dichloropropylene
3251238	Cupric nitrate	62-73-7	Dichlorvos [Phosphoric acid, 2,2-dichloroethenyl dimethyl ester]
5893663	Cupric oxalate		
7758987	Cupric sulfate	115-32-2	Dicofol [Benzenemethanol, 4-chloro-.alpha.-
10380297	Cupric sulfate, ammoniated		(4-chlorophenyl)-.alpha.-
815827	Cupric tartrate		(trichloromethyl)-]
57-12-5	Cyanide	177-81-7	Di-(2-ethylhexyl) phthalate (DEHP)
506774	Cyanogen chloride	84-66-2	Diethyl phthalate
333415	Diazinon	124403	Dimethylamine
94-75-7	2,4-D [Acetic acid, (2,4-dichlorophenoxy)-]	57976	7,12-Dimethylbenz(a)anthracene
226368	Dibenz(a,h)acridine	105-67-9	2,4-Dimethylphenol
224420	Dibenz(a,j)acridene	131-11-3	Dimethyl phthalate
5385751	Dibenzo(a,e)fluoranthene	534-52-1	4,6-Dinitro- <u>o</u> -cresol
192654	Dibenzo(a,e)pyrene	51-28-5	2,4-Dinitrophenol
		121-14-2	2,4-Dinitrotoluene

606-20-2	2,6-Dinitrotoluene	592870	Lead thiocyanate
117-84-0	<u>n</u> -Dioctyl phthalate	58-89-9	Lindane [Cyclohexane, 1,2,3,4,5,6-hexachloro-
122-66-7	1,2-Diphenylhydrazine (Hydrazobenzene)		(1.alpha.,3.beta.,4.alpha.,5.alpha.,6.beta.)-]
94111	2,4-D Isopropyl ester	14307258	Lithium chromate
106-89-8	Epichlorohydrin	121755	Malathion
1320189	2,4-D Propylene glycol butyl ether ester	108-31-6	Maleic anhydride
330541	Diuron	592041	Mercuric cyanide
100-41-4	Ethylbenzene	10045940	Mercuric nitrate
106934	Ethylene dibromide	7783359	Mercuric sulfate
50-00-0	Formaldehyde	592858	Mercuric thiocyanate
76-44-8	Heptachlor [1,4,5,6,7,8,8-Heptachloro-3a,4,7,7a-tetrahydro-4,7-methano-1H-indene]	7782867	Mercurous nitrate
118-74-1	Hexachlorobenzene	7439-97-6	Mercury
319846	alpha-Hexachlorocyclohexane	72-43-5	Methoxychlor [Benzene, 1,1'-(2,2,2-trichloroethylidene)bis[4-methoxy-]
87-68-3	Hexachloro-1,3-butadiene	80-62-6	Methyl methacrylate
77-47-4	Hexachlorocyclopentadiene	75865	2-Methylactonitrile
67-72-1	Hexachloroethane	3697243	5-Methylchrysene
7647-01-0	Hydrochloric acid	298000	Methyl parathion
74-90-8	Hydrogen cyanide	7786347	Mevinphos
7664-39-3	Hydrogen fluoride	300765	Naled
193395	Indeno[1,2,3-cd]pyrene	91-20-3	Naphthalene
7439-92-1	Lead	7440-02-0	Nickel
301042	Lead acetate	15699180	Nickel ammonium sulfate
7784409	Lead arsenate	37211055	Nickel chloride
7645252	" "	7718549	" "
10102484	" "	12054487	Nickel hydroxide
7758954	Lead chloride	14216752	Nickel nitrate
13814965	Lead fluoborate	7786814	Nickel sulfate
7783462	Lead fluoride	7697-37-2	Nitric acid
10101630	Lead iodide	98-95-3	Nitrobenzene
10099748	Lead nitrate	88-75-5	2-Nitrophenol
7428480	Lead stearate	100-02-7	4-Nitrophenol
1072351	" "	5522430	1-Nitropyrene
52652592	" "	62-75-9	<u>N</u> -Nitrosodimethylamine
7446142	Lead sulfate	86-30-6	<u>N</u> -Nitrosodiphenylamine
1314870	Lead sulfide	621-64-7	<u>N</u> -Nitrosodi- <u>n</u> -propylamine

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

7733020

Zinc sulfate

**NOTICE OF DISCONTINUATION**  
**OF A STORM WATER DISCHARGE**  
**COVERED UNDER IOWA NPDES GENERAL PERMIT NO. 1**  
**FOR INDUSTRIAL ACTIVITIES**

Name of the owner or facility to which the storm water discharge general permit coverage was issued.

\_\_\_\_\_

List the complete permit authorization number for the discharge. This number is provided on the bottom of the authorization sheet for General Permit No. 1.

IA - \_\_\_\_\_ --- \_\_\_\_\_

List the date the storm water discharge will be or has been discontinued.

\_\_\_\_\_

The following certification signed in accordance with the signatory requirements of the general permit: (see back side)

I certify under penalty of law that all storm water discharges associated with industrial activity from the identified facility that are authorized by this NPDES General Permit No. 1 have been eliminated. I understand that by submitting this Notice of Discontinuation, that I am no longer authorized to discharge storm water associated with industrial activity by Iowa Department of Natural Resources NPDES General Permit No. 1, and that discharging pollutants from storm water associated with industrial activity to waters of the United States is unlawful under the Clean Water Act where the discharge is not authorized by a NPDES permit.

I further 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 gathered and evaluated 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.

\_\_\_\_\_ Name (print) \_\_\_\_\_ Title

\_\_\_\_\_ Signature \_\_\_\_\_ Date

Return to:

Storm Water Coordinator  
Iowa Department of Natural Resources  
502 E. 9th Street  
Des Moines, IA 50319-0034

**SIGNATORY REQUIREMENTS.** All Notices of Intent, storm water pollution prevention plans, reports, certifications or information either submitted to the Department or the operator of a large or medium municipal separate storm sewer system, or that this permit requires be maintained by the permittee, shall be signed in accordance with rule 567--64.3(8) of the Iowa Administrative Code as follows:

64.3(8) *Identity of signatories of operation permit applications.* The person who signs the application for an operation permit shall be:

- a. *Corporations.* In the case of corporations, a principal executive officer of at least the level of vice-president.
- b. *Partnerships.* In the case off a partnership, a general partner.
- c. *Sole proprietorships.* In the case of a sole proprietorship, the proprietor.
- d. *Public facilities.* In the case of a municipal, state, or other public facility, by either the principal executive officer, or the ranking elected official.
- e. *Storm water discharge associated with industrial activity from construction activity.* In the case of a storm water discharge associated with industrial activity from construction as identified in 40 CFR 122.26(b)(14)(x), 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.

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**POLLUTION PREVENTION TEAM**

**MEMBER ROSTER**

Worksheet #1

Completed by: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

**Leader:** \_\_\_\_\_ **Title:** \_\_\_\_\_

**Office Phone:** \_\_\_\_\_

**Responsibilities:**  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Members:**  
(1) \_\_\_\_\_ **Title:** \_\_\_\_\_

**Office Phone:** \_\_\_\_\_

**Responsibilities:**  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

(2) \_\_\_\_\_ **Title:** \_\_\_\_\_

**Office Phone:** \_\_\_\_\_

**Responsibilities:**  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

(3) \_\_\_\_\_ **Title:** \_\_\_\_\_

**Office Phone:** \_\_\_\_\_

**Responsibilities:**  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

(4) \_\_\_\_\_ **Title:** \_\_\_\_\_

**Office Phone:** \_\_\_\_\_

**Responsibilities:**  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

## DEVELOPING A SITE MAP

Worksheet #2

Completed by: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

**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 included the following on the map.

- **An outline of the drainage area of each storm water outfall including:**
  - **Drainage patterns**
  - **Direction of flow**
  - **Discharge pints (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 tanks for liquid storage**
  - **Industrial waste management areas (landfills, waste piles, treatment plants, disposal areas)**
  - **Outside storage areas for raw materials, by-products, and finished products**
  - **Outside manufacturing or processing areas**
  - **Other areas of concern (specify: \_\_\_\_\_)**







**NON-STORM WATER DISCHARGE  
ASSESSMENT AND CERTIFICATION**

Worksheet #5

Completed by: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

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

**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.

A. Name & Official Title (type or print)

B. Area Code and Telephone No.

C. Signature

D. Date Signed

**NON-STORM WATER DISCHARGE ASSESSMENT AND  
FAILURE TO CERTIFY NOTIFICATION**

**Worksheet #6**

**Completed by:** \_\_\_\_\_

**Title:** \_\_\_\_\_

**Date:** \_\_\_\_\_

**Directions:** 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 included 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.

**Important Notice:** A copy of this notification must be signed and kept on-site and made available to the Iowa Department of Natural Resources upon request.

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

**CERTIFICATION**

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 ensure 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. Such notification will be posted on-site and made available to the Iowa Department of Natural Resources anytime, after 180 days from the discharge authorization date, if non-storm water certification cannot be provided.

<b>A. Name and Official Title (type or print)</b>	<b>B. Area Code and Telephone No.</b>
<b>C. Signature:</b>	<b>D. Date Signed:</b>

# SITE EVALUATION SUMMARY

Worksheet #7

Completed by: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

**Directions:** 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				
On-Site Practices				

# SITE EVALUATION SUMMARY

**Worksheet #7  
(Cont.)**

**Completed by:** \_\_\_\_\_

**Title:** \_\_\_\_\_

**Date:** \_\_\_\_\_

**Directions:** 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)
<b>Dust or Particulate Generating Processes</b>				
<b>Above ground Liquid Storage Tanks</b>				
<b>Outdoor Manufacturing and/ or Process Operations</b>				
<b>Others</b>				

# BEST MANAGEMENT PRACTICE (BMP) IDENTIFICATION

Worksheet #8

Completed by: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

**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 House Keeping	
Preventive Maintenance	
Visual Inspections	
Spill Prevention Response	
Sediment and Erosion Control	

## BEST MANAGEMENT PRACTICE (BMP) IDENTIFICATION

Worksheet #8 (cont.)

Completed by: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

**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
Storm Water Management - Runon	
Storm Water Management - Runoff	
Additional BMPs (activity specific and site specific chosen from worksheet #7)	
Employee Training	