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October 1992

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Storm Water Management For Industrial Activities

Developing Pollution Prevention Plans And Best Management Practices

SUMMARY GUIDANCE

★ 1992 ★
THE YEAR OF
CLEAN WATER
Celebration of Commitment

Printed on Recycled Paper

FOREWORD

This booklet provides industrial facilities with summary guidance on the development of storm water pollution prevention plans and identification of appropriate Best Management Practices (BMPs). It provides technical assistance and support to all facilities subject to pollution prevention requirements established under National Pollutant Discharge Elimination System (NPDES) permits for storm water point source discharges.

EPA's storm water program significantly expands the scope and application of the existing NPDES permit system for municipal and industrial process wastewater discharges. It emphasizes pollution prevention and reflects a heavy reliance on BMPs to reduce pollutant loadings and improve water quality. This booklet provides summary guidance in both of these areas.

The document summarized here was issued in support of EPA regulations and policy initiatives involving the development and implementation of a National storm water program. The document itself is Agency guidance only. It does not establish or affect legal rights or obligations. Agency decisions in any particular case will be made applying the laws and regulations on the basis of specific facts when permits are issued or regulations promulgated.

The document and this booklet will be revised and expanded periodically to reflect additional pollution prevention information and data on treatment effectiveness of BMPs. Comments from users will be welcomed. Send comments to U.S. EPA, Office of Wastewater Management, 401 M Street, SW, Mail Code 4203, Washington, DC 20460.

Industrial Guidance Executive Summary

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Model Plan

A Brief Guide to Requirements for Developing and Implementing Pollution Prevention Plans for Industrial Activities

Storm water runoff is part of the natural hydrologic cycle. However, human activities, particularly urbanization, can alter natural drainage patterns and add pollutants to the rainwater and snowmelt 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.

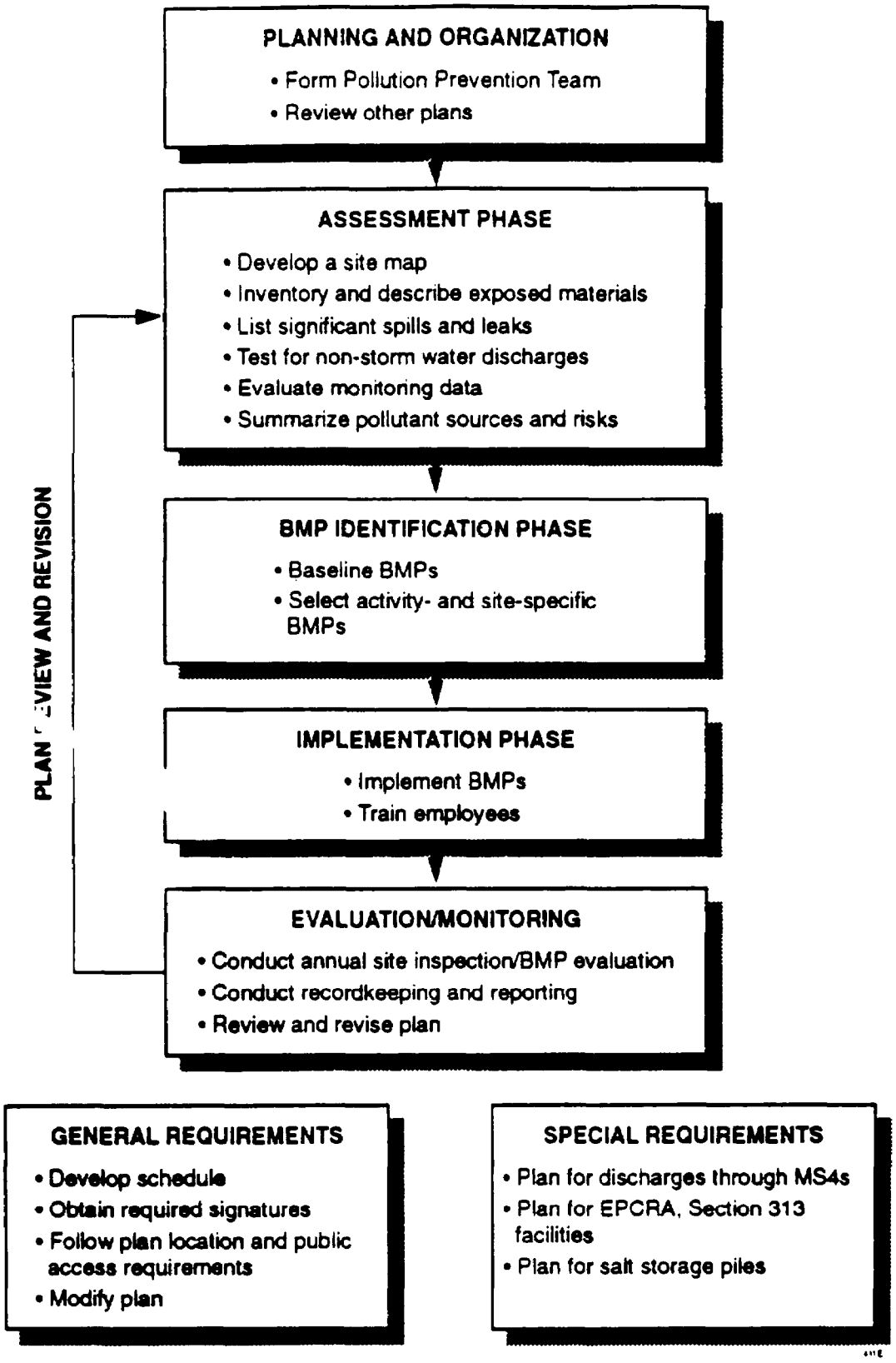
The States and many municipalities have been taking the initiative to manage storm water discharges more effectively. Recognizing the importance of this problem, Congress also directed the U.S. Environmental Protection Agency (EPA) to develop a Federal program under the Clean Water Act to regulate certain high-priority storm water sources. The issuance of storm water discharge permits under the National Pollutant Discharge Elimination System (NPDES) is a major part of the Agency's efforts to restore and maintain the Nation's water quality. Discharges of storm water runoff from industrial facilities must now be covered by an NPDES permit. To deal with the thousands of industrial facilities which are now required to be covered by storm water permits, EPA strongly encourages the use of general permits. Under the NPDES program, a general permit authorizes discharges from a number of sources. To address storm water discharges from industrial facilities located in the States and territories that have not been delegated NPDES permitting authority, EPA issued *NPDES General Permits for Storm Water Discharges Associated with Industrial Activity* in the September 9 and September 25, 1992, Federal Register. (A complete list of these States and territories to which EPA's permits apply may be found on page 16 of this document.)

Under the *NPDES General Permit for Storm Water Discharges Associated with Industrial Activity*, EPA requires the development and implementation of a pollution prevention plan — designed to reduce pollution 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.

Overview of Pollution Prevention Plan Requirements

This guide provides background information on pollution prevention planning requirements for permittees under the general permit. As shown on the chart on the following page, pollution prevention plan requirements provide you with a step-by-step process for ensuring that pollutants are not making their way into the storm water discharges from your site. Specifically, the pollution prevention plan requires that you select and implement Best Management Practices (BMPs). BMPs include schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution in runoff from your site. The five major phases of developing a pollution prevention plan are (1) planning and organization; (2) assessment; (3) BMP selection and plan design; (4) implementation; and (5) evaluation and site inspection. A set of worksheets and a model plan at the end of the document are provided to further clarify pollution prevention plan requirements. All permit holders under EPA's *NPDES General Permit for Storm Water Discharges Associated with Industrial Activity* must meet a number of general requirements. In addition, permittees who are subject to reporting requirements under Section 313 of the Emergency Planning and Community Right-to-Know Act (EPCRA), (also known as Title 3 of the Superfund Amendment and Reauthorization Act [SARA]), will have to meet special requirements under EPA's general permit. These requirements are listed in boxes throughout this guide, and then elaborated upon in the final section.

A more detailed manual on how to develop and implement a pollution prevention plan is available at a modest cost from the National Technical Information Service. The manual, titled *Storm Water Management for Industrial Activities: Developing Pollution Prevention Plans and Best Management Practices*, provides much more specific information than this brief guide. Instructions for ordering the detailed manual and a listing of other references that you may find useful can be found at the end of this guide.



SEVEN PHASES FOR DEVELOPING AND IMPLEMENTING INDUSTRIAL STORM WATER POLLUTION PREVENTION PLANS

PLANNING AND ORGANIZATION PHASE

Before 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: (A) decide who will be responsible for developing and implementing your Storm Water Pollution Prevention Plan, and (B) look at other existing environmental facility plans for consistency and overlap.

(A) Forming Your Pollution Prevention Team

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.

The pollution prevention team is responsible for the following:

- **Implementing** all general permit and pollution prevention plan requirements
- **Defining** and agreeing upon an appropriate set of goals for the facility's storm water management program
- **Being aware** of any changes that are made in plant operations to determine whether any changes must be made to the Storm Water Pollution Prevention Plan
- **Maintaining** a clear line of communication with plant management to ensure a cooperative partnership.

Worksheet #1 (located at the end of this guide) is an example of an appropriate form on which to list the team members. To complete this worksheet, list the pollution prevention team members 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, but it should also be displayed or posted within the facility so that other plant employees are aware of who is responsible for storm water management.

(B) Building on Existing Environmental Management Plans

The pollution prevention team also must evaluate existing environmental management plans for consistency and determine which, if any, provisions can be incorporated into the Storm Water Pollution Prevention Plan.

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).

Although you should build on relevant portions of other environmental plans as appropriate, it is important to note that your Storm Water Pollution Prevention Plan must be a comprehensive, stand-alone document.

ADDITIONAL REQUIREMENTS FOR FACILITIES SUBJECT TO REPORTING UNDER EPCRA, SECTION 313, FOR WATER PRIORITY CHEMICALS—EPCRA contains additional reporting requirements for designated hazardous waste management facilities. EPA's Baseline General Permit contains the following specific requirements for such facilities:

- The team must designate a person who will be accountable for spill prevention at the facility and identify this person in the plan.
- 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.

ASSESSMENT PHASE

After identifying who is responsible for developing and implementing your plan and organizing your planning process, you should proceed to this next step—a pollutant source assessment. 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) conduct a material inventory, (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 onsite waste management and disposal areas.

(A) Developing a Site Map

A site map is a complete illustration of site features. At a minimum, the site map must include information on the following:

- Discharge points ("outfalls")
- Drainage patterns
- Identification of the types of pollutants likely to be discharged for each drainage area
- Direction of flow
- Surface water bodies, including any proximate stream, river, lake, or other water body receiving storm water discharges from the site
- Structural control measures (physically constructed features used to control storm water flows)
- Locations of significant materials exposed to storm water
- Locations of industrial activities (such as fueling stations, loading and unloading areas, vehicle or equipment maintenance areas, waste disposal areas, storage areas).

Worksheet #2 (located at the end of this guide) provides guidance on completing your site map.

(B) Materials Inventory

Each facility must inventory the types of materials that are handled, stored, or processed onsite. "Significant materials" are of particular concern and are defined as follows:

> **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)).*

To complete the materials inventory, the facility must do two specific tasks:

- List materials that have been exposed to storm water in the past 3 years (focus on areas where materials are stored, processed, transported, or transferred).
- Provide a narrative description of methods and location of storage and disposal areas, materials management practices, treatment practices, and any structural/nonstructural control measures.
  - Structural practices are fixed equipment such as berms, detention ponds, or grassed swales.
  - Nonstructural practices may include regularly scheduled actions such as sweeping or inspections.

Worksheet #3 (located at the end of this guide) will assist you in conducting a material inventory for your Storm Water Pollution Prevention Plan. If any of the significant materials on your site have been exposed to storm water in the 3 years prior to the effective date of your permit, complete **Worksheet #3A** and include it in your plan.

(C) Identifying Past Spills and Leaks

Provide a list of significant spills and leaks of toxic or hazardous that have occurred in the past 3 years. "Significant spills" includes releases in excess of reportable quantities, defined as follows:

> **Reportable Quantity (RQ) Discharge**: *An RQ release occurs when a quantity of a hazardous substance or oil is spilled or released within a 24-hour period of time and exceeds the RQ level assigned to that substance under CERCLA or the Clean Water Act. These levels or quantities are defined in terms of gallons or pounds. Regulations listing these quantities are contained at 40 CFR 302.4, 40 CFR 117.21 and 40 CFR 110.*

Permittees are encouraged to list spills and leaks of nonhazardous materials as well as spills of hazardous materials in their pollution prevention plans.

Worksheet #4 (located at the end of this guide) can help you organize this list of leaks and spills. The areas on your site where significant leaks or spills have occurred are areas on which you should focus very closely when selecting BMPs.

(D) 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 onsite 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, noncontact 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 (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**.

(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. Facilities must fulfill the following requirements:

- Provide a narrative description of activities with a high potential to contaminate storm water at your site, including those associated with materials loading and unloading, outdoor storage, outdoor manufacturing or processing, onsite waste disposal, and significant dust or particulate generating activities

- Describe any pollutants of concern that may be associated with such activities.

Once you have completed the above steps in your pollutant source assessment, you should have enough information to determine which areas, activities, or materials may contribute pollutants to storm water runoff from your site. With this information, you can select the most appropriate BMPs to prevent or control pollutants from these areas.

BMP Selection and Plan Design Phase

Once you have identified and assessed potential and existing sources of storm water contamination at your facility, the next step is to select the proper Best Management Practices (BMPs) that will address these pollutant sources. To satisfy the requirements of this phase, you must provide a narrative description of the BMPs you have selected for your site. At a minimum, your plan must incorporate the following eight "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) other BMPs as appropriate, (H) employee training, and (I) recordkeeping and reporting. A number of these BMPs are discussed below.

(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.

EPCRA, 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 noncontainment.

(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. EPA's general permit requires that records be kept until at least one year after coverage under the permit expires.

(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 response procedures, including material handling and storage requirements. Also ensure that there is access to appropriate spill cleanup 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.
- Recycle, reduce, and reuse process materials to minimize waste onsite.

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.

EPCRA, SECTION 313, FACILITY SPILL PREVENTION AND RESPONSE REQUIREMENTS—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. More information on sediment and erosion control BMPs can be found in the reference section of this guide.

(F) Management of Runoff

Permittees must describe existing storm water controls found at the facility and any additional measures that can be implemented to improve the prevention and control of polluted storm water. Examples include: vegetative swales, reuse of collected storm water, infiltration trenches, and detention ponds.

IMPLEMENTATION PHASE

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 implementation. For example, your schedule might include a deadline for putting improved housekeeping measures into practice. Some controls may be immediately put into action; others will be phased in.
- Assign specific individuals with responsibility for implementing aspects of the plan and/or monitoring 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 training programs.

EPCRA, SECTION 313, FACILITY REQUIREMENTS—There are additional training requirements for employees and contractor personnel who work in areas where EPCRA, 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.

EVALUATION PHASE

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 plan as needed.

(A) Annual Site Compliance Evaluation

Qualified personnel must conduct site compliance evaluations at appropriate intervals, but at least once a year (at least once in 3 years for inactive mining sites). 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.
- Evaluate the effectiveness of BMPs (for example, determine if your site cleaner or gauge whether employees are more familiar with good housekeeping measures and spill prevention/response practices).
- Observe structural measures, sediment controls, and other storm water BMPs to ensure proper operation.
- Revise the plan as needed within 2 weeks of inspection, and implement any necessary changes within 12 weeks of the inspection.
- Prepare a report summarizing inspection results and followup actions, identifying the date of inspection and personnel who conducted the inspection.
- Sign the report and keep it with the plan.

(B) Recordkeeping and Internal Reporting

Your facility must record and maintain records of spills, leaks, inspections, and maintenance activities for at least one year after the permit expires. For spills and leaks, records should include information such as the date and time of the incident, weather conditions, cause, and resulting environmental problems.

(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.

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) deadlines for plan development and implementation, (B) required signatures, (C) requirements for plan location and access, and (D) Director-required plan modifications.

(A) Deadlines for Plan Development and Implementation

Schedule for Plan Development and Implementation Part IV.A.		
Type of Facility	**Deadline for Plan Development**	**Deadline for Plan Implementation**
Facilities discharging storm water associated with industrial activity on or before October 1, 1992	April 1, 1993	October 1, 1993
Facilities beginning to discharge storm water after October 1, 1992, but on or before December 31, 1992	60 days after commencement of discharge	60 days after commencement of discharge
Facilities beginning to discharge storm water associated with industrial activity on or after January 1, 1993	48 hours prior to commencement of discharge (upon submittal of NOI)	48 hours prior to commencement of discharge (upon submittal of NOI)
Oil and gas exploration, production, processing, or treatment operations discharging a reportable quantity release in storm water after October 1, 1992	60 days after release	60 days after release
Industrial facilities rejected or denied from the group application process	365 days after date of rejection or denial	545 days after date of rejection or denial
Note: The Director may grant a written extension for plan preparation and compliance for new dischargers (after October 1, 1992) upon showing of good cause.		

(B) Required Signatures

As with the Notice of Intent (NOI), your plan 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 a production manager) who has been delegated the authority to sign and certify this type of document.

EPCRA, Section 313, Facility Plan Certification Requirements—The plan must be reviewed and certified by a Registered Professional Engineer and recertified every 3 years or after the plan is significantly changed. This certification that the plan was prepared in accordance with good engineering practices does not relieve the facility owner or operator of responsibility to prepare and implement the plan, however.

(C) Plan Location and Public Access

Although all plans are required to be maintained onsite, some NPDES storm water permits may require that facilities submit copies of their Storm Water Pollution Prevention Plans to the Director for review. Examine your permit carefully to determine what submittal requirements apply to your facility. Plans and all required records must also be kept at least one year after the permit expires.

(D) Director-Required Plan Modifications

Upon reviewing your plan, the permitting authority may find that it does not meet one or more of the minimum standards established by the pollution prevention plan requirements. In this case, the permitting authority will notify you of the changes that you must make to improve the plan.

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, EPA's general permit includes special requirements for (A) facilities that discharge storm water through municipal separate storm sewer systems, (B) facilities subject to EPCRA, Section 313, reporting requirements, 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 large or medium municipal separate storm sewer system (serving a population of 100,000 or more) must comply with any applicable conditions established by the municipality's storm water management program. These facilities will be notified by the municipality. Examples of conditions could include additional monitoring requirements and/or additional source control requirements.

(B) Special Requirements for EPCRA, Section 313, Reporting Facilities

In addition to the other special requirements identified in this guide, the following specific control requirements must be practiced in areas where Section 313 water priority chemicals are stored, handled, processed, or transferred:

- **Provide containment, drainage control, and/or diversionary structures** (prevent or minimize runon by installing curbing, culverting, gutters, sewers, or other controls, and/or prevent or minimize exposure by covering storage piles).
- **Prevent discharges from liquid storage areas** (store liquid materials in compatible storage containers and/or provide secondary containment designed to hold the volume of the largest storage tank plus precipitation).
- **Prevent discharges from material storage areas** (install drainage and/or other control measures).
- **Prevent discharges from loading/unloading areas** (use drip pans and/or implement a strong spill contingency and integrity testing plan).
- **Prevent discharges from handling/processing/transferring areas** (use covers, guards, overhangs, door skirts and/or conduct visual inspections or leak tests for overhead piping).
- **Prevent discharges from all the above areas** (use 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).

(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 Sates. Compliance with this requirement must be met as expeditiously as practicable, but no later than 3 years after the NOI is submitted.

OTHER REFERENCES

In addition to this summary, other documents are available to assist in the preparation and implementation of pollution prevention plans. These documents include the guidance manual Storm Water Management for Industrial Activities, Developing Pollution Prevention Plans and Best Management Practices (EPA 832-R-92-006, September 1992), which is available from the National Technical Information Service (NTIS Order No. PB 922 359 69) at (703) 487-4650.

For any other information and guidance, please call EPA's National Storm Water Hotline at (703) 821-4823. From the Hotline, you may obtain numerous documents, including:

- September 9, 1992, Federal Register (57 FR 41236) - Final NPDES General Permits for Storm Water Discharges Associated with Industrial Activity; Notice

  - Applicability:

    For the States of Alaska, Arizona, Florida, Idaho, Louisiana, Maine, New Hampshire, New Mexico, Oklahoma, South Dakota and Texas; for Indian lands located in Alaska, Arizona, California, Colorado (including the Ute Mountain Reservation in Colorado), Florida (two tribes), Idaho, Maine, Massachusetts, Mississippi, Montana, New Hampshire, Nevada, North Carolina, North Dakota, Utah, Washington and Wyoming; for Federal facilities in Colorado and Washington; for Federal facilities and Indian lands in Louisiana, New Mexico, Texas, and Oklahoma; and for the territories of Johnston Atoll, and Midway and Wake Island.

- September 25, 1992, Federal Register (57 FR 44438) - Final NPDES General Permits for Storm Water Discharges Associated with Industrial Activity; Notice

  - Applicability:

    For the States of Massachusetts and Puerto Rico; for American Samoa and Guam; for Indian lands located in New York; and for Federal facilities in Delaware.

POLLUTION PREVENTION TEAM _____ MEMBER ROSTER	Worksheet #1 Completed by: _____ Title: _____ Date: _____

Leader: _____ Title: _____

Office Phone: _____

Responsibilities:

_____

_____

_____

Members:

(1) _____ Title: _____

Office Phone: _____

Responsibilities:

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(2) _____ Title: _____

Office Phone: _____

Responsibilities:

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(3) _____ Title: _____

Office Phone: _____

Responsibilities:

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(4) _____ Title: _____

Office Phone: _____

Responsibilities:

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DEVELOPING A SITE MAP	**Worksheet #2** **Completed by:** _____ **Title:** _____ **Date:** _____

Instructions: Draw a map of your site including a footprint of all buildings, structures, paved areas, and parking lots. The information below describes additional elements required by EPA's General Permit.

EPA's General Permit requires that you indicate the following features on your site map:

- All outfalls and storm water discharges
- Drainage areas of each storm water outfall
- Structural storm water pollution control measures, such as:
  - Flow diversion structures
  - Retention/detention ponds
  - Vegetative swales
  - Sediment traps
- Name of receiving waters (or if through a Municipal Separate Storm Sewer System)
- Locations of exposed significant materials
- Locations of past spills and leaks
- Locations of high-risk, waste-generating areas and activities common on industrial sites such as:
  - Fueling stations
  - Vehicle/equipment washing and maintenance areas
  - Area 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 areas
  - Other areas of concern (specify:_____)

MATERIAL INVENTORY

Worksheet #3
Completed by: _____
Title: _____
Date: _____

Instructions: List all materials used, stored, or produced onsite. Assess and evaluate these materials for their potential to contribute pollutants to storm water runoff. Also complete Worksheet 3A if the material has been exposed during the last 3 years.

Material	Purpose/Location	Quantity (units)			Quantity Exposed in Last 3 Years	Likelihood of contact with storm water. If yes, describe reason.	Past Significant Spill or Leak	
		Used	Produced	Stored			Yes	No

DESCRIPTION OF EXPOSED SIGNIFICANT MATERIAL

Worksheet #3A
Completed by: _____
Title: _____
Date: _____

Instructions: Based on your material inventory, describe the significant materials that were exposed to storm water during the past three years and/or are currently exposed. For the definition of "significant materials" see page 5 of this summary.

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)	Description of Material Management Practice (e.g., pile covered, drum sealed)

LIST OF SIGNIFICANT SPILLS AND LEAKS

Worksheet #4
Completed by: _____
Title: _____
Date: _____

Directions: Record below all significant spills and significant leaks of toxic or hazardous pollutants that have occurred at the facility in the three years prior to the effective date of the permit.

Definitions: Significant spills include, but are not limited to, releases of oil or hazardous substances in excess of reportable quantities.

1st Year Prior

Date (month/day/year)	Spill	Leak	Location (as indicated on site map)	Description				Response Procedure		Preventive Measures Taken
				Type of Material	Quantity	Source, If Known	Reason	Amount of Material Recovered	Material No Longer Exposed to Storm Water (True/False)	

2nd Year Prior

Date (month/day/year)	Spill	Leak	Location (as indicated on site map)	Description				Response Procedure		Preventive Measures Taken
				Type of Material	Quantity	urce, If Known	Reason	Amount of Material Recovered	Material No Longer Exposed to Storm Water (True/False)	

3rd Year Prior

Date (month/day/year)	Spill	Leak	Location (as indicated on site map)	Description				Response Procedure		Preventive Measures Taken
				Type of Material	Quantity	Source, If Known	Reason	Amount of Material Recovered	Material No Longer Exposed to Storm Water (True/False)	

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, 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 submitted to the Director within 180 days of the effective date of this permit.

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, and that such notification has been made to the Director within 180 days of _____ (date permit was issued), the effective date of this permit.

A. Name & Official Title (type or print)	B. Area Code and Telephone No.
C. Signature	D. Date Signed

Double Scoop Ice Cream Company

40 Wonka Drive
Anytown, OK 12345

December 1992

Storm Water Pollution Prevention Plan	
Emergency Contact: Cheryl Glenn	Work Phone: (101) 555-1234
Title: Plant Manager	Emergency Phone: (101) 555-6929
Secondary Contact: Rachel Meyers	Work Phone: (101) 555-3923
Title: Engineering Supervisor	Emergency Phone: (101) 555-6789
Type of Manufacturer: Ice Cream Manufacturer	
Operating Schedule: 8:00 a.m. - 11:30 p.m.	
Number of Employees: The plant has 21 employees, including part time staff. Shifts overlap all day.	
Average Wastewater Discharge: 5,000 gallons per week	
NPDES Permit Number: OK1234567	

POLLUTION PREVENTION TEAM

MEMBER ROSTER

Worksheet #1
Completed by: Cheryl Glenn
Title: Plant Manager
Date: December 15, 1992

Leader: Cheryl Glenn Title: Plant Manager
Office Phone: (101) 555-1234
Responsibilities: Signatory authority; coordinate all stages of plan development and implementation; coordinate employee training program; keep all records and ensure reports are submitted.

Members:

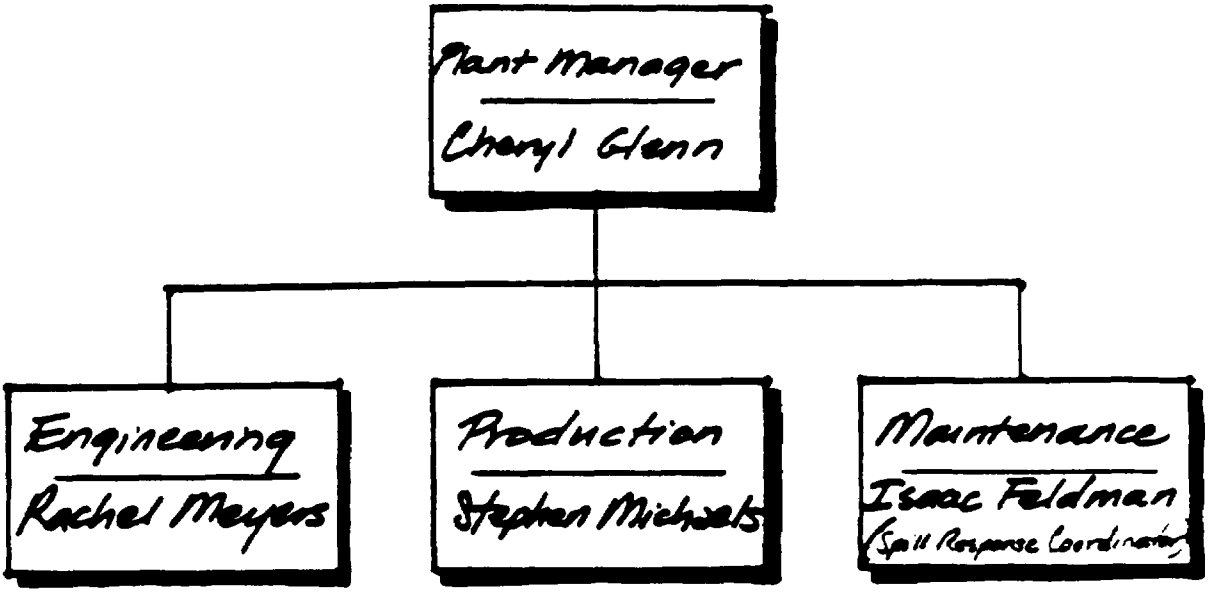
(1) Stephen Michaels Title: Production Supervisor
Office Phone: (101) 555-3923
Responsibilities: Note any process changes; help conduct inspections

(2) Rachel Meyers Title: Engineering Dept. Supervisor
Office Phone: (101) 555-5890
Responsibilities: Responsible for implementing the Preventive Maintenance program; oversee inspections

(3) Isaac Feldman Title: Maintenance Dept. Supervisor
Office Phone: (101) 555-0482
Responsibilities: Mr. Feldman is the spill response coordinator; Oversees "good housekeeping."

(4) Group Activities Title:
Office Phone:
Responsibilities: Developing the plan elements, choosing storm water management options.

Pollution Prevention Team Organization Chart



Double Scoop Ice Cream Company

Storm Water Pollution Prevention Plan
Comparison with SPCC Plan

Double Scoop Ice Cream Plant has an SPCC plan in operation for its aboveground fuel storage tank. Overlaps are noted below:

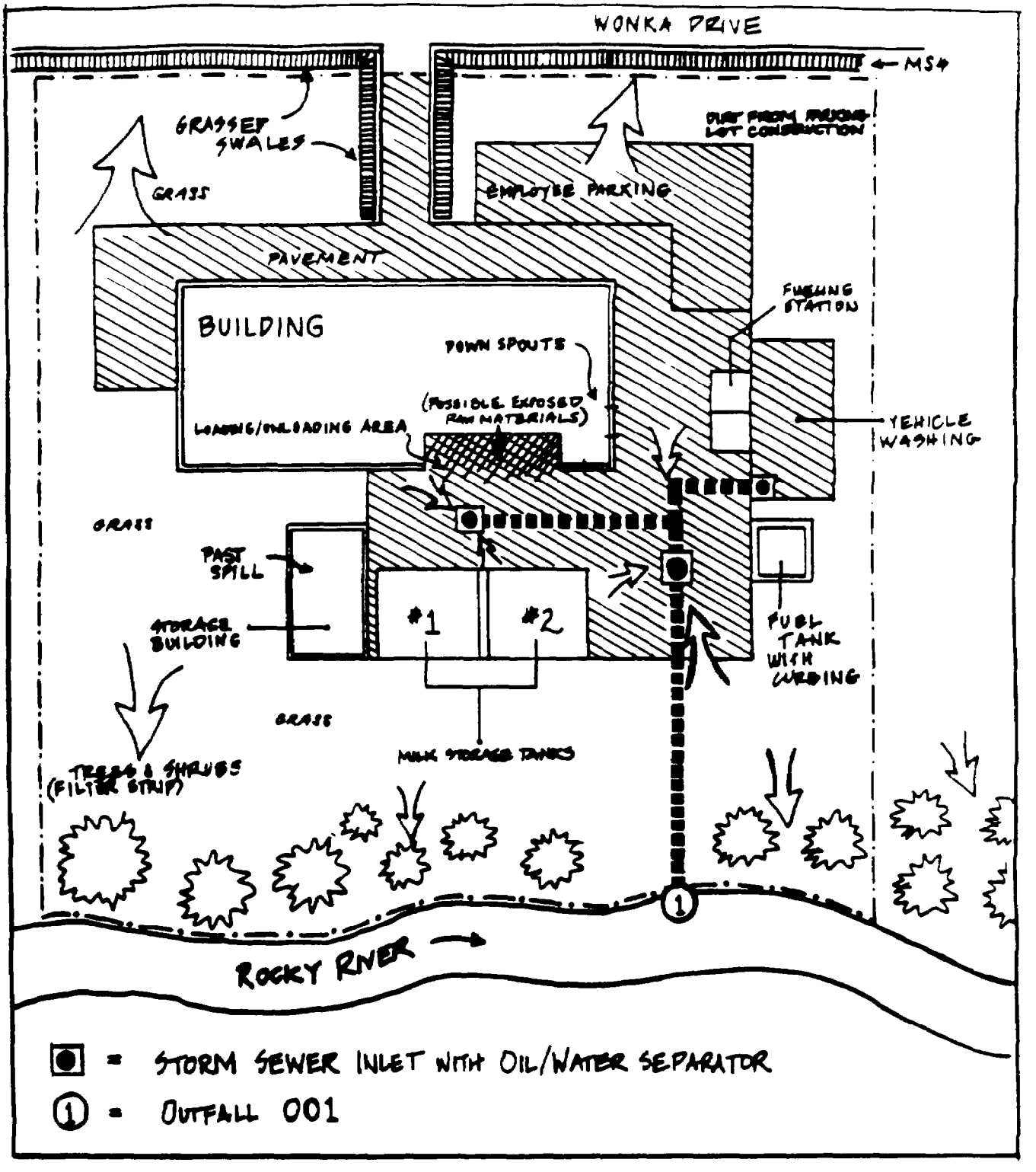
- Isaac Feldman is the SPCC Coordinator and reports directly to Cheryl Glenn. He will be the Storm Water Spill Prevention and Response Coordinator.
- A complete description of potential for oil to contaminate storm water discharges including quantity of oil that could be discharged.
- Curbing around aboveground fuel storage tank identified on site map.
- Expanded SPCC schedules and procedures to include Storm Water Pollution Prevention Plan requirements.
- Incorporated SPCC plan training into storm water training programs on spill prevention and response.
- Relevant portions of the SPCC plan will be included in this plan.

DEVELOPING A SITE MAP	Worksheet #2 Completed by: Cheryl Glenn Title: Plant Manager Date: December 12, 1992

Instructions: Draw a map of your site including a footprint of all buildings, structures, paved areas, and parking lots. The information below describes additional elements required by EPA's General Permit (see example maps in Figures 2.3 and 2.4).

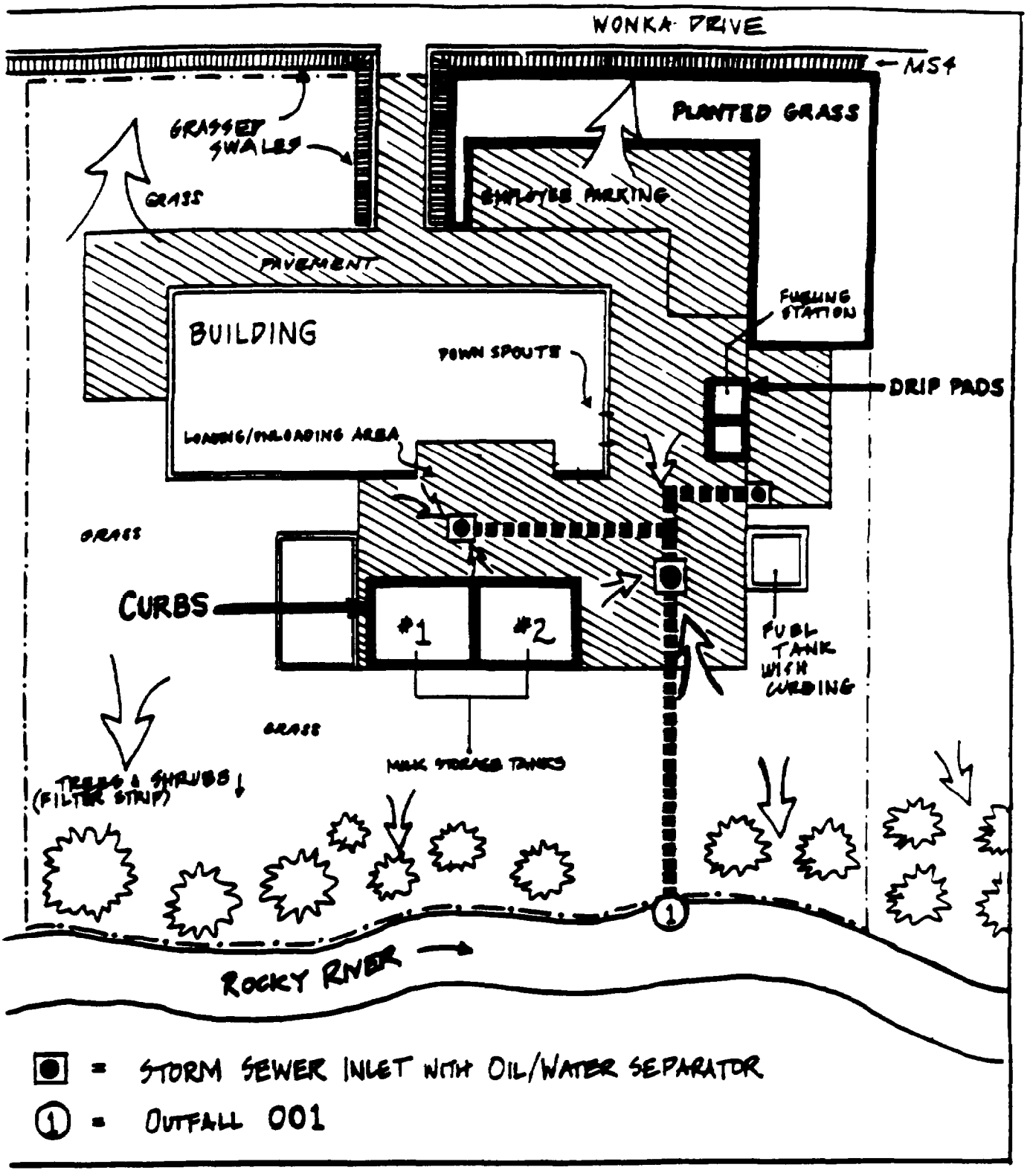
EPA's General Permit requires that you indicate the following features on your site map:

- All outfalls and storm water discharges
- Drainage areas of each storm water outfall
- Structural storm water pollution control measures, such as:
  - Flow diversion structures
  - Retention/detention ponds
  - Vegetative swales
  - Sediment traps
- Name of receiving waters (or if through a Municipal Separate Storm Sewer System)
- Locations of exposed significant materials (see Section 2.2.2)
- Locations of past spills and leaks (see Section 2.2.3)
- Locations of high-risk, waste-generating areas and activities common on industrial sites such as:
  - Fueling stations
  - Vehicle/equipment washing and maintenance areas
  - Area 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 areas
  - Other areas of concern (specify:_____)



DOUBLE SCOOP ICE CREAM COMPANY

PRE-BMP SITE MAP
MARCH 1, 1993



DOUBLE SCOOP ICE CREAM COMPANY

POST-BMP SITE MAP
MARCH 1, 1993

MATERIAL INVENTORY

Worksheet #3
Completed by: Cheryl Glenn
Title: Plant Manager
Date: December 12, 1992

Instructions: List all materials used, stored, or produced onsite. Assess and evaluate these materials for their potential to contribute pollutants to storm water runoff. Also complete Worksheet 3A if the material has been exposed during the last three years.

Material	Purpose/Location	Quantity (units) Used	Produced	Stored	Quantity Exposed in Last 3 Years	Likelihood of contact with storm water. If yes, describe reason.	Past Significant Spill or Leak: Yes	No
Butter fat Milk solids Whey solids	Truck unloading area during transfer to liquid ingredient storage and milk vat storage.	72,600 gal/wk	—	2,000 gal/wk	NO	Truck loading area outside and possible exposure with ruptured tanks.		✓
Corn Syrup Liquid sugar	Truck unloading area during transfer to sweetener storage.	7,100 gal/wk	—	—	yes	Truck loading area outside with possible exposure as a result of leaking tanks.	✓	
Ice cream	Inside freezers for final product shipping.		35-40,000 lbs.		NO	NO		✓
Cleansers:								
Granular	Dry cleansers in dry storage area (indoors)	900 lb/wk	—	—	NO	Yes. Possible storage exposure during transfer to dry storage area.		✓
Chlorshine-O								
H.D.C.-3R								

Power Spray-R

MATERIAL INVENTORY

Page 2

Worksheet #3
Completed by: Cheryl Glenn
Title: Plant Manager
Date: December 12, 1992

Instructions: List all materials used, stored, or produced onsite. Assess and evaluate these materials for their potential to contribute pollutants to storm water runoff. Also complete Worksheet 3A if the material has been exposed during the last three years.

Material	Purpose/Location	Quantity (units) Used	Produced	Stored	Quantity Exposed in Last 3 Years	Likelihood of contact with storm water. If yes, describe reason	Past Significant Spill or Leak Yes	No
Cleansers:								
liquid M.R.S.-200-0 Acidize-O Microsan	Cleansers are stored outside under cover	100 gallon	—	—	NO	Yes-if material tanks stored outside.		✓
Fuels:								
gasoline	above ground 750 gallon storage tank	250 gallon	—	—	No	Yes - Possible exposure in the event of defective tanks or transfer of materials from tanks to containers		✓
motor oil		20 gallon	—	—	NO			✓
Soaps detergents		10 gallon	—	—	NO			✓

DESCRIPTION OF EXPOSED SIGNIFICANT MATERIAL

Worksheet #3A
Completed by: Cheryl Glenn
Title: Plant Manager
Date: December 12, 1992

Instructions: Based on your material inventory, describe the significant materials that were exposed to storm water during the past three years and/or are currently exposed. For the definition of "significant materials" see Appendix B of the manual.

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)	Description of Material Management Practice (e.g., pile covered, drum sealed)
liquid sugar	1/21/92	10 gal.	Storage Building Tank #2	50 gal. tanks (2)	Leak was contained and mopped up. Remainder of liquid sugar transferred to tank that did not have a leaky valve.

LIST OF SIGNIFICANT SPILLS AND LEAKS

Worksheet #4
Completed by: Cheryl Glenn
Title: Plant Manager
Date: December 12, 1992

Directions: Record below all significant spills and significant leaks of toxic or hazardous pollutants that have occurred at the facility in the three years prior to the effective date of the permit.

Definitions: Significant spills include, but are not limited to, releases of oil or hazardous substances in excess of reportable quantities.

1st Year Prior

Date (month/day/year)	Spill	Leak	Location (as indicated on site map)	Description: Type of Material	Description: Quantity	Description: Source, If Known	Description: Reason	Response Procedure: Amount of Material Recovered	Response Procedure: Material No Longer Exposed to Storm Water (True/False)	Preventive Measures Taken
				NONE						

2nd Year Prior

Date (month/day/year)	Spill	Leak	Location (as indicated on site map)	Description: Type of Material	Description: Quantity	Description: Source, If Known	Description: Reason	Response Procedure: Amount of Material Recovered	Response Procedure: Material No Longer Exposed to Storm Water (True/False)	Preventive Measures Taken
1/21/91		✓	STORAGE BLDG.	LIQUID SUGAR	1092	Tank #2	leaky valve	contained and mopped spill — unrecovered	true	installing curbing around tank - to be completed by 1993

3rd Year Prior

Date (month/day/year)	Spill	Leak	Location (as indicated on site map)	Description: Type of Material	Description: Quantity	Description: Source, If Known	Description: Reason	Response Procedure: Amount of Material Recovered	Response Procedure: Material No Longer Exposed to Storm Water (True/False)	Preventive Measures Taken
				NONE						

NON-STORM WATER DISCHARGE ASSESSMENT AND CERTIFICATION

Worksheet #5
Completed by: Rachel Meyers
Title: Engineering Department Supervisor
Date: 3/1/93

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
12/24/92	001	visual inspection	No discharge observed		R. Meyers and S. Goodhope
1/19/93	001	visual inspection	Significant flow; oil	vehicle wash ongoing at time	R. Meyers and S. Goodhope
2/5/93	001	visual inspection	Small amount of discharge observed; clear	suspected to be delayed storm water discharge from storm that occurred 2/1/93	R. Meyers and S. Goodhope
	* See details in attached field notebook.				

CERTIFICATION

I, Cheryl Glenn (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.
Cheryl Glenn	(101) 555-1239
C. Signature Cheryl Glenn	D. Date Signed 3/2/93

FIELD NOTEBOOK

For non-storm water discharge inspections

INSPECTION TEAM:
R. Meyers
S. Goodhope

Completed by: Rachel Meyers
Date: 12/24/92
Time: 10:50 am

Time since last rain: 42 hours
Quantity of last rain: 0.12 inches
Flow observed: NO

SIGNATURE: Rachel Meyers

Completed by: Rachel Meyers
Date: 1/19/93
Time: 3:20 pm

Time since last rain: 5 days
Quantity of last rain: 0.5 inches
Flow observed: YES
DESCRIPTION: No odor; clear color (soap suds); oily sheen; some sediment.
Temperature: cold (37.5°F)
Volume: collected ten gallons/minute in buckets
Comments: Vehicle wash ongoing at time of inspection. This was the source of the flow.

SIGNATURE: Rachel Meyers

Completed by: Rachel Meyers
Date: 2/5/93
Time: 12:15 pm.

Time since last rain: 96 hours
Quantity of last rain: 2.5 inches
Flow observed: YES
DESCRIPTION: No odor; clear; some sediments; few small pieces of paper (trash)
Temperature: cold (42.3°F)
Volume: Collected one gallon in 5 minutes.
Comments: We suspect that the flow was left over from storm that occurred on 2/1/93 (4 days ago)

SIGNATURE: Rachel Meyers

Double Scoop Ice Cream Company

Site Assessment Inspection

February 10, 1993

Evaluate the site for pollutants.

There are five areas where material handling and storage activities take place.

- The storage building contains tanks of corn syrup, liquid sugar, and the granular cleansers. The tanks were examined for possible leaks. We found that the valve on the liquid sugar tank #2 was faulty and had leaked approximately 10 gallons of liquid sugar. Although this leak occurred on 1/21/92, the faulty valve was not discovered until now. All other tanks are secure. Areas around the tanks were swept clean to determine if leaks or spills were prevalent.

- The milk storage tanks were then examined for leaks or exposure. Upon closer examination, it was found that the number 1 tank was leaking a small amount of milk to the drainage system. This leak may be the reason for the high concentration of biochemical oxygen demand found in the sample taken from the storm water discharge. The tank was temporarily fixed to ensure that no further contamination would result. A replacement tank was ordered on February 6, 1993, and was expected to arrive within 5 business days. The milk storage tanks shall be examined on a daily basis to further prevent possible exposure to the storm water collection system and receiving stream.

- We inspected the fueling station to see if there were any leaks. The general area surrounding the fueling station was clean but we observed that gasoline and motor oil falls during fueling. In accordance with standard operating conditions, facility personnel hose down the area during vehicle washing and the drain is connected to the storm sewer. We detected this connection on 1/19/93 during one of the non-storm water discharge assessment visual inspections. Since this discharge is not allowed under our general permit, we are in the process of submitting a separate permit application specifically for the discharge of vehicle wash water.

- We examined the fueling station which is adjacent to the vehicle washing area. Vehicle washing cleaners are used here and any empty or open containers were removed from the area.

- We next looked at the loading and unloading docks where raw materials and various cleansers are delivered. The transfer of goods from incoming trucks to storage areas is a source of pollution. Although no problems were noticed, the pollution prevention team has developed a spill prevention and response plan to clean up spills quickly and report them if necessary.

- The last area we inspected was the runoff field below the employee parking lot. Here we noticed a significant amount of erosion resulting from recent construction to expand the parking lot.

Describe existing management practices.

Grass was lightly planted around the parking lot after recent construction. The fuel storage tank has curbing around it in accordance with our SPCC plan. Also, the maintenance crew regularly picks up trash and empty containers from around the storage tanks, loading and unloading areas, and the vehicle washing areas. Used oils are collected in containers and taken to a recycling facility. In addition, we installed two oil/water separators at the drains into our underground storm sewer leading to the Rocky River. These separators are indicated on the site map.

Double Scoop Ice Cream Company

Existing Monitoring Data

Although our NPDES permit for process wastewater does not require storm water sampling, we sampled our storm water on one occasion in response to a questionnaire we received from the National Association of Ice Cream Makers. They were collecting information to submit as part of their comments on EPA's proposed general permit.

Date of Sampling	8/30/91
Outfall Sampled	001
Type of Storm	1 inch light rainfall (lasted 2 days)
Type of Samples	Grab samples taken during first hour of flow

Data		
Parameter	**Quantity**	**Sample Type**
BOD	250 mg/l	Grab
TSS	100 mg/l	Grab
pH	7.2 s.u.	Grab
Oil and grease	5.0 mg/l	Grab

Based upon the high concentration of BOD in the storm water samples collected, pollution prevention team is considering possible potential sources of BOD. We will look at storage areas housing butter fat, milk, and whey solids tanks.

Double Scoop Ice Cream Company

Summary of Pollutant Sources

March 5, 1993

Based on the site assessment inspection conducted on 12/1/92, the pollution prevention team identified four potential sources of pollutants:

- Oil and grease stains on the pavement in the fueling area indicate oil and grease may be picked up by storm water draining to the storm sewer. This area drains into the storm sewer leading to the Rocky River.

- Sediment and erosion potential in the field below the employee parking lot because of thinly planted grass.

- Potential for spills or leaks from liquid storage tanks, including the fuel storage tank, based on a spill that occurred on 1/21/92 and the leak that was detected in the milk storage tank. These pollutants would drain into the piped outfall into the Rocky River.

- Use of a toxic cleaning agent may result in a pollution problem if handled improperly.

Double Scoop Ice Cream Company

Description of Storm Water Management Measures Taken Based on Site Assessment Phase

March 5, 1993

These measures correspond to the pollutant sources identified on the preceding page.

Oil and grease from fueling area.

We installed drip pads around the fuel pumps to pick up spilled gas and oil during truck refueling. These will be inspected regularly to make sure they are working well.

Sediment and erosion in the field below the employee parking lot.

We planted grass in this area to reduce potential for erosion.

Leaks/spills from liquid storage tanks.

We are in the process of installing curbing around the outdoor liquid storage tanks that will contain the volume of he largest tank in case a spill should occur. The spill response team has developed procedures to clean up this area should a spill occur. We are incorporating spill response procedures from our SPCC plan.

Toxic cleaning agent.

We have discontinued the use of this agent and are replacing it with a non-toxic cleaning agent.

POLLUTANT SOURCE IDENTIFICATION
(Section 2.2.6)

Worksheet #7
Completed by: Cheryl Glenn
Title: Plant Manager
Date: 3/5/93

Instructions: List all identified storm water pollutant sources and describe existing management practices that address those sources. In the third column, list BMP options that can be incorporated into the plan to address remaining sources of pollutants.

Storm Water Pollutant Sources	Existing Management Practices	Description of New BMP Options
1. Oil and grease on pavement in fueling area	Oil and water separators installed in storm water drain	Install drip pads
2. Erosion in field below employee parking lot	Planted some grass after construction; grassed swales along Wonka Drive	Plant more grass
3. Potential for spills from liquid storage tanks (leak detected in milk tank #2 - past spill on ground)	Curbing around fuel storage tank (see SPCC plan)	Replace milk tank #1, replace valve on liquid sugar tank #2, install curbing around other outside tanks, spill prevention response plan, training
4. Use of toxic cleaning agent		Use non-toxic cleaning agent
5. Trash in loading/unloading fueling areas	Regular trash pick up (daily) by maintenance crew; collect and recycle used oil.	Train staff in good housekeeping practices.
6.		
7.		
8.		
9.		

BMP IDENTIFICATION (Section 2.3.1)	Worksheet #7a Completed by: Cheryl Glenn Title: Plant Manager Date: 3/5/93

Instructions: Describe the Best Management Practices that you have selected to include in your plan. For each of the baseline BMPs, describe actions that will be incorporated into facility operations. Also describe any additional BMPs (activity-specific (Chapter 3) and site-specific BMPs (Chapter 4)) that you have selected. Attach additional sheets if necessary.

BMPs	Brief Description of Activities
Good Housekeeping	Collect and recycle used oil; regular trash pick up; train staff in basic clean up procedures (sweeping loading & unloading areas, etc.)
Preventive Maintenance	Daily inspection of outside milk tanks; replace faulty valve on sugar tank #2; replace leaking milk tank #1
Inspections	Daily inspection of outside milk tanks; bi-monthly inspections of drip pads, curbing, loading/unloading areas, grassed areas, drainage system.
Spill Prevention Response	Install curbing around outside liquid storage tanks; fuel tank has curbing; install drip pads at fueling station
Sediment and Erosion Control	Plant grass around new parking area.
Management of Runoff	Grassed swales along Wonka Drive; (2) oil/water separators in storm drain system
Additional BMPs (Activity specific and Site specific)	Order non-toxic cleaning agent.

Double Scoop Ice Cream Company

Employee Training Program

Who:

Line Workers
Maintenance Crew
Shipping and Receiving Crew

When:

Employee meetings held the first Monday of each month to discuss:

- Any environmental/health and safety incidents
- Upcoming training sessions
- Brief reminders on good housekeeping, spill prevention and response procedures, and material handling practices
- Announce any changes to the plan
- Announce any new management practices

In-depth pollution prevention training for new employees

Refresher courses held every 6 months (October and March) addressing:

- Good housekeeping
- Spill prevention and response procedures
- Materials handling and storage

Employee Training Program Topics:

Good Housekeeping

- Review and demonstrate basic cleanup (sweeping and vacuuming) procedures.
- Clearly indicate proper disposal locations.
- Post signs in materials handling areas reminding staff good housekeeping procedures.
- Be sure employees know where routine clean-up equipment located.

Spill Prevention and Response

- Clearly identify potential spill areas and drainage routes
- Familiarize employees with past spill events -- why they happened and the environmental impact (use slides)
- Post warning signs in spill areas with emergency contacts and telephone numbers
- Introduce Isaac Feldman as the Spill Response Coordinator and introduce his "team"
- Drill on spill clean-up procedures
- Post the locations of spill clean-up equipment and the persons responsible for operating the equipment

Materials Handling and Storage

- Be sure employees are aware which materials are hazardous and where those materials are stored
- Point out container labels
- Tell employees to use the oldest materials first
- Explain recycling practices
- Demonstrate how valves are tightly closed and how drums should be sealed
- Show how to fuel vehicles and avoid "topping off"

IMPLEMENTATION (Section 2.4.1)	Worksheet #8 Completed by: Cheryl Glenn Title: Plant Manager Date: 3/30/93

Instructions: Develop a schedule for implementing each BMP. Provide a brief description of each BMP, the steps necessary to implement the BMP (i.e., any construction or design), the schedule for completing those steps (list dates) and the person(s) responsible for implementation.

BMPs	Description of Action(s) Required for Implementation	Scheduled Completion Date(s) for Req'd. Action	Person Responsible for Action	Notes
Good Housekeeping	1. Develop training program	3/10/93	Glenn	
	2. Conduct training	6/1/93	Glenn	
	3.			
Preventive Maintenance	1. Replace valve on sugar tank #2	3/1/93	Feldman	
	2. Install new milk tank #2	2/15/93	Feldman	
	3.			
Inspections	1. Develop inspections schedule	4/1/93	Glenn	
	2.			
	3.			
Spill Prevention and Response	1. Install curbing around milk storage tanks	4/30/93	Meyers	
	2. Install drip pads	4/1/93	Feldman	
	3. Develop / Implement Spill Prevention / Response training	4/1/93 - DEVELOP 6/1/93 - TRAIN	Feldman	
Sediment and Erosion Control	1. Plant grass around parking area	4/15/93	Feldman	
	2.			
	3.			
Management of Runoff	1. BMPs already in place			
	2.			
	3.			
[illegible] BMPs ([illegible] specific and site specific)	1. Substitute non toxic cleaning agent	2/28/93	Michaels	
	2.			
	3.			

EMPLOYEE TRAINING
(Section 2.4.2)

Worksheet #9
Completed by: Cheryl Glenn
Title: Plant Manager
Date: 3/2/93

Instructions: Describe the employee training program for your facility below. The program should, at a minimum, address spill prevention and response, good housekeeping, and material management practices. Provide a schedule for the training program and list the employees who attend training sessions.

Training Topics	Brief Description of Training Program/Materials (e.g., film, newsletter course)	Schedule for Training (list dates)	Attendees
Spill Prevention and Response	locate spill areas by signs; drill spill response procedures; show slides of past spills.	October / March	Maintenance / shipping & receiving
Good Housekeeping	Demonstration; post signs at disposal sites.	October / March	Maintenance / shipping & receiving
Material Management Practices	introduce hazardous materials labels; discuss recycling.	October / March	Lineworkers / shipping and receiving / maintenance
Other Topics	Environmental / health incidents; Reminders of pollution prevention plan issues.	1st Monday of each month	All employees.

EPA
United States
Environmental Protection Agency
Washington DC 20460
(4203)

Official Business
Penalty For Private Use $300