

The Sample Company

Address
City, State
555-555-0000

STORM WATER POLLUTION PREVENTION PLAN & MONITORING PROGRAM

Revised: Date

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Storm Water Pollution Prevention Plan & Monitoring Program

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1.0 INTRODUCTION

This Storm Water Pollution Prevention Plan (SWPPP) is presented as a stand alone document but is to be filed as an attachment to the Sample Company's Storm Water Pollution Prevention Plan. It incorporates Best Management Practices (BMPs) and the use of a monitoring plan which is intended to reduce the amount of pollution contained in storm water runoff from the Sample Company's facility and is designed to analyze the run-off to determine if the BMP's are working. This SWPPP has been developed on currently available information. It will be updated if new regulations are promulgated, if there are changes in on-site conditions which may significantly affect the discharge of pollutants to surface water, ground water, or the municipal storm drain system, or it will be updated if new technologies become available as BMPs for better control of storm water pollutants.

Sample Company has been an industry leader for many years and has built a reputation on environmental compliance and by providing environmental services. It is important to our company that production does not supersede environmental concerns and we are committed to operating an environmentally safe and responsible business.

1.1 BACKGROUND

This Storm Water Pollution Prevention Plan (SWPPP) and monitoring program have been written for implementation at Sample Company at Address, City, State.

Sample Company operates a business in which non-hazardous water is phase separated into solids, water and oils. These components are then stored on site until reclaimed or landfilled at an offsite facility. These processes involve filtration, chemical flocculation, dewatering and solidification. Additionally, Sample Company manages certain metal bearing materials in drums, bags and boxes for reclamation. These materials are received, checked for quality and shipped to be re-melted or reclaimed into new products.

The water treatment operations are conducted under roof and all tanks are surrounded by containment walls to capture any non-storm water or storm water that may possibly enter the containment area. The area in which trucks are unloaded is exposed to rainfall, however, the area is bermed to capture any spills and an in-ground sump with automatic features pumps water to the tank system.

Metallic material destined for reclamation is kept in original containers and always sealed except when sampling. The material is stored in an area where all rainwater is captured and treated before discharge. No industrial activity is allowed in areas north of the flow line outlined on the facility map.

2.0 SITE LOCATION AND DESCRIPTION

The Sample Company's facility is a rectangle shaped property of 1 acre, approximately 150' x 400' (running north to south) and is located at Address, City, State. It is located in an industrial section of the city.

The facility is 100% concrete and is designed to channel storm water to two major outfalls, the north parking lot drains to the Street and the south area drains to a neighboring company. The neighboring company's outfall has structural control devises to trap sediment and other contaminants as well as treat the water before it leaves the property. No industrial activity takes place in the north drainage area. It is only used for parking and truck scale access.

The perimeter of the facility is secured by a metal fence to 8 feet high and a 10' steel fence is to the west. Security guards patrol the entire Sample Company's site after hours. These guards are trained in storm water procedures and emergency contacts.

2.1 *Map*

3.0 LIST OF SIGNIFICANT MATERIALS

As part of the Sample Company's operations the following materials would normally be found on site at any given time:

1 Non-Hazardous Water for Reclamation

- a. **Storage-** found in most above ground tanks in containment area.
- b. **Receiving-** Material received across scale and unloaded in bermed area.
- c. **Quantity stored** <100,000 gallons
- d. **Frequency-** 0-20,000 gpd received.

2. Waste Oil

- a. **Storage-** inside bermed area to left (west) of R2.
- b. **Receiving-** trace oil is separated from received water.
- c. **Quantity stored-** 0-1000 gallons stored onsite.
- d. **Frequency-** daily ~ 0-100 gallons received in water prior to separation.

3. Steel Fines for Reclamation

- a. **Storage-** rear of property in industrial section
- b. **Receiving-** rear of property after trucks weighs at scale
- c. **Quantity Stored-** 0-20 tons
- d. **Frequency-** 0-100 tons per month.

4. Hydrogen Peroxide

- a. **Storage-** inside bermed area to left (west) of R2
- b. **Receiving-** rear of property in industrial section
- c. **Quantity Stored-** 55 gallons
- d. **Frequency-** 1 to 3 times per quarter.

5. Solids for Disposal

- a. **Storage-** Roll off bins in industrial area to south
- b. **Receiving-** solids are phase separated form water when initially received and after filter press de-waters flocculated cleaned material.
- c. **Quantity Stored-** 0-10 roll off bins.
- d. **Frequency-** solids are received daily in 0-2000 pound increments as solids are removed from water.

4.0 DESCRIPTION OF POTENTIAL POLLUTION SOURCES

The Sample Company operates a consolidated wastewater treatment and reclamation facility. The materials present at Sample Company that could potentially be a source of pollution is listed in section 3 as significant materials.

4.1 Significant Spills and Leaks

Before the truck unloading berm was built, the Sample Company had occasionally had trucks spill limited amount of non-hazardous water onto the pavement while connecting and disconnecting hoses. This water accompanied by subsequent washing of the pavement with water hose, was contained in a yard that neighbors the Sample Company and recovered for processing. Cement was cleaned with floor sweep and swept dry. Floor sweep was recovered and disposed of according to State requirements.

After berm and sump in washout area was built, no water has breached the berm and all water that is contained in truck wash area is immediately recovered and processed.

4.2 Non-Storm Water Discharges

Due to the contour design of the facility and awareness of environmental issues, Sample Company has not had a non-storm water discharge of any kind. None of the minor spills was ever in an area where they could affect storm water discharge and no residue from spill was left after cleanup. Industrial activity is purposely limited during storm events to minimize the impact a potential spill could have.

4.3 Soil Erosion

The Sample Company's yard is on 100% concrete and in no area is exposed soil available for erosion. The north area parking that drains to the street does have a greenbelt with numerous trees and grass belt. The likelihood of leaves being present in storm water is certain.

5.0 Assessment of Potential Pollution Sources

The following potential storm water pollutant sources may be present at the Sample Company under unusual/ severe circumstances; however, we have not found any significant risk to be present.

- 1 Simultaneous breach of more than 5 non-hazardous liquid tanks that would occur during a severe rain event. The water would co-mingle with the neighboring company's Storm water and under heavy conditions (>1" per hour) the neighboring company would not be able to keep up with treatment of flow.
- 2 Rubber from the wear of forklift, truck and passenger car tires could leave trace zinc metal and suspended solids in the run off.
- 3 Leaking oil from forklift, trucks and personal vehicles could run off in water. Oil and hydraulic leaks from powered equipment can cause oil sheen and detectable amounts of oils to be present
- 4 Leaves and debris from trees and wind blown dusts could be a source of contaminants.
- 5 Breach during storm event of totes containing oil destined for offsite shipment to recycler could occur and contaminate the neighboring company's Storm water. Although we do not perform these tasks during rain events.

5.1 Assessment of Pollution Sources

With proper management to ensure that industrial activity is curtailed or stopped during rain events and that all industrial activity is kept to the contoured, contained area of the yard, the likelihood of producing storm water contamination is slight.

The Sample Company is new to this location and has only recently developed this program. With the results of monitoring we can further confirm the lack of contaminants in our rainwater.

6.0 APPROPRIATE STORM WATER MANAGEMENT CONTROLS

Control measures, referred to, as Best Management Practices (BMP's) are used in this program as a method of protecting water quality. BMP's are methods that will be implemented to effectively reduce the potential for pollution associated with storm water runoff. BMP's include maintenance and operation procedures, use of devices for control of site run-off, spills, leaks and drainage from the storage areas. They also contain a list of actions to be taken to reduce the discharge of pollutants.

Control measures are divided into two categories; structural, physical methods including concrete barriers and specialized equipment to control contaminants, non-structural, which include training, and housekeeping techniques, etc. Both of these methods when used in conjunction with a monitoring program can achieve the desired results of clean run off.

These two categories can further be sorted as source and non-source BMP's. Source controls refer to point of generation issues, while non-source controls are point of discharge measures. Our intention at the Sample Company is to combine structural and non-structural controls to ensure a complete program.

6.1 *Management, Addition and Revision of BMP*

Existing BMP are to be implemented and revised as necessary to ensure that all practical, affordable and reasonable efforts are made to minimize any storm water contamination. By confirming with sampling and visual observations we should be able to determine if new BMP need to be added.

6.2 *Non-Structural BMP Controls*

Non structural source controls can be defined as operational practices performed by individuals that minimize potential exposure that an operation or process may have on the environment.

1. To control potential contact of storm water with pollutants, the yard will be swept regularly.
2. Incoming and stored containers are visually inspected for leaks and must only be received with properly attached lids. Material that, if improperly managed, could pose a threat to the environment must be given particular attention.

3. Procedures are in place to periodically inspect and maintain facility equipment and systems, particularly those that could be a pollution source.
4. All vehicle maintenance is done off-site or indoors.
5. The parking area shall be used solely for personal vehicle and truck, use. No material that could possibly be a pollution source can be kept there.
6. There will be no waste storage at this facility that exceeds the home city's regulations or the Department of Toxic and Substance Control regulations.
7. The property will be maintained in an orderly fashion through the provision of regular landscaping maintenance and trash or debris removal.
8. Trees or shrubs that are removed, damaged, diseased, and or dead, will be replaced in a timely manner.
9. Vehicle operators are instructed to inspect under their vehicles daily for any leakage of oil or other fluids.
10. All operations that involve transferring of liquids/ solids that could pose a threat to storm water will be ceased during storm events or carefully managed to assure no spills occur.

6.3 Good Housekeeping

The Sample Company will focus on good housekeeping techniques as the number one BMP for maintaining storm water compliance. Special attention will be given to the yard and we will do our best to be organized, swept and kept clean of debris, dusts and trash. Additionally, the following good housekeeping techniques will be implemented as best we can:

- a. Material handling areas are kept clean to reduce the potential for pollutants to enter the storm water runoff.
- b. Any accidental spills are cleaned up as soon as practicable using dry absorbent material.

6.4 Preventive Maintenance

The preventive Maintenance Program includes inspection and maintenance procedures for storm water system devices and BMP's as well as inspections and testing of equipment and systems that could fail and result in discharges of pollutants to storm water. Appropriate preventive maintenance procedures for the facility are as follows:

- a. Inspect and maintain the facility's equipment and vehicles.
- b. Inspect and maintain the storm water conveyance structures.
- c. Keep flow paths clear for drainage of storm water.
- d. Vehicle operators are instructed to inspect under their vehicles daily for any leakage of oil or other fluids.
- e. Mechanical yard sweepers will be serviced regularly to ensure proper operation.

6.5 Material Handling and Storage

The movement and storage of material destined for reclamation is a possible source of rainwater contamination. Care must be given to prevent contaminants from being exposed to the environment. By obeying the following items, a significant reduction in exposure will result.

- a. Exercise all applicable OSHA standards while operating lift trucks
- b. Drive lifts trucks carefully when transferring liquids or loose material that if spilled, could cause environmental harm.
- c. Cover all material that could negatively affect rainwater runoff.
- d. Mitigate all spills immediately so as to prevent loss of containment
- e. Place at risk items under roof or in areas that control/ contain runoff.
- f. When possible, wait until after storm events to transfer high-risk materials.

- g. All material must be packaged in appropriate sealed containers if dusty or liquid in nature.

6.6 Waste Handling/ Waste Recycling

Hazardous waste generated by the Sample Company is limited to oil destined for recycling. Additionally, non-hazardous solids are collected in the phase separation of liquids. If spilled or containment was lost during a rain event, both of these recyclable materials could pose a threat to storm water quality. As a means of ensuring proper management of these two items, the Sample Company has implemented the following procedures to guarantee minimal risk to the environment:

1. All waste and recyclable material containers are to be closed at all times except when loading or unloading them.
2. All containers must be stored in areas of light traffic and placed in a position to prevent forklift collision.
3. All roll-off bins with solids will be 2/3rd filled so as to prevent loss of material when transporting.
4. All material is to be stored in the industrial area only.

6.7 Spill Prevention and Response

Although it is unlikely that a spill of such significance could occur to warrant a threat to the storm water system, it is important to maintain high levels of readiness in case such an event should occur. Spills are most likely to occur during loading and unloading of materials or structural failure of equipment. For this reason, we have established standard safe practices for these operations. As part of our non-structural control measures we frequently inspect storage areas and equipment and train employees to respond to spills by using preventive maintenance strategies to solve the problems before they arise.

If a spill should occur, all personnel are trained to act defensively and think of their safety first, then they are to try to prevent loss of containment and seek assistance immediately. Spills and/or visible leaks from tanks, pumps, or vehicles will be immediately contained with absorbents and/or pigs or other appropriate means and reported to the program manager immediately. Contaminated soils and absorbents will be containerized and manifested as

wastes. If any amounts of liquid chemicals or petroleum products are spilled they are to be:

- Contained
- Reported
- Cleaned up immediately
- Disposed of properly

In case of a major spill of hazardous materials, licensed and certified environmental clean-up contractors will be brought on site. Should a spill of oil, fuel, solvent, or toxic or hazardous materials occur, the following personnel will be notified:

- Place Contacts Here

The above individuals will be responsible for notifying the following agency as appropriate.

- City Departments Here

6.8 Employee Training

Successful implementation of the SWPPP requires that all facility staff remain alert to conditions that may cause pollution, and to the need for maintenance of BMP's. New employees are given initial training that includes discussion of the SWPPP requirements. The training program is designed to address spill response, good housekeeping practices, and material management practices.

The Sample Company employees and management will be trained on the contents of this manual on an annual basis and within 90 days of new hire. The training will include at a minimum the following:

1. Potential sources of storm water contaminants
2. Structural measures used to reduce those contaminants
3. Non-Structural methods used to prevent release of contaminants
4. Their role in fulfilling the spirit of this plan
5. Reporting non-storm water discharges
6. Spill response
7. Proper housekeeping

Employees will be asked to contribute ideas and recommendations to improve the quality of water run off from the Sample Company and will be praised for their suggestions. Employees not obeying or caught willfully violating the provisions of this plan will be disciplined and possibly terminated. Employees will sign an annual training sheet to document compliance with this plan. The training sheet will include the employee's name, signature, position and date of training. This training sheet will be kept with this plan and presented to any regulatory officer that wishes to view it.

6.9 *Pollution Prevention Team*

The responsibility of implementing and operating the Water Quality Management Plan is considered to be a team effort. The following personnel have been identified to complete the SWPPP for the Sample Company.

- Place Head of Company Here

If any non-storm water discharge is witnessed, please notify one of the above immediately. Those persons that have been properly trained to contain the spill and mitigate it are authorized to do so without prior approval of management. Personnel that are not trained in spill response can only proceed with approval from management.

6.10 *Record Keeping and Internal Reporting*

As part of this program and other regulatory documents needed to be prepared by the Sample Company on an annual basis, Logs will be kept of any spill or incident that contributed or may have contributed to a non-storm water release. These documents will be presented to any Local, State or Federal official that wishes to review them.

The State Water Resources Control Board publishes forms to document the visual inspections and monitoring results from annual storm events. These forms will be completed and stored in this plan as an amendment.

6.11 *Erosion Control and Site Stabilization*

The Sample Company has no working areas that are unpaved. Only the green belt outside the facility is subject to exposure. This area is covered in grass and mature trees and does not pose an erosion issue.

The boundary property between the street and the facility does have numerous trees that contribute generously to the debris (leaves) and water quality during runoff.

6.12 Inspections

Notations on quarterly and monthly observation forms will document inspections. These inspections will focus on identifying any unreported non-storm water spill, or unauthorized non-storm water discharge. They will identify areas that may need particular attention or could be cause for a future problem.

6.13 Quality Assurance

The program administrator and at least the program administrator of the Sample Company will review this program annually. The review will take place during training sessions to seek advice on improvements. During quarterly or monthly observations if a change is needed, it will be added within a reasonable period of time.

6.14 Structural Control Measures- Overhead Coverage

All industrial areas where water is processed (except truck unloading) is covered. This is to prevent accidental overflow of tanks due to storm water addition. Most tanks are sealed top that cannot allow rain to enter. Additionally, processing equipment is under roof to prevent corrosion and minimize contaminated runoff.

6.15 Retention Ponds

The Sample Company benefits from the contoured pavement creating two retention areas. The Sample Company has a depression in front of the water storage tanks in the industrial area that can contain approximately 5,000 gallons of water in case of a spill. If a large spill were to occur, the overflow would travel to the neighboring company's retention pond (area) that is directly connected by pipe and pumps to the storm water retention tanks. It would require a spill larger than many hundreds of thousands of gallons to breach this pond and flow to the street.

6.16 Control Devices

Structural control measures are physical barriers and equipment that are used to minimize release of pollutants. They can also be used to control pollutants once generated.

1. The Sample Company storage area is a paved surface. Repair/ refurbishment of this paved area will be conducted in a timely manner if at any time there appears to be damage.
2. The facility is paved to direct all storm run-offs to the storm outfalls located along the southwestern boundary of the property and non-industrial activity drains to the north onto the Street.
3. All operating areas are paved and graded to control storm water.
4. All liquids are contained with berms as secondary containment in case of accidental spill or leak.
5. All tanks have valves and valve caps as forms of secondary containment.
6. All recyclable materials are contained in D.O.T. approved containers and placed in covered bins or drums for transport.
7. A filter system will be implemented for Storm Water Discharge. The purpose of this system is to minimize any of the contaminants while discharging. The filter system will be in place by any of the contaminants while discharging. The filter system will be in place by October 30, 2005 and be a part of our inspection.

6.17 Secondary Containment Structures

All industrial areas where water is processed (except truck unloading) is covered. This is to prevent accidental overflow of tank due to storm water addition. Most tanks are sealed top that cannot allow rain to enter. Additionally, processing equipment is under roof to prevent corrosion and minimize contaminated runoff.

7.0 COMPREHENSIVE SITE COMPLIANCE EVALUATION

Review of documents, logs and written visual observations is extremely important to improving the quality of storm water runoff. This review needs to be comprehensive enough to evaluate the gathered information and address areas of deficiencies. Only by making this program a "living"

plan with changes being incorporated and implementing improvements will the desired results be achieved. Specific areas to note are:

1. Visual inspection of potential pollution sources
2. Review and evaluation of BMP's
3. Review of sample analysis
4. Facility walk through and document review of non-storm water discharges.

Once this review is complete, an evaluation report must be written and submitted to the Regional Water Quality Control Board to document compliance.

8.0 Monitoring Program

The monitoring is an integral part of the Storm Water Pollution Prevention Plan. Only by observing and analyzing storm water runoff can the Sample Company determine the pollution sources and take measures to reduce or eliminate contaminants. The Monitoring Program is divided into three distinct parts:

1. Visual Observations
2. Storm Water Discharge Observations
3. Sampling and Analysis

This report must be kept a minimum of 5 years and must be submitted annually by July 1st of each year to the RWCB.

8.1 Visual Observations

In quarterly blocks starting in Jul- Sep, Oct-Dec, Jan-Mar and Apr-Jun The program manager will walk the facility and take written notes observing all potential pollution sources, signs of non-storm water releases, check all drainage areas for signs of non-storm water contaminants and will maintain a record of these observations.

During this audit, the program manager will evaluate all BMP's and look for deficiencies and potential problems that may lead to source generated contamination as well as, discharge point problems.

8.2 Storm Water Discharge Visual Observations

Once per month during the rain season (Oct 1-May 31) the program manager will check each storm event that produces a discharge and document all characteristics of the flow. This observation must be made within the first hour the discharge begins and must be preceded by three days of dry weather. Examples of characteristics may include:

1. Color of water
2. Description of odor
3. Amount of suspended debris
4. Amount of solids
5. Description of flow (heavy, light)
6. Detection of oil sheen
7. Possible sources of contaminants

8.3 Sampling and Analysis

A necessary benchmark used in evaluating the Storm Water Pollution Prevention Plan is the collection and analyzing of storm flow discharge (runoff). It is important that at least two storms be sampled each year; the first storm of the year and any subsequent storm.

Samples must be collected from both discharge sources; sump north from the tank farm. At least three working days of dry weather must precede the sampling. The samples will be analyzed for the following;

1. pH
2. Total suspended solids
3. Total dissolved solids
4. Specific Conductance
5. Oil and Grease or Total organic carbon
6. Any other contaminant suspected of being present (usually metals)

Description of Sampling Locations

Sampling location will be at the point of discharge at east end of the Street, north from the Sample Company's property. The north outfall contains water from shipping and receiving operations and vehicle parking. The southern outfall would receive contaminants from the grinding and sanding operations if any dusts were present. West, adjacent to the Sample Company is a neighboring company, outfall from that direction can run on to the Sample Company's property and it may contain metal contaminates from the metal piles on the neighboring company's property. East, adjacent to the Sample Company is a Railroad, outfall from that direction can run on to the Sample Company's property and may contain metals from rail cars break systems. Please note that water would have green tint if dusts were present.

Description of Sampling Methods

The program manager collects samples (or other staff if manager not present). Sample jars are provided by State certified laboratory. Sampling occurs during the first hour of a storm event that produces runoff.

Water is collected by opening the jars and holding the rim of the jar at discharge point (northeast of property) via hose. When the jar is near full, the lid is placed back on and observations are made. Subsequently the lab is called to collect the jars.

9.0 Certification of Storm Water Program Compliance

The undersigned certifies that there currently is no evidence of any unauthorized non-storm water discharges the Sample Company facility. That the Sample Company will strive to improve the quality of water and attempt to achieve 100% compliance with the plans laid out in this program. The Sample Company pledges to achieve compliance with all applicable regulations pertaining to waste management and storm water issues and is a partner with other concerned business's to protect our environment by implementing Best Management Practices to achieve these results.

_____ Date _____

Head of Company
The Sample Company