



Storm Water Management Fact Sheet Record Keeping

DESCRIPTION

Keeping records of spills, leaks, and other discharges can help a facility run more efficiently and cleanly. Records of past spills contain useful information for improving Best Management Practices (BMPs) to prevent future spills. Typical items that should be recorded include the results of routine inspections, and reported spills, leaks, or other discharges.

Records should include:

- The date, exact place, and time of material inventories, site inspections, sampling observations, etc.
- Names of inspector(s) and sampler(s).
- Analytical information, including the date(s) and time(s) analyses were performed or initiated, the analysts' names, analytical techniques or methods used, analytical results, and quality assurance/quality control results of such analyses.
- The date, time, exact location, and a complete characterization of significant observations, including spills or leaks.
- Notes indicating the reasons for any exceptions to standard record keeping procedures.
- All calibration and maintenance records of instruments used in storm water monitoring.

- All original strip chart recordings for continuous monitoring equipment.
- Records of any non storm water discharges.

Figure 1 shows a sample worksheet for tracking spills and leaks.

Record keeping is usually coordinated with internal reporting and other BMPs, and is often integrated into the development of a facility's Storm Water Pollution Prevention Plan (SWPPP) as part of the facility's NPDES storm water discharge permit.

APPLICABILITY

Records keeping is a basic business practice and is applicable to all facilities. If a separate record keeping system for tracking BMPs, monitoring results, etc., is not currently in place at a facility, existing record keeping structures can be easily adapted to incorporate this data. An ideal tool for implementation is the record keeping procedures laid out in an SWPPP.

ADVANTAGES AND DISADVANTAGES

Record keeping is a simple, easily implemented, and cost effective management tool. Complete, well-organized records can help ensure proper maintenance of facilities and equipment and can aid in determining the causes of spills and leaks; thus, record keeping can protect water quality by helping to prevent future leaks and spills.

Limitations of a record keeping system may include the following:

- Records must be updated regularly.
- Personnel completing and maintaining records must be trained to update records correctly.
- The records need to be readily accessible.
- Records containing any confidential information must be secured.

IMPLEMENTATION

The key to maintaining records is continual updating. Ensure that new information, such as analytical results, is added to existing inspection records or spill reports as it becomes available. In addition, update records if there are changes to the number and location of discharge points, principal products, or raw material storage procedures. Maintain records for least five years from the date of sample observation, measurement, or spill report. Some simple techniques used to accurately document and report results include:

- Field notebooks.
- Timed and dated photographs.
- Videotapes.
- Drawings and maps.
- Computer spreadsheets and database programs.

COSTS

Costs are those associated with staff hours used to develop and implement a record keeping system, costs for analyzing samples, and company overhead costs. Figure 2 is a sample worksheet that can be used to determine annual record keeping costs. Table 1 is an example of a completed record keeping costs sheet.

REFERENCES

1. California Environmental Protection Agency, August 17, 1992. Staff Proposal

for Modification to Water Quality Order No. 91-13 DWQ Waste Discharge Requirements for Dischargers of Storm Water Associated with Industrial Activities, Draft Wording, Monitoring Program and Reporting Requirements.

2. U.S. EPA, 1981. *NPDES BMP Guidance Document*.
3. U.S. EPA, Pre-print, 1992. *Storm Water Management for Industrial Activities: Developing Pollution Prevention Plans and Best Management Practices*. EPA 832-R-92-006.

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LIST OF SIGNIFICANT SPILLS AND LEAKS				Worksheet Completed by: _____ Title: _____ Date: _____						
Directions: Record below all significant spills and significant leaks of toxic or hazardous pollutant 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 (mo/day/yr)	Spill	L e a k	Location (as indicated on site map)	Description				Response Procedure		Preventive Measure 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 (mo/day/yr)	Spill	L e a k	Location (as indicated on site map)	Description				Response Procedure		Preventive Measure Taken
				Type of Material	Quantity	Source, If Known	Reason	Amount of Material Recovered	Material No Longer Exposed to Storm Water (True / False)	
3rd Year Prior										
Date (mo/day/yr)	Spill	L e a k	Location (as indicated on site map)	Description				Response Procedure		Preventive Measure Taken
				Type of Material	Quantity	Source, If Known	Reason	Amount of Material Recovered	Material No Longer Exposed to Storm Water (True / False)	

Source: U.S. EPA, 1992.

FIGURE 1 SAMPLE WORKSHEET FOR TRACKING SPILLS AND LEAKS

Title	Quantity		Average Hourly Rate (\$)		Overhead Multiplier		Estimated Yearly Hours on SW Training		Estimated Annual Cost(\$)
_____	_____	x	_____	x	_____	x	_____	=	_____ (A)
_____	_____	x	_____	x	_____	x	_____	=	_____ (B)
_____	_____	x	_____	x	_____	x	_____	=	_____ (C)
_____	_____	x	_____	x	_____	x	_____	=	_____ (D)
Total Estimated Annual Reporting Cost									_____
(Sum of A+B+C+D)									

Source: U.S. EPA, 1992.

FIGURE 2 SAMPLE ANNUAL RECORD KEEPING COST WORKSHEET

TABLE 1 EXAMPLE OF ANNUAL RECORD KEEPING COSTS

Title	Quantity		Average Hourly Rate (\$)		Overhead* Multiplier		Estimated Yearly Hours on SW Training		Estimated Annual Cost (\$)
Storm Water Engineer	1	x	15	x	2.0	x	20	=	600
Plant Management	5	x	20	x	2.0	x	10	=	2,000
Plant Employees	100	x	10	x	2.0	x	5	=	<u>10,000</u>
Total Estimated Annual Cost:									\$12,600

*Note: Defined as a multiplier (typically ranging between 1 and 3) that takes into account those costs associated with payroll expenses, etc

Source: U.S. EPA, 1992.

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