Job No.: _____ **Town:** _____

Inspector: _____ **Date:** _____

CATCH BASIN INSPECTION FORM

Catch Basin I.D.	_____	**Final Discharge from Structure?** Yes ☐ No ☐ **If Yes, Discharge to Outfall No:**_____	
Catch Basin Label:	**Stencil** ☐ **Ground Inset** ☐ **Sign** ☐ **None** ☐ **Other**_____		
Basin Material:	Concrete ☐ Corrugated metal ☐ Stone ☐ Brick ☐ Other: _____ ☐	**Catch Basin Condition:**	Good ☐ Poor ☐ Fair ☐ Crumbling ☐
Pipe Material:	Concrete ☐ HDPE ☐ PVC ☐ Clay Tile ☐ Other:_____	**Pipe Measurements:**	Inlet Dia. (in): d= ____ Outlet Dia. (in): D= ____

Required Maintenance/ Problems (check all that apply):

- ☐ Tree Work Required
- ☐ New Grate is Required
- ☐ Pipe is Blocked
- ☐ Frame Maintenance is Required
- ☐ Remove Accumulated Sediment
- ☐ Pipe Maintenance is Required
- ☐ Basin Undermined or Bypassed
- ☐ Cannot Remove Cover
- ☐ Ditch Work
- ☐ Corrosion at Structure
- ☐ Erosion Around Structure
- ☐ Remove Trash & Debris
- ☐ Need Cement Around Grate

Other: _____

Catch Basin Grate Type :	**Sediment Buildup Depth :**	**Description of Flow:**	**Street Name/ Structure Location:**
Bar: ☐ Cascade: ☐ Other:_____ Properly Aligned: Yes ☐ No ☐	0-6 (in): ____ 6-12(in): ____ 12-18 (in): ____ 18-24 (in): ____ 24 + (in): ____	Heavy ☐ Moderate ☐ Slight ☐ Trickling ☐	

***If the outlet is submerged check yes and indicate approximate height of water above the outlet invert.** h above invert (in):___ Yes ☐ No ☐

☐ **Flow**
☐ **Standing Water**
(check one or both)

Observations:

Color:	
Odor:	

Weather Conditions : Dry > 24 hours ☐ Wet ☐

Sample of Screenings Collected for Analysis? Yes ☐ No ☐

Comments:

Circle those present:

Foam	Oil Sheen
Sanitary Waste	Bacterial Sheen
Orange Staining	Floatables
Excessive sediment	Pet Waste
Other:_____	Optical Enhancers

SOP 3: CATCH BASIN INSPECTION AND CLEANING

Introduction

Catch basins help minimize flooding and protect water quality by removing trash, sediment, decaying debris, and other solids from stormwater runoff. These materials are retained in a sump below the invert of the outlet pipe. Catch basin cleaning reduces foul odors, prevents clogs in the storm drain system, and reduces the loading of suspended solids, nutrients, and bacteria to receiving waters.

During regular cleaning and inspection procedures, data can be gathered related to the condition of the physical basin structure and its frame and grate and the quality of stormwater conveyed by the structure. Observations such as the following can indicate sources of pollution within the storm drain system:

- Oil sheen
- Discoloration
- Trash and debris

Both bacteria and petroleum can create a sheen on the water surface. The source of the sheen can be differentiated by disturbing it, such as with a pole. A sheen caused by a oil will remain intact and move in a swirl pattern; a sheen caused by bacteria will separate and appear "blocky". Bacterial sheen is not a pollutant but should be noted.

Observations such as the following can indicate a potential connection of a sanitary sewer to the storm drain system, which is an illicit discharge.

- Indications of sanitary sewage, including fecal matter or sewage odors
- Foaming, such as from detergent
- Optical enhancers, fluorescent dye added to laundry detergent

Each catch basin should be cleaned and inspected at least annually. Catch basins in high-use areas may require more frequent cleaning. Performing street sweeping on an appropriate schedule will reduce the amount of sediment, debris, and organic matter entering the catch basins, which will in turn reduce the frequency with which structures need to be cleaned.

Cleaning Procedure

Catch basin inspection cleaning procedures should address both the grate opening and the basin's sump. Document any and all observations about the condition of the catch basin structure and water quality on the Catch Basin Inspection Form (attached).

Catch basin inspection and cleaning procedures include the following:

1. Work upstream to downstream.
2. Clean sediment and trash off grate.
3. Visually inspect the outside of the grate.

4. Visually inspect the inside of the catch basin to determine cleaning needs.
5. Inspect catch basin for structural integrity.
6. Determine the most appropriate equipment and method for cleaning each catch basin.
    a. Manually use a shovel to remove accumulated sediments, or
    b. Use a bucket loader to remove accumulated sediments, or
    c. Use a high pressure washer to clean any remaining material out of catch basin while capturing the slurry with a vacuum.
    d. If necessary, after the catch basin is clean, use the rodder of the vacuum truck to clean downstream pipe and pull back sediment that might have entered downstream pipe.
7. If contamination is suspected, chemical analysis will be required to determine if the materials comply with the Massachusetts DEP Hazardous Waste Regulations, 310 CMR 30.000 (http://www.mass.gov/dep/service/regulations/310cmr30.pdf). Chemical analysis required will depend on suspected contaminants. Note the identification number of the catch basin on the sample label, and note sample collection on the Catch Basin Inspection Form.
8. Properly dispose of collected sediments. See following section for guidance.
9. If fluids collected during catch basin cleaning are not being handled and disposed of by a third party, dispose of these fluids to a sanitary sewer system, with permission of the system operator.
10. If illicit discharges are observed or suspected, notify the appropriate Department (see "SOP 10: Addressing Illicit Discharges").
11. At the end of each day, document location and number of catch basins cleaned, amount of waste collected, and disposal method for all screenings.
12. Report additional maintenance or repair needs to the appropriate Department.

Disposal of Screenings

Catch basin cleanings from storm water-only drainage systems may be disposed at any landfill that is permitted by MassDEP to accept solid waste. MassDEP does not routinely require stormwater-only catch basin cleanings to be tested before disposal, unless there is evidence that they have been contaminated by a spill or some other means.

Screenings may need to be placed in a drying bed to allow water to evaporate before proper disposal. In this case, ensure that the screenings are managed to prevent pollution.

Attachments

1. Catch Basin Inspection Form

Related Standard Operating Procedures

1. SOP 10, Addressing Illicit Discharges
2. SOP 13, Water Quality Screening in the Field

Spill Response and Cleanup Contact List

	Phone Number	Date and Time Contacted
Safety Officer: _____		
Facility Supervisor: _____		
Fire Department: _____		
MassDEP 24-Hour Spill Reporting	**(888)-304-1133**	
MassDEP Regional Offices:		
Northeast Regional Office	**(978) 694-3200**	
Southeast Regional Office	**(508) 946-2700**	
Central Regional Office	**(508) 792-7650**	
Western Regional Office	**(413) 784-1100**	
Hazardous Waste Compliance Assistance Line	**(617) 292-5898**	
Household Hazardous Products Hotline	**(800) 343-3420**	
Massachusetts Department of Fire Services	**(978) 567-3100 or (413) 587-3181**	
Licensed Site Professionals Association (Wakefield, MA)	**(781) 876-8915**	
Licensed Site Professionals Board	**(617) 556-1091**	

SOP 4: SPILL RESPONSE AND CLEANUP PROCEDURES

Municipalities are responsible for any contaminant spill or release that occurs on property they own or operate. Particular areas of concern include any facilities that use or store chemicals, fuel oil or hazardous waste, including schools, garages, DPW yards, and landfills. Implementation of proper spill response and cleanup procedures can help to mitigate the effects of a contaminant release.

Responding to a Spill

In the event of a spill, follow these spill response and cleanup procedures:

1. Notify a member of the facility's Pollution Prevention Team, the facility supervisor, and/or the facility safety officer.
2. Assess the contaminant release site for potential safety issues and for direction of flow.
3. With proper training and personal protective equipment, complete the following:
    a. Stop the contaminant release;
    b. Contain the contaminant release through the use of spill containment berms or absorbents;
    c. Protect all drains and/or catch basins with the use of absorbents, booms, berms or drain covers;
    d. Clean up the spill;
    e. Dispose of all contaminated products in accordance with applicable federal, state and local regulations.
        i. Products contaminated with petroleum shall be handled and disposed of as described in MassDEP policy WCS-94-400, Interim Remediation Waste Management Policy for Petroleum Contaminated Soils, http://www.mass.gov/dep/cleanup/laws/94-400.pdf.
        ii. Products saturated with petroleum products or other hazardous chemicals require special handling and disposal by licensed transporters. Licensed transporters will pick up spill contaminated materials for recycling or disposal. Save the shipping records for at least three years.
        iii. Waste oil contaminated products:
            1. Perform the "one drop" test to ensure absorbents do not contain enough oil to be considered hazardous. Wring absorbents through a paint filter. If doing so does not generate one drop of oil, the materials are not hazardous.
            2. If absorbents pass the "one drop" test they may be discarded in the trash, unless contaminated with another hazardous waste.
                a. It is acceptable to mix the following fluids and handle them as waste oil:
                    i. Waste Motor Oil;
                    ii. Hydraulic Fluid;
                    iii. Power Steering Fluid;
                    iv. Transmission Fluid;
                    v. Brake Fluid;
                    vi. Gear Oil.
                b. **Do not mix** the following materials with waste oil, store each separately:
                    i. Gasoline;

   ii. Antifreeze;
   iii. Brake and Carburetor Cleaners;
   iv. Cleaning Solvents;
   v. Other Hazardous Wastes.
3. If absorbents do not pass the "one drop" test they should be placed in separate metal containers with tight fittings lids, labeled "Oily Waste Absorbents Only".

4. If you need assistance containing and/or cleaning up the spill, or preventing it from discharging to a surface water (or an engineered storm drain system), contact your local fire department using the number listed below, however **in the case of an emergency call 911**;
   a. Auburn: (508)-832-7800
   b. Charlton: (508)-248-2299
   c. Dudley: (508)-949-8040
   d. Holden: (508)-210-5650
   e. Leicester: (508)-892-7022
   f. Millbury: (508)-865-5328
   g. Oxford: (508)-987-6012
   h. Paxton: (508)-791-6600
   i. Shrewsbury: (508)-841-8522
   j. Spencer: (508)-885-3555
   k. Sturbridge: (508)-347-2525
   l. Webster: (508)-949-3876
   m. West Boylston: (508)-835-3233
5. Contact the MassDEP 24-hour spill reporting notification line, toll-free at **(888)-3104-1133**;
   a. The following scenarios **are exempt** from MassDEP reporting requirements:
      i. Spills of less than 10 gallons of petroleum and do not impact a water body;
      ii. Spills of less than one pound of hazardous chemicals and do not present an imminent health or safety hazard;
      iii. Spills from passenger vehicle accidents;
      iv. Spills within a vault or building with a watertight floor and walls that completely contain all released chemicals.

Procedures for Reporting Spill Response

When contacting emergency response personnel or a regulatory agency, or when reporting the contaminant release, be prepared to provide the following information:

1. Your name and the phone number you are calling from.
2. The exact address and location of the contaminant release.
3. Specifics of release, including:
   a. What was released;
   b. How much was released, which may include:
      i. Pounds;
      ii. Gallons;
      iii. Number of containers.

4. Where was the release sent/what was contaminated, addressing:
    a. Pavement;
    b. Soil;
    c. Drains;
    d. Catch Basins;
    e. Water Bodies;
    f. Public Street; and
    g. Public Sidewalk.
5. The concentration of the released contaminant.
6. What/who caused the release.
7. Is the release being contained and/or cleaned up, or is the response complete.
8. Type and amount of petroleum stored on site, if any.
9. Characteristics of contaminant container, including:
    a. Tanks;
    b. Pipes;
    c. Valves.

Maintenance and Prevention Guidance

Prevention of spills is preferable to even the best response and cleanup. To mitigate the effects of a contaminant release, provide proper maintenance and inspection at each facility.

To protect against contaminant release adhere to the following guidance:

1. Ensure all employees are properly trained to respond in the case of a spill, understand the nature and properties of the contaminant and understand the spill control materials and personnel safety equipment. Maintain training records of current personnel on site and retain training records of former personnel for at least three years from the date last worked at the facility;
2. Provide yearly maintenance and inspection at all municipal facilities, paying particular attention to underground storage tanks. Maintain maintenance and inspection records on site;
3. Implement good management practices where chemicals and hazardous wastes are stored;
    a. Ensure storage in closed containers inside a building and on an impervious surface;
    b. If storage cannot be provided inside, ensure secondary containment for 110 percent of the maximum volume of the storage container;
    c. Locate storage areas near maintenance areas to decrease the distance required for transfer;
    d. Provide accurate labels, MSDS information and warnings for all stored materials;
    e. Regularly inspect storage areas for leaks;
    f. Ensure secure storage locations, preventing access by untrained or unauthorized persons;
    g. Maintain accurate records of stored materials.
4. Replace traditional hazardous materials such as pesticides and cleansers with non-hazardous products such as bio-lubricants which can reduce response costs in the case of a spill;
5. Maintain a oil and grease spill response kit with the following materials, at a minimum, at each facility:

a. 6.5 gallon bucket with screw top lid and handle
b. 10 gallons of sand
c. 200 pounds of Speedi Dry absorbent
d. Drain covers
e. Spill containment berms
f. (4) 3’ absorbent socks
g. (16) 16” x 18” absorbent pads
h. Goggles
i. Nitrile gloves
j. Disposable bags to dispose of used materials
k. Laminated contacts list shall include the following names and numbers:
    i. Safety Officer;
    ii. Facility Supervisor;
    iii. Local Fire Department;
    iv. MassDEP spill report notification line;
    v. MassDEP Regional Office;
    vi. Hazardous Waste Compliance Assistance Line;
    vii. Household Hazardous Products Hotline;
    viii. Massachusetts Department of Fire Services;
    ix. Licensed Site Professionals Information.

Attachments

1. Spill Response and Cleanup Contact List

Related Standard Operating Procedures

1. SOP 7, Fuel and Oil Handling Procedures

Spill Response and Cleanup Contact List

	Phone Number	Date and Time Contacted
Safety Officer: _____		
Facility Supervisor: _____		
Fire Department: _____		
MassDEP 24-Hour Spill Reporting	**(888)-304-1133**	
MassDEP Regional Offices:		
Northeast Regional Office	**(978) 694-3200**	
Southeast Regional Office	**(508) 946-2700**	
Central Regional Office	**(508) 792-7650**	
Western Regional Office	**(413) 784-1100**	
Hazardous Waste Compliance Assistance Line	**(617) 292-5898**	
Household Hazardous Products Hotline	**(800) 343-3420**	
Massachusetts Department of Fire Services	**(978) 567-3100 or (413) 587-3181**	
Licensed Site Professionals Association (Wakefield, MA) Licensed Site Professionals Board	**(781) 876-8915** **(617) 556-1091**	

EROSION AND SEDIMENTATION CONTROL INSPECTION REPORT

General Information

Project Name			
Project Location			
Inspector's Name			
Site Operator			
Date of Inspection		Date of Last Inspection	
Start Time		End Time	

Subject to USEPA Construction General Permit? Yes ☐ No ☐

If yes, has NOI been approved? Yes ☐ No ☐

If yes, attach approved NOI to this report.

If no, contact contractor immediately to determine status of NOI.

Type of Inspection:

Regular ☐ Pre-Storm Event ☐ During Storm Event ☐ Post-Storm Event ☐

Describe the weather conditions at time of inspection	
Describe the current phase of construction	

Erosion and Sediment Control (ESC) on Construction Sites

Document any of the following issues found on the construction site, and the corrective action(s) required for each.

Issue	Status	Corrective Action Needed
Have all ESC features been constructed before initiating other construction activities?	Yes ☐ No ☐	
Is the contractor inspecting and maintaining ESC devices regularly?	Yes ☐ No ☐	
Is existing vegetation maintained on the site as long as possible?	Yes ☐ No ☐	
Is construction staged so as to minimize exposed soil and disturbed areas?	Yes ☐ No ☐	
Are disturbed areas restored as soon as possible after work is completed?	Yes ☐ No ☐	
Is clean water being diverted away from the construction site?	Yes ☐ No ☐	
Are sediment traps and sediment barriers cleaned regularly?	Yes ☐ No ☐	
Are vegetated and wooded buffers protected and left undisturbed?	Yes ☐ No ☐	
Are soils stabilized by mulching and/or seeding when they are exposed for a long time?	Yes ☐ No ☐	
Has vegetation been allowed to establish itself before flows are introduced to channels?	Yes ☐ No ☐	
Is regular, light watering used for dust control?	Yes ☐ No ☐	
Is excessive soil compaction with heavy machinery avoided, to the extent possible?	Yes ☐ No ☐	

(continued)

Issue	Status	Corrective Action Needed
Are erosion control blankets used when seeding slopes?	Yes ☐ No ☐	
Are trees and vegetation that are to be retained during construction adequately protected?	Yes ☐ No ☐	
Are areas designated as off-limits to construction equipment flagged or easily distinguishable?	Yes ☐ No ☐	
If excavated topsoil has been salvaged and stockpiled for later use on the project, are stockpiles adequately protected?	Yes ☐ No ☐	
Are temporary slope drains or chutes used to transport water down steep slopes?	Yes ☐ No ☐	
Do all entrances to the storm sewer system have adequate protection?	Yes ☐ No ☐	

Non-Compliance Actions

The municipality shall provide the site operator with a copy of this report, and notice of the corrective action(s) to be taken. The site operator shall have thirty days from the receipt of the notice to commence curative action of the violation.

SOP 6: EROSION AND SEDIMENTATION CONTROL

Erosion and sedimentation from land-disturbing human activities can be a significant source of stormwater pollution. This Standard Operating Procedure describes methods for reducing or eliminating pollutant loading from such activities.

Controlling Erosion and Sediment through Design and Planning

Prevention of erosion and sedimentation is preferable to installing treatment devices. Consistent application and implementation of the following guidelines during the design and review phases can prevent erosion and sedimentation:

1. Avoid sensitive areas, steep slopes, and highly erodible soils to the maximum extent possible when developing site plans.
2. Identify potential problem areas before the site plan is finalized and approved.
3. Plan to use sediment barriers along contour lines, with a focus on areas where short-circuiting (i.e., flow around the barrier) may occur.
4. Use berms at the top of a steep slopes to divert runoff away from the slope's edge.
5. Design trapezoidal or parabolic vegetated drainage channels, not triangular.
6. Use vegetated channels with rip rap check dams, instead of impervious pavement or concrete, to reduce the water velocity of the conveyance system.
7. Design a check dam or sediment forebay with level spreader at the exit of outfalls to reduce water velocity of the discharge and collect sediment.
8. Use turf reinforcement matting to stabilize vegetated channels, encourage vegetation establishment, and withstand flow velocities without scouring the base of the channel.
9. Plan open channels to follow land contours so natural drainage is not disrupted.
10. Use organic matting for temporary slope stabilization and synthetic matting for permanent stabilization.
11. Provide a stable channel, flume, or slope drain where it is necessary to carry water down slopes.

Controlling Erosion and Sediment on Construction Sites

During the construction phase, it is important to inspect active sites regularly to ensure that practices are consistent with approved site plans and the site's Stormwater Pollution Prevention Plan (SWPPP) or other document, as required by the municipality's legal authority. The following guidelines apply:

1. Erosion and sediment control features should be constructed before initiating activities that remove vegetated cover or otherwise disturb the site. These shall be installed consistent with the approved site plans and with manufacturer's instructions.
2. Erosion and sediment control devices shall be inspected by the contractor regularly, and maintained as needed to ensure function.

3. In the SWPPP or other document, the contractor shall clearly identify the party responsible for maintaining erosion and sediment control devices.
4. An inspection should be completed of active construction sites every month, at a minimum, to check the status of erosion and sedimentation controls. Refer to SOP 5, "Construction Site Inspection", for construction site stormwater inspection procedures.
5. Existing vegetation should be maintained on site as long as possible.
6. Construction should proceed progressively on the site in order to minimize exposed soil, and disturbed areas should be restored as soon as possible after work has been completed.
7. Stockpiles shall be stabilized by seeding or mulching if they are to remain for more than two weeks.
8. Disturbed areas shall be protected from stormwater runoff by using protective Best Management Practices (BMPs).
9. Clean water shall be diverted away from disturbed areas on construction sites to prevent erosion and sedimentation.
10. Sediment traps and sediment barriers should be cleaned out regularly to reduce clogging and maintain design function.
11. Vegetated and wooded buffers shall be protected.
12. Soils shall be stabilized by mulching and/or seeding when they would be exposed for more than one week during the dry season, or more than two days during the rainy season.
13. Vegetation shall be allowed to establish before introducing flows to channels.
14. Regular light watering shall be used for dust control, as this is more effective than infrequent heavy watering.
15. Excessive soil compaction with heavy machinery shall be avoided, to the extent possible.
16. Construction activities during months with higher runoff rates shall be limited, to the extent possible.

Controlling Erosion and Sediment by Proper Maintenance of Permanent BMPs

Many construction phase BMPs can be integrated into the final site design, but ongoing inspection and maintenance are required to ensure long-term function of any permanent BMP. Refer to SOP 9, "Inspection of Constructed Best Management Practices", for more information. The following guidelines summarize the requirements for long-term maintenance of permanent BMPs.

1. Responsibility for maintaining erosion and sediment control devices shall be clearly identified.
2. Erosion and sediment control devices shall be inspected following heavy rainfall events to ensure they are working properly.
3. Erosion control blankets shall be utilized when seeding slopes.
4. Vegetated and wooded buffers shall be protected, and left undisturbed to the extent possible.
5. Runoff shall not be diverted into a sensitive area unless this has been specifically approved.
6. Sedimentation basins shall be cleaned out once sediment reaches 50% of the basin's design capacity.
7. Snow shall not be plowed into, or stored within, retention basins, rain gardens, or other BMPs.

8. Easements and service routes shall be maintained, to enable maintenance equipment to access BMPs for regular cleaning.

Related Standard Operating Procedures

1. SOP 5, Construction Site Inspection
2. SOP 9, Inspection of Constructed Best Management Practices

FUEL DELIVERY FORM

TOWN OF _____

Date: _____

Time of Arrival: _____

Time of Departure: _____

Truck Number: _____

Name of Truck Driver: _____

Name of Town Employee: _____

BEFORE UNLOADING:

Is all spill response equipment and personal protective equipment in place?

Yes ☐ **No** ☐

In the case of bulk fuel delivery, does tank capacity exceed the amount of delivery?

Yes ☐ **No** ☐ **N/A** ☐

In the case of drum fuel delivery, are all drums free of leaks and punctures?

Yes ☐ **No** ☐ **N/A** ☐

COMMENCE UNLOADING. REMAIN WITH VEHICLE AT ALL TIMES.

AFTER UNLOADING IS COMPLETE:

Have all fuel containers, including the vehicle, been inspected for leaks?

Yes ☐ **No** ☐

Has the ground at the unloading point been inspected for evidence of leaks?

Yes ☐ **No** ☐

If there are any leaks or spills, has the material been properly cleaned?

Yes ☐ **No** ☐

Has the correct amount of fuel been delivered?

Yes ☐ **No** ☐

Has a receipt been collected?

Yes ☐ **No** ☐

DELIVERY IS COMPLETE.

SOP 7: FUEL AND OIL HANDLING PROCEDURES

Spills, leaks, and overfilling can occur during handling of fuels and petroleum-based materials, even in small volumes, representing a potential source of stormwater pollution. This Standard Operating Procedure addresses a variety of ways by which fuels and petroleum-based materials can be delivered, as well as steps to be taken when petroleum products (such as waste oil) are loaded onto vehicles for offsite disposal or recycling. Delivery, unloading, and loading of waste oils are hereafter referred to as "handling".

For all manners of fuel and oil handling described below, a member of the facility's Pollution Prevention Team (or another knowledgeable person familiar with the facility) shall be present during handling procedures. This person shall ensure that the following are observed:

1. There is no smoking while fuel handling is in process or underway.
2. Sources of flame are kept away while fuel handling is being completed. This includes smoking, lighting matches, carrying any flame, or carrying a lighted cigar, pipe, or cigarette.
3. The delivery vehicle's hand brake is set and wheels are chocked while the activity is being completed.
4. Catch basins and drain manholes are adequately protected.
5. No tools are to be used that could damage fuel or oil containers or the delivery vehicle.
6. No flammable liquid shall be unloaded from any motor vehicle while the engine is operating, unless the engine of the motor vehicle is required to be used for the operation of a pump.
7. Local traffic does not interfere with fuel transfer operations.
8. The attending persons should watch for any leaks or spills
    a. Any small leaks or spills should be immediately stopped, and spilled materials absorbed and disposed of properly. Refer to SOP 4, "Spill Response and Cleanup Procedures", for examples of spill cleanup and response materials.
    b. In the event of a large spill or one that discharges to surface waters or an engineered storm drain system, the facility representative shall activate the facility's Stormwater Pollution Prevention Plan (SWPPP) and report the incident as specified within.

Delivery by Bulk (Tanker) Truck

Procedures for the delivery of bulk fuel shall include the following:

1. The truck driver shall check in with the facility upon arrival.
2. The facility representative shall ensure that the appropriate spill cleanup and response equipment and personal protective equipment are readily available and easily accessible. Refer to SOP 4, "Spill Response and Cleanup Procedures", for examples of spill cleanup and response materials.
3. The facility representative shall check to ensure that the amount of delivery does not exceed the available capacity of the tank.
    a. A level gauge can be used to verify the level in the tank.

   b. If a level gauge is not functioning or is not present on the tank, the tank should be stick tested prior to filling.
4. The truck driver and the facility representative shall both remain with the vehicle during the delivery process.
5. The truck driver and the facility representative shall inspect all visible lines, connections, and valves for leaks.
6. When delivery is complete and the hoses are removed, buckets should be placed underneath connection points to catch drippings.
7. The delivery vehicle shall be inspected prior to departure to ensure that the hose is disconnected from the tank.
8. The facility representative shall inspect the fuel tank to verify that no leaks have occurred, or that any leaked or spilled material has been cleaned and disposed of properly.
9. The facility representative shall gauge tank levels to ensure that the proper amount of fuel is delivered, and collect a receipt from the truck driver.

Delivery of Drummed Materials

Drummed materials may include motor oil, hydraulic fluid, transmission fluid, or waste oil from another facility (as approved). Procedures for the delivery of drummed materials shall include the following:

1. The truck driver shall check in with the facility upon arrival.
2. The facility representative shall ensure that the appropriate spill cleanup and response equipment and personal protective equipment are readily available and easily accessible. Refer to SOP 4, "Spill Response and Cleanup Procedures", for examples of spill cleanup and response materials.
3. The facility representative shall closely examine the shipment for damaged drums.
   a. If damaged drums are found, they shall be closely inspected for leaks or punctures.
   b. Breached drums should be removed to a dry, well-ventilated area and the contents transferred to other suitable containers.
   c. Drums shall be disposed of in accordance with all applicable regulations.
4. Drummed materials shall not be unloaded outdoors during wet weather events.
5. The truck driver and the facility representative shall both remain with the vehicle during the delivery process.
6. Drums shall be handled and unloaded carefully to prevent damage.
7. Upon completion of unloading, the facility representative shall inspect the unloading point and the drums to verify that no leaks have occurred, that any leaked or spilled material has been cleaned up and disposed of properly, and that the unloaded drums are not leaking.
8. The facility representative shall check to ensure that the proper amount of fuel is delivered, and collect a receipt from the truck driver.

Removal of Waste Oil from the Facility

When waste oil or similar oil products need to be removed from the premises, only haulers certified to transport waste oil should be utilized. Procedures for the draining of bulk oil tanks shall include the following:

1. The disposal truck driver shall check in with the facility upon arrival.
2. The facility representative shall ensure that the appropriate spill cleanup and response equipment and personal protective equipment are readily available and easily accessible. Refer to SOP 4, "Spill Response and Cleanup Procedures", for examples of spill cleanup and response materials.
3. The facility representative shall verify that the volume of waste oil in the tank does not exceed the available capacity of the disposal hauler's vehicle.
4. The truck driver and the facility representative shall both remain with the vehicle during the tank draining process.
5. When draining is complete and the hoses are removed, buckets should be placed underneath connection points to catch drippings.
6. The disposal hauler vehicle shall be inspected prior to departure to ensure that the hose is disconnected from the tank.
7. The facility representative shall inspect the loading point and the tank to verify that no leaks have occurred, or that any leaked or spilled material has been cleaned up and disposed of properly.
8. The facility representative shall collect a receipt from the truck driver.

Attachments

1. Fuel Delivery Checklist

Related Standard Operating Procedures

1. SOP 4, Spill Response and Cleanup Procedures

SOP 11: OIL/WATER SEPARATOR (OWS) MAINTENANCE

Oil/water separators (OWS), also known as gas/oil separators, are structural devices intended to provide pretreatment of floor drain water from industrial and garage facilities. An OWS allows oils (and substances lighter than water) to be intercepted and be removed for disposal before entering the sanitary sewer system. Substances heavier than water settle into sludge at the bottom of the unit. The remaining water passes through the unit into the sanitary sewer system.

OWS units are generally required where petroleum-based products, wastes containing petroleum, or oily and/or flammable materials are used, produced, or stored. OWS units should not be used to manage stormwater or flow from vehicle washing facilities. High flow rates through an OWS will reduce the structure's ability to separate materials. Detergents and solvents can emulsify oil and grease, allowing the particles to enter the sewer, so these should not be disposed of in drains entering the OWS.

General OWS Maintenance Requirements

1. Each OWS at a facility may receive different materials in different quantities, so the cleanout schedule may not be the same for every OWS at a facility.
2. Employees performing inspections of an OWS must be properly trained and be familiar with the maintenance of that specific structure, since function can vary based on design. Third-party firms may be utilized to perform quarterly inspections.
3. Do not drain petroleum, oil, or lubricants directly to an OWS. The structures are designed to manage these materials at low and medium concentrations in sanitary sewage, not as slug loads.
4. Do not drain antifreeze, degreasers, detergents, fuels, alcohols, solvents, coolant, or paint to the OWS.
5. Separator compartment covers should be tightly sealed to ensure floor drainage only enters the first compartment of the OWS.
6. Drains should be kept free of debris and sediment to the maximum extent practicable.
7. Spill cleanup materials should be maintained in the area served by the OWS. For more information on spill cleanup and response materials, refer to SOP 4, "Spill Response and Cleanup Procedures".

OWS Inspection Procedures

Daily inspection of an OWS should include a visual examination of the area served by the OWS for evidence of spills or leaks.

Weekly inspections of an OWS should include the following:

1. Visually examine the area served by the OWS for evidence of spills or leaks.
2. Inspect the point of discharge (i.e., sewer manhole) for evidence of petroleum bypassing the OWS.
3. Inspect drains for any signs of unauthorized substances entering the OWS.
4. Examine the OWS for signs of leaks or any malfunction.

Quarterly inspections of an OWS should include the following:

1. Complete tasks noted as appropriate for daily and weekly inspection.
2. Complete the Quarterly OWS Inspection Checklist, attached, during the inspection.
3. Take the following measurements to benchmark function of the OWS:
    A. Distance from rim of access cover to bottom of structure
    B. Distance from rim of access cover to top of sludge layer
    C. Depth of sludge layer (C = A – B)
    D. Distance from rim of access cover to the oil/water interface
    E. Distance from rim of access cover to the top of the liquid surface
    F. Depth of oil layer (F = D – E)

OWS Cleaning Procedures

Cleaning of the OWS is required when there has been a spill to the OWS that exceeds ten gallons of oil, one gallon of detergent or solvent, or any material prohibited by the owner of the sanitary sewer. Cleaning is also required when the levels of accumulated sludge and/or oil meet the manufacturer's recommended levels for cleaning. This will vary based on the manufacturer of the OWS. If the manufacturer's recommendations are unknown, the following guidelines are appropriate for determining when to clean:

1. When sludge accumulates to 25% of the wetted height of the separator compartment; or
2. When oil accumulates to 5% of the wetted height of the separator compartment; or
3. When 75% of the retention capacity of the OWS is filled.

Cleaning should be performed a minimum of once per year. When cleaning is required, it shall be performed by licensed OWS maintenance companies. Materials removed from the OWS must be disposed of in accordance with Massachusetts Hazardous Waste Regulations, 310 CMR 30.00.

Documentation of Cleaning and Service

The operator of the premises where the OWS is located shall maintain a log describing the date and type of all inspections, service and maintenance performed in connection with the Separator. Documentation shall include the identity of the inspector (or the identity of the person or entity that performed the service and/or maintenance). Records shall also document the amount of residue removed from the OWS each time it was cleaned, and how removed materials were disposed. This documentation shall be maintained for a minimum of six years.

Attachments

1. Quarterly OWS Inspection Checklist

Related Standard Operating Procedures

1. SOP 4, Spill Response and Cleanup Procedures

OIL/WATER SEPARATOR (OWS)
QUARTERLY INSPECTION CHECKLIST

Facility: _____

OWS Location: _____

Inspected By: _____

Date: _____

Visual Inspection	Are there any signs of spills or leaks in the general area?	**Yes** ☐ **No** ☐
	Is there any evidence of petroleum bypassing the OWS?	**Yes** ☐ **No** ☐
	Are there any unauthorized substances entering the OWS?	**Yes** ☐ **No** ☐
	Does the OWS exhibit any signs of leaks or malfunctions?	**Yes** ☐ **No** ☐

If you answered "Yes" to any of the above questions, further inspection, repair, and/or cleaning may be necessary.

Measurements	A	Distance from rim of access cover to bottom of structure	
	B	Distance from rim of access cover to top of sludge layer	
	C = A - B	Depth of sludge layer	
	D	Distance from rim of access cover to the oil/water interface	
	E	Distance from rim of access cover to the top of the liquid surface	
	F = D - E	Depth of oil layer	

If the values for "C" and/or "F" are greater than those in the manufacturer's recommendations, the OWS must be cleaned by a licensed OWS maintenance company.

SOP 12: STORAGE AND USE OF PESTICIDES AND FERTILIZERS

Introduction

Use and improper storage of pesticides and fertilizers can contribute to loading of nutrients and toxic compounds to surface waters. This SOP addresses Best Management Practices for storing these materials, and guidelines for safe and appropriate application. In this SOP, the term "pesticide" includes products used as herbicides.

Storage of Pesticides and Fertilizers

Procedures for the storage of pesticides and fertilizers shall include the following, many of which are included on the Massachusetts Pesticide Safety Checklist, attached:

1. Store pesticides and fertilizers in high, dry locations in accordance with the manufacturer's specifications.
2. Store in cool, well-ventilated, and insulated areas to protect against temperature extremes.
3. Store in an area which has been constructed in accordance with local fire codes for storing flammable or combustible materials.
    a. Flammable products shall be stored separately from non-flammable products, preferably in a fire-proof cabinet.
    b. Small quantities (less than 500 lbs or 220 gallons) of pesticides can be stored in cabinets constructed of double-walled 18-gauge sheet metal.
    c. Large quantities (greater than 500 lbs or 220 gallons) of pesticides can be stored in a prefabricated Hazardous Material Storage Building or in a purpose-built storage facility. It is not anticipated that many municipal facilities will store quantities in excess of 500 lbs or 220 gallons of pesticides.
    d. Building walls should have a two hour fire rating and be impervious to the stored materials.
    e. Floors should be water tight, impervious, and provide spill containment. Refer to SOP 4, "Spill Response and Cleanup Procedures", for more information on spill cleanup.
4. Store materials in an enclosed area or in covered, impervious containment, such as a locked cabinet. The cabinet shall be located in a first story room or one which has direct access to the outdoors.
5. For pesticides, storage cabinets should be kept locked and the door to the storage area should contain a weather proof sign warning of the existence and danger of pesticides inside. The door should be kept locked. The sign should be visible at a distance of twenty five feet and should read as follows:

DANGER
PESTICIDE STORAGE
AREA
ALL UNAUTHORIZED
PERSONS KEEP OUT
KEEP DOORS LOCKED
WHEN NOT IN USE

The sign should be posted in both English and the language or languages understood by workers if this is not English.

6. Pesticides shall not be stored in the same place as ammonium nitrate fertilizer.
7. Separate pesticides and fertilizers from other chemical storage and other flammable materials.
8. Label all containers with date of purchase, and use the older materials first.
9. Clearly label all secondary containers.
10. Never leave unlabeled or unstable pesticides and fertilizers in uncontrolled locations.
11. Maintain a current written inventory of all pesticides and fertilizers at the storage site.
12. Order for delivery as close to time of use as possible to reduce the amount of chemical stored at the facility.
13. Order only the amount of materials needed in order to minimize excess or obsolete materials, which require storage and disposal.
14. Regularly inspect storage area for leaks and spills.
15. Storage area should be equipped with easily accessible spill cleanup materials and portable firefighting equipment.
16. Emergency eyewash stations and emergency drench showers should be located near the storage area.
17. Ensure that contaminated waste materials are kept in designated containers and stored in a labeled, designated, covered, and contained area.
18. Dispose of excess or obsolete pesticides/fertilizers and associated waste materials in accordance with the manufacturer's specifications and all applicable regulations.

Use and Application of Fertilizers

All fertilizer products manufactured or distributed in the State of Massachusetts must be registered with the Department of Agricultural Resources. There is no licensing or certification required for individuals in order to purchase or apply fertilizers.

Procedures for the use of fertilizers include the following:

1. Fertilizers should only be applied by properly trained personnel.
2. Perform soil testing before evaluating and choosing a fertilizer. The quantity of available nutrients already present in soil will determine the type and amount of fertilizer that is recommended. The soil test will also determine soil pH, humic matter and exchangeable acidity, which will indicate whether pH adjustment is required for a fertilizer to work efficiently. A soil test should be completed at each facility, as soil type and quality can vary widely within a single community. Type of turf and turf use should also be considered in fertilizer selection.
3. Fertilizer selection shall take into account any surface waters within the watershed that are impaired for nutrients. Future regulatory actions may limit use of many fertilizers within these watersheds.
4. Calibrate application equipment regularly to ensure proper application and loading rates.
5. Never apply fertilizers in quantities exceeding the manufacturer's instructions.
6. Time fertilizer application periods for maximum plant uptake, usually in the fall and the spring.
7. Do not over-apply fertilizer in late fall to "use it up" before winter. The effectiveness of fertilizer will not reduce when stored.

8. Do not fertilize during a drought or when the soil is dry.
9. Never apply fertilizer to frozen ground.
10. Never apply fertilizer if it is raining or immediately before expected rain.
11. Mix fertilizers and clean application equipment under cover in an area where accidental spills will not enter surface water or groundwater and will not contaminate soil.
12. Do not hose down paved areas after fertilizer application if drainage will enter to an engineered storm drain system or drainage ditch.
13. Apply fertilizers in amounts appropriate for the type of vegetation to minimize losses to surface water and groundwater
14. Where applicable, till fertilizers into the soil rather than dumping or broadcasting (proper application techniques will depend on the types of soil and vegetation).
15. If phosphorous fertilizer is used when re-seeding, mix the phosphorous into root zone. Do not apply directly to the soil surface.
16. Use alternatives to chemical fertilizers, such as natural compost and organic fertilizers, which are beneficial to soil organisms.
17. Avoid combined products such as "weed and feed," which do not target specific problems at the appropriate time.
18. Use slow-release fertilizer for turf grass.

Use and Application of Pesticides

The State of Massachusetts has a stringent program for registration of pesticides and certification of those authorized to apply them. Once a pesticide has been approved for use by the U.S. EPA, it must be registered by the Massachusetts Pesticide Board Subcommittee prior to being distributed, purchased, or used in Massachusetts. Pesticide classification in Massachusetts is based on the potential adverse effects the pesticide may have on humans or the environment. "Restricted Use" pesticides can only be sold by Licensed Dealers to Certified Applicators, while "State Limited Use" pesticides may be restricted to use by certain individuals or require written permission from the Department of Agricultural Resources prior to use.

Legal application of pesticides must be performed by an individual licensed or certified by the Massachusetts Department of Agricultural Resources. A Commercial Applicator License is required for applying general use pesticides, and a Commercial Applicator Certification is required for applying restricted and state limited use products.

Procedures for the use of pesticides include the following:

1. Pesticides should only be applied by licensed or certified applicators.
2. Calibrate application equipment regularly to ensure proper application and loading rates.
3. Ensure that pesticide application equipment is capable of immediate shutoff in case of emergency.
4. Conduct spray applications according to specific label directions and applicable local regulations.
5. Never apply pesticides in quantities exceeding the manufacturer's instructions.
6. Apply pesticides at the life stage when the pest is most vulnerable.
7. Never apply pesticides if it is raining or immediately before expected rain.

8. Do not apply pesticides within 100 feet of open waters or of drainage channels.
9. Establish setback distances from pavement, storm drains, and water bodies, which act as buffers from pesticide application with disease-resistant plants and minimal mowing.
10. Spot treat infected areas only instead of the entire location.
11. Mix pesticides and clean application equipment under cover in an area where accidental spills will not enter surface water or groundwater and will not contaminate soil.
12. Do not hose down paved areas after pesticide application to a storm drain or drainage ditch.
13. Recycle rinsate from equipment cleaning back into product.
14. Choose the least toxic pesticide that is still capable of reducing the infestation to acceptable levels.
15. Use alternatives to pesticides, such as manual weed control, biological controls, and Integrated Pest Management strategies (learn more at http://www.mass.gov/agr/pesticides/publications/docs/IPM_kit_for_bldg_mgrs.pdf).
16. For use of herbicides, reduce seed release of weeds by timing cutting and pesticide application at seed set. Select vegetation and landscaping that is low-maintenance, in order to tolerate low levels of weeds without interfering with aesthetics.

Attachments

1. Massachusetts Pesticide Safety Checklist

Related Standard Operating Procedures

1. SOP 4, Spill Response and Cleanup Procedures

SOP 14: MUNICIPAL VEHICLE WASHING PROCEDURES

Introduction

Vehicle washing activities can result in the discharge of nutrients, sediment, petroleum products, and other contaminants to a surface water body or to an engineered drainage system.

Consistent with the 2003 USEPA NPDES Phase II Small Municipal Separate Storm Sewer System (MS4) Permit, municipal vehicle washing activities should not discharge pollutants to the MS4 system.

Outdoor Vehicle Washing Procedures

Outdoor washing of municipal vehicles should be avoided unless wash water is contained in a tight tank or similar structure. Where no alternate wash system is available, and full containment of wash water cannot be achieved, the following procedures shall be followed:

1. Avoid discharge of any wash water directly to a surface water (e.g., stream, pond, drainage swale, etc.)
2. Minimize use of water to the extent practical.
3. Where use of detergent cannot be avoided, use products that do not contain regulated contaminants. Use of a biodegradable, phosphate-free detergent is preferred.
4. Do not use solvents except in dedicated solvent parts washer systems or in areas not connected to a sanitary sewer.
5. Do not power wash, steam clean or perform engine cleaning or undercarriage cleaning.
6. Grassy and pervious (porous) surfaces may be used to promote direct infiltration of wash water, providing treatment before recharging groundwater and minimizing runoff to an adjacent stormwater system. Pervious surfaces or other infiltration-based systems shall not be used within wellhead protection areas or within other protected resources.
7. Impervious surfaces discharging to engineered storm drain systems shall not discharge directly to a surface water unless treatment is provided. Treatment can include a compost-filled sock designed specifically for removal of petroleum and nutrients, such as the Filtrexx™ FilterSoxx product, or equal. The treatment device shall be positioned such that all drainage must flow through the device, preventing bypassing or short-circuiting.
8. All adjacent engineered storm drain system catch basins shall have a sump. These structures shall be cleaned periodically (refer to SOP 3, “Catch Basin Inspection and Cleaning”).
9. Solids and particulate accumulation from the washing area shall be completed through periodic sweeping and/or cleaning.
10. Maintain absorbent pads and drip pans to capture and collect spills or noticeable leaks observed during washing activities. Clean up any spills using the procedures described in SOP 4, “Spill Response and Cleanup Procedures”.

Heavily soiled vehicles or vehicles dirtied from salting or snow removal efforts shall not be washed outside, without exception.

Indoor Vehicle Washing Procedures

Indoor vehicle washing procedures shall include the following:

1. Where use of detergent cannot be avoided, use products that do not contain regulated contaminants. Use of a biodegradable, phosphate-free detergent is preferred.
2. Detergents shall not be used in areas where oil/water separators provide pre-treatment of drainage (refer to SOP 11, "Oil/Water Separator Maintenance", for more information).
3. Floor drains shall be connected to a sanitary sewer or tight tank. Floor drains discharging to adjacent surface water bodies or engineered storm drain systems shall be permanently plugged or otherwise abandoned before any vehicle wash activities are completed.
4. Designate separate areas for routine maintenance and vehicle cleaning. This helps prevent contamination of wash water by motor oils, hydraulic lubricants, greases, etc.
5. Dry clean-up methods, such as sweeping and vacuuming, are recommended within garage facilities. Do not wash down floors and work areas with water.
6. Bring smaller vehicles to commercial washing stations.
7. Maintain absorbent pads and drip pans to capture and collect spills or noticeable leaks observed during washing activities. Clean up any spills using the procedures described in SOP 4, "Spill Response and Cleanup Procedures".

Heavy Equipment Washing Procedures

Heavy equipment washing procedures shall include the following:

1. Mud and heavy debris removal shall occur on impervious pavement or within a retention area.
2. Maintain these areas with frequent mechanical removal and proper disposal of spoils.
3. All adjacent engineered storm drain system components shall have a sump. These structures shall be cleaned periodically (refer to SOP 3, "Catch Basin Inspection and Cleaning").
4. Impervious surfaces with engineered storm drain systems shall not discharge directly to a surface water.
5. Floor drains shall be connected to a sanitary sewer or tight tank. Floor drains discharging to adjacent surface water bodies or engineered storm drain systems shall be permanently plugged or otherwise abandoned before any vehicle wash activities are completed.
6. Where use of detergent cannot be avoided, use products that do not contain regulated contaminants. Use of a biodegradable, phosphate-free detergent is preferred.
7. Detergents shall not be used in areas where oil/water separators provide pre-treatment of drainage (refer to SOP 11, "Oil/Water Separator Maintenance", for more information).
8. Maintain absorbent pads and drip pans to capture and collect spills or noticeable leaks observed during washing activities. Clean up any spills using the procedures described in SOP 4, "Spill Response and Cleanup Procedures".

Engine Washing and Steam Washing Procedures

Engine and steam washing procedures shall include the following:

1. Do not wash parts outdoors.
2. Maintain drip pans and smaller containers to contain motor oils, hydraulic lubricants, greases, etc. and to capture and collect spills or noticeable leaks observed during washing activities, to the extent practicable. Clean up any spills using the procedures described in SOP 4, "Spill Response and Cleanup Procedures".
3. Where use of detergent cannot be avoided, use products that do not contain regulated contaminants. Use of a biodegradable, phosphate-free detergent is preferred.
4. Avoid cleaning with solvents except in dedicated solvent parts washer systems. Make use of pressure washing and steam cleaning.
5. Recycle clean solutions and rinse water to the extent practicable.
6. Wash water shall discharge to a tight tank or a sanitary sewer via an oil/water separator. Detergents shall not be used in areas where oil/water separators provide pre-treatment of drainage (refer to SOP 11, "Oil/Water Separator Maintenance", for more information).

Related Standard Operating Procedures

1. SOP 3, Catch Basin Inspection and Cleaning
2. SOP 4, Spill Response and Cleanup Procedures
3. SOP 11, Oil/Water Separator Maintenance