

INDUSTRIAL STORMWATER

FACT SHEET SERIES

Sector L: Landfills and Land Application Sites



U.S. EPA Office of Water
EPA-833-F-06-027
December 2006

What is the NPDES stormwater permitting program for industrial activity?

Activities, such as material handling and storage, equipment maintenance and cleaning, industrial processing or other operations that occur at industrial facilities are often exposed to stormwater. The runoff from these areas may discharge pollutants directly into nearby waterbodies or indirectly via storm sewer systems, thereby degrading water quality.

In 1990, the U.S. Environmental Protection Agency (EPA) developed permitting regulations under the National Pollutant Discharge Elimination System (NPDES) to control stormwater discharges associated with eleven categories of industrial activity. As a result, NPDES permitting authorities, which may be either EPA or a state environmental agency, issue stormwater permits to control runoff from these industrial facilities.

What types of industrial facilities are required to obtain permit coverage?

This fact sheet specifically discusses stormwater discharges from landfills and land application sites. Facilities and products in this group fall under the following categories, all of which require coverage under an industrial stormwater permit:

- ◆ Landfills
- ◆ Land application sites
- ◆ Open dumps that receive or have received industrial waste

These include sites subject to regulation under Subtitle D of the Resource Conservation and Recovery Act (RCRA) including municipal solid waste landfills (MSWLFs), industrial solid nonhazardous waste landfills, and industrial waste land application sites.

What does an industrial stormwater permit require?

Common requirements for coverage under an industrial stormwater permit include development of a written stormwater pollution prevention plan (SWPPP), implementation of control measures, and submittal of a request for permit coverage, usually referred to as the Notice of Intent or NOI. The SWPPP is a written assessment of potential sources of pollutants in stormwater runoff and control measures that will be implemented at your facility to minimize the discharge of these pollutants in runoff from the site. These control measures include site-specific best management practices (BMPs), maintenance plans, inspections, employee training, and reporting. The procedures detailed in the SWPPP must be implemented by the facility and updated as necessary, with a copy of the SWPPP kept on-site. The industrial stormwater permit also requires collection of visual, analytical, and/or compliance monitoring data to determine the effectiveness of implemented BMPs. For more information on EPA's industrial stormwater permit and links to State stormwater permits, go to www.epa.gov/npdes/stormwater and click on "Industrial Activity."

What pollutants are associated with activities at my facility?

Pollutants conveyed in stormwater discharges from landfills and land application sites will vary. There are a number of factors that influence to what extent industrial activities and significant materials can affect water quality.

- ◆ Geographic location
- ◆ Topography
- ◆ Hydrogeology
- ◆ Extent of impervious surfaces (e.g., concrete or asphalt)
- ◆ Type of ground cover (e.g., vegetation, crushed stone, or dirt)
- ◆ Outdoor activities (e.g., material storage, loading/unloading, vehicle maintenance)
- ◆ Size of the operation
- ◆ Type, duration, and intensity of precipitation events

Factors such as these will interact to influence the quantity and quality of stormwater runoff. At landfill and land application sites, runoff carrying suspended sediments and the commingling of runoff with uncontrolled leachate are the two primary sources of pollutants in stormwater. In addition, sources of pollutants other than stormwater, such as illicit connections, spills, and other improperly dumped materials, may increase the pollutant loading discharged into receiving waters. Other potential sources of pollutants at landfills and land application sites include those from ancillary areas and areas which are not directly associated with landfill or land application activities (e.g., vehicle maintenance, truck washing). These activities may be subject to permit requirements separate from those required of landfills and land application sites.

Municipal Solid Waste Landfills (MSWLFs). The wastes disposed of in MSWLFs are variable and may include household waste (including household hazardous waste which is excluded from RCRA hazardous waste regulation), nonhazardous incinerator ashes, commercial wastes, yard wastes, tires, white goods, construction wastes, municipal and industrial sludges, asbestos, and other industrial wastes. Industrial process wastes represent a small percent of the total wastestream (although most MSWLFs currently or have previously accepted industrial wastes and are therefore subject to stormwater permitting requirements). MSWLFs that operated prior to the implementation of RCRA hazardous waste management requirements in 1980 may have received wastes that would have been classified as hazardous wastes under current RCRA requirements.

Industrial landfills, most of which are privately owned, only receive wastes from industrial facilities such as factories, processing plants, and manufacturing sites. These facilities may also receive hazardous wastes from very small quantity hazardous waste generators. Included in these waste streams are some PCB contaminated wastes. The Toxic Substances Control Act PCB disposal regulations allow limited categories of PCB materials to be disposed of in RCRA Subtitle D landfills. Because wastes generated by industrial facilities vary considerably, both between and within industries, the wastes disposed of at industrial landfills can be highly variable. For example, the industrial nonhazardous waste category includes wastes from the pulp and paper industry, the organic chemical industry, the textile manufacturing industry, and a variety of other industries. Consequently, these waste streams may vary in chemical composition and/or physical form.

Land application sites receive wastes (primarily wastewaters and sludges) from facilities in virtually every major industrial category. Similar to landfills, the variability in types of waste that are land applied precludes any general characterization of the materials that may be exposed to stormwater. Typically, individual land applications will only dispose of wastes with specific characteristics. However, the criteria for selection are site-specific depending on type of process used and the soil characteristics. Waste application techniques are dependent on waste characteristics, cover crop and soil characteristics.

Stormwater discharges from landfills and land application sites often contain high TSS levels because of the extensive land disturbance activities associated with landfill operations. Suspended solids can adversely affect fisheries by covering the bottom of a stream or lake with a blanket of material that

may destroy spawning grounds or the bottom fauna upon which fish feed. In addition, while they remain in suspension, suspended solids can increase turbidity, reduce light penetration, and impair the photosynthetic activity of aquatic plants.

The activities, pollutant sources, and associated pollutants detailed in Table 1A and 1B are commonly found at landfills and land application sites. It is important to note that the occurrence and levels of pollutants other than TSS in stormwater discharges are dependent on the types of wastes deposited/applied and facility design and operation (including use of stormwater management/treatment practices).

Table 1A. Common Activities, Pollutant Sources, and Associated Pollutants at Landfills

Activity	Pollutant Source	Pollutant
Cover crop management	Applied chemicals	Fertilizers, pesticides, and herbicides
Outdoor chemical storage	Exposure of chemical material storage areas to precipitation	Various chemicals stored
Waste transportation	Waste tracking on-site and haul road, solids transport on wheels and exterior of trucks or other equipment	TSS, total dissolved solids (TDS), turbidity, floatable
Leachate collection	Uncontrolled leachate (commingling of leachate with runoff or run-on)	Iron, TSS, biochemical oxygen demand (BOD), ammonia, alpha terpineol, benzoic acid, p-Cresol, phenol, zinc, pH
Landfill operations	Exposure of waste at open face	BOD, TSS, TDS, turbidity
Exposed soil from excavating cells/trenches	Erosion	TSS, TDS, turbidity
Exposed stockpiles of cover material		
Inactive cells with final cover but not finally stabilized		
Daily or intermediate cover placed on cells or trenches		
Haul roads (including vehicle tracking of sedimentation)		
Vehicle/equipment maintenance	Fueling activities	Diesel fuel, gasoline, oil
	Parts cleaning	Solvents, oil, heavy metals, acid/alkaline wastes
	Waste disposal of oily rags, oil and gas filters, batteries, coolants, degreasers	Oil, heavy metals, solvents, acids
	Fluid replacement including hydraulic fluid, oil, transmission fluid, radiator fluids, and grease	Oil and grease, arsenic, lead, cadmium, chromium, chemical oxygen demand (COD), and benzene

Table 1B. Common Activities, Pollutant Sources, and Associated Pollutants at Land Application Sites

Activity	Pollutant Source	Pollutant
Cover crop management	Applied chemicals	Fertilizers, pesticides, and herbicides
Outdoor chemical storage	Exposure of chemical material storage areas to precipitation	Various chemicals stored
Waste transportation	Waste tracking on-site and haul road, solids transport on wheels and exterior of trucks or other equipment	TSS, total dissolved solids (TDS), turbidity, floatable

Table 1B. Common Activities, Pollutant Sources, and Associated Pollutants at Land Application Sites (continued)

Activity	Pollutant Source	Pollutant
Vehicle/equipment maintenance	Fueling activities	Diesel fuel, gasoline, oil
	Parts cleaning	Solvents, oil, heavy metals, acid/alkaline wastes
	Waste disposal of oily rags, oil and gas filters, batteries, coolants, degreasers	Oil, heavy metals, solvents, acids
	Fluid replacement including hydraulic fluid, oil, transmission fluid, radiator fluids, and grease	Oil and grease, arsenic, lead, cadmium, chromium, chemical oxygen demand (COD), and benzene

What BMPs can be used to minimize contact between stormwater and potential pollutants at my facility?

A variety of BMP options may be applicable to eliminate or minimize the presence of pollutants in stormwater discharges from landfills and land application sites. You will likely need to implement a combination or suite of BMPs to address stormwater runoff at your facility. Your first consideration should be for pollution prevention BMPs, which are designed to prevent or minimize pollutants from entering stormwater runoff and/or reduce the volume of stormwater requiring management. Prevention BMPs can include regular cleanup, collection and containment of debris in storage areas, and other housekeeping practices, spill control, diversions, and employee training. It may also be necessary to implement treatment BMPs, which are engineered structures intended to treat stormwater runoff and/or mitigate the effects of increased stormwater runoff peak rate, volume, and velocity. Treatment BMPs are generally more expensive to install and maintain and include oil-water separators, sedimentation ponds, and proprietary filter devices.

BMPs must be selected and implemented to address the following:

Good Housekeeping Practices

Good housekeeping is a practical, cost-effective way to maintain a clean and orderly facility to prevent potential pollution sources from coming into contact with stormwater. It includes establishing protocols to reduce the possibility of mishandling materials or equipment and training employees in good housekeeping techniques. Good housekeeping practices must include a schedule for regular pickup and disposal of waste materials such as oils and fluids and routine inspections of drums, tanks, and containers for leaks and structural conditions. Practices also include containing and covering garbage, waste materials, and debris. Involving employees in routine monitoring of housekeeping practices has proven to be an effective means of ensuring the continued implementation of these measures.

Specific good housekeeping practices for landfills and land application sites include providing protected storage areas for pesticides, herbicides, fertilizers, and other significant materials, vehicle maintenance areas, and recycled materials areas if present. Additionally, a preventative maintenance program should be developed that addresses:

- ◆ The maintenance of containers used for outdoor chemical/significant materials/recyclables storage to prevent leaking
- ◆ All elements of leachate collection and treatment systems to prevent exposure of leachate to stormwater
- ◆ The integrity and effectiveness of any intermediate or final cover

Minimizing Exposure

Where feasible, minimizing exposure of potential pollutant sources to precipitation is an important control option. For landfills and land application sites, this measure is again most applicable to areas other than the active disposal/application sited although minimizing disturbance in these areas is important as well. Minimizing exposure prevents pollutants, including debris, from coming into contact with precipitation and can reduce the need for BMPs to treat contaminated stormwater runoff. It can also prevent debris from being picked up by stormwater and carried into drains and surface waters. Examples of BMPs for exposure minimization include covering materials or activities with temporary structures (e.g., tarps) when wet weather is expected or moving materials or activities to existing or new permanent structures (e.g., buildings, silos, sheds).

Erosion and Sediment Control

BMPs must be selected and implemented to limit erosion on areas of your site that are likely to experience erosion, such as access roads, application areas, and active and recently reclaimed landfill areas. Erosion control BMPs such as seeding and mulching prevent soil from becoming dislodged and should be considered first along with diverting uncontaminated surface flows away from disturbed areas. Sediment control BMPs such as silt fences, sediment ponds, and stabilized entrances trap sediment after it has eroded. Sediment control BMPs should be used to back-up erosion control BMPs.

Landfill construction creates constant changes in the contours of the facility resulting in changing patterns of stormwater run-on and runoff. Controlling erosion of landfill slopes is among the primary concerns of the landfill operator. Practices generally include a combination of temporary controls (straw bales, silt fences, etc.) in active disposal areas and permanent controls (recontouring, revegetation, etc.) in areas where waste disposal has been completed.

Specific sediment and erosion practices for landfills and land application sites include providing temporary stabilization and placing geotextiles on the inactive portions of stockpiles. This should be done for:

- ◆ Materials stockpiled daily for immediate and final cover
- ◆ Inactive areas of the landfill or open dump
- ◆ Any landfill or open dump area with final covers but where vegetation has yet to establish itself
- ◆ Where waste application has been completed at land application sites but final vegetation has not yet been established

Management of Runoff

Your SWPPP must contain a narrative evaluation of the appropriateness of stormwater management practices that divert, infiltrate, reuse, or otherwise manage stormwater runoff so as to reduce the discharge of pollutants. Appropriate measures are highly site-specific, but may include, among others, vegetative swales, collection and reuse of stormwater, inlet controls, snow management, infiltration devices, and wet retention measures.

A combination of preventive and treatment BMPs will yield the most effective stormwater management for minimizing the offsite discharge of pollutants via stormwater runoff. Though not specifically outlined in this fact sheet, BMPs must also address preventive maintenance records or logbooks, regular facility inspections, spill prevention and response, and employee training.

All BMPs require regular maintenance to function as intended. Some management measures have simple maintenance requirements, others are quite involved. You must regularly inspect all BMPs to ensure they are operating properly, including during runoff events. As soon as a problem is found, action to resolve it should be initiated immediately.

Implement BMPs, such as those listed below in Table 2 for the control of pollutants at landfills and land application sites, to minimize and prevent the discharge of pollutants in stormwater. Identifying weaknesses in current facility practices will aid the permittee in determining appropriate BMPs that will achieve a reduction in pollutant loadings. BMPs listed in Table 2 are broadly applicable to landfills and land application sites; however, this is not a complete list and you are recommended to consult with regulatory agencies or a stormwater engineer/consultant to identify appropriate BMPs for your facility.

Table 2A. BMPs for Potential Pollutant Sources at Landfills and Land Application Sites

Pollutant Source	BMPs
Application of fertilizers, pesticides, and herbicides	<ul style="list-style-type: none"> <input type="checkbox"/> Observe all applicable Federal, State, and local regulations when using these products. <input type="checkbox"/> Strictly follow recommended application rates and methods (i.e., do not apply in excess of vegetative requirements). <input type="checkbox"/> Have materials such as absorbent pads easily accessible to clean up spills. <input type="checkbox"/> Inspect and maintain all containers used to prevent leaking. <input type="checkbox"/> Implement employee training program for proper application and spill prevention. <input type="checkbox"/> Store drums and containers indoors when possible.
Chemical material storage areas	<ul style="list-style-type: none"> <input type="checkbox"/> Store drums, including empty or used drums, in secondary containment with a roof or cover (including temporary cover such as a tarp that prevents contact with precipitation). <input type="checkbox"/> Provide secondary containment, such as dikes or portable containers, with a height sufficient to contain a spill (the greater of 10 percent of the total enclosed tank volume or 110 percent of the volume contained in the largest tank). <input type="checkbox"/> Locate material storage areas away from high traffic areas and surface waters. <input type="checkbox"/> Inspect storage tanks and piping systems (pipes, pumps, flanges, couplings, hoses, and valves) for failures or leaks and perform preventive maintenance. <input type="checkbox"/> Clearly label drums with their contents. <input type="checkbox"/> Maintain an inventory of fluids to identify leakage. <input type="checkbox"/> Properly dispose of chemicals that are no longer in use. <input type="checkbox"/> Store and handle reactive, ignitable, or flammable liquids in compliance with applicable local fire codes, local zoning codes, and the National Electric Code. <input type="checkbox"/> Provide drip pads/pans where chemicals are transferred from one container to another to allow for recycling of spills and leaks. <input type="checkbox"/> Have materials such as absorbent pads easily accessible to clean up spills. <input type="checkbox"/> Develop and implement spill plans or spill prevention, containment, and countermeasure (SPCC) plans, if required for your facility. <input type="checkbox"/> Train employees in spill prevention and control and proper materials management.
Exposure of waste at open face (Landfills only)	<ul style="list-style-type: none"> <input type="checkbox"/> Minimize the area of exposed open face as much as is practicable. <input type="checkbox"/> Divert flows around open face using structural measures such as dikes, berms, swales, or pipe slope drains. <input type="checkbox"/> Maintain the integrity and effectiveness of any intermediate or final cover (including repairing the cover as necessary to minimize the effects of settlement, sinking, and erosion). <input type="checkbox"/> Regularly inspect erosion and sediment controls.

Table 2A. BMPs for Potential Pollutant Sources at Landfills and Land Application Sites (continued)

Pollutant Source	BMPs
Waste tracking and solids transport on wheels and exterior of trucks or other equipment from on-site/offsite or haul roads.	<ul style="list-style-type: none"> <input type="checkbox"/> Clean wheels and exterior of trucks or other equipment as necessary to minimize waste tracking (but contain any wash waters). <input type="checkbox"/> Establish procedures such as rumble strips and gravel apron to minimize offsite tracking
Uncontrolled leachate	<ul style="list-style-type: none"> <input type="checkbox"/> Divert flows around site using structural measures such as dikes, berms, or swales. <input type="checkbox"/> Frequently inspect leachate collection system and landfill for leachate leaks. <input type="checkbox"/> Maintain landfill cover and vegetation. <input type="checkbox"/> Maintain leachate collection system. <input type="checkbox"/> Maintain all elements of leachate collection and treatment systems to prevent commingling of leachate with stormwater.
<p>Erosion from:</p> <p>Excavating cells/ trenches</p> <p>Stockpiles of cover material</p> <p>Inactive cells with final cover but not finally stabilized</p> <p>Daily or intermediate cover placed on cells or trenches</p> <p>Haul roads</p>	<ul style="list-style-type: none"> <input type="checkbox"/> Implement structural controls such as dikes, swales, silt fences, filter berms, sediment traps and ponds, outlet protection, pipe slope drains, check dams, and terraces to convey runoff, to divert stormwater flows away from areas susceptible to erosion, and to prevent sediments from entering water bodies. <input type="checkbox"/> Confine stockpiling to areas outside of drainage pathways and away from surface waters <input type="checkbox"/> Stabilize soils with temporary seeding, mulching, and placing geotextiles on the inactive portions of stockpiles <input type="checkbox"/> Leave vegetative filter strips along streams. <input type="checkbox"/> Keep as much vegetation as possible when building roads and seed as necessary and appropriate. <input type="checkbox"/> Construct vegetated swales along road. <input type="checkbox"/> Stabilize haul roads and entrances to landfill with gravel or stone. <input type="checkbox"/> Clean wheels and body of trucks or other equipment as necessary to minimize sediment tracking (but contain any wash waters). <input type="checkbox"/> Frequently inspect all stabilization and structural erosion control measures and perform all necessary maintenance and repairs.
Vehicle/equipment fueling	<p>Stationary fueling areas</p> <ul style="list-style-type: none"> <input type="checkbox"/> Conduct fueling operations (including the transfer of fuel from tank trucks) on an impervious or contained pad or under a roof or canopy where possible. Covering should extend beyond spill containment pad to prevent rain from entering. <input type="checkbox"/> When fueling in uncovered area, use a concrete pad (asphalt is not chemically resistant to the fuels being handled). <input type="checkbox"/> Use drip pans where leaks or spills of fuel can occur and where making and breaking hose connections. <input type="checkbox"/> Use fueling hoses with check valves to prevent hose drainage after filling. <input type="checkbox"/> Use spill and overflow protection devices. <input type="checkbox"/> Keep spill cleanup materials readily available. Clean up spills and leaks immediately. <input type="checkbox"/> Minimize/eliminate run-on onto fueling areas with diversion dikes, berms, curbing, surface grading or other equivalent measures. <input type="checkbox"/> Collect stormwater runoff and provide treatment or recycling.

Table 2A. BMPs for Potential Pollutant Sources at Landfills and Land Application Sites (continued)

Pollutant Source	BMPs
Vehicle/equipment fueling (continued)	<p>Stationary fueling areas (continued)</p> <ul style="list-style-type: none"> <input type="checkbox"/> Use dry cleanup methods for fuel area rather than hosing the fuel area down. Follow procedures for sweeping up absorbents as soon as spilled substances have been absorbed. <input type="checkbox"/> Regularly inspect and perform preventive maintenance on storage tanks to detect potential leaks before they occur. <input type="checkbox"/> Inspect the fueling area for leaks and spills. <input type="checkbox"/> Provide curbing or posts around fuel pumps to prevent collisions during vehicle ingress and egress. <input type="checkbox"/> Discourage “topping off” of fuel tanks. <p>Mobile fueling areas</p> <ul style="list-style-type: none"> <input type="checkbox"/> Use drip pan under the transfer hose. <input type="checkbox"/> Use fueling hoses with check valves to prevent hose drainage after filling. <input type="checkbox"/> Ensure the fueling vehicle is equipped with a manual shutoff valve. <input type="checkbox"/> Do not allow topping off of the fuel in the receiving equipment. <input type="checkbox"/> Train personnel on fueling BMPs.
Vehicle/equipment maintenance	<p>Good Housekeeping</p> <ul style="list-style-type: none"> <input type="checkbox"/> Eliminate floor drains that are connected to the storm or sanitary sewer; if necessary, install a sump that is pumped regularly. Collected wastes should be properly treated or disposed of by a licensed waste hauler. <input type="checkbox"/> Use drip plans, drain boards, and drying racks to direct drips back into a fluid holding tank for reuse. <input type="checkbox"/> Drain all parts of fluids prior to disposal. Oil filters can be crushed and recycled. <input type="checkbox"/> Promptly transfer used fluids to the proper container; do not leave full drip pans or other open containers around the shop. Empty and clean drip pans and containers. <input type="checkbox"/> Dispose of greasy rags, oil filters, air filters, batteries, spent coolant, and degreasers properly. <input type="checkbox"/> Store batteries and other significant materials inside. <input type="checkbox"/> Label and track the recycling of waste material (e.g., used oil, spent solvents, batteries). <input type="checkbox"/> Maintain an organized inventory of materials. <input type="checkbox"/> Eliminate or reduce the number of hazardous materials used and amount of waste by substituting nonhazardous or less hazardous materials. <input type="checkbox"/> Clean up leaks, drips, and other spills without using large amounts of water. <input type="checkbox"/> Prohibit the practice of hosing down an area where the practice would result in the exposure of pollutants to stormwater. <input type="checkbox"/> Clean without using liquid cleaners whenever possible. <input type="checkbox"/> Do all cleaning at a centralized station so the solvents stay in one area. <input type="checkbox"/> If parts are dipped in liquid, remove them slowly to avoid spills. <input type="checkbox"/> Do not pour liquid waste down floor drains, sinks, outdoor storm drain inlets, or other storm drains or sewer connections. <p>Minimizing Exposure</p> <ul style="list-style-type: none"> <input type="checkbox"/> Perform all cleaning operations indoors or under covering when possible. Conduct the cleaning operations in an area with a concrete floor with no floor drainage other than to sanitary sewers or treatment facilities.

Table 2A. BMPs for Potential Pollutant Sources at Landfills and Land Application Sites (continued)

Pollutant Source	BMPs
Vehicle/equipment maintenance (continued)	<p>Minimizing Exposure (continued)</p> <ul style="list-style-type: none"> <input type="checkbox"/> If operations are uncovered, perform them on a concrete pad that is impervious and contained. <input type="checkbox"/> Park vehicles and equipment indoors or under a roof whenever possible where proper control of oil leaks/spills is maintained and exposure to stormwater is prevented. <input type="checkbox"/> Watch vehicles closely for leaks and use pans to collect fluid when leaks occur. <p>Management of Runoff</p> <ul style="list-style-type: none"> <input type="checkbox"/> Use berms, curbs, or other diversion measures to ensure that stormwater runoff from other parts of the facility does not flow over the maintenance area. <input type="checkbox"/> Collect the stormwater runoff from the cleaning area and provide treatment or recycle the runoff. Discharge vehicle wash or rinse water to the sanitary sewer (if allowed by sewer authority), wastewater treatment, a land application site, or recycle on-site. DO NOT discharge washwater to a storm drain or to surface water. <p>Inspections and Training</p> <ul style="list-style-type: none"> <input type="checkbox"/> Inspect the maintenance area regularly for proper implementation of control measures. <input type="checkbox"/> Train employees on proper waste control and disposal procedures.

What if activities and materials at my facility are not exposed to precipitation?

The industrial stormwater program requires permit coverage for a number of specified types of industrial activities. However, when a facility is able to prevent the exposure of ALL relevant activities and materials to precipitation, it may be eligible to claim no exposure and qualify for a waiver from permit coverage.

If you are regulated under the industrial permitting program, you must either obtain permit coverage or submit a no exposure certification form, if available. Check with your permitting authority for additional information as not every permitting authority program provides no exposure exemptions.

Where do I get more information?

For additional information on the industrial stormwater program see www.epa.gov/npdes/stormwater/msgp.

A list of names and telephone numbers for each EPA Region or state NPDES permitting authority can be found at www.epa.gov/npdes/stormwatercontacts.

References

Information contained in this Fact Sheet was compiled from EPA’s past and current Multi-Sector General Permits and from the following sources:

- ◆ U.S. EPA, Office of Wastewater Management. *NPDES Stormwater Multi-Sector General Permit for Industrial Activities (MSGP)*. www.epa.gov/npdes/stormwater/msgp