



PREVENT STORM WATER CONTAMINATION

Best Management Practices for

Section A1 – Gasoline Retailers and Convenience Stores with gasoline



SIC Codes: 5541NAISC Codes: 44711, 44719

General Information:

1) Federal Storm Water regulations require the City to reduce the quantity of pollutants that enter our storm drains, rivers and washes from rainwater and other sources. 2) Water from any source that contains contaminants is prohibited from entering the storm drain system which includes streets, catch basins (street grates), ditches, washes and rivers. 3) Commercial and industrial wash or wastewater is prohibited from entering the storm drain system or any other outside area. 4) All activities that use soap, solvents, degreasers or any other chemicals must be hauled to a landfill or discharged into the sanitary sewer through a sand/oil interceptor or approved pretreatment device. 5) City Code Chapter 32C requires any person or business that has a "potential" to pollute storm water, to develop and implement a Storm Water Management Plan (SWMP).

General Best Management Practices (BMPs)

- ◆ Offer employee incentives so that employees will develop cost effective, worker efficient BMPs.
- ◆ Hire an outside consulting firm to conduct a storm water inspection/audit.
- ◆ Wash water from rugs, draperies and other sources is not allowed in the storm drain, street or any other outside area.
- ◆ Have mats, rugs, towels, tablecloths, etc. laundered by an industrial laundry service or wash floor mats indoors in the mop sink.
- ◆ Discharge floor mopping wash water into the sanitary sewer preferably in a mop sink.
- ◆ Use a mop sink with lint strainer over the drain, and dispose of the lint, fibers or solid material in the trash.
- ◆ If wash water is collected and transported from the wash site, it may be discharged into the first stage of a sand/oil interceptor or at an approved landfill.
- ◆ Untreated wash water may kill plants. Do not use it for landscape irrigation.
- ◆ Contain all discharges from garbage dumpsters with a berm and clean regularly.
- ◆ Oil and grease (tallow) bins or containers must be contained and covered. The berm should be large enough to contain 110% of the volume of the largest drum stored there.
- ◆ Recycle all applicable materials such as glass and plastic bottles.
- ◆ Inspect the grease trap or interceptor regularly and have it pumped as needed.
- ◆ Empty trash cans and scrub them with a brush and soap and discharge the wastewater into a mop sink.
- ◆ Discard wash water containing soap or bleach into the mop sink.
- ◆ Use dry cleanup methods (absorbent and sweep) on oil spills that occur between the door and tallow bin.
- ◆ If rinsing down the tarmac, install an oil absorbent boom in the retention pond to capture oil and gasoline. Inspect and change the boom regularly.
- ◆ Observe the water level in retention ponds after a rain event. The water should soak into the ground within 36 hours after the event. If it does not drain, the drywell (if the pond is equipped with one) needs maintenance.

Fueling Activities

- ◆ Use spill and overflow protection.
- ◆ Ensure that the "Emergency shut-off" button works.
- ◆ Minimize run-on of storm water into the fueling area by grading the area such that storm water only runs off.
- ◆ Use proper petroleum spill controls such as booms.

- ◆ Perform preventive maintenance on storage tanks to detect potential leaks before they occur.
- ◆ Inspect the fueling area to detect problems before they occur.
- ◆ Train employees on proper fueling techniques and emergency procedures.
- ◆ Use dry clean-up methods for the fuel area rather than hosing the area down.
- ◆ Cover the fueling area with a roof to reduce runoff from around the pumps.

Shipping and receiving

- ◆ Ensure that a company representative is present during loading and unloading activities.
- ◆ Inspect the area to detect problems before they occur.
- ◆ Close storm drains during loading/unloading activities in surrounding area.
- ◆ Inspect all containers prior to unloading/loading of any raw materials.
- ◆ Perform all loading/unloading activities indoors or in a covered area, if possible.
- ◆ Ensure that berms and dikes are built around the unloading/loading areas, if applicable.
- ◆ If practical, use rubber seals to contain spills on the dock or unloading area.
- ◆ If outside or in covered areas, minimize run-on of storm water into the unloading/loading areas by grading the areas to insure that storm water runs around the area.
- ◆ Use dry clean-up methods for unloading/loading areas rather than washing the area down.
- ◆ Require distributors to follow all BMPs and use drip pans under hose connections.
- ◆ Train employees on proper unloading/loading techniques.

Sidewalks, plazas and building exteriors without soap

- ◆ Sweep the area and dispose of solid wastes in the trash before rinsing or washing begins.
- ◆ Direct wash water to landscaped areas or sanitary sewer.
- ◆ Seal storm drains with a fabric filter to collect dirt and debris.

Sidewalks, plazas and building exteriors with soap

- ◆ Sweep all outdoor surfaces regularly and dispose of the trash in a dumpster or trash can.
- ◆ Seal storm drains with an impervious material, before the washing process begins.
- ◆ Collect all wash water; vacuum or pump the wash water to a holding tank for analyses and disposal.
- ◆ Contained wash water may be discharged to the sanitary sewer or landfill.

- ◆ If wastewater is contained on-site for later removal, it must be picked up by an authorized Non-Hazardous Liquid Waste Hauler.
- ◆ If collected wastewater is transported from the wash site, it may be discharged into a landfill or through an approved sand/oil interceptor.
- ◆ Wash water can not be discharged to the storm drain, street, storm water retention pond or drywell.
- ◆ Collect and discharge all wash water to the sanitary sewer or a landfill.
- ◆ Untreated soapy wash water may kill plants. Do not use wastewater for landscape irrigation.

Storage

- ◆ Cover all storage areas with a permanent cover (e.g. roofs) or temporary cover (e.g. canvas tarps).
- ◆ Install curbing, berms or dikes around storage areas.
- ◆ Train employees on procedures for storage and inspection items.

Material handling and containerized material storage

- ◆ Store containerized materials (fuel, paints, solvents, etc.) in a protected, secure location away from drains.
- ◆ Store reactive, ignitable or flammable liquids in compliance with the local Fire Dept. codes.
- ◆ Identify potentially hazardous materials, their characteristics and use.
- ◆ Control excessive purchasing, storage and handling of potentially hazardous materials.
- ◆ Keep records to identify quantity, receipt date, service life, users and disposal routes.
- ◆ Secure and carefully monitor hazardous materials to prevent theft, vandalism and misuse of materials.
- ◆ Educate personnel for proper storage, and how to cleanup and dispose of materials.

Bulk liquid storage and containment

- ◆ Store above-ground tanks (including tallow bins) on a paved area surrounded by a berm, which provides sufficient containment for the larger of either 10% of the total volume of all containers or 110% of the largest tank.
- ◆ Maintain good integrity of all storage tanks.
- ◆ Inspect storage tanks to detect potential leaks and perform preventive maintenance.
- ◆ Train employees on proper filling and transfer procedures.

Washing

- ◆ Avoid washing rugs, carpets or equipment outside.
- ◆ Use phosphate-free biodegradable detergents and discharge to the sanitary sewer.
- ◆ Consider using an industrial laundry for rugs, towels, carpets, etc.
- ◆ Designate an area for cleaning activities.
- ◆ Contain floor mopping wastewater and discharge to the sanitary sewer through a mop sink.
- ◆ Inspect and clean sediment traps or sand/oil interceptors to ensure the retention of solids and oil prior to entering the sanitary sewer system.
- ◆ Train employees on proper washing procedures.

Improper connections with storm drains

- ◆ Plug all floor drains if it is unknown whether the connection is to storm drain or sanitary sewer systems.
- ◆ Install a sump that is pumped regularly if needed.
- ◆ Perform dye testing to determine if interconnections exist between sanitary sewer and storm drain systems.
- ◆ Update facility schematics to accurately reflect all plumbing connections.
- ◆ Install a safeguard against vehicle wash waters and parts cleaning waters entering the storm drain.
- ◆ Train employees on proper disposal practices for all materials.

Training

- ◆ Train personnel on proper chemical use, storage, cleanup and waste disposal practices.
- ◆ Develop, implement and train employees at least annually on the Storm Water Management Plan.
- ◆ Train employees on proper fueling techniques and emergency procedures.
- ◆ Train employees on proper washing procedures.

Storm Water Management Plan (SWMP)

- ◆ Develop and submit a Storm Water Management Plan to the City for approval.
- ◆ Implement the approved SWMP immediately.
- ◆ All regulated facilities must submit a NPDES Notice of Intent (NOI) to the Arizona Department of Environmental Quality (ADEQ) as required by federal and state law. At the time of this printing, this group is not required to submit a Notice of Intent (NOI) to ADEQ unless other activities that are covered in AZPDES Storm Water regulations are being conducted on site.

Inspections

- ◆ Conduct inspections at least quarterly and within 24 hours after a rain event >0.10 inches.
- ◆ Complete the storm water Best Management Practices (BMP) checklist during the inspection.
- ◆ Review BMPs after each inspection and modify them if they are ineffective.
- ◆ Review and modify the SWMP if any BMP has been revised.
- ◆ Submit the SWMP and BMP revision(s) to the City immediately.

If spills occur:

- ◆ Stop the source of the spill immediately.
- ◆ Contain the liquid until cleanup is complete.
- ◆ Deploy oil containment booms if the spill may reach the street or storm drain.
- ◆ Cover the spill with absorbent material.
- ◆ Keep the area well ventilated.
- ◆ Dispose of clean-up materials properly.
- ◆ Do not use an emulsifier or dispersant.

The BMPs found on this page are paraphrased from Federal Storm Water documents 40CFR122, 1995 or later.

Storm Water



Management
A member of **STORM**
STormwater Outreach for
Regional Municipalities

Only Rain in the Storm Drain!

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City of Phoenix

STREET TRANSPORTATION DEPARTMENT
STORM WATER MANAGEMENT SECTION

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