

BOARD OF PUBLIC WORKS

RULES AND REGULATIONS GOVERNING POLLUTION CONTROL OF DISCHARGES INTO THE STORM DRAIN SYSTEM

SECTION I. GENERAL PROVISIONS

A. DECLARATION OF PURPOSE. These Rules and Regulations adopted by the Board of Public Works (Board) are consistent with Chapter VI, Article 4.4 of the Los Angeles Municipal Code and effectuate the objectives and intent of the City of Los Angeles (City) Stormwater and Urban Runoff Pollution Control Ordinance. These Rules and Regulations are intended to provide appropriate Best Management Practices that balance environmental, economic, cultural and social considerations which result in the highest level of water resource protection, enhancement and restoration to the maximum extent practicable. With these Rules and Regulations, the City seeks to comply with all Federal and State laws, lawful standards and orders applicable to stormwater and urban runoff pollution control.

B. TERMS AND DEFINITIONS. In addition to the terms, definitions and abbreviations provided in LAMC Section 64.70.01, the following terms and definitions shall apply for the purpose of these Rules and Regulations.

1. **Non-Profit Car Washing** means the washing of motor vehicles, Boats, campers, or trucks for the purpose of raising funds for a specific scholastic program or for any social, patriotic, philanthropic or benevolent cause conducted by volunteers from any school or any religious, social, or amateur sports associations or organizations.

C. GENERAL PROHIBITION.

1. In accordance with Section 62.80 of the Los Angeles Municipal Code, it is unlawful for any person to drain water or other liquids or permit water or other liquids to be drained from lands or premises under such person's management or control onto any public street, or causes interference with or creates a hazard to public travel.

SECTION II. CONDITIONAL EXEMPTION OF DESIGNATED DISCHARGES

A. DISCHARGES FROM NONPROFIT CAR WASHING. Discharges from non-profit car washing into the City's storm drain system shall be conditionally exempt subject to the following conditions:

- 1. Educational Materials.** The Board shall distribute and make available to persons, businesses, schools, associations, and organizations that participate in any way with the operation or organizing of any nonprofit car washing, educational materials developed by the City. These educational materials shall specifically address pollution problems associated with non-profit car washing activities and create an awareness of the environmental consequences of water pollution.
- 2. Responsibility For Implementation.** The owner or occupant of the commercial property that permits or allows the nonprofit car washing to take place and the association or organization performing the nonprofit car washing and discharging the wastewater into the storm drain system shall be responsible for implementation of all applicable Best Management Practices as provided in this Subsection.
- 3. Best Management Practices.** The following Best Management Practices specifically address the environmental problems associated with non-profit car washing and are intended to reduce pollutants and non-stormwater discharges to the storm drain system to the maximum extent practicable.
 - a. Before the car wash, remove all trash and debris from the area in which the car washing is to be held.
 - b. Cleaners, soaps, or detergents to be used must be labeled non-toxic, phosphate-free or biodegradable.
 - c. Avoid the use of acid-based wheel cleaners.
 - d. Minimize the runoff of water or soapy wastewater from the carwashing area by implementing the following:
 - (1) Always shut off all hoses when not in use.
 - (2) Whenever possible, perform car washing on permeable surfaces such as lawns or unpaved

areas or use a site that drains to the sanitary sewer system.

- (3) Use a bucket of soapy water to re-soap rags or sponges throughout the wash rather than adding more soap directly to the rag or sponge.
- (4) Do not empty buckets of soapy or rinse water into the parking lot, street, gutter or storm drains; always empty buckets into the sanitary sewer.

(Above Section I and II A. adopted by the Board of Public Works 2-11-99)

B. DISCHARGES FROM MUNICIPAL SIDEWALK WASHING. Discharges from the washing and cleaning of public sidewalks into the storm drain system are conditionally exempted subject to the following Best Management Practices as approved by the California Regional Water Quality Control Board, Los Angeles Region.

1. **Scope.** This sub-section applies to the manual cleaning and washing of public sidewalks performed by the City of Los Angeles or through contracts with Business Improvement Districts, or through any other sidewalk maintenance contracts as described by the Special Assessment District Procedures for sidewalk maintenance in Division 6, Chapter 6, Article 3, of the Los Angeles Administrative Code.
2. **Implementation by the Sidewalk Maintenance Districts and Business Improvement Districts.** In addition to any other contract terms or conditions, Best Management Practices applicable to public sidewalk washing shall be included as performance requirements in any contract awarded to or by these Districts for the cleaning and washing of public sidewalks.
3. **Best Management Practices.** The following Best Management Practices are performance requirements that are intended to reduce the discharge of pollutants including trash and debris into the storm drain system:
 - (a) **Pre-Washing.** The contractor or City agency must first remove all trash, debris, and free standing oil/grease from the concrete sidewalks, driveways, tree wells and gutter by implementation of the following:
 - (1) All debris and trash shall be directed towards the center of the sidewalk except that found in the gutter
 - (2) Any debris inadvertently swept or otherwise placed behind the property line or into the street or gutter shall be collected and removed immediately prior to any washing, and;
 - (b) **Washing.** The contractor or agency shall use high-pressure, low volume spray washing, using only potable water with no cleaning agents at an average usage of 0.06 gallon per square feet of sidewalk area. The water may be heated as needed.

The above Section II B was adopted on 5/25/00 by the Board of Public Works as an addition to the Rules and Regulations of the Board of Public Works, Governing Pollution Control of Discharges into the Storm Drain System.

SECTION III. BEST MANAGEMENT PRACTICES FOR CRITICAL SOURCES¹

A. TIER 1 CATEGORIES

1. Categories

Municipal Landfills (SIC 4953)

Hazardous Waste Treatment, Disposal and Recovery Facilities (SIC 4953)
Facilities Subject to SARA Title III

Restaurants (SIC 5812)

Wholesale Trade [scrap, auto dismantling] (SIC 5015, 5093)

Automotive Service Facilities (SIC 5013, 5014, 7532-7534 & 7536- 7539)

Fabricated Metal Products (SIC 34XX)

Motor Freight

Chemical/Allied Products (SIC 28XX [except 283X])

Automotive Dealers/Gas Stations (SIC 5511, 5521, 5541, 5561, 5599)

Primary Metals Products (SIC 33XX)

2. **Best Management Practices.** The following Best Management Practices specifically address the environmental problems associated with each category and are intended to reduce pollutants and non-stormwater discharges to the storm drain system to the maximum extent practicable. All categories shall be required, at a minimum, to comply with the following BMP's, when applicable. Acceptable fulfillment of all requirements is subject to approval by the Director.

a. *Municipal Landfills*

- (1) Stabilize soils with temporary seeding, mulching, and geotextiles; leave vegetable filter strips along streams
- (2) Maintain landfill cover and vegetation.
- (3) 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 storm water flows away from areas susceptible to erosion, and to prevent sediments from entering water bodies.
- (4) Frequently inspect all stabilization and structural erosion control measures and perform all necessary maintenance and repairs.
- (5) Stabilize haul roads and entrances to landfill with gravel or stone.
- (6) Construct vegetated swales along roads.
- (7) Clean wheels and body of trucks or other equipment as necessary to minimize sediment tracking (but contain any wash waters [process wastewaters]).

¹ Italicized categories belong to Phase 1 facilities

- (8) Frequently inspect all stabilization and structural erosion control measures and perform all necessary maintenance and repairs.
- (9) Strictly follow recommended application rates and methods for fertilizers, pesticides and herbicides.
- (10) Have materials such as absorbent pads easily accessible to clean up spills of pesticides, fertilizers and herbicides.
- (11) Minimize the area of exposed open face as much as possible.
- (12) Divert flows around open face using structural measures such as dikes, berms, swales, and pipe slope drains
- (13) Frequently inspect erosion and sedimentation controls.
- (14) Clean wheels and exteriors of trucks or other equipment as necessary to minimize waste tracking (but contain any wash water [process wastewaters]).
- (15) Frequently inspect leachate collection system and landfill for leachate leaks.
- (16) Maintain leachate collection system.
- (17) Comply with other BMP's deemed appropriate by the Director.

b. Hazardous Waste Treatment, Disposal and Recovery Facilities

- (1) Confine loading and unloading activities to a designated area.
- (2) Avoid loading and unloading materials in the rain.
- (3) Close storm drains during loading and unloading activities in surrounding areas.
- (4) Train employees on proper loading/unloading techniques.
- (5) Use dry clean-up methods instead of washing the areas down.
- (6) Inspect all containers prior to loading/unloading of any raw or spent materials.
- (7) Perform loading/unloading activities under a covered area.
- (8) Inspect loading/unloading areas to detect problems before they occur.
- (9) Comply with other BMP's deemed appropriate by the Director.

c. Facilities Subject to SARA Title III

- (1) Please refer to BMP's listed under the primary business activity.
- (2) Comply with other BMP's deemed appropriate by the Director.

d. Restaurants

- (1) Clean floor mats, filters, and garbage cans in a mop sink or other drain to the sanitary sewer via a oil/water separator. Do not wash them in a parking lot, alley, sidewalk or street.
- (2) Pour washwater into a janitorial or mop sink.
- (3) Keep dumpster area clean and lid closed. Ensure dumpsters and waste grease receptacles are leak-proof.
- (4) Comply with other BMP's deemed appropriate by the Director.

e. *Wholesale Trade [scrap, auto dismantling]*

- (1) Frequently inspect and clean processing equipment and storage/handling/processing areas.
- (2) Cover and contain storage and auto dismantling areas, and process equipment.
- (3) Prevent cutting oils and metallic fines of industrial turnings and cuttings from coming in contact with run-off.
- (4) Separate all scrap batteries from other scrap materials and segregate hazardous and flammable wastes to comply with National Fire Protection Association guidelines. Store batteries indoors in a contained area until they can be recycled.
- (5) Store materials in appropriate containers near the point of use or production of the materials. Make sure all storage containers and drums are in good condition and meet NFPA guidelines.
- (6) Clearly label all containers and include necessary warnings and special handling instructions.
- (7) Limit the stack height of individual containers/drums and put straps or plastic wrap around drums to provide stability.
- (8) Provide adequate clearance to allow material movement and access by material handling equipment.
- (9) Establish spill prevention and response procedures and use dry methods to clean up spills. Keep an adequate supply of dry clean up materials readily accessible.
- (10) Regularly sweep all traffic and storage areas to minimize particulate and residual materials build-up.
- (11) The washing down of material storage and tipping floor areas is prohibited unless approval is granted by the POTW to discharge wash waters to the sanitary sewer.
- (12) Use designated wash areas for cleaning automobile parts.
- (13) Properly dispose of hazardous waste.
- (14) Drain all fluids from vehicles when they arrive and store them separately.
- (15) Place and monitor drip pans under all leaking vehicles and equipment. Empty dip pans regularly before they become full.
- (16) Store parts, dismantled vehicles, materials and fluids in designated areas. Cover the areas with a permanent cover or tarp and place a curb, dike or berm around the area.
- (17) Comply with other BMP's deemed appropriate by the Director.

Automotive Service Facilities

- (1) Place drip pan under vehicle when removing vehicle liquids outdoors.
- (2) When draining liquids into a drain pan, place a larger drip pan (e.g. 3'x4') under the primary drain pan to catch any spilled

- liquids.
- (3) Divert storm water around storage areas with ditches, swales and/or berms.
 - (4) Transfer liquids drained from vehicles to a designated waste storage area as soon as possible.
 - (5) Drain pan and other open containers of liquids should not be left unattended unless they are covered and within secondary containment.
 - (6) Drain liquids from leaking or wrecked vehicles as soon as possible, to avoid leaks and spills
 - (7) Store containers of spent antifreeze and used motor oil within secondary containment.
 - (8) Designate specific areas or service bays for engine, parts, or radiator cleaning. Do not wash or rinse parts outdoors.
 - (9) Use self-contained sinks and tanks when working with solvents. Keep sinks and tanks covered when not in use.
 - (10) Use dry clean-up techniques such as vacuuming or sweeping to clean up dust from sanding metal or body filler.
 - (11) Double-contain all bulk storage liquids.
 - (12) Keep lids on waste barrels and containers.
 - (13) Store chemicals and liquids in a covered area with spill containment.
 - (14) Comply with other BMP's deemed appropriate by the Director.

f. Fabricated Metal Products

- (1) Sweep fabrication areas. Absorb dust through a vacuum system to avoid accumulation on roof tops and onto the ground.
- (2) Sweep on a regular basis all accessible paved areas.
- (3) Maintain floors in a clean and dry condition.
- (4) Remove waste and dispose of regularly.
- (5) Remove obsolete equipment expeditiously.
- (6) Train employees on good housekeeping measures.
- (7) The storage of raw materials should be under a covered area whenever possible and protected from contact with the ground.
- (8) The amount of raw material stored should be minimized to avoid corrosive activity from long-term exposed materials.
- (9) Dike or berm the material storage areas to prevent or minimize run-on may be considered.
- (10) Check raw metals for corrosion.
- (11) Keep raw material storage areas neat and orderly; stack neatly on pallets or off the ground and cover exposed materials.
- (12) Where feasible, dike, curb, berm or employ other accepted

- containment systems, all receiving, loading and unloading areas to contain possible spills during delivery of chemicals.
- (13) Direct all roof down spouts away from loading sites and equipment.
 - (14) Clean up spills immediately.
 - (15) Check for leaks and remedy problems regularly.
 - (16) Unload under covered areas when possible.
 - (17) Store heavy equipment indoor when possible.
 - (18) If stored outdoors, the use of gravel, concrete or other porous surfaces shall be considered to minimize or prevent heavy equipment from creating ditches or other conveyances.
 - (19) Clean heavy equipment prior to storage.
 - (20) Divert drainage to the grass swales, filter strips, retention ponds, or holding tanks.
 - (21) Store used metal working fluid with fine metal dust indoors.
 - (22) Use tight sealing lids on all fluid containers.
 - (23) Use absorbent material and/or drip pans to contain any spills.
 - (24) Cover all tanks whenever possible.
 - (25) Berm tanks whenever possible.
 - (26) Store recyclable waste indoors or in covered containers.
 - (27) Collect scrap metals, fines, iron dust and store under cover and recycle.
 - (28) Avoid painting and sandblasting operations outdoors in windy weather conditions.
 - (29) Contain and collect spills of paints, chemicals, solvents or other liquid material.
 - (30) Change vehicle or equipment liquids indoors when possible.
 - (31) Discard liquids properly or recycle if possible.
 - (32) Store pallets and drums on concrete pads if outdoors.
 - (33) Clean and cover empty drums.
 - (34) Store materials in such a manner as to minimize contact with precipitation.
 - (35) Clean or cover contaminated wooden pallets.
 - (36) Comply with other BMP's deemed appropriate by the Director.

g. Motor Freight

- (1) Use spill and overflow protection
- (2) Minimize run-on of storm water into the fueling area by grading the area such that storm water only runs-off.
- (3) Reduce exposure of the fuel area to storm water by covering the area.
- (4) Use dry clean-up methods for fuel area rather than hosing the fuel area down.

- (5) Use proper petroleum spill control.
- (6) Train employees on proper fueling techniques.
- (7) Store cracked batteries in a non-leaking secondary container.
- (8) Promptly transfer used liquids to the proper container; do not leave drip pans or other open containers around the shop. Empty and clean drip pans and containers.
- (9) Plug floor drains that are connected to the storm drain.
- (10) Inspect the maintenance area regularly for proper implementation of control measures.
- (11) Train employees on proper waste control and disposal procedures.
- (12) Use drip pans under all vehicles and equipment waiting for maintenance.
- (13) Cover the storage area with a roof.
- (14) Inspect the storage yard for filling drip pans and other problems regularly.
- (15) Train employees on procedures for storage and inspection items.
- (16) Avoid washing truck parts and equipment outside.
- (17) Designate an area for cleaning activities.
- (18) Train employees on proper washing procedures.
- (19) Maintain good integrity of all storage containers.
- (20) Inspect piping systems (pipes, pumps, flanges, couplings, hoses and valves) for failures or leaks.
- (21) Comply with other BMP's deemed appropriate by the Director.

h. Chemical/Allied Products

- (1) Store materials and waste inside or in covered, bermed areas.
- (2) Immediately clean up spills using dry methods.
- (3) Inspect storage areas and equipment for leaks and corrosion, and repair promptly.
- (4) Regularly clean the floors and grounds by using brooms, shovels, vacuum cleaners or cleaning machines. Keep wash water from cleaning equipment and containers out of the storm drain system.
- (5) Place roofs, covers, tarps or other appropriate covers over storage areas to prevent exposure to weather.
- (6) In areas where liquid or powdered materials are transferred in bulk from truck or rail cars, minimize contact with rain and wind.
- (7) Prevent stormwater from flowing onto any outside storage

area containing used containers, machinery, scrap and construction materials, liquid and powdered materials by using culverts, berms, gutters, sewers, or other forms of drainage control.

- (8) Label containers and maintain an up-to-date inventory of materials.
- (9) Place chemical hose connections to storage containers inside containment areas. In an area that is not contained, use drip pans where spills may occur.
- (10) Provide overhead protection, such as overhangs or door skirts, to enclose trailer ends at truck loading/unloading docks.
- (11) Contained areas should be designed to control run-off, spills, and leaks. The final discharge point of the facility should be equipped to prevent discharges from an uncontrolled spill of materials anywhere within the facility.
- (12) Schedule regular pick-up and disposal of garbage and waste materials.
- (13) Comply with other BMP's deemed appropriate by the Director.

i. Automotive Dealers/Gas Stations

- (1) Spot clean leaks and drips routinely to prevent runoff of spillage. Leaks are not cleaned up until the absorbent is picked up and disposed of properly.
- (2) Use dry cleanup methods such as sweeping for removal of litter and debris. Never wash down fueling areas unless the wash water is collected and disposed of properly.
- (3) Minimize the possibility of storm water pollution from outside waste receptacles and air/water supply areas by doing at least one of the following:
 - use only water-tight waste receptacle(s) and keep the lid(s) closed, or
 - grade and pave the areas to prevent run-off of storm water, or
 - install a roof over the areas, or
 - install a low containment berm around the areas, or
 - use and maintain drip pans under waste receptacles.
- (4) Fit fuel dispensing nozzles with "hold-open latches" (automatic shut-offs) except where prohibited by local fire departments.
- (5) Post signs at the fuel dispenser or fuel island warning vehicle owners/operators against "topping off" of vehicle fuel tanks.
- (6) Fit underground storage tanks with spill containment and overfill prevention systems meeting the requirements of Section 2635 (b) of Title 23 of the California Code of Regulations.
- (7) Maintain and keep current a spill response plan and ensure that employees are trained on the elements of the plan.
- (8) Manage materials and waste to reduce adverse impacts on

- storm water quality.
- (9) Train all employees upon hiring and annually thereafter on proper methods for handling and disposing of waste. Make sure that all employees understand storm water discharge prohibitions, wastewater discharge requirements, and these Best Management Practices. Use a training log or similar method to document training.
 - (10) Label drums within the facility boundary, by paint/stencil (or equivalent), to indicate whether they flow to oil/water separator, directly to the sewer, or to the storm drain. Labels are not necessary for plumbing fixtures directly connected to the sanitary sewer.
 - (11) Inspect and clean, if necessary, storm drain inlets and catch basins within the facility boundary before October 1 each year.
 - (12) Fuel dispensing area must be covered. The minimum dimensions of the cover must be or greater than the area within the grade break or the fuel dispensing area.
 - (13) Minimize the possibility of polluted urban run-off from air/Water supply areas by doing at least one of the following:
 - Grade and pave the air/water supply area
 - Install a low containment berm around the air/water supply area
 - Spot clean leaks and drips routinely
 - Use leak-proof waste receptacles and keep lid closed
 - (14) Comply with other BMP's deemed appropriate by the Director.

j. Primary Metals Products

- (1) Store materials and waste inside or in covered, bermed areas.
- (2) Regularly sweep and clean fabrication areas, traffic and paved areas, waste and material storage areas. Use dry methods to clean-up spills and leaks of materials and waste.
- (3) Perform pouring, cooling and shakeout operations indoors.
- (4) Trap particulates coming from storage and handling areas.
- (5) Inspect storage areas and equipment for leaks and corrosion, and repair promptly.
- (6) Always store manufacturing dusts and sludges indoors, along with other materials and waste if possible.
- (7) Place all metal product and machining waste in sealed drums, or covered dumpsters
- (8) Store liquids, such as gas, diesel, kerosene, lubricants and solvents in contained areas.
- (9) Fluxes and raw casting sand shall be placed in silos or covered hoppers.
- (10) Cover outside materials and place in containment areas that

- prevent stormwater run-on/run-off.
- (11) Establish a regular disposal schedule for slag, dross, waste sand, refractory rubble, fly ash, dust collector sludges and solids, and baghouse dust.
 - (12) Frequently inspect all equipment for spills and leaks.
 - (13) Prevent particulates from coke, coal, slag, and sand storage/handling areas from mixing with stormwater.
 - (14) Regularly inspect all liquid and waste storage tanks and drums for leaks, spills, corrosion, and damage. Repair any problems found.
 - (15) Collect and recycle wastewater used for granulation of slag.
 - (16) Perform all pouring, cooling, and shakeout operations indoors in areas that have a roof vent to trap fugitive particulate emissions.
 - (17) Comply with other BMP's deemed appropriate by the Director.

B. TIER 2 CATEGORIES

1. Categories

Electric/Gas/Sanitary

Air Transportation

Rubber/Miscellaneous Plastics (SIC 30XX, 39XX)

Local/Suburban Transit

Railroad Transportation

Oil & Gas Extraction (SIC 13XX)

Lumber/Wood Products

Machinery Manufacturing (SIC 35XX [except 357X], 37XX [except 373X])

Transportation Equipment

Stone, Clay, Glass, Concrete (SIC 32XX)

Leather/Leather Products (SIC 31XX)

Miscellaneous Manufacturing

Food and kindred Products (SIC 20XX, 21XX)

Mining of Nonmetallic Minerals (SIC 14XX)

Printing and Publishing

Electric/Electronic (SIC 357X, 36XX, 38XX)

Paper and Allied Products (SIC 26XX)

Furniture and Fixtures (SIC 2434, 25XX)

Laundries

Instruments

Textile Mill Products (SIC 22XX, 23XX)

Apparel

3. **Best Management Practices.** The following Best Management Practices specifically address the environmental problems associated with each category and are intended to reduce pollutants and non-stormwater discharges to the storm drain system to the maximum extent practicable. All categories shall be required, at a minimum, to comply with the following BMP's, when applicable. Acceptable fulfillment of all requirements is subject to approval by the Director.

a. *Electric/Gas/Sanitary*

- (1) Use drip pans under drums and equipment where feasible.
- (2) Inspect storage yards for filling drip pans and other problems regularly.
- (3) Store chemicals and liquids inside or under a covered area.
- (4) Provide berming or diking around chemical and liquid stored outdoors.
- (5) Inspect piping systems (pipes, pumps, flanges, couplings, hoses, and valves) for failures or leaks.
- (6) Train employees on proper liquid filling and transfer procedures.
- (7) Inspect storage tanks to detect potential leaks and perform preventative maintenance.
- (8) Maintain good integrity of all above-ground, storage tanks.
- (9) Establish procedures to minimize off-site tracking of dust and residue.
- (10) Inspect all residue hauling vehicles for proper covering over the load, adequate gate sealing and overall integrity of the body and containers.
- (11) Vehicles without load covers or adequate gate sealing, or with poor body or container conditions shall be repaired as soon as practicable.
- (12) Reduce and/or control the tracking of ash or residue from ash loading areas.
- (13) Use containment curbs in unloading/loading areas.
- (14) Cover loading/unloading areas.
- (15) Minimize storm water run-on to the loading area by grading, berming, or curbing the area around the loading area to direct storm water away from the area.
- (16) Minimize storm water run-on by constructing an enclosure or berm around the material storage area.
- (17) Use dry clean-up methods
- (18) Use protective guards around liquid storage tanks.
- (19) Collect storm water run-off in perimeter ditches.
- (20) Comply with other BMP's deemed appropriate by the Director.

b. *Air Transportation*

- (1) Perform all maintenance activities indoors.

- (2) Drain all parts of fluids prior to disposal.
- (3) Prohibit the practice of hosing down the apron or hangar floor.
- (4) Use dry clean-up methods in the event of spills.
- (5) Collect the storm water run-off from maintenance and/or cleaning operations indoors.
- (6) Perform all service areas and provide treatment of recycling.
- (7) The storage of aircraft, ground vehicles, and equipment awaiting maintenance shall be confined to designated areas.
- (8) Use drip pans for the collection of liquid leaks.
- (9) Install berms and dikes around chemical and liquid storage areas.
- (10) Emphasize anti-icing operations which would preclude the need to deice.
- (11) When de-icing/anti-icing operations are conducted on aircraft during periods of dry weather, operators shall ensure that storm water inlets are blocked to prevent the discharge of de-icing/anti-icing chemicals to the storm drain system.
- (12) Collect spent de-icing chemicals and dispose of properly.
- (13) Comply with other BMP's deemed appropriate by the Director.

c. *Rubber/Miscellaneous Plastics*

- (1) Confine loading/unloading activities to a designated area.
- (2) Perform loading/unloading activities indoors or in a covered area.
- (3) Close storm drains when performing loading/unloading activities in surrounding areas.
- (4) Inspect all containers prior to loading/unloading of any raw or spent materials.
- (5) Provide berming, curbing, or diking of loading/unloading areas and outdoor liquid storage areas.
- (6) Place drip pans under hoses.
- (7) Use dry clean-up methods instead of washing down the areas.
- (8) Train employees on proper loading/unloading techniques, spill prevention, and spill response.
- (9) Confine storage of materials, parts and equipment to designated areas.
- (10) Ensure all containers are closed.
- (11) Wash and rinse containers indoors before storing them outdoors.
- (13) Direct run-off to onsite retention pond.
- (14) Store wastes in covered, leak-proof containers (eg. dumpsters, drums).

- (15) Store zinc bags indoors.
- (16) Comply with other BMP's deemed appropriate by the Director.

d. *Local/Suburban Transit*

- (1) Use spill and overflow protection.
- (2) Minimize run-on of storm water into the fueling area by grading the area such that storm water only runs off.
- (3) Reduce exposure of the fuel area to storm water by covering the area.
- (4) Use dry clean-up methods for fuel area rather than hosing the fuel area down.
- (5) Use proper petroleum spill control.
- (6) Inspect the fueling area to detect problems before they occur.
- (7) Train employees on proper fueling techniques.
- (8) Store cracked batteries in a nonleaking secondary containment.
- (9) Promptly transfer used liquids to the proper container; do not leave full drip pans or other open containers around the shop. Empty and clean drip pans and containers.
- (10) Plug floor drains that are connected to the storm drain system.
- (11) Train employees on proper waste control and disposal procedures.
- (12) Use drip pans under all vehicles and equipment waiting for maintenance.
- (13) Cover the chemical storage area with a roof.
- (14) Inspect the storage yard for filling drip pans and other problems regularly.
- (15) Maintain good integrity of all above-ground storage containers.
- (16) Inspect above-ground storage tanks to detect potential leaks and perform preventative maintenance.
- (17) Inspect piping systems (pipes, pumps, flanges, couplings, hoses and valves) for failures or leaks.
- (18) Comply with other BMP's deemed appropriate by the Director.

e. *Railroad Transportation*

- (1) Use spill and overflow protection.
- (2) Minimize run-on of storm water into the fueling area by grading the area such that storm water only runs off.
- (3) Reduce exposure of the fuel area to storm water by covering the area.
- (4) Use dry clean-up methods for fuel area rather than hosing the fuel area down.
- (5) Use proper petroleum spill control.
- (6) Inspect the fueling area to detect problems before they occur.
- (7) Train employees on proper fueling techniques.
- (8) Promptly transfer used liquids to the proper container; do not

leave full drip pans or other open containers around the shop. Empty and clean drip pans and containers.

- (9) Plug floor drains that are connected to the storm drain system.
- (10) Cover the chemical storage area with a roof.
- (11) Train employees on proper waste control and disposal procedures.
- (12) Maintain good integrity of all above-ground storage containers.
- (13) Inspect above-ground storage tanks to detect potential leaks and perform preventative maintenance.
- (14) Inspect piping systems (pipes, pumps, flanges, couplings, hoses and valves) for failures or leaks.
- (15) Comply with other BMP's deemed appropriate by the Director.

f. *Oil & Gas Extraction*

- (1) Use dikes and other forms of spill containment and diversion around storage tanks, reserve pits, impoundments, handling and processing areas, and drums of oil, acid, chemicals, and liquids. Place tanks and drums stored outdoors in a contained area.
- (2) Use drip pans, catch basins, or liners during handling of materials such as tank bottoms.
- (3) Line and cover waste reserve and sludge pits.
- (4) Recycle materials and dispose of wastes offsite. Use oil water separators to treat run-off from the site.
- (5) Reinject or treat produced wastewater instead of discharging it.
- (6) Clean up any spills using dry methods
- (7) Employ spill plans for pipelines, tanks, drums, etc.
- (8) Comply with other BMP's deemed appropriate by the Director.

g. *Lumber/Wood Products*

- (1) Store raw and finished wood products inside or in covered, bermed areas on elevated pads.
- (2) Inspect containers for leaks and clean up immediately using dry methods.
- (3) Extend drip time in process areas before moving to storage areas and place drip pads under conveyance equipment.
- (4) Frequently clean up debris and provide dust control, and inspect loading/unloading, processing and storage areas for leaks and spills.
- (5) Locate storage areas away from high traffic areas, drainage pathways, and surface waters.
- (6) Divert storm water around storage areas with ditches, swales,

- and/or berms.
- (7) Locate storage areas on stable, well-drained soils with slopes of 2-5 percent.
 - (8) Cover product and raw material storage areas if possible.
 - (9) Provide secondary containment around chemical storage areas. Cover and/or enclose chemical storage areas.
 - (10.) Assemble residue piles and stack materials to minimize surface areas exposed to precipitation.
 - (11.) Cover and/or enclose stored residues using silos, van trailers, shed, roofs, buildings, or tarps.
 - (12.) Provide collection and treatment of run-off with containment basins. Use ponds for collection, containment and recycle for log spraying operations.
 - (13.) Avoid contamination of residues with oil, solvents, chemically treated wood, trash, etc. Limit storage time of residues to prevent degradation and generation of leachates.
 - (14.) Locate treatment chemical loading and unloading areas away from high traffic areas where tracking of the chemical may occur.
 - (15.) Pave and berm areas used by equipment that has come in contact with treatment chemicals. Cover and/or enclose treatment areas.
 - (16.) Dedicate equipment that is used for treatment activities to that specific purpose only to prevent the tracking of treatment chemicals to other areas on the site.
 - (17.) Cover loading and unloading areas. Use diversion berms and dikes to limit run on.
 - (18.) Develop and implement spill prevention, containment and countermeasure plans.
 - (19.) Comply with other BMP's deemed appropriate by the Director.

h. *Machinery Manufacturing*

- (1.) Confine loading/unloading activities to a designated area.
- (2.) Perform loading/unloading in a covered area
- (3.) Close storm drains when loading/unloading in surrounding areas.
- (4.) Inspect all containers prior to loading/unloading of any raw or spent materials.
- (5.) Use dry clean-up methods instead of washing down the areas.
- (6.) Provide berming, curbing, or diking of loading/unloading areas and outdoor liquid storage areas.
- (7.) Train employees on proper loading/unloading techniques.
- (8.) Confine storage of materials, parts and equipment to designated areas.

- (9.) Wash and rinse containers indoors before storing them outdoors.
- (10.) Ensure all containers are closed (eg. valves shut, lids sealed, caps closed).
- (11.) Store wastes in covered, leak-proof containers (eg. dumpsters, drums)
- (12.) Comply with other BMP's deemed appropriate by the Director.

i. *Transportation Equipment*

- (1.) Confine loading/unloading activities to a designated area
- (2.) Perform loading/unloading in a covered area
- (3.) Close storm drains when loading/unloading in surrounding areas.
- (4.) Inspect all containers prior to loading/unloading of any raw or spent materials.
- (5.) Use dry clean-up methods instead of washing down the areas.
- (6.) Provide berming, curbing, or diking of loading/unloading areas and outdoor liquid storage areas.
- (7.) Train employees on proper loading/unloading techniques.
- (8.) Confine storage of materials, parts and equipment to designated areas.
- (9.) Wash and rinse containers indoors before storing them outdoors.
- (10.) Ensure all containers are closed (eg. valves shut, lids sealed, caps closed)
- (11.) Store wastes in covered, leak-proof containers (eg. dumpsters, drums).
- (13.) Comply with other BMP's deemed appropriate by the Director.

j. *Stone, Clay, Glass, Concrete*

- (1.) Store dry materials and waste inside or in covered, bermed areas.
- (2.) Regularly clean up spills and dust, especially in mixing areas.
- (3.) Wash vehicles and equipment in designated areas that drain to recycle ponds or process wastewater treatment systems.
- (4.) Use and properly maintain dust collection systems.
- (5.) Store dry bulk materials in an enclosed silo or building. Materials may include sand, gravel, clay, cement, fly ash, kiln dust, and gypsum.
- (6.) Cover material storage piles.
- (7.) Divert run-on around storage areas using curbs, dikes, diversion swales or positive drainage away from material storage piles.
- (8.) Store only washed sand and gravel outdoors.

- (9.) Use dust collection systems (eg. bag houses) to collect airborne particles generated as a result of handling and mixing operations. Properly remove and recycle or dispose of collected dust to minimize exposure of collected dust to the environment.
- (10.) Routinely clean material handling equipment and vehicles to remove accumulated dust and residue.
- (11.) Clean exposed mixing equipment after mixing operations are complete.
- (12.) Pour and cure precast products in a covered area. Clean forms before storing outdoors.
- (13.) Install sediment basins, silt fence, vegetated filter strips, or other sediment removal measures downstream/downslope of handling and mixing operations.
- (14.) Comply with other BMP's deemed appropriate by the Director.

k. *Leather/Leather Products*

- (1.) Store materials and waste on elevated pads in covered, contained areas.
- (2.) Inspect containers, trucks and equipment for leaks and repair if found.
- (3.) Clearly label liquid storage tank valves, and place berms around tanks for containment.
- (4.) Cover and contain loading/unloading areas.
- (5.) Store hides indoors or cover with a roof or tarp.
- (6.) Minimize stormwater run-on by enclosing the hide storage area with a berm or curbing.
- (7.) Store chemical drums and bags, empty lime and depilatory chemical containers, and leather scraps indoors or cover with a roof or tarp.
- (8.) Clean up leaks and spills quickly and completely. Use drip pans to control spills from leaking equipment.
- (9.) Sweep paved areas regularly and eliminate unnecessary flushing of areas with water.
- (10.) Install safeguards to prevent wash waters from processing areas entering storm drains.
- (11.) Install overflow protection devices on tank systems to warn operator or to automatically shut down transfer pumps when tanks reach full capacity.
- (12.) Inspect tank foundations, connections, coatings, valves and piping systems.
- (13.) Comply with other BMP's deemed appropriate by the Director.

l. *Miscellaneous Manufacturing*

- (1.) Confine loading/unloading activities to a designated area.
- (2.) Perform loading/unloading activities indoors or in a covered area.
- (3.) Close storm drains when performing loading/unloading activities in surrounding areas.
- (4.) Avoid loading/unloading materials in the rain.
- (5.) Inspect all containers prior to loading/unloading of any raw or spent materials.
- (6.) Provide berming, curbing or diking of loading/unloading areas.
- (7.) Use dry clean-up methods instead of washing the areas down.
- (8.) Train employees on proper loading/unloading techniques.
- (9.) Confine outdoor storage of materials, parts, and equipment to designated areas.
- (10.) Train employees on proper waste control and disposal.
- (11.) Train employees in spill prevention and response techniques.
- (12.) Cover tanks.
- (13.) Ensure that all containers are closed (e.g. valves shut, lids sealed, caps closed).
- (14.) Wash and rinse containers indoors before storing them outdoors.
- (15.) Provide secondary containment of all liquid storage areas using berms, curbs or dikes.
- (16.) If containers stored outdoors or in covered area, minimize run-on of storm water by grading the land to divert flow away from containers.
- (17.) Clean vents and stacks.
- (18.) Place tubs around vents and stacks to collect particulate.
- (19.) Inspect air emission control systems (e.g. baghouses) regularly, and repair or replace when necessary.
- (20.) Store wastes in covered, leak-proof containers (e.g. dumpsters, drums)
- (21.) Place drip pans under hoses.
- (22.) Comply with other BMP's deemed appropriate by the Director.

m. *Food and kindred Products*

- (1.) Close storm drains when loading/unloading in surrounding areas.
- (2.) Inspect all containers prior to unloading/loading of any raw or spent materials.
- (3.) Use drip pans when unloading/loading liquid product.
- (4.) Perform all loading/unloading in a covered and/or enclosed area.
- (5.) Install backflow prevention devices on liquid transfer equipment.
- (6.) Install high level alarm on tanks to prevent overfilling.

- (7.) Use dry clean-up methods for loading/unloading areas rather than washing the areas down.
- (8.) Drain hoses back into truck, railcar, etc. after loading/unloading materials.
- (9.) Train employees on proper unloading and loading techniques.
- (10.) If outside or in covered areas, minimize run-on of storm water into the unloading/loading areas by grading the areas to ensure that storm water runs off.
- (11.) Use rubber seals in truck loading dock areas to contain spills indoors.
- (12.) Berm or dike solid waste and liquid storage areas.
- (13.) Wash containers indoors before storing empty containers outdoors.
- (14.) Cover or enclose solid waste and liquid storage areas.
- (15.) Maintain the outside pipe connections (couplings, valve seals, gaskets, flanges, etc.)
- (16.) Route trash compactor leakage to treatment system or sanitary sewer.
- (17.) Comply with other BMP's deemed appropriate by the Director.

n. *Mining of Nonmetallic Minerals*

- (1.) Use diking and other forms of containment around processing areas.
- (2.) Comply with other BMP's deemed appropriate by the Director.

o. *Printing and Publishing*

- (1.) Store containerized materials (fuels, paints, inks, solvents, etc.) in a protected, secure location and away from drains.
- (2.) Eliminate/reduce exposure to storm water.
- (3.) Educate personnel for proper storage, use, cleanup, and disposal of materials.
- (4.) Inspect storage tanks for leaks and loss of integrity.
- (5.) Provide sufficient containment for outdoor storage areas for the larger of either 10 percent of the volume of all containers or 110 percent of the volume of the largest tank.
- (6.) Use spill troughs for drums with taps.
- (7.) Train employees on proper filling and transfer procedures
- (8.) Inspect piping systems (pipes, pumps, flanges, couplings, hoses, valves) for failures or leaks.
- (9.) Handle solvents in designated areas away from drains, ditches, and surface waters. Locate designated areas indoors or under a shed.
- (10.) Comply with other BMP's deemed appropriate by the Director.

p. *Electric/Electronic*

- (1.) Confine loading/unloading activities to a designated area

- (2.) Perform loading/unloading activities in a covered area
- (3.) Close storm drains when performing loading/unloading activities in adjacent areas
- (4.) Inspect all containers prior to loading/unloading of any raw or spent material.
- (5.) Provide berming, curbing or diking of loading/unloading areas outdoor chemical storage areas
- (6.) Use dry clean-up methods instead of washing down the areas
- (7.) Train employees on proper loading/unloading techniques
- (8.) Train employees on proper spill prevention and response techniques.
- (9.) Use drip pans under hoses
- (10.) Confine storage of materials, parts and equipment to designated areas
- (11.) Wash and rinse containers indoors before storing them outdoors
- (12.) Ensure all containers are closed (eg. valves shut, lids sealed, caps closed)
- (13.) Store wastes in covered, leak-proof containers (eg. dumpsters, drums)
- (14.) Comply with other BMP's deemed appropriate by the Director.

q. *Paper and Allied Products*

- (1) Confine loading/unloading activities to a designated response and control area.
- (2) Avoid loading and unloading in the rain.
- (3) Cover loading/unloading area or conduct these activities indoors.
- (4) Develop and implement spill plans.
- (5) Use berms or dikes around loading area.
- (6) Inspect containers for leaks or damage prior to loading.
- (7) Use catch buckets, drop cloths, and other spill prevention measures where liquid materials are loaded/unloaded.
- (8) Provide paved areas to enable easy collection of spilled materials.
- (9) Confine storage of raw and/or waste material to a designated area.
- (10) Cover storage area with a roof or tarp.
- (11) Use dikes or berms for storage tanks and drums.
- (12) Cover dumpsters used for waste paper and other materials.
- (13) Store raw and/or waste materials on concrete pads to allow for recycling of spills and leaks.
- (14) Expediate recycling process for exposed scrap paper.
- (15) Develop and implement spill plans.
- (16) Provide paved areas to enable easy collection of spilled materials.

- (17) Provide good housekeeping.
- (18) Divert storm water around lumber, log and wood product storage areas with ditches, swales, and/or berms.
- (19) Line lumber, log, and wood product storage areas with crushed rock or gravel or porous pavement to promote infiltration, minimize discharge and provide sediment and erosion control.
- (20) Use ponds for collection, containment and recycle for log spraying operations.
- (21) Comply with other BMP's deemed appropriate by the Director.

r. *Furniture and Fixtures*

- (1.) Confine loading/unloading activities to a designated area
- (2.) Perform all loading/unloading activities in a covered area or enclosed area
- (3.) Close storm drains during loading and unloading activities
- (4.) Avoid loading and unloading in the rain
- (5.) Inspect all containers prior to loading/unloading of any raw or spent materials
- (6.) Berm, curb or dike loading/unloading areas
- (7.) Use dry clean-up methods instead of washing down the areas
- (8.) Train employees on proper loading/unloading techniques
- (9.) Confine storage of raw materials, parts and equipment to designated areas
- (10.) Train employees on proper waste control and disposal
- (11.) Provide spill containment for tanks
- (12.) Ensure all containers are properly sealed and valves closed
- (13.) Store wastes in covered, leak-proof containers (eg. dumpsters, drums)
- (14.) Store wastes in enclosed and/or covered areas
- (15.) Ship all wastes to offsite landfills or treatment facilities
- (16.) Comply with other BMP's deemed appropriate by the Director.

s. *Laundries*

- (1.) Promptly transfer used liquids to the proper container; do not leave full drip pans or other open containers around the shop. Empty and clean drip pans and containers.
- (2.) Plug floor drains that are connected to the storm drain.
- (3.) Inspect the maintenance area regularly for proper implementation of control measures.
- (4.) Train employees on proper waste control and disposal procedures.
- (5.) Store permanent tanks in a paved area surrounded by a dike system which provides sufficient containment for the larger of either 10 percent of the volume of all containers or 110 percent of the volume of the largest tank.

- (6.) Provide sufficient containment for outdoor storage areas for the larger of either 10 percent of the volume of all containers or 110 percent of the volume of the largest tank.
- (7.) Use temporary containment where required by portable drip pans.
- (8.) Use spill troughs for drums with taps.
- (9.) Maintain good integrity of all storage tanks.
- (10.) Inspect storage tanks to detect potential leaks and perform preventative maintenance.
- (11.) Inspect piping systems (pipes, pumps, flanges, couplings, hoses, valves) for failures or leaks.
- (12.) Train employees on proper filling and transfer procedures
- (13.) Store containerized materials (fuels, solvents, dyes, etc) in a protected, secure location and away from drains.
- (14.) Mix solvents in designated areas away from drains, ditches, and surface waters.
- (15.) Comply with other BMP's deemed appropriate by the Director.

t. *Instruments*

- (22.) Confine loading/unloading activities to a designated area.
- (23.) Perform loading/unloading activities indoors or in a covered area.
- (24.) Close storm drains when performing loading/unloading activities in surrounding areas.
- (25.) Avoid loading/unloading materials in the rain.
- (26.) Inspect all containers prior to loading/unloading of any raw or spent materials.
- (27.) Provide berming, curbing or diking of loading/unloading areas.
- (28.) Use dry clean-up methods instead of washing the areas down.
- (29.) Train employees on proper loading/unloading techniques.
- (30.) Confine outdoor storage of materials, parts, and equipment to designated areas.
- (31.) Train employees on proper waste control and disposal.
- (32.) Train employees in spill prevention and response techniques.
- (33.) Cover tanks.
- (34.) Ensure that all containers are closed (e.g. valves shut, lids sealed, caps closed).
- (35.) Wash and rinse containers indoors before storing them outdoors.
- (36.) Provide secondary containment of all liquid storage areas using berms, curbs or dikes.
- (37.) If containers stored outdoors or in covered area, minimize run-on of storm water by grading the land to divert flow away from containers.
- (38.) Clean vents and stacks.
- (39.) Place tubs around vents and stacks to collect particulate.

- (40.) Inspect air emission control systems (e.g. baghouses) regularly, and repair or replace when necessary.
- (41.) Store wastes in covered, leak-proof containers (e.g. dumpsters, drums)
- (42.) Place drip pans under hoses.
- (22.) Comply with other BMP's deemed appropriate by the Director.

u. *Textile Mills Products*

- (1.) Implement countercurrent washing
- (2.) Use washer waste from scour operation for batch scouring
- (3.) Recycle J-box or kier drain wastes to saturator
- (4.) Employ pad batch dyeing to eliminate the need for salts and chemical specialties from the dyebath, with associated reduction in cost and pollution source reduction
- (5.) Review and develop procedures for source reduction of metals
- (6.) 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.
- (7.) Do not pour liquid waste down floor drains, sinks, or outdoor storm drain inlets
- (8.) Plug floor drains that are connected to the storm drain
- (9.) Inspect the maintenance area regularly for proper implementation of control measures
- (10.) Train employees on proper waste control and disposal procedures
- (11.) Store permanent tanks in a paved area surrounded by a dike system which provides sufficient containment for the larger of either 10 percent volume of all containers or 110 percent of the volume of the largest tank
- (12.) Maintain good integrity of all storage tanks
- (13.) Inspect storage tanks to detect potential leaks and perform preventative maintenance
- (14.) Inspect piping systems (pipes, pumps, flanges, couplings, hoses, valves) for failures or leaks
- (15.) Train employees on proper filling and transfer procedures
- (16.) Store containerized materials (fuels, paints, solvents, etc.) in a protected, secure location and away from drains
- (17.) Label all materials clearly
- (18.) Provide sufficient containment for outdoor storage areas for the larger of either 10 percent of the volume of all containers or 110 percent of the volume of the largest container.
- (19.) Use spill troughs for drums with taps
- (20.) Mix solvents in designated areas away from drains, ditches, and surface waters.

- (21.) If a spill occurs, stop the source of the spill immediately, contain the liquid, and dispose of spilled substance and cleanup material properly
- (22.) Comply with other BMP's deemed appropriate by the Director.

v. *Apparel*

- (1) Promptly transfer used liquids to the proper container; do not Leave full drip pans or other open containers around the shop. Empty and clean drip pans and containers.
- (2) Plug floor drains that are connected to the storm drain.
- (3) Inspect the maintenance area regularly for proper implementation of control measures.
- (4) Train employees on proper waste control and disposal procedures.
- (5) Store permanent tanks in a paved area surrounded by a dike system which provides sufficient containment for the larger of either 10 percent of the volume of all containers or 110 percent of the volume of the largest tank.
- (6) Provide sufficient containment for outdoor storage areas for the larger of either 10 percent of the volume of all containers or 110 percent of the volume of the largest tank.
- (7) Use temporary containment where required by portable drip pans.
- (8) Use spill troughs for drums with taps.
- (9) Maintain good integrity of all storage tanks.
- (10) Inspect storage tanks to detect potential leaks and perform preventative maintenance.
- (11) Inspect piping systems (pipes, pumps, flanges, couplings, hoses, valves) for failures or leaks.
- (12) Train employees on proper filling and transfer procedures.
- (13) Store containerized materials (fuels, solvents, dyes, etc) in a protected, secure location away from drains.
- (14) Mix solvents in designated areas away from drains, ditches, and surface waters.
- (15) Comply with other BMP's deemed appropriate by the Director.