

## ATTACHMENT H

### Required Minimum and Other Source-Specific Operational Best Management Practices (BMPs)

BMPs discussed below apply within Fairplex Area III only to the extent that the activities or potential pollutants discussed in the BMPs take place or are present within Area III.

#### 1. Minimum Operational BMPs

To comply with the permit, the categories of operational BMPs listed in this section are a minimum set of BMPs that must be included in the SWPPP.

- A. Formation of a Pollution Prevention Team. The responsible company official must organize a pollution prevention team and assign responsibilities that comply with the Permit. The responsibilities include:
  - a. Assigning one or more individuals by name and title to be responsible for developing the SWPPP and assisting the Vice President of Operations in its implementation, maintenance, and modification.
  - b. Holding regular meetings to review the overall operation of the BMPs.
  - c. Establishing responsibilities for sampling, inspections, operation and maintenance, and availability for emergency situations.
  - d. Arranging the training of all team members in the operation, maintenance, and inspections of BMPs.
- B. Good Housekeeping. Good housekeeping is an ongoing approach to improve and maintain a clean and orderly work environment and includes the following BMPs:
  - a. Promptly contain and clean up solid and liquid pollutant leaks and spills including oils, solvents, fuels, and dust from manufacturing operations on any soil, vegetation, or paved area exposed to storm water.
  - b. Sweep paved material handling and storage areas regularly as needed to collect and dispose of dust and debris that could contaminate storm water. Do not hose down pollutants from any area to the storm drain, conveyance ditch, or receiving water unless necessary for dust control purposes to meet air quality regulations and unless the pollutants are conveyed to a treatment system approved by the local jurisdiction.
  - c. Clean oils, debris, sludge, etc. from all BMP systems regularly, including catch basins, sedimentation basins, oil/water separators, boomed areas, and conveyance systems, to prevent the contamination of storm water.
  - d. Promptly repair or replace all substantially cracked or otherwise damaged paved secondary containment, high-intensity parking, and any other drainage areas, which are subjected to pollutant material leaks or spills.

Attachment H  
Required Minimum and Other Source-Specific Operational BMPs

- e. Promptly repair or replace all leaking connections, pipes, hoses, valves, etc., which can contaminate storm water.
  - f. Use solid absorbents, e.g., clay and peat absorbents and rags for cleanup of liquid spills/leaks, where practicable.
- C. Preventive Maintenance. A preventive maintenance program includes inspection and maintenance of storm water management devices (BMPs) and drainage systems, and routine inspections of industrial facility operations including vehicle maintenance. Equipment such as tanks, containers (drums), and outside piping, pumps, and process equipment should be checked regularly for signs of deterioration. The following are additional preventive BMPs applicable at industrial sites:
- a. Prevent the discharge of unpermitted liquid or solid wastes, process wastewater, and sewage to ground or surface water or to storm drains, which discharge, to surface water or to the ground. Floor drains in potential pollutant source areas shall not be connected to storm drains, surface water, or to the ground. Eliminate illicit non-storm water discharges within 30 days of discovery.
  - b. Conduct all oily parts cleaning, steam cleaning, or pressure washing of equipment or containers inside a building and/or on an impervious contained area such as a concrete pad. Direct contaminated storm water from such an area to a sanitary sewer where allowed by local sewer authority.
  - c. Do not pave over contaminated soil unless it has been determined that ground water has not been and will not be contaminated by the soil.
  - d. Construct impervious areas that are compatible with the materials handled. Portland cement concrete, asphalt, or equivalent material may be considered.
  - e. Use drip pans to collect leaks and spills from equipment such as cranes at repair facilities, log stackers, industrial parts, trucks, and other vehicles that are stored outside. Empty drip pans immediately after a spill or leak is collected in an uncovered area.
  - f. Drain oil from fuel filters before disposal. Discard empty oil and fuel filters, oily rags, and other oily solid waste into appropriately closed and properly labeled containers and in compliance with the Uniform Fire Code (UFC).
  - h. For the temporary storage of solid wastes contaminated with liquids or other potential pollutant materials use dumpsters, garbage cans, drums and comparable containers that are durable, corrosion resistant, non-absorbent, non-leaking, and equipped with either a solid cover or screen cover to prevent littering. If covered with a screen, the container must be stored under a lean-to or equivalent structure.
  - i. Where exposed to storm water, use containers, piping, tubing, pumps, fittings, and valves that are appropriate for their intended use and for the contained liquid.



Attachment H  
Required Minimum and Other Source-Specific Operational BMPs

- g. For the storage of liquids use containers, such as steel and plastic drums, that are rigid and durable, corrosion resistant to the weather and fluid content, nonabsorbent, water tight, rodent-proof, and equipped with a close fitting cover.

*Note: Evidence of storm water contamination can include the presence of floatable, visible sheen, color, or turbidity in the runoff or existing or historical operational problems at the facility. Use pH paper or meter to test for storm water contamination in areas subject to acid or alkaline contamination.*

- D. Spill Prevention and Reporting and Emergency Cleanup. Identify area(s) of the facility where oil, hazardous material, or other pollutant spill(s) is/are likely to occur and their drainage points. Ensure that employees are aware of response procedures, including material handling and storage requirements. Access to appropriate spill cleanup equipment is essential. The SWPPP may include excerpts from or references to other spill plans for the facility, e.g., Federal Spill Prevention Control and Countermeasure (SPCC) plans under Section 311 of the Clean Water Act.

The following are required spill control and reporting BMPs:

- a. Stop, contain, and clean up all spills immediately upon discovery. Do not flush absorbent materials or other spill cleanup materials to a storm drain or to surface water. Collect the contaminated absorbent material as a solid and place in appropriate disposal containers.
- b. If any spill has reached, or may reach, a sanitary or a storm sewer, ground water, or surface water, notify Regional Board and the local sewer authority immediately (not to exceed one hour). Take reasonable steps to minimize any adverse impacts to waters of the state and to correct the problem. Follow up with written documentation covering the event within thirty (30) days. Compliance with the preceding requirements does not relieve the permittee from responsibility to maintain continuous compliance with all permit conditions or the resulting liability for failure to comply.
- c. Place and maintain emergency spill containment and cleanup kits) at outside areas where there is a potential for fluid spills. These kits should be appropriate for the materials being handled and the size of the potential spill, and readily accessible to personnel responsible for spill response.
- d. Oil includes the following: oil, gasoline, or diesel fuel that causes a violation of the state of California's Water Quality Standards, or, that causes a film or sheen upon or discoloration of the waters of the state or adjoining shorelines or causes a sludge or emulsion to be deposited beneath the surface of the water or upon adjoining shorelines.

*Note: Regional Board recommends that the kit(s) include salvage drums or containers, such as high density polyethylene, polypropylene or polyethylene sheet-lined steel; polyethylene or equivalent disposal bags; an emergency response guidebook; safety gloves/clothes/ equipment; shovels or other soil removal equipment; and oil containment booms and absorbent pads-all stored in an impervious container.*



Attachment H  
Required Minimum and Other Source-Specific Operational BMPs

2. All roofs, buildings, and non-manured areas located on the CAFO shall be constructed or otherwise designed so that clean rainwater is diverted away from manure and waste containment facilities, unless such drainage is fully contained. Also, effective BMPs will be implemented to discourage bird nesting and eliminate bird droppings.
3. Roof drainage from barns and shelters shall not drain into the corrals unless the corrals are paved and properly drained (Title 3 CCR, Division 2, Chapter 1, Article 22, Section 661).
2. Other Source-Specific Operational and Structural Source Control BMPs

A. BMPs for Dust Control

Description of Pollutant Sources. Material handling activities can generate dust that is typically removed using exhaust systems. This can generate air emissions that can contaminate storm water. Dusts can be generated wherever powdered materials are handled. The objective of this BMP is to reduce the storm water pollutants caused by dust generation and control.

Pollutant Control Approach. Prevent dust generation and emissions where practicable, regularly clean-up dust that can contaminate storm water, and convey dust contaminated storm water to proper treatment.

Applicable BMPs

Clean, as needed, powder material handling equipment and vehicles that can be sources of storm water pollutants to remove accumulated dust and residue.

Regularly sweep dust accumulation areas that can contaminate storm water. Sweeping should be conducted using vacuum filter equipment to minimize dust generation and to ensure optimal dust removal.

Consider using dust filtration/collection systems such as bag house filters, cyclone separators, etc., to control vented dust emissions that could contaminate storm water.

Use water spray to flush dust accumulations to sanitary sewers where allowed by the local sewer authority or to other appropriate treatment system.

Use approved dust suppressants. Application of some products may not be appropriate in close proximity to receiving waters or conveyances close to receiving waters.

Treatment BMPs, if required. For removal of TSS in storm water, use BMPs such as sedimentation basins, wet ponds, wet vaults, catch basin filters, vegetated filter strips, gravel bags, or equivalent sediment removal BMPs.

B. BMPs for Fueling at Dedicated Stations

Description of Pollutant Sources. Typically, storm water contamination at fueling stations is caused by leaks/spills of fuels, lube oils, radiator coolants, and vehicle washwater.

Attachment H  
Required Minimum and Other Source-Specific Operational BMPs

Pollutant Control Approach. Cover with roof or canopy and conduct the fueling in an impervious containment area.

Operational BMPs

Prepare an emergency spill response and cleanup plan (see applicable spill control BMPs) and have designated trained person(s) available either on site or on call at all times to promptly and properly implement that plan and immediately cleanup all spills. Keep suitable cleanup materials, such as dry adsorbent materials, on site to allow prompt cleanup of a spill.

Train employees on the proper use of fuel dispensers. Post signs in accordance with the Uniform Fire Code (UFC). Post "No Topping Off" signs (topping off gas tanks causes spillage and vents gas fumes to the air). Make sure that the automatic shutoff on the fuel nozzle is functioning properly.

The person conducting the fuel transfer must be present at the fueling pump during fuel transfer, particularly at unattended or self-serve stations.

Keep drained oil filters in a suitable container or drum.

Structural Source Control BMPs

Design the fueling island to control spills (dead-end sump or spill control separator in compliance with the UFC) and to treat collected storm water and/or wastewater to required levels. Slope the concrete containment pad around the fueling island toward drains-either trench drains, catch basins, and/or a dead-end sump. The slope of the drains shall not be less than 1 percent (Section 7901.8 of the UFC). Drains to treatment shall have a shutoff valve, which must be closed in the event of a spill. The spill control sump must be sized in compliance with Section 7901.8 of the UFC; or Design the spill containment pad of the fueling island with a sill or berm raised to a minimum of four inches (Section 7901.8 of the UFC) to prevent the runoff of spilled liquids and to prevent run-on of storm water from the surrounding area. Raised sills are not required at the open-grate trenches that connect to an approved drainage-control system.

The fueling pad must be paved with Portland cement concrete, or equivalent. Asphalt is not considered an equivalent material.

The fueling island must have a roof or canopy to prevent the direct entry of precipitation onto the spill containment pad. The roof or canopy should, at a minimum, cover the spill containment pad (within the grade break or fuel dispensing area) and preferably extend several additional feet to reduce the introduction of windblown rain. Convey all roof drains to storm drains outside the fueling containment area.

If treatment of the runoff is required storm water collected on the fuel island containment pad must be conveyed to a sanitary sewer system, if approved by the sanitary authority; or to an appropriate treatment system such as an oil/water separator, media filter, biofilter, or equivalent treatment. Discharges from treatment systems to storm drains or surface water or to the ground must not display ongoing or



Attachment H  
Required Minimum and Other Source-Specific Operational BMPs

recurring visible sheen and must not contain concentration values greater than the Basin Plan limits for oil and grease.

Alternatively, storm water collected on the fuel island containment pad may be collected and held for proper off-site disposal.

Conveyance of any fuel-contaminated storm water to a sanitary sewer must be approved by the local sewer authority and must comply with pretreatment regulations. These regulations prohibit discharges that could cause fire or explosion. An explosive or flammable mixture is defined under state and federal pretreatment regulations, based on a flash point determination of the mixture. If contaminated storm water is determined not to be explosive, then it could be conveyed to a sanitary sewer system.

Transfer the fuel from the delivery tank trucks to the fuel storage tank in impervious contained areas and ensure that appropriate overflow protection is used. Alternatively, cover nearby storm drains during the filling process and use drip pans under all hose connections.

Additional BMPs for vehicles ten feet in height or greater. A roof or canopy may not be practicable at fueling stations that regularly fuel vehicles that are ten feet in height or greater. At those types of fueling facilities, the following BMPs apply, as well as the applicable BMPs and fire prevention (UFC requirements) of this BMP for fueling stations. If a roof or canopy is impractical the concrete fueling pad must be equipped with emergency spill control, which includes a shutoff valve for the drainage from the fueling area. The valve must be closed in the event of a spill. An electronically actuated valve is preferred to minimize the time lapse between spill and containment. Spills must be cleaned up and disposed off site in accordance with BMPs for Spills of Oil and Hazardous Substances.

If treatment is required the valve may be opened to convey contaminated storm water to a sanitary sewer, if approved by the sewer authority, or to oil/water separator, media filter, biofilter, or equivalent treatment. Discharges from treatment systems to storm drains or surface water or to the ground must not display ongoing or recurring visible sheen and must not contain values greater than the Basin Plan requirement for oil and grease.

C. BMPs for Non-storm water Illicit Connections to Storm Drains

Description of Pollutant Sources. Illicit connections are unpermitted sanitary or process wastewater discharges to a storm drain or to a surface water, rather than to a sanitary sewer, industrial process wastewater or other appropriate treatment. Examples of non-storm water discharges include dry weather flow coming from CAFO production area (process water), non-contact cooling water, vehicle wash water, and sanitary wastewater.

Pollutant Control Approach. Identify and eliminate unpermitted discharges within 30 days.



### Operational BMPs

Identify and eliminate unpermitted non-storm water discharges to storm drains, ground water, or surface water; and, convey unpermitted discharges to a sanitary sewer if allowed by the local sewer authority, or to other approved treatment, and, obtain appropriate permits for these discharges. Conduct a survey of sanitary and industrial wastewater, condensate, cooling water, and any other contaminant discharge connections to storm drains and to surface water as follows:

- a. Conduct a field survey of buildings, particularly older buildings, and other facility areas to locate storm drains from buildings and paved surfaces. Note where these join the public storm drain(s).
- b. If useful, prepare a map of each area as it is to be surveyed. Show on the map the known location of storm drains, sanitary sewers, and permitted and unpermitted discharges. Aerial photos may be useful. Check records such as piping schematics to identify known side sewer connections and show these on the map. Consider using smoke, dye, or chemical analysis tests to detect connections between two conveyance systems (e.g., process water and storm water). If desirable, conduct TV inspections of the storm drains and record the footage on videotape. Compare the observed locations of connections with the information on the map and revise the map accordingly. Note suspect connections that are inconsistent with the field survey. Several of the common dry weather inspection methods are described below.

#### Common Dry Weather Methods for Locating Non-storm water Discharges

- Review a sewer map or plant schematic (a map of pipes and drainage systems used to carry process wastewater, non-contact cooling water, air conditioner condensate, and sanitary wastes (bathrooms, sinks, etc.)). It is not uncommon to find that accurate and current information is not available. If you have an accurate and current map, simply examine the pathways of the different water circuits cited above. Determine where interior floor drains discharge. The drain( s) may be connected to the storm water drainage system. If so, they must be disconnected and redirected to the sanitary sewer. Contact your local sewage utility before redirecting flow to the sanitary sewer.
- Observe all discharge points during dry weather for odors, discolorations, abnormal flows or conditions. As a rule, the discharge point should be dry during a period of extended dry weather since a storm water collection system should only collect storm water.
- Smoke testing of wastewater and storm water collection and conveyance is used to detect connections between the two systems. During dry weather, the storm water collection system is filled with smoke and then traced to sources. The appearance of smoke at the base of a toilet, sink, floor drain, wastewater conveyance, etc., indicates that there may be a connection with the storm water system. If so, they must be disconnected and redirected to the sanitary sewer. Contact your local sewage utility before redirecting flow to the sanitary sewer.



Attachment H  
Required Minimum and Other Source-Specific Operational BMPs

- A dye test can be performed by simply releasing a dye into floor drains, sinks, basins, or other potential contaminant sources that may discharge to a surface water or storm sewer system. Examine discharge points in the storm water collection system or surface water for discoloration.

D. BMPs for Pesticide Management

Description of Pollutant Sources. Runoff from pesticide application areas can cause contaminants of storm water. Pesticide applications at access roads and yard areas include sapstain and insect control on lumber and logs, rooftop moss removal, and killing nuisance rodents. Leaching and dripping from treated parts, container leaks, product misuse, and outside storage of pesticide contaminated materials and equipment can cause storm water contamination.

Pollutant Control Approach. Develop and implement an Integrated Pest Management Plan (IPM) and use pesticides only as a last resort. If pesticides/herbicides are used they must be carefully applied in accordance with label instructions on U.S. Environmental Protection Agency (EP A) registered materials.

Operational BMPs for the Use of Pesticides

Develop and implement an IPM and use pesticides only as a last resort program may consist of the following steps:

- Step 1. Correctly identify problem pests and understand their life cycle.
- Step 2. Establish tolerance thresholds for pests.
- Step 3. Monitor to detect and prevent pest problems.
- Step 4. Modify the maintenance program to promote healthy plants and discourage pests.
- Step 5. If feasible, use cultural, physical, mechanical, or biological controls first if pests exceed the tolerance thresholds.
- Step 6. Evaluate and record the effectiveness of the control and modify maintenance practices to support lawn or landscape recovery and prevent recurrence.

Implement a pesticide-use plan and include at a minimum: a list of selected pesticides and their specific uses; brands, formulations, application methods and quantities to be used; equipment use and maintenance procedures; safety, storage, and disposal methods; and monitoring, record keeping, and public notice procedures. Include the following BMPs:

- Choose the least toxic pesticide available that is capable of reducing the infestation to acceptable levels. The pesticide should readily degrade in the environment and/or have properties that strongly bind it to the soil. Any pest control used should be conducted at the life stage when the pest is most



Attachment H  
Required Minimum and Other Source-Specific Operational BMPs

- vulnerable. Any method used should be site specific and not used wholesale over a wide area.
- Apply the pesticide according to label directions. Under no conditions shall pesticides be applied in quantities that exceed manufacturer's instructions.
  - Mix the pesticides and clean the application equipment in an area where accidental spills will not enter surface or ground waters and will not contaminate the soil.
  - Store pesticides in enclosed areas or in covered impervious containment. Ensure that pesticide contaminated storm water or spills/leaks of pesticides are not discharged to storm drains. Do not hose down the paved areas to a storm drain or conveyance ditch. Store and maintain appropriate spill cleanup materials in a location known to all near the storage area.
  - Clean up any spilled pesticides and ensure that the pesticide contaminated waste materials are kept in designated covered and contained areas.
  - Include immediate shutoff of the pesticide application equipment in the event of an emergency.
  - Do not spray pesticides within 100 feet of open waters including wetlands, ponds, and streams, sloughs and any drainage ditch or channel that leads to open water except when approved by Regional Board or the local jurisdiction. All sensitive areas including wells, creeks, and wetlands must be flagged prior to spraying.
  - As required by the local government or by California Department of Food and Agriculture, complete public posting of the area to be sprayed prior to the application.
  - Spray applications should be conducted only during weather conditions as specified in the label direction and applicable local and state regulations. Do not apply during rain or immediately before expected rain.
  - Consider alternatives to the use of pesticides such as covering or harvesting weeds, substituting vegetative growth, and manually controlling weeds and removing moss.
  - Rinseate from equipment cleaning and/or triple rinsing of pesticide containers should be used as product or recycled into product.
  - Once a pesticide is applied, its effectiveness should be evaluated for possible improvement. Records should be kept showing the applicability and inapplicability of the pesticides considered. An annual evaluation procedure should be developed including a review of the effectiveness of pesticide applications, impact on buffers and sensitive areas (including potable wells), public concerns, and recent toxicological information on pesticides used/proposed for use.

Attachment H  
Required Minimum and Other Source-Specific Operational BMPs

- If individual or public potable wells are located in the proximity of commercial pesticide applications, contact the state Department of Health or Department of Food and Agriculture hydrogeologist to determine if additional pesticide application control measures are necessary.

Consider the use of soil amendments, such as compost, that are known to control some common diseases in plants such as Pythium root rot, ashy stem blight, and parasitic nematodes. The following are three possible mechanisms for disease control by compost addition (USEP A Publication 530-F-9-044):

- a. Successful competition for nutrients by antibiotic production.
- b. Successful predation against pathogens by beneficial microorganism.
- c. Activation of disease-resistant genes in plants by composts.

*Note: Installing an amended soil/landscape system can preserve both the plant system and the soil system more effectively. This type of approach provides a soil/landscape system with adequate depth, permeability, and organic matter to sustain itself and continue working as an effective storm water infiltration system and a sustainable nutrient cycle. For more information, contact the Bio-Integral Resource Center (BIRC), P.O. Box 7414, Berkeley, CA 94707, and/or EPA to obtain a publication entitled "Suspended, Canceled and Restricted Pesticides" which lists all restricted pesticides and the specific uses that are allowed. Valuable information from these sources may also be available on the internet.*

E. BMPs for Loading and Unloading Areas for Liquid or Solid Material

Description of Pollutant Sources. Loading and unloading of liquid and solid materials are typically conducted at shipping and receiving, outside storage, fueling areas, etc. Materials transferred can include products, raw materials, intermediate products, waste materials, fuels, and scrap metals. Leaks and spills of fuels, oils, powders, organics, heavy metals, salts, acids, alkalis, etc., during transfer are potential causes of storm water contamination. Spills from hydraulic line breaks are a common problem at loading docks.

Pollutant Control Approach. Cover and contain the loading/unloading area where necessary to prevent run-on of storm water and run-off of contaminated storm water.

Operational BMPs

A significant amount of debris can accumulate at outside, uncovered loading/unloading areas. Sweep these surfaces frequently to remove material that could otherwise be washed off by storm water. Sweep outside areas that are covered for a period of time by containers, logs, or other material after the areas are cleared.

Place drip pans, or other appropriate temporary containment device, at locations where leaks or spills may occur such as hose connections, hose reels, and filler nozzles. Drip pans shall always be used when making and breaking connections. Check



loading/unloading equipment such as valves, pumps, flanges, and connections regularly for leaks and repair as needed.

*At Tanker Truck and Rail Transfer Areas to Above/Below-ground Storage Tanks.* To minimize the risk of accidental spillage, prepare an operations plan that describes procedures for loading/unloading. Train the employees, especially fork lift operators, in its execution and post it or otherwise have it readily available to employees.

Prepare and implement an emergency spill cleanup plan for the facility which includes the following BMPs:

- Ensure the cleanup of liquid/solid spills in the loading/unloading area immediately, if a significant spill occurs, and, upon completion of the loading/unloading activity, or, at the end of the working day.
- Retain and maintain an appropriate oil spill cleanup kit on-site for rapid cleanup of material spills, .
- Ensure that an employee trained in spill containment and cleanup is present during loading/unloading.
- Report spills as required in BMP on spills

*At Rail Transfer Areas to Above/Below-Ground Storage Tanks.*

- Install a drip pan system within the rails to collect spills/leaks from tank cars and hose connections, hose reels, and filler nozzles.

*Structural Source Control BMPs At All Loading/Unloading Areas*

- Consistent with UFC requirements and to the extent practicable, conduct unloading or loading of solids and liquids in the facility building, under a roof, or lean-to, or other appropriate cover.
- Berm, dike, and/or slope the loading/unloading area to prevent run-on of storm water and to prevent the run-off or loss of any spilled material from the area.
- Large loading areas frequently are not curbed along the shoreline. As a result, storm water passes directly off the paved surface into surface water. Place curbs along the edge or slope the edge such that the storm water can flow to an internal storm drain system that leads to an approved treatment BMP.
- Pave and slope loading/unloading areas to prevent the pooling of water. The use of catch basins and drain lines within the interior of the paved area must be minimized as they will frequently be covered by material, or they should be placed in designated "alleyways" that are not covered by material, containers, or equipment.

Attachment H  
Required Minimum and Other Source-Specific Operational BMPs

- For the transfer of pollutant liquids in areas that cannot contain a catastrophic spill, consider installing an automatic shutoff system in case of unanticipated off-loading interruption (e.g., coupling break, hose rupture, overfill, etc.).

*At Loading and Unloading Docks*

- Install/maintain overhangs or door skirts that enclose the trailer end to prevent contact with rainwater.
- Design the loading/unloading area with berms, sloping, etc., to prevent the run-on of storm water.
- Retain on-site the necessary materials for rapid cleanup of spills.

*At Tanker Truck Transfer Areas to Above/Below-ground Storage Tanks*

- Pave the area on which the transfer takes place. If any transferred liquid, such as gasoline, is reactive with asphalt, pave the area with Portland cement concrete.
- Slope, berm, or dike the transfer area to a dead-end sump, spill containment sump, a spill control (SC) oil/water separator, or other spill control device. The minimum spill retention time should be 15 minutes at the greater flow rate of the highest fuel dispenser nozzle through-put rate, or the peak flow rate of the 6-month, 24-hour storm event over the surface of the containment pad, whichever is greater. The volume of the spill containment sump should be a minimum of 50 gallons with an adequate grit sedimentation volume.

F. BMPs for Maintenance and Repair of Vehicles and Equipment

Description of Pollutant Sources. Pollutant sources include parts/vehicle cleaning, spills/leaks of fuel and other liquids, replacement of liquids, outdoor storage of batteries/liquids/parts, and vehicle parking.

Pollutant Control Approach. Control of leaks and spills of fluids using good housekeeping and cover and containment BMPs.

Operational BMPs

- Inspect for leaks all incoming vehicles, parts, and equipment stored temporarily outside.
- Use drip pans or containers under parts or vehicles that drip or that are likely to drip liquids, such as during dismantling of liquid containing parts or removal or transfer of liquids.
- Remove batteries and liquids from vehicles and equipment in designated areas designed to prevent storm water contamination. Store cracked batteries in a covered non-leaking secondary containment system.



## Attachment H

### Required Minimum and Other Source-Specific Operational BMPs

- Empty oil and fuel filters before disposal. Provide for proper disposal of waste oil and fuel.
- Do not pour/convey wash water, liquid waste, or other pollutant into storm drains or to surface water. Do not hose down work areas to storm drains. Use dry methods for cleaning leaked fluids. Check with the local sanitary sewer authority for approval to convey to a sanitary sewer.
- Do not connect maintenance and repair shop floor drains to storm drains or to surface water.
- Consider storing damaged vehicles inside a building or other covered containment until all liquids are removed. Remove liquids from vehicles retired for scrap.
- Consider cleaning parts with aqueous detergent based solutions or non-chlorinated solvents such as kerosene or high flash mineral spirits, and/or use wire brushing or sand blasting whenever practicable. Avoid using toxic liquid cleaners such as methylene chloride, 1,1,1trichloroethane, trichloroethylene, or similar chlorinated solvents. Choose cleaning agents that can be recycled.
- Inspect all BMPs regularly, particularly after a significant storm. Identify and correct deficiencies to ensure that the BMPs are functioning as intended.

#### Structural Source Control BMPs

- Conduct all maintenance and repair of vehicles and equipment in a building, or other covered impervious containment area that is sloped to prevent run-on of uncontaminated storm water and run-off of contaminated storm water.
- Park large mobile equipment, such as log stackers, in a designated contained area.

Treatment BMPs, if required. Contaminated storm water run-off from vehicle staging and maintenance areas may be conveyed to a sanitary sewer, if allowed by the local sewer authority, or to an API or CP oil and water separator followed by a basic treatment BMP, media filtration systems, or other equivalent oil treatment system.

#### G. BMPs for Maintenance of Storm Water Drainage and Treatment Systems

Description of Pollutant Sources. Facilities include roadside catch basins, conveyance systems, detention facilities such as ponds and vaults, oil and water separators, biofilters, settling basins, infiltration systems, and all other types of storm water treatment systems. Oil and grease, hydrocarbons, debris, heavy metals, sediments, and contaminated water are found in catch basins, oil and water separators, settling basins, etc.

Pollutant Control Approach. Provide maintenance and cleaning of debris, sediments, and oil from storm water collection, conveyance, and treatment systems to obtain proper operation.

Attachment H  
Required Minimum and Other Source-Specific Operational BMPs

Operational BMPs. Maintain storm water treatment facilities according to the following BMPs:

- Inspect and clean treatment BMPs, conveyance systems, and catch basins as needed, and determine whether improvements in O&M are needed.
- Promptly repair any deterioration threatening the structural integrity of the facilities. These include replacement of clean-out gates, catch basin lids, and rock in emergency spillways.
- Ensure that storm sewer capacities are not exceeded and that heavy sediment discharges to the sewer system are prevented.
- Regularly remove debris and sludge from BMPs used for peak-rate control, treatment, etc., and discharge to a sanitary sewer if approved by the sewer authority or truck to a local or state government approved disposal site.
- Post warning signs; "Dump No Waste - Drains to Ground Water," "Streams," "Lakes," or emboss on or adjacent to all storm drain inlets where practical.

H. BMPs for Mobile Fueling of Vehicles and Heavy Equipment

Pollutant Control Approach. Proper training of the fueling operator and the use of spill/drip control and reliable fuel transfer equipment with backup shutoff valving are typically needed.

*Note that some local fire departments may have restrictions on mobile fueling practices.*

Operational BMPs

- Ensure that all mobile fueling operations are approved by the local fire department and comply with local and California State fire codes.
- In fueling locations that are in close proximity to sensitive aquifers, designated wetlands, wetland buffers, or other waters of the state, approval by local jurisdictions is necessary to ensure compliance with additional local requirements.
- Ensure the compliance with all 49 CFR 178 requirements for DOT 406 cargo tanker. Documentation from a Department of Transportation (DOT) Registered Inspector shall be proof of compliance.
- Ensure the presence and the constant observation/monitoring of the driver/operator at the fuel transfer location at all times during fuel transfer and ensure that the following procedures are implemented at the fuel transfer locations:
  - Locating the point of fueling at least 25 feet from the nearest storm drain or inside an impervious containment with a volumetric holding capacity equal to or greater than 110 percent of the fueling tank volume, or covering the storm



Attachment H  
Required Minimum and Other Source-Specific Operational BMPs

drain to ensure no inflow of spilled or leaked fuel. Storm drains that convey the inflow to a spill control separator approved by the local jurisdiction and the fire department need not be covered. Potential spill/leak conveyance surfaces must be impervious and in good repair.

- Placing a drip pan or an absorbent pad under each fueling location prior to and during all dispensing operations. The pan (must be liquid tight) and the absorbent pad must have a capacity of 5 gallons. Spills retained in the drip pan or the pad need not be reported.
- The handling and operation of fuel transfer hoses and nozzle, drip panes), and absorbent pads as needed to prevent spills/leaks of fuel from reaching the ground, storm drains, and receiving waters.
- Not extending the fueling hoses across a traffic lane without fluorescent traffic cones, or equivalent devices, conspicuously placed so that all traffic is blocked from crossing the fuel hose.
- Removing the fill nozzle and cessation of filling when the automatic shut-off valve engages. Do not allow automatic shutoff fueling nozzles to be locked in the open position.
- Not "topping off" the fuel receiving equipment.
- Provide the driver/operator of the fueling vehicle with:
  - Adequate flashlights or other mobile lighting to view fill openings with poor accessibility. Consult with local fire department for additional lighting requirements.
  - Two-way communication with his/her home base.
  - Train the driver/operator annually in spill prevention and cleanup measures and emergency procedures. Make all employees aware of the significant liability associated with fuel spills.
  - The fueling operating procedures should be properly signed and dated by the responsible manager, distributed to the operators, retained in the organization files, and made available in the event an authorized government agency requests a review.
- Ensure that the local fire department (911) and the Regional Board are immediately notified in the event of any spill entering the surface or ground waters. Establish a "call down list" to ensure the rapid and proper notification of management and government officials should any significant amount of product be lost offsite. Keep the list in a protected but readily accessible location in the mobile fueling truck. The "call down list" should also pre-identify spill response contractors available in the area to ensure the rapid removal of significant product spillage into the environment.

Attachment H  
Required Minimum and Other Source-Specific Operational BMPs

- Maintain in all fueling vehicles a minimum of the following spill cleanup materials that are readily available for use:
- Non-water absorbents capable of absorbing 15 gallons of diesel fuel. - A storm drain plug or cover kit.
- A non-water absorbent containment boom of a minimum 10 feet in length with a 12 gallon absorbent capacity.
- A non-metallic shovel.
- Two, five-gallon buckets with lids.
- Maintain and replace equipment on fueling vehicles, particularly hoses and nozzles, at established intervals to prevent failures.

Structural Source Control BMP. Automatic fuel transfer shut-off nozzles; and, an adequate lighting system at the filling point.

I. BMPs for Painting/Finishing/Coating of Vehicles/Starting Gate/Finishing Post/Track Fence/ Buildings/ Equipment

Description of Pollutant Sources. Surface preparation and the application of paints, finishes and/or coatings to vehicles, buildings, and/or equipment outdoors can be sources of pollutants. Potential pollutants include organic compounds, oils and greases, heavy metals, and suspended solids.

Pollutant Control Approach. Cover and contain painting and sanding operations and apply good housekeeping and preventive maintenance practices to prevent the contamination of storm water with painting oversprays and grit from sanding.

Operational BMPs

Train employees in the careful application of paints, finishes, and coatings to reduce misuse and over spray. Use ground or drop cloths underneath outdoor painting, scraping, and sandblasting work, and properly clean and temporarily store collected debris daily.

Do not conduct spraying, blasting, or sanding activities over open water or where wind may blow paint into water.

Wipe up spills with rags and other absorbent materials immediately. On dock areas sweep rather than hose down debris. If hosing is conducted, collect any hose water generated and convey to appropriate treatment and disposal. Do not hose down the area to a storm drain or receiving water or conveyance ditch to receiving water.

Use a storm drain cover, filter fabric, or similarly effective run-off control device if dust, grit, wash water, or other pollutants may escape the work area and enter a catch basin. The containment device(s) must be in place at the beginning of the workday. Collect



Attachment H  
Required Minimum and Other Source-Specific Operational BMPs

contaminated run-off and solids and properly dispose of such wastes before removing the containment device(s) at the end of the workday.

Use a ground cloth, pail, drum, drip pan, tarpaulin, or other protective device for activities such as paint mixing and tool cleaning outside or where spills can contaminate storm water.

Properly dispose of all wastes and prevent all uncontrolled releases to the air, ground, or water.

Clean brushes and tools covered with non-water-based paints, finishes, or other materials in a manner that allows collection of used solvents (e.g., paint thinner, turpentine, xylol) for recycling or proper disposal.

Store toxic materials under cover (tarp, etc.) during precipitation events and when not in use to prevent contact with storm water.

Structural Source Control BMPs. Enclose and/or contain all work while using a spray gun or conducting sand blasting and in compliance with applicable air pollution control and OSHA requirements. Do not conduct outside spraying, grit blasting, or sanding activities during windy conditions which render containment ineffective.

J. BMPs for Storage of Liquid, Food Waste, or Dangerous Wastes in Containers

Description of Pollutant Sources. Steel and plastic drums with volumetric capacities of 55 gallons or less are typically used at industrial facilities for container storage of liquids and powders. The BMPs specified below apply to container(s) located outside a building used for temporary storage of accumulated food wastes, vegetable or animal grease, used oil, liquid feedstock or cleaning chemical, or Dangerous Wastes (liquid or solid) unless the business is permitted by Regional Board to store the wastes. Leaks and spills of pollutant materials during handling and storage are the primary sources of pollutants. Oil and grease, acid/alkali pH, BOD, COD are potential pollutant constituents.

Pollutant Control Approach. Store containers in impervious containment under a roof or other appropriate cover, or in a building. For roll-containers (for example, dumpsters) that are picked up directly by the collection truck, a filet can be placed on both sides of the curb to facilitate moving the dumpster. If a storage area is to be used on site for less than 30 days, a portable temporary secondary system can be used in lieu of a permanent system as described above.

Operational BMPs

Place tight-fitting lids on all containers.

Place drip pans beneath all mounted container taps and at all potential drip and spill locations during filling and unloading of containers.

Attachment H  
Required Minimum and Other Source-Specific Operational BMPs

Inspect container storage areas regularly for corrosion, structural failure, spills, leaks, overfills, and failure of piping systems. Check containers daily for leaks/spills. Replace containers and replace and tighten bungs in drums as needed.

Businesses accumulating dangerous wastes that do not contain free liquids need only to store these wastes in a sloped designated area with the containers elevated or otherwise protected from storm water run-on.

Drums stored in an area where unauthorized persons may gain access must be secured in a manner that prevents accidental spillage, pilferage, or any unauthorized use.

If the material is a dangerous waste, the business owner must comply with any additional State Board requirements.

Storage of reactive, ignitable, or flammable liquids must comply with the Uniform Fire Code.

Cover dumpsters, or keep them under cover such as a lean-to, to prevent the entry of storm water. Replace or repair leaking garbage dumpsters.

Drain dumpsters and/or dumpster pads to sanitary sewer. Keep dumpster lids closed. Install water proof liners.

Structural Source Control BMPs

Keep containers with dangerous waste, food waste, or other potential pollutant liquids inside a building unless this is impracticable due to site constraints or Uniform Fire Code requirements.

Store containers in a designated area, which is covered, bermed or diked, paved and impervious in order to contain leaks and spills. The secondary containment shall be sloped to drain into a dead-end sump for the collection of leaks and small spills.

For liquid wastes, surround the containers with a dike. The dike must be of sufficient height to provide a volume of either 10 percent of the total enclosed container volume or 110 percent of the volume contained in the largest container, whichever is greater, or, if a single container, 110 percent of the volume of that container.

Place containers mounted for direct removal of a liquid chemical for use by employees inside a containment area as described above. Use a drip pan during liquid transfer

Treatment BMP, if required

For contaminated storm water in the containment area, connect the sump outlet to a sanitary sewer, if approved by the local Sewer Authority, or to appropriate treatment such as an API or CP oil/water separator, catch basin filter, or other appropriate system. Equip the sump outlet with a normally closed valve to prevent the release of spilled or leaked liquids, especially flammables (compliance with fire codes), and



Attachment H  
Required Minimum and Other Source-Specific Operational BMPs

dangerous liquids. This valve may be opened only for the conveyance of contaminated storm water to treatment.

Another option for discharge of contaminated storm water is to pump it from a dead-end sump or catchment to a tank truck or other appropriate vehicle for off-site treatment and/or disposal.

K. BMPs for Washing and Steam Cleaning Vehicles/Equipment Building Structures

Description of Pollutant Sources. Wash water from cleaning activities can contain oil and grease, suspended solids, heavy metals, soluble organics, soaps, and detergents that can contaminate storm water.

Pollutant Control Approach. The preferred approach to separate the uncontaminated storm water from the pollutant sources is to cover and/or contain the cleaning activity, or conduct the activity inside a building. Wash water must be conveyed to industrial treatment or a sanitary sewer after approval by the local sewer authority; temporarily stored before proper disposal; or recycled, with no discharge to the ground, to a storm drain, or to surface water.

Structural Source Control BMPs

Conduct vehicle equipment washing in a building or under a roof, with washwater draining to industrial treatment facility or a sanitary sewer, if approved by the local sewer authority,

Conduct outside washing operation in a designated wash area as follows:

Conduct washing on a paved spill containment pad to prevent the run-on of storm water from adjacent areas. Slope the spill containment area so that wash water is collected in a containment pad drain system with perimeter drains, trench drains or catchment drains. Size the containment pad to extend out a minimum of four feet on all sides of the vehicles and/or equipment being washed.

Convey the washwater to a sump (like a grit separator) and then to a sanitary sewer (if allowed by the local Sewer Authority), or industrial wastewater treatment, or recycle system. An NPDES permit would be required for any wash water discharge to a storm drain or receiving water after treatment. Contact the Regional Board regional office for NPDES Permit requirements.

For discharge to a sanitary sewer, the containment sump must have a positive control outlet valve for spill control with live containment volume and oil/water separation. Size the minimum live storage volume to contain the maximum expected daily wash water flow plus the sludge storage volume below the outlet pipe. The outlet valve will be shut during the washing cycle to collect the wash water in the sump. The valve should remain shut for at least two hours following the washing operation to allow the oil and solids to separate before discharge to a sanitary sewer. (See Regional Board Publication WQ-95-056) The inlet valve could be closed when washing is not occurring, thereby preventing the entry of uncontaminated storm water into the pretreatment/treatment system. The storm water can then drain into the conveyance discharge

Attachment H  
Required Minimum and Other Source-Specific Operational BMPs

system outside of the wash pad (essentially bypassing the wash water treatment/conveyance system). Post signs to inform operating personnel of the operation and purpose of the valve. Clean the concrete pad thoroughly until there is no foam or visible sheen in the wash water prior to closing the inlet valve and allowing uncontaminated storm water to bypass (overflow and drain off) the pad.

For uncovered wash pads, the positive control outlet valve may be manually operated, but an automatic pneumatic or electric valve system is preferable. The valve may be on a timer circuit to be opened on completion of a wash cycle. The timer would then close the valve after the sump or separator is drained

Because soluble/emulsifiable detergents can be used in the wash medium, the selection of soaps and detergents and treatment BMPs should be considered carefully. *Oil/water separators are ineffective in removing emulsified or water soluble detergents*