

Automotive Service – Service Stations



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Description

This category includes facilities that provide vehicle fueling services, including self-serve facilities as well as those that provide a convenience store. Information specific to auto dismantling, body repair, and maintenance is provided in other guide sheets.

Pollutant Sources

The following are sources of pollutants:

- Fueling
- Spills
- Surface cleaning
- Air / water supply areas
- Dumpster and trash can areas

Pollutants can include:

- Heavy metals (copper, lead, nickel, and zinc)
- Hydrocarbons (oil and grease, PAHs)
- Toxic chemicals (benzene, toluene, xylene, MTBE)
- Detergents
- Food waste and trash

Approach

Minimize exposure of rain and runoff to fueling areas by using cover and containment. In and around these areas, use good housekeeping to minimize the generation of pollutants. Make stormwater pollution prevention BMPs a part of standard operating procedures and the employee training program. Provide employee education materials in the first language of employees, as necessary.

Reprinted below are the best management practices and related information from the 1997 Best Management Practice Guide – Retail Gasoline Outlets. This guide represents the work of the California Stormwater Quality Task Force's (SWQTF) Retail Gasoline Outlet Work Group. The Work Group formed in May 1996 and met on a regular basis to review and discuss appropriate best management practices for fueling and other closely related activities likely to be found at retail fueling operations. Representatives from industry, municipalities, and regulatory agencies participated.

Coverage

These best management practices cover three activities or areas:

- Fuel dispensing



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- Air/water supply
- Outdoor waste receptacles

Retail gasoline outlets will have every combination of these activities/areas onsite, including other activities not covered by this guide. For example, a facility may have a fuel dispensing area, air/water supply area, indoor service bay, but no outdoor waste receptacles. These BMPs cover the first two areas but not the indoor service bay. Best management practices for the indoor service bay may be found elsewhere. The inclusion of best management practices for air/water supply areas is not intended to suggest that air and/or water must be supplied by retail gasoline outlets in geographic areas not otherwise required to do so.

Design

The design of this guide is purposely different from many BMP lists that are designed as a menu of BMPs from which the facility owner/operator, and the inspector, may choose some but not necessarily all BMPs. These BMP lists are designed so that if the activity/area is onsite, each numbered BMP listed below the activity should be implemented. For some BMPs, as described below, several implementation options are provided. The best management practices are meant to be implemented, monitored, and maintained on a year round basis. The guide also makes an important distinction between existing facilities and new or substantially remodeled facilities. A definition of new or substantially remodeled is also provided. The Work Group used these design elements to help clarify and unify expectations.

Options

Several of the best management practices provide facility owners and operators options for compliance. For example, one best management practice is:

Minimize the possibility of stormwater pollution from outside waste receptacles by doing at least one of the following:

- Use only watertight waste receptacle(s) and keep the lid(s) closed
- Grade and pave the waste receptacle area to prevent run-on of stormwater
- Install a roof over the waste receptacle area
- Install a low containment berm around the waste receptacle area
- Use and maintain drip pans under waste receptacles

It is the intent of these BMPs that a) through e) are options. Effective implementation of at least one of these options, chosen by the facility owner/operator, should be deemed implementation of this best management practice.

Source Control BMPs

The best management practices are listed by activity or area.

Existing Facilities

Fuel Dispensing Areas

- Maintain fuel dispensing areas using dry cleanup methods such as sweeping for removal of litter and debris, or use of rags and absorbents for leaks and spills. Fueling areas should never be washed down unless the wash water is collected and disposed of properly.

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- Fit underground storage tanks with spill containment and overflow prevention systems meeting the requirements of Section 2635(b) of Title 23 of the California Code of Regulations.
- Fit fuel dispensing nozzles with “hold-open latches” (automatic shutoffs) except where prohibited by local fire departments.
- Post signs at the fuel dispenser or fuel island warning vehicle owners/operators against “topping off” of vehicle fuel tanks.

Facility - General

- “Spot clean” leaks and drips routinely. Leaks are not cleaned up until the absorbent is picked up and disposed of properly.
- Maintain and keep current, as required by other regulations, a spill response plan and ensure that employees are trained on the elements of the plan.
- Manage materials and waste to reduce adverse impacts on stormwater quality.
- Train all employees upon hiring and annually thereafter on proper methods for handling and disposing of waste. Make sure that all employees understand stormwater discharge prohibitions, wastewater discharge requirements, and these best management practices. Use a training log or similar method to document training.
- Label drains within the facility boundary, by paint/stencil (or equivalent), to indicate whether they flow to an oil/water separator, directly to the sewer, or to a storm drain. Labels are not necessary for plumbing fixtures directly connected to the sanitary sewer.
- Inspect and clean if necessary, storm drain inlets and catch basins within the facility boundary before October 1 each year.

Outdoor Waste Receptacle Area

- Spot clean leaks and drips routinely to prevent runoff of spillage.
- Minimize the possibility of stormwater pollution from outside waste receptacles by doing at least one of the following:
 - Use only watertight waste receptacle(s) and keep the lid(s) closed, or
 - Grade and pave the waste receptacle area to prevent run-on of stormwater, or
 - Install a roof over the waste receptacle area, or
 - Install a low containment berm around the waste receptacle area, or
 - Use and maintain drip pans under waste receptacles.

Air/Water Supply Area

- Minimize the possibility of stormwater pollution from air/water supply areas by doing at least one of the following:
 - Spot clean leaks and drips routinely to prevent runoff of spillage, or
 - Grade and pave the air/water supply area to prevent run-on of stormwater, or
 - Install a roof over the air/water supply area, or
 - Install a low containment berm around the air/water supply area.

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New or Substantially Remodeled Facilities

The elements listed below should be included in the design and construction of new or substantially remodeled facilities.

Fuel Dispensing Areas

- Fuel dispensing areas must be paved with portland cement concrete (or, equivalent smooth impervious surface), with a 2% to 4% slope to prevent ponding, and must be separated from the rest of the site by a grade break that prevents run-on of stormwater to the extent practicable. The fuel dispensing area is defined as extending 6.5 feet from the corner of each fuel dispenser or the length at which the hose and nozzle assembly may be operated plus 1 foot, whichever is less. The paving around the fuel dispensing area may exceed the minimum dimensions of the “fuel dispensing area” stated above. (Note: This best management practice is not specifically intended to apply to facilities that install a new canopy where no canopy existed.)
- The fuel dispensing areas must be covered, and the cover’s minimum dimensions must be equal to or greater than the area within the grade break or the fuel dispensing area, as defined above. The cover must not drain onto the fuel dispensing area. (Note: This best management practice is not specifically intended to apply to facilities that:
 - Are located in geographic areas not subject to federal or state stormwater regulations
 - Do not discharge stormwater either directly to surface waters or indirectly, through municipal separate storm drain systems
 - Do not add fuel dispensers
 - Replace, relocate, or add fuel dispensers within the parameters described in the BMP
 - Increase their throughput of fuel dispensed without modifying their equipment
 - Make only cosmetic or facial appearance changes to their existing canopy)

Outdoor Waste Receptacle Area

- Grade and pave the outdoor waste receptacle area to prevent run-on of stormwater to the extent practicable.

Air/Water Supply Area

- Grade and pave the air/water supply area to prevent run-on of stormwater to the extent practicable.

Substantially Remodeled Facilities

One of the following criteria must be met before a facility is deemed to be substantially remodeled and the design elements described above are required to be included in the new design and construction:

- The canopy cover over the fuel dispensing area is new or is being substantially replaced (not including cosmetic/facial appearance changes only) and the footing is structurally sufficient to support a cover of the minimum dimensions described above, or
- One or more fuel dispensers are relocated or added in such a way that the portland cement concrete (or, equivalent) paving and grade break or the canopy cover over the fuel dispensing area do not meet the minimum dimensions as defined above. Replacement of existing dispensers or underground storage tanks do not by itself, constitute a substantial remodel.

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For the purposes of the waste receptacle area and air/water supply area BMPs only, the facility is considered substantially remodeled if the area around the waste receptacle area or air/water supply area is being regraded or repaved.

Treatment Control BMPs

In 1996-97, the SWQTF Work Group considered other BMPs not listed here including:

- Oil/water separators
- Catch basin inserts

The evidence reviewed by the Work Group at that time indicated that the effectiveness and efficiency of these and other BMPs not listed was insufficient for them to pass peer review and therefore these BMPs could not be generally recommended for use statewide. Since 1997, a significant amount of research has been conducted across the country on treatment controls so the status of treatment control BMPs may have changed since that time. There may be situations in which these BMPs would be effective and efficient (as evidenced by research), and therefore appropriate.

For information on inspecting and maintaining treatment controls, see Section 4 of this handbook.

For information on designing treatment controls, see Section 5 of the New Development and Redevelopment Planning Handbook.

More Information

Booklets, Checklists, Fact Sheets, and Pamphlets

California Storm Water Quality Task Force, 1997. Best Management Practice Guide – Retail Gasoline Outlets.

Posters

Los Angeles County, 1995. Good Gas Station Operating Practices.

References

California Storm Water Quality Task Force (SWQTF), 1997. Best Management Practice Guide – Retail Gasoline Outlets.