

Water Pollution Control for Vehicle and Equipment Operations

Generally, the greatest threat to water pollution control from construction vehicles and equipment is the potential for petroleum products to discharge to drainage systems and streams, or to leach into groundwater. This bulletin reviews the Best Management Practices (BMPs) that minimize or prevent pollutant discharges from vehicle and equipment operations.

The Offsite Solution

The most effective means of preventing petroleum discharges from the Caltrans right of way is for the contractor to clean, fuel, and maintain vehicles and equipment at offsite facilities. Using permanent offsite facilities centralizes the potential for discharges and clean-up operations, and provides paved areas to minimize exposure of soils to vehicle fluids. Even using this approach, the Resident Engineer must remain diligent in dealing with fluid leaks while equipment is used on site.

If it is necessary for the contractor to clean, fuel, or maintain vehicles onsite, ensure that the following non-storm water BMPs are implemented. Refer to the Construction Site BMPs Manual for additional details.

NS-8 - Vehicle and Equipment Cleaning

Allow onsite cleaning only for vehicles and equipment that remain on site during the course of construction. All vehicles and equipment that regularly enter and leave the construction site must be cleaned at an offsite facility.

The contractor is required to notify the RE prior to the use of soap, solvents or steam for cleaning, and must ensure that the resulting wastes will be properly contained and will be disposed of outside the highway right of way.

Onsite wash areas should:

- Be located away from storm drains and watercourses.
- Be paved and bermed to contain wash water.
- Be constructed with a sump to allow collection and disposal of wash water.

NS-9 - Vehicle and Equipment Fueling

For onsite fueling, direct contractors to use designated fueling areas and to minimize mobile fueling operations. Dedicated fueling areas must:

- Be located at least 15 m from downgrade drainage facilities or watercourses.
- Be constructed on level grade.
- Be protected from storm water run-on and runoff.
- Be constructed with an impermeable surface.

For mobile operations, the contractor is to use drip pans or absorbent cloth to protect soil from drips and spills. The RE should ensure that the contractor maintains adequate supplies of absorbent spill clean-up materials and spill kits in fueling areas and on mobile fueling equipment. All used clean-up materials should be picked up and disposed of properly.

Nozzles are to be equipped with automatic shut-off. Use vapor recovery nozzles to prevent drips and where required for air pollution control by the Air Quality Management District (AQMD). Be familiar with federal, state, and local requirements for fuel storage.

Ensure that fueling areas and equipment are attended at all times during fueling and that tanks are not topped off.

NS-10 - Vehicle and Equipment Maintenance



Ensure that the contractor provides temporary containment for wastes from onsite cleaning.



Direct the contractor to maintain and use spill clean-up materials. Do not allow spills to be hosed down or buried.



Designated maintenance areas should have impermeable surfaces and be protected from storm water run-on and runoff.

Onsite maintenance should be performed in a dedicated area constructed with an impermeable surface located a minimum of 15 m from downgrade drainage facilities and water courses. The area should be protected from run-on and runoff. Drips or spills on liners should be contained and cleaned up.

If maintenance is required at other than the designated area, ensure that drip pans and absorbent materials are used to contain leaks and spills. Spill clean-up supplies should be readily available wherever maintenance is performed on site.

Ensure that the contractor properly stores and disposes of used oil, fluids, lubricants, batteries, tires, and spill clean-up materials. Do not allow such wastes to be placed in trash dumpsters, poured into storm drains or watercourses, or dumped on the ground. Containers of working fluids and wastes should be stored with temporary containment.

Inspection

Inspect designated cleaning, fueling and maintenance areas regularly. Ensure that wash wastewater and sediment are removed from the sump to ensure proper functioning. Inspect vehicles and equipment each day of use and direct the contractor to repair leaks immediately.

