

NPDES II and Highway Garage Complexes

Application Deadline: March 10, 2003



A fueling station at a typical NH Highway garage. A cover over the fueling area is needed to comply fully with NHPDES II.

What Is Regulated

The National Pollutant Discharge Elimination System, Phase II (NPDES II) application date is March 10, 2003. It regulates rain, ice, and snow runoff to surface waters, whether over ground or through a storm water drainage system. Municipalities must comply for its highway garage complexes, refuse transfer stations, and wastewater treatment plants. Many cities and towns will have to construct or modify structures, and establish certain practices.

Highway garage complexes include buildings, facilities, and areas in which the following occur.

- Vehicle maintenance, repair, and lubrication
- Painting
- Fueling
- Salt and sand/salt storage (see box below)
- Vehicle, equipment, and materials storage
- Waste storage
- Equipment and vehicle washing

City/town officials must assess storm water flow throughout the complex. If storm water flows to a surface water, NPDES II applies.

This article describes the needed facilities and practices for highway garage complexes. Municipalities must have them in place by March 10, 2003

to qualify for No Exposure Certification. If not, they must prepare a Stormwater Pollution Prevention Plan (SWPPP). As will be seen below, a SWPPP is far more expensive than No Exposure Certification.

No Exposure Certification

To qualify for No Exposure a municipality must prevent materials and activities from exposure to stormwater that flows to surface waters. One option is to relocate materials and activities to places with flow into the ground. Protection from exposure is the other.

The surest protection is in roofed and walled buildings. Roof only structures suffice where storm water does not flow through the structure. Fueling, for example, should be under a roofed structure with berms to deflect water runoff.

Drums, barrels, and tanks with taps or valves must be sheltered. Other containers can be stored outside shelters if tightly sealed. Equipment and vehicles must be sheltered if they leak or are otherwise a contamination source. No exposure certification might also require:

- Providing temporary covers over potential contaminants, such as compost piles.
- Removing particulate matter or visible deposits from roof stacks and/or vents.
- Washing pollutants from equipment and vehicles, and treating the wash water.
- Sweeping or covering materials that might become windblown contaminants.
- Repairing pipes that leak contaminants.
- Removing past contamination sources.
- Storing trash in covered containers without leaks.

Stormwater Pollution Prevention Plan (SWPPP)

If exposure exists after March 10, 2003, a municipality must determine pollution sources and plan to eliminate them. The SWPPP has four elements:

1. Designate a Pollution Prevention Team.
2. Assess potential storm water pollution sources.

3. Establish management practices and controls.
4. Evaluate plan effectiveness periodically.

Pollution Prevention Team. A city or town must establish a team to develop the plan. Teams should have experts who know the regulations and employees who know the facility. A municipality can hire private engineers and other specialists as team members.

Potential Pollution Sources. Teams must identify everything that might pollute storm water runoff. They must prepare a site map that shows the pattern of storm water drainage, drainage system elements, and surface water bodies. They must also identify discharge locations and types, and the pollutants likely to be in them.

The team must also evaluate exposure to rainfall and runoff of the following:

- Fueling operations and storage
- Vehicle and equipment maintenance and cleaning
- Material storage and processing
- Loading and unloading operations
- Waste disposal practices

Team members must

- Evaluate the pollution potential of these areas.
- Determine potential pollution from other outdoor activities and dust or particulate generating processes.
- Measure and analyze storm water discharge quality and quantity.
- Test or evaluate for non-stormwater discharges, such as vehicle wash water.

Management Practices. The team must evaluate required pollution prevention practices.

- Maintaining a clean and orderly facility.
- Minimizing exposure of potential pollutants.
- Spill prevention and response procedures.
- Erosion prevention and sediment control.
- Runoff management, which might include vegetative swales, collection and reuse of storm water, inlet controls, snow management, infiltration devices, and detention or retention basins.
- Minimizing tracking and blowing of waste materials, sediment, and dust.

Plan Effectiveness Evaluation. The city or town must ensure future plan effectiveness and regulation compliance. This includes following the *Road Business, Summer 2002, Vol. 17, No. 2*

procedures described above, employee training, and routine inspections.

Quarterly, municipal employees or consultants must inspect discharges from each outfall. At least annually they must conduct a comprehensive compliance inspection. Inspectors must have the knowledge and skills to assess impacts on storm water quality. The municipality must correct deficiencies and submit a report to EPA.

Recommendations

The UNH T² Center strongly recommends that municipalities qualify for No Exposure Certification. It also recommends that

- Cities and towns hire or engage professional experts to assess their highway garage complexes for compliance with all federal and state environmental rules.
- These experts prepare NPDES II and other applications.
- Road managers are involved in the assessment, applications, and permit execution.

The UNH T² Center has assembled the source materials. They are available on page 9 or the publications section of www.t2.unh.edu.

Sources

Conditional No Exposure Exclusion for Industrial Activity. EPA Fact Sheet 4.0, January 2000. <http://www.epa.gov/npdes/pubs/fact4-0.pdf>.
Federal Register, October 30, 2000, pp 64761-66, 64812-16, 64840-41, and 64877-80. <http://www.epa.gov/npdes/pubs/msgp2000-final.pdf>.

Salt Storage Must Be Covered

NPDES II applies to winter salt stored where storm water flows to a surface water or storm sewer. "Salt" includes all sand or aggregate mixed with salt. Municipalities must enclose or cover piles except when adding or removing materials from the pile. Temporary covers must be thick, reinforced plastic sheets. Highway crews must minimize spills during loading and unloading, and clean up spills after.

Excepted are facilities that collect all the runoff from salt piles and reuse it or discharge it. NHDES Fact Sheet WD-WSEB 22-8 describes holding tanks and their registration.

Sources

Federal Register, October 30, 2000, pp 64766 and 64811. <http://www.epa.gov/npdes/pubs/msgp2000-final.pdf>.
Holding Tanks for Floor Drains. NHDES Fact Sheet WD-WSEB 22-8. <http://www.des.state.nh.us/factsheets/ws/ws-22-8.htm>.