



**Minnesota Pollution  
Control Agency**

520 Lafayette Road  
St. Paul, MN 55155-4194

# Hot Mix Asphalt Plants Compliance Audit

## Asphalt Cement and Petroleum Storage Tanks

Environmental Audits

Minnesota Pollution Control Agency (MPCA) compliance audit checklists are designed to assist businesses and MPCA staff with the interpretation of Minnesota's environmental laws and rules. Because the laws and rules are numerous and often complicated, this checklist cannot be a complete guide to all your compliance obligations. If you have questions about the checklist, your obligations, or its conditions that you discover as you complete this evaluation, please contact:

Small Business Environmental Assistance Program (SBEAP)  
651-282-6143 or 1-800-657-3938  
<http://www.pca.state.mn.us/programs/sbap-sectors.html>

Date of Audit: \_\_\_\_\_

Company Name: \_\_\_\_\_

Authorized  
Representative Name: \_\_\_\_\_ Title: \_\_\_\_\_

## Asphalt Cement (AC) Tanks

### Registration

The MPCA **does not** require the registration of asphalt cement above ground storage tanks (ASTs) unless their contents are liquid at a temperature of 60 degrees Fahrenheit and a pressure of 14.7 pounds per square inch absolute. Based on this information from Minn. Stat. § 116.46, subd. 6, *asphalt cement ASTs do not have to be registered*.

- ☐ **YES** Our asphalt cement tank(s) **are not** liquid at 60 degrees F. and a pressure of 14.7 pounds per square inch.
- ☐ **NO** Our asphalt cement tank(s) **are** liquid at 60 degrees F. and a pressure of 14.7 pounds per square inch. We do need to register our tanks as required by Minn. Stat. § 116.46, subd. 6.

### Exemptions

Asphalt cement ASTs **do not** need:

- corrosion protection and corrosion protection monitoring;
- substance transfer areas;
- overfill protection;
- leak detection;
- internal inspections for field-erected ASTs; and
- soil or ground-water sampling during removal for possible contamination.

### Labeling

ASTs containing asphalt cement must be clearly labeled indicating the type of substance stored and the tank's capacity. If there is more than one tank, each tank must be labeled with a unique tank number. Tank piping used for loading or unloading must be labeled so that the person performing the product transfer can identify which tank line is connected to which tank.

- ☐ **YES** We have correctly labeled our asphalt cement tank(s) and piping.
- ☐ **NO** We have not correctly labeled our asphalt cement tank(s) and piping. *This is a deviation and must be reported on the DRF-2 form.*

## Secondary containment

Asphalt cement ASTs need 110 percent containment area volume of the largest asphalt cement tank in the containment area. Secondary containment has **no** minimum permeability.

- ☐ **YES** We do have adequate secondary containment that consists of \_\_\_\_\_
- ☐ **NO** Our secondary containment is not 110 percent containment area volume of the largest asphalt cement tank in the containment area. This is a deviation and must be reported on the DRF-2 form.
- ☐ **NO** We currently do not have any secondary containment. *This is a deviation and must be reported on the DRF-2 form.*

## Monitoring

Someone must be present to visually monitor asphalt cement ASTs that are loaded and unloaded with product. That person must be able to shut off product transfer before an overfill occurs. On a monthly basis, a visual inspection is required. This inspection must include a walk through of the site to identify cracks in the secondary containment area. Visual examination of the exterior surfaces of tanks, piping, valves, pumps, and other equipment for cracks, corrosion, releases, and maintenance deficiencies must take place. The monthly inspection must also identify poor maintenance, operating practices, or malfunctioning equipment.

- ☐ **YES** We do have a person present to visually monitor asphalt cement ASTs that are loaded and unloaded with product.
- ☐ **YES** We do inspect our asphalt cement tank(s) on a monthly basis that includes a walk through of the site to identify cracks in the secondary containment area.
- ☐ **NO** We do not inspect our asphalt cement tank(s) on a monthly basis. Currently, any inspection does not include a walk through of the site to identify cracks in the secondary containment area. *This is a deviation and must be reported on the DRF-2 form.*

## Maintenance

Owners and operators must minimize rust on the tank exterior and must dispose of water drawn from the bottom of the tank in accordance with any state and federal regulations. The secondary containment area must be kept free of cracks, open seams, open drains, siphons, and vegetation *other* than grass. Grass may be used to reduce erosion. Precipitation must be removed as often as possible to maintain proper containment area volume. If precipitation exists in the containment area, the tank volume must be reduced to maintain the 100 percent capacity of the largest tank in the containment area. Stormwater that collects in the containment area must be discharged according to state and federal regulations. Safeguard systems must be installed and maintained according to the manufacturer's schedules and standards.

- ☐ **YES** We do practice proper tank maintenance as described above and if precipitation exists in the containment area, the tank volume will be reduced to maintain the 100 percent capacity of the largest tank in the containment area.
- ☐ **NO** We were not aware that we needed to practice proper tank maintenance as described above. If precipitation exists in the containment area we would not be able to reduce the tank volume to maintain the 100 percent capacity of the largest tank in the containment area. *These are deviations and must be reported on the DRF-2 form.*

## Record keeping

**For the life of the tank.** Owners or operators of asphalt cement ASTs must keep for the life of the tank: all tank system design records including maintenance and repair documentation, third party certifications, and as-built drawings. All containment area evaluations for soil permeability must be kept for the life of the tank. These evaluations should include soil classification, soil description, sample logs, tables for individual permeability tests, and the hydraulic conductivity of the soil. Records for external inspections of field-erected tanks must be retained for the life of the tank system.

- ☐ **YES** We do keep all tank system design records including maintenance and repair documentation, third party certifications, and as-built drawings. We do keep all containment area evaluations for soil permeability. We do keep records for any external inspection of these field-erected tanks.
- ☐ **NO** We do not keep all tank system design records including maintenance and repair documentation, third-party certifications, and as-built drawings. We do not keep all containment area evaluations for soil permeability. We do not keep records for any external inspection of these field-erected tanks. *These are deviations and must be reported on the DRF-2 form.*

**For three years.** All service check and equipment calibration records must be kept for three years. All periodic monitoring (72-hour, weekly and monthly) records must be kept for three years. Documentation for monitoring must include the name of the person conducting the monitoring, the method used, the date of the monitoring, and the monitoring results. The owner or operator must keep records indicating that the AST was taken out of service in compliance with regulations. These records must be kept for three years.

- ☐ **YES** We do keep each record as described above for at least three years.
- ☐ **NO** We do not keep each record as described above for at least three years. *This is a deviation and must be reported on the DRF-2 form.*

### Secondary containment area releases

An owner or operator of an asphalt cement AST must immediately investigate a suspected release to a secondary containment area. The owner or operator must assess the secondary containment area for damage where product release occurred and make any necessary repairs. The owner or operator must notify the Minnesota Duty Officer immediately of discharges to the secondary containment area or of other releases. They can be reached at 1-800-422-0798 or 651-649-5451.

- ☐ **YES** We do investigate all releases to our asphalt cement AST secondary containment area. We do assess the secondary containment area for damage where product release occurred, make any necessary repairs, and notify the Minnesota Duty Officer immediately of discharges to the secondary containment area.
- ☐ **NO** We do not currently investigate releases to our asphalt cement AST secondary containment area. We do not assess the secondary containment area for damage where product release occurred, make any necessary repairs, or notify the Minnesota Duty Officer immediately of discharges to the secondary containment area. *These are deviations and must be reported on the DRF-2 form.*

### Out-of-service requirements

When an asphalt cement AST is no longer used for one year or more, it must be taken out of service or removed. To take the tank system out of service, the tank owner or operator must remove all liquid asphalt cement from the AST, connected piping, and appurtenances; thoroughly clean the interior of the tank and piping of all sludge, solids, and residuals; dispose of tank bottom sludge according to applicable state and federal regulations; and label the tank exterior "Out of Service," and the date the tank was removed from service.

If the tank is ever reactivated, it must be thoroughly inspected and tested before being put into use. The testing requirements are similar to those for moving an AST.

### Temporary asphalt cement ASTs

Asphalt cement ASTs that are on site between 30 days and a year as is the case for most portable HMA plants are considered temporary tanks and must meet the temporary tank requirements. These ASTs must be labeled "Temporary Storage" and show the date the storage began. If a person is not on site 24 hours a day, a sign must be posted with the name, address, and telephone number of the facility owner or operator, or a local emergency response contact. The sign must be posted so that it can be seen outside any containment area.

### Moving asphalt cement ASTs

If an asphalt cement AST is moved from one site to another, the tank must be determined to be sound by conducting a leak tests before it is put back into use. If the asphalt cement AST is moved within the same site and put back into use, it must be determined to be sound through a thorough internal and external cleaning, degassing, and inspection. You can also conduct a leak test to determine the integrity of the tank. Portable tanks and double-walled tanks containing asphalt cement don't need to perform the leak tests listed above.

### Petroleum storage tanks

**Secondary containment requirements.** All petroleum tanks (fuel oil, waste oil, diesel fuel, gasoline) must have secondary containment. If tanks containing more than one type of substance are stored within one secondary containment area, the substances must be compatible with each other. The secondary containment area must be able to contain at least 100 percent of the design capacity of the largest tank in the secondary containment with an additional 10 percent capacity where secondary containment areas are exposed to precipitation.

- ☐ **YES** We do have adequate secondary containment as described above.
- ☐ **NO** We do not currently have adequate secondary containment as described above. *This is a deviation and must be recorded on the DRF-2 form.*

**Secondary containment materials.** The secondary containment area must be constructed with materials that are impermeable compatible with the substance being stored and that will prevent a release to the environment. Materials for secondary containment include: compacted clay, geosynthetic clay liner, concrete, synthetic membrane. Owners and operators shall install and maintain secondary containment areas constructed of synthetic or manufactured materials according to the manufacturer's recommendations and must be designed and constructed to provide for the detection of a release of a substance. Methods of leak detection are as follows: visual monitoring, elevated tanks and tanks on continuous concrete. Clay containment areas must consist of a minimum of 12 inches of compacted imported clay or native clay soil that has a permeability rate to water equal to or less than  $1 \times 10^{-7}$  centimeters per second.

☐ **YES** Our secondary containment area is constructed \_\_\_\_\_  
with (describe materials) that is impermeable and is \_\_\_\_\_  
compatible with the (describe product stored) being stored and that will prevent a release to the environment. This checklist is complete.

☐ **NO** We either do not currently have secondary containment, or our containment is not adequate to prevent a release to the environment. *This is a deviation and must be recorded on the DRF-2 form.* This checklist is complete.

### For More Information

You can access the MPCA's Web site for more information about ASTs or to link to the AST rules. The AST program Web site is <http://www.pca.state.mn.us/cleanup/ast.html>. If you have registration or notification questions, call 651- 297-8664.