



**Minnesota Pollution  
Control Agency**

520 Lafayette Road  
St. Paul, MN 55155-4194

# Hot Mix Asphalt Plants Compliance Audit

## **Air, Noise, and Odor Compliance**

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: \_\_\_\_\_

## **Air, Noise, and Odor Compliance for Hot Mix Asphalt (HMA)**

### **Asphalt plant environmental factors**

Typically, asphalt plants that have an asphalt drum dryer, one or more asphalt cement tanks, a waste oil tank, a diesel tank, and/or an emergency generator will need to deal with several environmental concerns that include: air emissions, odors, noise, and fugitive dust. Many of these environmental factors are addressed by an air quality registration permit, air emissions control equipment, noise abatement equipment, restricted hours of operation, and proper watering to minimize fugitive dust. Many counties and local governments require a "Conditional Use Permit" before an asphalt plant locates or relocates to their community. Our audit/checklist below addresses these factors in more detail.

### **Emissions Thresholds**

Keep in mind that the owner or operator of an asphalt plant must calculate each year the *actual* emissions from the plant and ensure that all emissions remain less than or equal to the thresholds listed in Table 3 below.

**Table 3**

HAP	5 tons/year for a single HAP
	12.5 tons/year total for all HAPs
PM	50 tons/year
PM <sub>10</sub>	50 tons/year for an Attainment A
	25 tons/year for a Nonattainment
VOC	50 tons/year
SO <sub>2</sub>	50 tons/year
NO <sub>x</sub>	50 tons/year
Pb	0.5 tons/year

*HAP = Hazardous air pollutant*

*PM = Particulate matter*

*PM<sub>10</sub> = Particulate matter less than 10 um in size*

*VOC = Volatile organic compound*

*SO<sub>2</sub> = Sulfur Dioxide*

*NO<sub>x</sub> = Nitrogen Oxide*

*Pb = Lead*

## Annual Emission Inventories

Asphalt plants that have a registration or State air quality permit are required to submit an annual emissions inventory that address each of the criteria air pollutants listed above. This inventory is typically mailed to each state-wide permanent or portable asphalt plant in December and is required to be completed and submitted to the MPCA by no later than March 1<sup>st</sup> of the following year. Emissions calculated are for the previous calendar 12-month period. A copy of the current Emissions Inventory can be located at: <http://www.pca.state.mn.us/publications/aq-ei3-14.pdf>.

### 1. Do you complete and return the air emissions inventory to the MPCA each year of operation?

- ☐ **YES** We do complete and return the air emissions inventory to the MPCA each year of operation. Continue on.
- ☐ **NO** We do not complete and return the air emissions inventory to the MPCA each year of operation. *This is a deviation and must be documented on the DRF-2 form.* Continue on.

## Noise emissions and abatement

Normally, HMA plants will limit noise concerns in their community by negotiating a Conditional Use Permit with their local government officials. These control measures can be: restricted plant hours of operation, certain traffic and road restrictions, and proper HMA plant locating in proximity to neighbors.

Although the MPCA does not have a current or active noise program you can determine allowable noise limits by referring to: <http://www.revisor.leg.state.mn.us/arule/7030/>. Also HMA plants should be aware that those citizens who have information concerning an observed pollution problem are encouraged to submit these concerns to the MPCA using the online [Citizen Complaint form](#), or register your complaint by calling the Air Quality Complaint Line at: 651-296-7300.

### 2. Do you have a noise abatement program at your asphalt plant?

- ☐ **YES** We do have a noise abatement program at our asphalt plant. Continue on.
- ☐ **NO** We do not have a noise abatement program at our asphalt plant. *This is not a deviation but you need to consider starting this program.* Continue on.

As with noise emissions, most HMA plants will limit odor concerns in their community by negotiating a Conditional Use Permit with their local government officials. Once again these control measures can be: restricted plant hours of operation, certain traffic, and road restrictions (including covering all asphalt trucks) and proper HMA plant locating in proximity to neighbors.

The MPCA does not have a state odor rule, but sometimes odors can be an indicator of pollutants that have emission limits. In some cases, odor is detectable even when a company is within its emission limits; in that case, although the state has no regulatory recourse the case can be referred to city and county officials to ensure the facility is in compliance with local rules. Complainants can call the MPCA to file a complaint. MPCA staff will follow up all complaints to discover if a permit limit is being exceeded or if the company does not have an appropriate air emissions permit.

Those citizens who have information concerning an observed pollution problem, are encouraged to submit these to the MPCA using the online [Citizen Complaint form](#), or register your complaint by calling the Air Quality Complaint Line at: 651-296-7300.

### 3. Are you aware of your asphalt plant odor emissions and do you practice an odor abatement program at your plant?

- ☐ **YES** We are aware of asphalt plant odor emissions and do practice odor abatement at our HMA plant. Continue on.
- ☐ **NO** We are not aware of asphalt plant odor emissions and do not practice odor abatement at our HMA plant. *This is not a deviation but you need to consider starting an abatement program.*

## Fugitive air emissions

Dust from open areas, often called "fugitive" dust, is a form of air pollution. Many HMA plants use water or various types of chemicals as surface treatments to help control fugitive dust. The following outlines some of the water quality issues you should consider when using surface treatments (other than water), so your air-pollution solution doesn't turn into water pollution instead.

## Odor emissions and abatement

- Consider non-chemical dust control alternatives, such as wind fences/barriers, fiber mulches, vegetation/shading, paving, reducing vehicle speed and covering open areas with less erodible materials.
- Avoid applying so much liquid that it ponds or runs off the application area. Avoid applications close to bridges, culvert crossings, ditches, streams, wetlands, and other surface waters.
- Avoid applications near wells or where chemicals can easily contaminate ground water. Avoid applications when it is raining, if it may rain soon, or if the surface is frozen.

- Consider how frequently different stabilizer options need to be reapplied.
  - Know the complete chemical content, aquatic toxicity and human health effects of any dust-control material. Request such information from potential vendors before any purchase. When leaving the load-out area ensure that all asphalt trucks are properly covered to avoid fugitive dust and odors.
4. **Do you have and do you practice a formal fugitive dust abatement program at your plant using any or all of the measures described above?**
- ☐ **YES** We do have and do practice proper fugitive dust abatement measures at our plant and as detailed above. This checklist is complete.
- ☐ **NO** We do not have and do practice proper fugitive dust abatement measures as detailed above. *This is not a deviation but you need to consider starting an abatement program.* This checklist is complete.