

Permit requirements under the degreaser MACT standard

lution, you do not have to get a Title V permit.

How do you calculate potential

emissions?

To know whether or not your solvent cleaning machines are a major source, you need to calculate the potential emissions from all machines in your facility.

Calculate each machine's potential emissions using the following formula:

$$\text{Potential to emit} = H \times W \times \text{SAI}$$

H = hours of operation

- assumed to be 8760 hours/year unless you restrict operating hours via a Class II permit from KDHE

W = working mode emissions rate

- batch cold & vapor cleaning machines: 1.95 kg/m²-hour
- in-line cleaning machines: 1.12 kg/m²-hour

SAI = solvent-air interface area

- vapor cleaning machines: surface area of solvent vapor zone exposed to the air
- in-line cleaning machines: total surface area of all sumps
- cold cleaning machines: surface area of liquid solvent exposed to the air
- machines without a solvent-air interface: 2.20 x (cleaning capacity of machine in cubic meters)^{0.6}

Starting in 1995, companies operating batch cold, batch vapor, or in-line solvent cleaning machines must comply with a new maximum achievable control technology (MACT) standard. You are affected by this standard if you use one or more of the following solvents in a concentration greater than 5 percent by weight: methylene chloride, perchloroethylene, trichloroethylene, 1,1,1-trichloroethane, carbon tetrachloride, and chloroform. The Clean Air Act Amendments of 1990 listed these six solvents as hazardous air pollutants (HAP) because they pose a potential threat to human health and the environment.

The MACT standard requires you to control emissions from each solvent cleaning machine and keep records to demonstrate compliance. The Kansas Small Business Environmental Assistance Program's (SBEAP) publication, *Kansas Degreasers: Solvent Cleaning under the Clean Air Act*, outlines your compliance options and your monitoring, recordkeeping, and reporting requirements. Contact SBEAP for a copy of this pamphlet.

You had until Dec. 2, 1997, to comply with the MACT standard if your machine was constructed before Nov. 29, 1993, otherwise you must comply with the standard upon start-up.

What type of air permit do you need?

If you operate a vapor degreaser (i.e., not a batch cold cleaning machine) that is a major source of HAP, or if your facility is already classified as a major source of air pollution, you must get a Title V permit from the Kansas Department of Health and Environment (KDHE). A major source is one that has the potential to annually emit more than 10 tons of one HAP or 25 tons of a combination of HAP.

If your vapor degreaser is not a major source and your facility is not classified as a major source, your Title V permitting requirements are deferred.

If you operate a batch cold cleaning machine that is not a major source, and your facility is not a major source of air pol-

Who can you contact for confidential assistance?

Kansas SBEAP 800-578-8898

Public Advocate for Small Business 800-357-6087

Kansas Air Quality Act Regulating Hazardous Air Pollution

In December, 1994, the Kansas Department of Health and Environment (KDHE) adopted regulations to implement provisions of the federal Clean Air Act Amendments of 1990 (CAA). These include provisions to implement Title III of CAA, which regulate 189 hazardous air pollutants (HAP). Some small businesses and manufacturers who previously were unaffected by



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clean air rules may now be required to comply with certain regulatory requirements and get an air permit from KDHE.

Who is affected by the Kansas Air Quality Act?

The clean air rules will impact your company if you meet one of the following criteria:

1. You have the potential to annually emit 10 tons of any single listed HAP, or 25 tons of any combination of HAP. Potential emissions are what you could emit if you operate at maximum capacity over the year, taking into consideration your company's physical and operational design (e.g., 365 days per year at 24 hours per day). If you exceed the 10/25-ton potential emissions limit, your company is a major source.

2. You fall under a National Emissions Standard for Hazardous Air Pollutants (NESHAP). A NESHAP is alternately referred to as a maximum achievable control technology standard, or MACT.

What do the regulations require?

If the clean air rules affect your company, you may have to apply for an air permit from KDHE. The type of permit you need to get from the state depends on the quantity of HAP your company has the potential to release into the air.

If your actual emissions classify you as a major source, you must get a Title V or Class I operating permit.

If your potential emissions classify you as a major source, you must get a Class I operating permit unless you limit your potential emissions. For example, you can limit your operating hours so as not to be operating at maximum capacity.

If you take steps to reduce your potential emissions to below the 10/25-ton limit, you may apply for a Class II permit, which is less cumbersome and less expensive than a Class I operating permit. Limiting operations to reduce your company's potential emissions must be federally enforceable, approved by KDHE, and written into your Class II permit application.

If your potential emissions fall below the 10/25-ton limit, your company is by definition an area source and you do not have to get a Title V permit (unless a specific MACT standard extends Title V permitting requirements to area sources).

How can you avoid permit requirements?

SBEAP recommends that you eliminate or greatly reduce your use of materials that contain HAP through pollution prevention methods such as substituting materials, modifying your process, reformulating your product, improving your operations, and recycling materials on-site. Preventing pollution can reduce your regulatory burdens, potentially minimizing air quality requirements, hazardous waste requirements, and workplace safety requirements.

A pollution prevention strategy also reduces the costs and liabilities associated with the use and disposal of materials that contain HAP, and protects public health and the environment.

If you would like free, confidential assistance in identifying pollution prevention strategies for your facility, or help with determining permit and compliance requirements for your company, contact SBEAP at 800-578-8898 or e-mail SBEAP@ksu.edu.



The Small Business Environmental Assistance Program's (SBEAP) mission is to help Kansas small businesses comply with environmental regulations. SBEAP operates through a consortium of the University of Kansas, Kansas State University and Wichita State University. SBEAP is funded through a contract with the Kansas Department of Health and Environment. SBEAP services are free and confidential. This fact sheet was published by Kansas State University's Pollution Prevention Institute. For more information, call 800-578-8898 or send e-mail to SBEAP@ksu.edu. Our Web address is <http://sbeap.niar.twsu.edu>. The University of Kansas, Kansas State University and Wichita State University are EEO/AA providers.