

# Kansas Degreasers: Solvent cleaning under the Clean Air Act



## Introduction to the degreaser rule

Kansas businesses operating degreasers face clean air regulations. The U.S. Environmental Protection Agency's standard, the National Emissions Standard for Hazardous Air Pollutants (NESHAP), is part of a national effort to curb chemical emissions threatening human health and the environment.

## Who's affected

Your business is subject to the standard if you operate a batch cold, batch vapor, or in-line machine that uses one or more of the following halogenated solvents in a total concentration greater than 5 percent by weight:

- Methylene chloride
- Perchloroethylene (perc)
- Trichloroethylene (TCE)
- 1,1,1-trichloroethane (TCA)
- Carbon tetrachloride
- Chloroform

Material safety data sheets (MSDS) provide information on the chemical content and concentrations of solvents. The standard applies to each individual machine located at a company.

The new regulations have separate provisions for batch cold cleaning machines and batch vapor and in-line machines, including different control equipment options and monitoring and recordkeeping requirements. Compliance requirements will vary according to which compliance option is adopted.

## Batch cold cleaning machines

If you operate a cold cleaning machine, you must meet an equipment standard. If a water layer is not present over the solvent in your machine, you also must meet certain work practice requirements. After submitting initial notification and compliance reports, you will not be required to do any additional reporting or recordkeeping.

### *Immersion batch cold solvent cleaning machines*

- Employ a tightly fitting cover that must be closed at all times except during parts entry and removal, and a water layer at a minimum thickness of one inch on the surface of the solvent in the machine

Or

- Employ a tightly fitting cover that must be closed at all times except during parts entry and removal, and a freeboard ratio of 0.75 or greater

### *Remote-reservoir batch cold solvent cleaning machines*

- Employ a tightly fitting cover over solvent sump. The cover must be closed at all times, except during parts cleaning.

You are subject to the following requirements unless a water layer is used:

- Collect and store waste solvent in closed containers.
- If you use a flushing device, flush only the freeboard area of the machine.
- Drain solvent-cleaned parts for 15 seconds or until dripping stops, whichever is longer.
- Ensure the solvent level is not above the fill line.
- Clean spills immediately. Store rags in closed containers.
- When using an air- or pump-agitated bath, ensure no splashing occurs against the wall or on parts being cleaned.
- When the cover is open, do not expose machine to drafts with velocity greater than 132 feet per minute (40 meters per minute).
- Do not clean sponges, fabric, wood, or paper products in a solvent cleaning machine.

## Batch vapor and in-line solvent cleaning machines

If you operate a batch vapor or in-line solvent cleaning machine, you can comply with this standard through one of three options. You can choose an equipment standard, an emissions standard, or a mass balance standard.

If you choose the mass balance standard, you will not be required to follow EPA-specified design or work practice requirements, but you must perform minimal monitoring and recordkeeping.

### Option 1 – Equipment standard

This option involves installing control equipment and implementing an automated parts-handling system and specified work practice requirements. If you choose this option, the control equipment must meet certain specifications and be monitored regularly.

### Option 2 – Emissions standard

This option requires you to meet an idling-mode emissions limit, install an automated parts-handling system, and follow work practice requirements. If you choose this option, you must determine your machine's idling emission rate using a performance test outlined in Appendix A of the regulations. For a copy of Appendix A, contact SBEAP at 800-578-8898.

### Emissions standard idling limits

- Batch vapor cleaning machines (less than 13 ft<sup>2</sup>)  
0.045 lb/ft<sup>2</sup>-hr
- Batch vapor cleaning machines (greater than 13 ft<sup>2</sup>)  
0.045 lb/ft<sup>2</sup>-hr
- All existing in-line cleaning machines  
0.021 lb/ft<sup>2</sup>-hr
- All new in-line cleaning machines  
0.021 lb/ft<sup>2</sup>-hr

### Option 3 – Mass balance standard

This option requires you to keep your emissions below those specified below. Using mass balance calculations, you must demonstrate that total emissions, based on a three-month rolling

average, are equal to or less than the established limit for the solvent cleaner. The only other requirement is recording how much solvent you use and how much solvent waste you generate.

### Mass balance standard overall emission limits

- Batch vapor solvent cleaning machines  
30.7 lb/ft<sup>2</sup>-month
- Existing in-line solvent cleaning machines  
31.4 lb/ft<sup>2</sup>-month
- New in-line solvent cleaning machines  
20.2 lb/ft<sup>2</sup>-month
- New machines without solvent-air interface  
 $EL=330*(VOL)^{0.6}$

where:

**EL** is the three-month rolling average emission limit in kg/month (1 kg = 2.2 lbs)

**VOL** is the cleaning capacity of the machine in cubic meters (1 m<sup>3</sup> = 35.3 ft<sup>3</sup>)

For a complete listing of design, work practice, monitoring, and recordkeeping requirements for each of the above options, contact SBEAP at 800-578-8898.

## Reporting requirements

You must submit a series of reports to the U.S. Environmental Protection Agency with copies to the Kansas Department of Health and Environment. These reports will contain basic information on your machine, the compliance option used, and monitoring results.

- Initial notification reports for existing machines should have already been sent in. Reporting must be done for all new machines prior to start-up.
- Initial compliance reports are due 150 days after start-up.
- Annual compliance reports are due February 1 of each year.
- If an exceedance occurs, exceedance reporting is done quarterly. If no exceedance occurs, reporting is done semi-annually.

If you have any questions, contact SBEAP at 800-578-8898.



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