

HALOGENATED SOLVENT CLEANER RULE

GLOSSARY OF TERMS

Air blanket means the layer of air inside the solvent cleaning machine freeboard located above the solvent-air interface. The center of the air blanket is equidistant between the sides of the cleaning machine.

Automated parts handling system means a mechanical device that carries all parts and parts baskets at a controlled speed from the initial loading of soiled parts through the removal of the cleaned parts. Automated parts handling systems include, but are not limited to, hoists and conveyors.

Carbon Adsorber means a bed of activated carbon into which an air-solvent gas-vapor stream is routed and that adsorbs the solvent on the carbon.

Clean liquid solvent means fresh unused solvent, recycled solvent, or used solvent that has been cleaned of soils (e.g., skimmed of oils or sludge and strained of metal chips). It was not intended that usable solvent should be disposed. It was intended that all metal and dirt soils be removed from the machine so that solvent emissions are not underestimated.

Construction means the on-site fabrication, erection, or installation of an affected source.

Cover means a lid, top, or portal cover that shields the solvent cleaning machine openings from air disturbances when it is in place and is designed to be easily opened and closed without disturbing the vapor zone. Air disturbances include, but are not limited to, lip exhausts, ventilation fans, and general room drafts. Types of covers include, but are not limited to, sliding, biparting, and roll-top covers.

Downtime mode means the time period when a solvent cleaning machine is not cleaning parts and the sump heating coils, if present, are turned off.

Dwell means the technique of holding parts within the freeboard area but above the vapor zone of the solvent cleaning machine. Dwell occurs after cleaning to allow solvent to drain from the parts or parts baskets back into the solvent cleaning machine.

Existing cleaning machine means a cleaning machine constructed or reconstructed on or before November 29, 1993.

Freeboard height means; for a batch vapor cleaning machine, the distance from the solvent-air interface, as measured during the idling mode, to the top of the cleaning machine; For an in-line cleaning machine, it is the distance from the solvent-air interface to the bottom of the entrance or exit opening, whichever is lower as measured during the idling mode. The freeboard height for a batch cold cleaning machine is the distance from the solvent fill line (the line that the sump is filled to) to the lip of the cleaning machine.

Freeboard ratio means the ratio of the solvent cleaning machine freeboard height to the smaller interior dimension (length, width, or diameter) of the solvent cleaning machine. For example, if the height of the freeboard is 1.8 meters and the smaller interior dimension is 2 meters, the freeboard ratio would be 1.8 meters/2 meters or 0.9.

Freeboard refrigeration device (also called a chiller) means a set of secondary coils mounted in the freeboard area that carries a refrigerant or other chilled substance to provide a chilled air blanket above the solvent vapor.

Freeboard zone, for a batch vapor cleaning machine, means the area from the solvent-air interface, as measured during the idling mode, to the top of the cleaning machine; for an in-line cleaning machine, it is the area within the solvent cleaning machine that extends from the solvent-air interface to the bottom of the entrance or exit opening, whichever is lower. The freeboard zone for a batch cold cleaning machine is the area from the solvent fill line (the line that the sump is filled to) to the lip of the cleaning machine.

Hoist means a mechanical device that carries the parts and parts baskets from the loading area into the solvent cleaning machine and to the unloading area at a controlled speed. A hoist may be operated by controls or may be programmed to cycle parts through the cleaning cycle automatically.

Idling mode means the time period when a solvent cleaning machine is turned on but is not actively cleaning parts.

Idling-mode cover means any cover or solvent cleaning machine design that allows the cover to shield the cleaning machine openings during the idling mode. A cover that meets this definition can also be used as a working-mode cover if that definition is also met.

Lip exhaust means a device installed at the top of the opening of a solvent cleaning machine that draws in air and solvent vapor emissions from the freeboard area and ducts the air and vapor away from the solvent cleaning area.

New cleaning machine means a solvent cleaning machine the construction or reconstruction of which is commenced after November 29, 1993.

Potential to emit, as defined in 40 CFR Part 63, Subpart A, means the maximum capacity of a stationary source to emit a pollutant under its physical and operational design. Any physical or operational limitation on the capacity of the stationary source to emit a pollutant, including air pollution equipment and restrictions on hours of operation or on the type or amount of material combusted, stored, or processed, shall be treated as part of its design if the limitation or the effect it would have on emissions is federally enforceable.

For solvent cleaning machines, potential to emit is determined on the basis of the yearly hours of operation, the working-mode uncontrolled emission rate, and the solvent/air interface area. Unless otherwise restricted by a federally enforceable requirement, the hours of operation must be based on the total number of hours in a year (8,760 hours). A facility's total potential to emit is the sum of the HAP emissions from all solvent cleaning operations, plus all HAP emissions from other sources within the facility.

Primary cleaning time means the amount of time it takes a part to reach the vapor zone temperature.

Primary condenser means a series of circumferential cooling coils on a vapor cleaning machine through which chilled liquid or gas is circulated or recirculated to provide continuous condensation of rising solvent vapors and, thereby, create a controlled vapor zone.

Reconstruction, as defined in 40 CFR Part 63, Subpart A, means the replacement of components of an affected or a previously unaffected stationary source to such an extent that:

- (1) The fixed capital cost of the new components exceeds 50 percent of the fixed capital cost that would be required to construct a comparable new source; and
- (2) It is technologically and economically feasible for the reconstructed source to meet the relevant standard(s) established by the Administrator (or a State) pursuant to Section 112 of the Act. Upon reconstruction, an affected source, or a stationary source that becomes an affected source, is subject to relevant standards for new sources, including compliance dates, irrespective of any change in emissions of hazardous air pollutants from that source.

Reduced room draft means decreasing the flow or movement of air across the top of the freeboard area of the solvent cleaning machine to less than or equal to 15.2 meters per minute (50 feet per minute). Methods of achieving a reduced room draft include, but are not limited to, redirecting fans and/or air vents so that they do not blow across the cleaning machine, moving the cleaning machine to a corner where there is less room draft, and constructing a partial or complete enclosure around the cleaning machine.

Solvent fill line means the line, typically on the interior of a solvent cleaning machine sump, that indicates the level to which the cleaning machine should be filled with solvent.

Solvent-air interface, means; for a vapor cleaning machine, the location of contact between the concentrated solvent vapor layer and the air. This location of contact is defined as the midline height of the primary condenser coils; for a cold cleaning machine, it is the location of contact between the liquid solvent and the air.

Solvent-air interface area for a vapor cleaning machine, means the surface area of the solvent vapor zone that is exposed to the air. For an in-line cleaning machine, it is the total

surface area of all the sumps; for a cold cleaning machine, it is the surface area of the liquid solvent that is exposed to the air.

Solvent vapor zone, for a vapor cleaning machine, means the area that extends from the liquid solvent surface to the level at which the solvent vapor is condensed. This level is defined as the midline height of the primary condenser coils.

Sump means the part of a solvent cleaning machine where the liquid solvent is located.

Super-heated vapor system means a system that heats the solvent vapor, either passively or actively, to at least 10 degrees Fahrenheit (5 degrees Celsius) above the solvent's boiling point. Parts are held in the super-heated vapor before exiting the machine to evaporate the liquid solvent on them. Hot vapor recycle is an example of a Super-heated vapor system.

Water cover, for a cold cleaning machine, means a layer of water that floats above denser solvent and provides control of solvent emissions. If the solvent used is not denser than water, a water layer (water cover) will not float above your cleaning solvent and control solvent emissions. In many cases the solvent used in batch cold cleaning machines is sold containing the appropriate amount of water to create a water cover.

Working-mode means the time period when the solvent cleaning machine is actively cleaning parts.

Working-mode cover means any cover or solvent cleaning machine design that allows the cover to shield the cleaning machine openings from outside air disturbances during the working mode (i.e., while parts are in the cleaning machine) and during the idling and downtime modes. A working-mode cover is opened only during parts entry and removal. A cover that meets this definition can also be used as an idling-mode cover if that definition is also met.

<p style="text-align: center;">HALOGENATED SOLVENT CLEANER RULE</p> <p style="text-align: center;">QUESTIONS AND ANSWERS</p>
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Below is a compilation of questions that an inspector may be asked about implementation of the standard. An answer approved by the U.S. Environmental Protection Agency follows each question. Many of the questions listed are actual inquiries made at a satellite downlink seminar for small business owners in May 1995 on compliance with the rule for vapor degreasers (reference).

Q1. Why is a machine defined as new or existing based on a date of November 29, 1993?

A1. November 29, 1993 was the date that EPA proposed the emission standard for halogenated solvent cleaning.

Q2. Where can you get the test apparatus for Method 307?

A2. Reference Method 307 is described in Appendix A of 40 CFR 63 Subpart T. The Method involves reading level indicators that are required design components under the standard. Therefore, the only "equipment" needed will be incorporated as a component of the cleaning machine. No additional apparatus is required.

Q3. Can the compliance method selected for existing machines be changed before the December 2, 1997 compliance date?

A3. Yes, the method of compliance chosen by an owner or operator may be changed before the compliance date. A revision to the initial notification should be submitted to the regulating authority.

Q4. What is meant by the "location" of the degreaser mentioned in the reporting requirements?

A4. The location required in reports that must be submitted under the standard refers to the physical address of the facility where the machine is located (as opposed to the mailing address). It does not refer to the location of the machine within the facility.

Q5. How do you determine the solvent content of the solid waste resulting from cleaning out a machine?

A5. Either engineering calculations or Method 25d are acceptable under the standard.

Q6. Are there plans to eliminate or ban the use of any of the solvents covered by the rule?

A6. The Montreal Protocol on substances that deplete the ozone layer will phase out production and consumption of carbon tetrachloride and 1,1,1-trichloroethane because they are ozone depleting substances. The Agency considers each of the other listed solvents to be well regulated, and there are currently no plans to ban their use.

Q7. What are the consequences of late submittal or failure to submit the initial notification report?

A7. A late submittal or failure to submit the initial notification would be violation of the reporting requirements of the standard and, therefore, a violation of the standard itself. The appropriate regulatory or enforcement authority would deal with specific penalties associated with such violations.

Q8. For an in-line machine with a carbon adsorber, can the dwell area be outside the freeboard if solvent from the dwell goes back into the machine and the area is vented to the carbon adsorber?

A8. Yes, if the solvent is recovered from the dwell area and returned to the machine, and vapors from the dwell area are vented through a carbon adsorber, the dwell area can be located outside the freeboard.

Q9. Does a machine have to be cleaned out on a monthly basis?

A9. The standard does not require that solvent cleaning machine be cleaned out on a monthly basis. However, if the alternative standard is chosen for compliance, the owner or operator might want to clean the machine monthly. Otherwise, the solvent content of the waste will be not be accounted for and will be included in the monthly emissions estimate.

Q10. What are the Title V permitting requirements for this NESHAP?

A10. If the solvent cleaning machine is located at a major source, it must be included in the Title V permit. For machines covered by this standard that are not located at a major Title V source, EPA is allowing the States flexibility to defer requirement of a permit for up to five years.

Q11. Does the standard have a lower cut-off level for solvent use?

A11. No, the standard has no de minimis or solvent use cut-off level to determine applicability. Except for buckets, pails, or beakers with capacities of 2 gallons or less, the standard applies to all solvent cleaning machines that use the listed solvents in concentrations of at least 5 percent.

Q12. Is an exceedance report required even if there is no exceedance?

A12. Yes, an exceedance report is required at least semiannually for all affected batch vapor and in-line cleaners. If no exceedance has occurred during the reporting period, the report should state so.

Q13. If the alternative standard is chosen, do machines with lip exhausts have to have carbon adsorbers?

A13. No specific control is required if the source chooses to comply with the alternative standard. A carbon adsorber would only be required under the equipment control options.

Q14. Do batch cold-cleaning machines require an initial notification report?

A14. Yes, an initial notification report must be submitted for affected batch cold cleaners.

Q15. Does the 11-ft/min parts handling requirement refer to the conveyor speed, the vertical hoist speed, or both?

A15. The automated parts handling speed of 3.4 m/min (11 ft/min) in the base design requirements refers to *both* the vertical and horizontal speeds of the system.

Q16. How often do values of idling emissions have to be verified?

A16. The idling emission rate must be initially established based on information from the manufacturer or a Reference Method 307 test. The conditions and parameters used to establish initial compliance must then be monitored periodically, but the actual idling emission rate does not. However, if *any* of the conditions or parameters change, the idling emission rate will have to be reestablished using Method 307 under the new conditions.

Q17. If an existing machine will be shut down by December 2, 1997, is an initial notification report required?

A17. Yes, an initial notification report was due by August 29, 1995. The report, or any revision to the report, should clearly state that the machine will be shut down before the compliance date to avoid inquiries about the initial compliance report.

Q18. Are solvent spray cans containing greater than 5 percent of a listed solvent covered under the standard?

A18. No, spray cans and hand wipes are not covered under this standard.

Q19. How will the operator test be administered if the operator is unable to read or write in English?

A19. The test could be administered verbally or translated into a language understood by the operator. The specifics of administration in this type of situation will be up to the regulatory authority implementing the standard.

Q20. What if an operator misses questions on the test (i.e., what is considered passing), and what are the consequences?

A20. The test and the answers are supplied in 40 CFR 63 Subpart T, Appendix B, so operators should be able to thoroughly familiarize themselves with it in case it is given by an inspector. Whether an operator passes, and thus compliance is demonstrated, will be determined by the regulatory authority implementing the standard.