

## 6 NYCRR Part 232- Perchloroethylene Drycleaning Facilities Leak Detection Inspections and Self-Monitoring

On May 15, 1997, the New York State Department of Environmental Conservation (DEC) promulgated a major revision to the state regulation affecting perchloroethylene (perc) drycleaners, Part 232. One section of this regulation requires owners and operators to inspect their equipment for liquid and vapor leaks every week, using a checklist supplied by DEC. The items to be checked under Part 232 are virtually identical to leak checks required under the National Emission Standard for Hazardous Air Pollutants (NESHAP) for drycleaning. This fact sheet will help you to comply with both state and federal requirements.

### Leak Detection Equipment

The weekly inspection for leaks must use one or more of the following, properly calibrated, devices or methods:

- A halogenated-hydrocarbon detector,
- A portable gas analyzer,
- An air sampling pump, colorimetric tube, or
- An alternative method approved by DEC.

### What to Inspect

Every week, while the drycleaning system is operating, the trained operator must inspect all of the following components for perceptible liquid and vapor leaks and for proper operation, and record the results on the DEC checklist (NOTE: additional components are found on the checklist):

- Pumps
- Door gaskets and seatings
- Filter gaskets and seatings
- Stills
- Water separators
- Solvent tanks
- Cartridge housings
- Exhaust dampers
- Hazardous waste containers
- Button and lint traps
- Muck cookers
- Diverter valves

**IMPORTANT!** Make sure to read and understand your machine operating manual well enough to know when the various components listed above are engaged in circulating the liquid perc or the air/perc vapor stream so that if a leak exists, it can be detected. If the component/part is not pressurized, activated, or up to operating temperature, checking for leaks will be inconclusive at best. *Completed checklists must be kept on-site for five years from the date of the inspection.*

### Leak Detection Instruments

The most common device used for leak detection is the halogenated-hydrocarbon detector that beeps loudly and rapidly in the presence of a perc leak. Most of these devices are able to detect leaks at concentrations over 20 ppm. They are simple to use and require no calibration. Typically, the operating instructions require only that the device be turned on in an area free of perc (i.e. outdoors) in order to have the detector set at the greatest sensitivity (able to detect the lowest possible leak levels). The tip of the detector is placed within one

to two inches of the area being checked and moved slowly back and forth before moving on to the next area, it must be moved slowly to work properly.

The sensing tip can become fouled and may need to be replaced if a heavy vapor or liquid leak is detected with the device. Read the operating manual carefully and change the batteries regularly.

### **If a Leak is Detected**

If the operator detects any liquid leak, vapor leak, or malfunction, it must be noted on the checklist and repaired immediately, if at all possible. If the leak cannot be repaired upon detection, the leaking component should be physically marked or tagged so that it is readily observable by an inspector. The leak should be repaired within 24 hours, unless repair parts are unavailable. If the parts are unavailable, the parts must be ordered within two working days of detecting the leak. The parts must be installed within *five working days* of receipt.

Equipment that has not been repaired within 15 working days of the leak detection must not be operated until the leak is repaired, unless the owner or operator receives a leak-repair extension from the DEC regional office. The phone number for your regional office should appear on your dry cleaning facility registration certificate. Once a repair is complete, the operator must record the completion date on the checklist.

Any fugitive perc emission concentration greater than 50 ppm emanating from any part of the drycleaning system is a violation. The only exception is for short-term maintenance operations involving the opening of drycleaning system components for inspection or repair.

### **Refrigerated Condenser**

Refrigerated condensers must be operated following the manufacturers specifications. Operators must ensure that exhaust gases and the air-vapor stream at the outlet are maintained at temperatures  $\leq 45^{\circ}\text{F}$ . Check the coolant pressure gauges to see if the pressures are within manufacturers specifications.\*\*

### **3<sup>rd</sup> Generation Machines Equipped with a Door Fan**

The operator must also conduct the following weekly inspections and note the results on the same checklist:

- Test carbon adsorber exhaust vents using colorimetric detector tubes or portable halogen detectors. These adsorbers must be controlled to a design emission standard of 5 ppm perc with an in-use maximum standard of 20 ppm.\*\*
- Check the inward air velocity of a loading door fan with a portable velometer or equivalent device.
- Minimum inward air velocity must be 100 feet per minute.

Colorimetric testing devices consist of a pump and a sealed glass tube containing a chemical reagent that changes color when exposed to a specific chemical. The tips of the sealed glass tube are broken and inserted like a straw into the end of the pump that draws an air/vapor sample from the vent coming out of the carbon adsorber. They are accurate and fairly simple to use. These same instruments are used by DEC-registered inspectors during the required annual compliance inspections at plants operating 4<sup>th</sup> generation machines. These machines must be operated and maintained such that the perc vapors remaining the drum-wheel at the end of the cycle when the clothes are being removed from the machine do not exceed 300 ppm. If you need to use this instrumentation regularly, or are considering using one for your own specific reasons, please contact the SEBAP for additional advice on purchasing and using this type of instrument.

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