

## 6 NYCRR Part 232: Perchloroethylene Drycleaning Facilities Vapor Barriers & General Exhaust Systems

In the spring of 1997, the New York State Department of Environmental Conservation (DEC) issued a major revision to Part 232, the state air pollution control regulation that applies to all new and existing perchloroethylene (perc) drycleaners.

This fact sheet provides a **general overview of the requirements for vapor barriers and general exhaust systems contained in this regulation** that became effective May 15, 1997. Additional fact sheets and technical information can be accessed on our website or by calling the Small Business Environmental Assistance Program (SBEAP) at the toll-free number listed below; all of our services are free and confidential.

### Mixed-Use Buildings

Part 232 requires all facilities in mixed-use buildings (sharing a common wall, floor, or ceiling with residence or business) to install vapor barriers and general exhaust ventilation systems.

Part 232 defines co-located as sharing a common wall, floor, or ceiling with a residence or business. The purpose of this system is to remove the small amounts of perc that can be released into the building during normal operations while also containing any perc vapors released during repair work or malfunctions. These releases are commonly referred to as “fugitive emissions,” or emissions that escape the control systems in place on the dry cleaning machine. New mixed-use commercial facilities must install the vapor barrier and exhaust system around the dry cleaning system before startup and opening for business. Stand-alone drycleaning facilities are not required to install vapor barriers and general exhaust systems.

**Please note that no new perc drycleaning machines can be installed in a residential building after July, 27, 2006** (see fact sheet titled: U.S. EPA NESHAP Requirements for Drycleaners for additional information).

### Vapor Barrier Requirements

The vapor barrier must at least enclose the drycleaning equipment, including third generation machines with add-on carbon adsorbers or “sniffers”. Other equipment, such as the spotting table, may also be enclosed within the vapor barrier. The vapor barrier must be constructed of materials impermeable to perc vapors, such as:

- Glass (sliding glass doors)
- Structoglas, a fiberglass reinforced plastic panel product manufactured by Crane Composites Company
- Sheet metal
- Epoxy coatings approved by DEC - please call the SBEAP for a list of approved coatings
- Metal-foil-faced composite board, and
- Polyvinyl chloride (PVC) sheet 22 mil (0.022 inches) thick.

Other equivalent materials may be used once their impermeability to perc is demonstrated and approved by DEC. All joints and seams in the vapor barrier must be sealed. *The entry door must remain closed except when a person is entering or exiting the enclosure.*

### General Exhaust Ventilation System Requirements

The area enclosed within the vapor barrier must be properly ventilated to remove/exhaust the fugitive emissions of perc that accumulate. Part 232 defines a general ventilation system as “a mechanical exhaust ventilation system consisting of fresh air makeup inlets and one or more exhaust fans in a drycleaning facility.” This system must be completely separate from the ventilation system(s) for the remainder of the building. The general exhaust ventilation system must be operated whenever the drycleaning machine(s) is

operating and during any maintenance operations. Emissions must be exhausted to the outside air. The system must be designed and operated to maintain a negative pressure at each opening in the enclosure whenever the drycleaning machine(s) is operating and be capable of at least one complete air change every five minutes. The SBEAP can perform the required calculations to ensure the exhaust fan is properly sized for the room.

Plans for the vapor barrier/enclosure and exhaust system must be included with the facility registration application that is submitted to the Air Pollution Control Engineer at your Regional DEC Office. When constructing a new facility, the owner and/or operator may not install or operate the drycleaning and vapor barrier systems until a registration certificate is received from the DEC. The DEC will generally notify the owner/operator on the acceptability of the registration application within 30 days of receipt at the Regional Office.

Some local regulatory authorities, such as building departments and environmental agencies, may require facilities to obtain building permits and approvals prior to constructing vapor barriers and exhaust systems. These authorities may also limit the materials you may use to construct the vapor barrier. Check with your local authorities for specific requirements.

### **Room Enclosure/Exhaust System Tips**

The SBEAP suggests that drycleaning facility owners and managers consider the following tips when planning their vapor barrier enclosure and general exhaust ventilation system:

- Seek a reputable contractor (one with ventilation expertise).
- Always consider having a qualified professional design it and draw up plans, even if you plan to build it yourself.
- Enclose as much space as possible so that you can;
  - enclose the spotting table and waste storage within the vapor barrier, and
  - allow for easy servicing and repair of your machine (i.e. refrigeration coils).
- Consider a two speed fan to vary air flow during warm and cold months.
- If you do not use sliding glass doors, have hinged doors open outward and equip them with a self-closing spring.
- Wire lights and ventilation fan to the same switch.
- Locate the fresh air intake near the front of the machine and the exhaust vent near the rear of the machine.
- For cold-weather comfort, use moveable louvers on the opening for the intake air vent so you can redirect intake air drawn from outdoors within the room.

### **Ventilation and Vapor Barrier Guidebook**

A more comprehensive and detailed guide on this subject, developed by the SBEAP, is also available. This guidebook contains design and performance information and tips gathered from extensive discussions with installers, drycleaners and the DEC. To obtain a free copy, contact the SBEAP by phone at the number below:

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