

FREQUENTLY ASKED QUESTION AND RESPONSE

APPLICATION FOR MODIFICATION OF FIRE SPRINKLER REQUIREMENT FOR DRY CLEANING ESTABLISHMENTS REPLACING PERCHOLETHYLENE EQUIPMENT

- Q. I own a dry cleaning establishment. For environmental reasons, dry cleaning establishments such as mine have been mandated by New York State law to discontinue, by the end of 2020, use of dry cleaning equipment designed to operate with the cleaning solvent perchlorethylene (perc). I have been advised that replacement of this equipment with new dry cleaning equipment is an alteration to my facility that triggers compliance with current Fire Code requirements, specifically the requirement that dry cleaning establishments be protected throughout by a sprinkler system.**

Installation of a sprinkler system would be complicated and prohibitively expensive for a small business such as mine. The apartment buildings in which most dry cleaning establishments are located are generally not sprinklered, which means that a water supply for the sprinkler system would need to be brought into the building from the street main. Substantial design, filing and installation costs would be incurred, and owner consent would be required, which likely will result in additional financial costs and obligations. This is in addition to the substantial cost associated with replacement of the dry cleaning equipment itself.

Is there an alternative that will address the Fire Department's fire safety concerns without imposing this compliance burden on small businesses?

- A. Yes. The Fire Department will consider, on a case-by-case basis, modification (variance) of the Fire Code sprinkler requirement.**

Fire Code Sprinkler Requirement and Replacement of Dry Cleaning Equipment

Prior to July 1, 2008, the then-applicable New York City Fire Prevention Code required no sprinkler protection of dry cleaning establishments or sprinkler protection of the dry cleaning equipment. However, sprinkler protection may have been required as a condition of Materials and Equipment Acceptance (MEA) approval of the dry cleaning equipment by the NYC Department of Buildings.

Fire Code Section FC1208 provides that dry cleaning facilities containing Type II, Type III-A and Type III-B dry cleaning systems must be protected throughout by a sprinkler system ("fully sprinklered"). This sprinkler protection requirement was first enacted in the 2008 New York City Fire Code in response to the anticipated return to use of combustible dry cleaning solvents. The dry cleaning solvent then in common use, perchlorethylene (perc), was noncombustible, but was being phased out for environmental reasons.

The Fire Code generally does not require that pre-existing, lawfully-installed installations be brought into compliance with subsequent Fire Code design and installation requirements. See FC102.3 and 102.4. However, when a facility undergoes alteration, compliance with current Fire Code requirements is required. See FC102.5(4). Replacement of the dry cleaning equipment in a dry cleaning establishment with equipment using a different solvent would constitute such an alteration.

Modification Considerations

The Fire Department's mission is fire safety and that is the focus of its Fire Code enforcement efforts. However, the Fire Code (in FC104.8) empowers the Fire Department to grant modifications from Fire Code requirements in recognition of the fact that in "unusual" circumstances, it may be impracticable to demand strict compliance with such requirements.

The cost of Fire Code compliance in and of itself is usually insufficient to warrant a variance. However, the replacement of equipment is ordinarily a business decision into which the cost of code compliance can be factored. In the present circumstance, replacement of perc dry cleaning equipment has been mandated for reasons unrelated to fire safety.

The modern dry cleaning equipment replacing perc equipment uses environmentally-friendly but combustible cleaning solvents. Dry cleaning requires the heating of these cleaning solvents, which presents a potential fire hazard.

However, most modern dry-cleaning equipment incorporate "inherently safe" designs that minimize the potential fire hazard associated with combustible dry cleaning solvents. This is done by excluding oxygen from the cleaning process, incorporating sensors and shut-down switches that limit maximum solvent temperatures, and/or incorporating fire suppression systems within the equipment cabinet.

With these improved designs, the potential fire hazard posed by the dry cleaning equipment and solvents is substantially reduced. Accordingly, consideration of a modification is warranted. This is consistent with national fire safety standards. The International Fire Code, the model for the New York City Fire Code, has since its 2012 edition required the use of these "inherently safe" equipment and has not required that dry cleaning establishments be fully sprinklered.

Absent countervailing considerations, and subject to various terms and conditions (including those outlined below), the Fire Department will accept the installation of sprinkler heads above the dry cleaning equipment ("partial sprinkler installation") to control and extinguish any fire emanating from the equipment in lieu of fully sprinklering the dry cleaning establishment.

Modification Application Requirements

Dry cleaning establishments which are replacing pre-existing, lawfully installed perc dry cleaning equipment may apply for modification of FC1208 to allow a partial sprinkler installation instead of fully-sprinklering the dry cleaning establishment. Applications will be considered on a case-by-case basis.

Such applications must be submitted online (<https://www1.nyc.gov/site/fdny/business/all-certifications/plan-tm.page>) using the Bureau of Fire Prevention Fire Code variance application and the following information and documentation.

1. The name, address (including block and lot) and owner of the dry cleaning establishment, including the date of present ownership, and the owner of the building in which the dry cleaning establishment is housed.
2. A copy of the current Certificate of Occupancy for the building. If the current Certificate of Occupancy post-dates July 1, 2008, additionally provide a copy of the last Certificate of Occupancy in effect on or before July 1, 2008.

3. The date that the dry cleaning establishment commenced operation at its present location. (Include a copy of the NYC Department of Environmental Protection operating permit for the location. The permit must pre-date July 1, 2008. If not, provide an explanation as to the circumstances.)
4. The date of installation of the perc dry cleaning equipment being replaced. (Include a copy of the NYC Department of Environmental Protection installation permit.)
5. The make, model and year of manufacture of the dry cleaning equipment proposed to be installed, approved cleaning solvent (Type IIIA or IIIB solvent, as defined in FC1202.1), and all fire safety features inherent in the design of the equipment. (This information should be documented by an original equipment manufacturer certification and/or relevant portions of the original equipment manufacturer's manuals, specifications, safety data sheets and/or other materials.)
6. If the building is not owned by the applicant, a letter from building owner consenting to the proposed installation, including the proposed partial sprinkler installation.
7. NYC Department of Buildings-approved floor plans or other documentation showing the design and construction of the space occupied by the dry cleaning establishment, specifically including the fire rating of the floors, walls and ceilings of the space. If such documentation is not available, a certification from a registered architect or professional engineer attesting to such fire rating, and stating the basis for such finding. If the dry cleaning establishment is not housed in a occupancy with a two-hour fire-rating, as required by the 1968 and subsequent Building Codes, either the fire rating of the floors, walls and/or ceilings must be upgraded or the dry cleaning equipment enclosed in a one-hour fire-rated enclosure, with the ventilation required by the NYC Mechanical Code.
8. Certification from a recognized testing organization that the dry cleaning equipment complies with National Fire Protection Association Standard 32 and any other applicable national or international standards, such as ANSI or UL standards (indicate edition date).
9. A copy of the construction documents filed or that will be filed with DOB for the dry cleaning equipment installation and related alterations, and the design and installation documents filed or that will be filed with the Fire Department.
10. The required \$200 modification application fee.

In its discretion, the Fire Department may require additional information and documentation to establish the eligibility of the establishment for a variance; the design and safety of the dry cleaning equipment; the design, construction and use of the building; or other relevant particulars.

Approved Modifications

If granted, the Fire Department modification will be conditioned on obtaining the required DOB and Fire Department plan approvals for the equipment installation and any construction; applicable Fire Department permit and Certificate of Fitness; periodic inspection and maintenance of the dry cleaning equipment; a limit (330 gallons) on the quantity of solvent stored, handled and used in the dry cleaning establishment; and such other terms and conditions as the Fire Department may deem necessary or appropriate.