NFPA®

32

Standard for Drycleaning Facilities

2021

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This edition of NFPA 32, *Standard for Drycleaning Facilities*, was prepared by the Technical Committee on Textile and Garment Care Processes. It was issued by the Standards Council on October 5, 2020, with an effective date of October 25, 2020, and supersedes all previous editions.

This edition of NFPA 32 was approved as an American National Standard on October 25, 2020.

Origin and Development of NFPA 32

This standard was originally prepared by the Committee on Flammable Liquids in cooperation with the National Association of Dryers and Cleaners in 1924 and the first edition was adopted in 1925. Amendments were adopted in 1927; completely revised editions were issued in 1936, 1944, and 1956; amendments were adopted in 1964; a completely revised edition was issued in 1970; amendments were adopted in 1972; and completely revised editions were issued in 1974 and 1979. There was a minor amendment in the 1985 edition, which was reconfirmed in 1990, and minor changes were adopted for the 1996 edition.

For the 2000 edition, general requirements for all plants, regardless of solvent in use, were moved to the front of the standard. There was better correlation of the requirements for each plant type with the relative hazards potentially present. Various protection requirements were made less stringent in cases where a plant had reduced quantities of solvent in combination with various redundant safety systems for the equipment. Requirements were added to address machine conversion to allow a machine to use another solvent, as was a common occurrence in the industry.

For the 2004 edition, additional guidance and definitions were added to better define and explain machine conversions made to allow for use of a different class of solvent.

For the 2007 edition, new options were added to allow for increasing the maximum concentration to 60 percent or below of the LEL with adequate automatic instrumentation and safety interlocks in accordance with NFPA 69. Also, new requirements were added for drycleaning using nonflammable liquefied gases in pressure vessels, including, but not limited to, carbon dioxide solvent technologies. A chapter was added for new requirements for laundry equipment in drycleaning plants.

For the 2011 edition, the technical committee added new definitions for *laundry, laundry dryer,* and *wet cleaning* and revised the definition of *Class IV solvents*. The requirements for employee training and the inspection frequency for fire protection systems were revised to be in accordance with NFPA 25 and requirements for boiler room separation by barrier walls in accordance with *NFPA 5000* were added. The requirements for temperature control for laundry dryers to accommodate a cool-down period in order to eliminate the potential for spontaneous combustion within the dryers were also revised.

The 2016 edition of NFPA 32 was reorganized and included significant changes that established requirements based on two variables: the class of solvent and the type of equipment used. The technical committee recognized that NFPA 32 had many requirements initially established for flammable solvents and older technologies that had been retained in the document over the years. It was not always clear which requirements applied only to lower classes of solvents and older technologies. The 2016 edition reflected changes that occurred in both solvents and equipment used by the drycleaning industry that impacted safety. The requirements were less stringent for facilities that used higher classes of solvent and equipment and had built-in fire protection features than for those facilities that used lower classes of solvents and older equipment. NFPA 32 defined four "versions" of equipment, Versions I through IV, and established requirements that were based on both the version of equipment and solvent class used rather than on the solvent class alone.

The standard was reorganized to place requirements applicable to all drycleaning facilities in Chapters 4 through 6. Additional requirements, located in Chapters 7 through 9, were dependent on the lowest class of solvent used in a particular facility. Requirements in those latter chapters were dependent on the versions of equipment used within the facility. A flow chart was added as a new Annex B to direct users and AHJs to the applicable requirements. Equipment construction requirements were removed since drycleaning equipment was required to be listed, and the requirements for Class IIIA and Class IIIB were combined.

The 2016 edition also addressed emerging fire safety concerns related to the conversion of equipment and solvents. With the increasing regulation of perchloroethylene, drycleaning facilities might have decided to change to new solvents or new equipment. The 2016 edition prohibited the use of lower class solvents in existing equipment designed for higher solvent classes and required AHJ notification for any changes in solvent class. This edition also established requirements for changes within the same solvent class to ensure that the new solvent was compatible with the equipment. The solvent manufacturer was required to certify the flash point and flammable limits of the solvent under anticipated conditions of drycleaning operations and had to provide the facility with written instructions on proper use and safe handling of the solvent.

The 2021 edition has continued with the reorganization of the standard by reorganizing chapter 6. The reorganized chapter 6 now flows in a user-friendly way; requirements for the equipment and change of equipment are grouped together, and requirements for solvent and change of solvent are grouped together. Chapter 4 now has requirements for flammable and combustible liquid classification as well as their analogous solvent classification counterparts.

Dedication

The technical committee dedicates the 2021 edition of NFPA 32 to the memory of James "Jimmy" DeSanto, a former committee member who grew up working in and eventually running his father's drycleaning plant in Illinois. Jimmy devoted his life to the industry and to helping drycleaners across the United States. Jimmy had a passion for the industry, never met a stranger, and always brought smiles and laughter to any situation.