

STANDARD INFORMATION

Standard Number: NFPA 32

Standard Name: Drycleaning Facilities

Standard Edition and Issue Date: 2016 Edition Dated December 4, 2015

Date of Revision: December 4, 2015

Date of Previous Revision of Standard: 2011 Edition Dated January 2, 2011

EFFECTIVE DATE OF NEW/REVISED REQUIREMENTS

Effective Date: **September 30, 2020**

IMPACT, OVERVIEW, AND ACTION REQUIRED

Impact Statement: A review of all Listing Reports is necessary to determine which products comply with new/revise requirements and which products will require re-evaluation. **NOTE:** Effective immediately, this revised standard will be exclusively used for evaluation of new products unless the Applicant requests in writing that current requirements be used along with their understanding that their listings will be withdrawn on Effective Date noted above, unless the product is found to comply with new/revise requirements.

Overview of Changes:

- New requirements for solvents and safety
- Introduction of four “versions” of equipment
- New requirements for fire safety

Specific details of new/revise requirements are found in table below.

If the applicable requirements noted in the table are not described in your report(s), these requirements will need to be confirmed as met and added to your report(s) such as markings, instructions, test results, etc. (as required).

Client Action:

Information – To assist our Engineer with review of your Listing Reports, please submit technical information in response to the new/revise paragraphs noted in the attached or explain why these new/revise requirements do not apply to your product (s).

Current Listings Not Active? – Please immediately identify any current Listing Reports or products that are no longer active and should be removed from our records. We will do this at no charge as long as Intertek is notified in writing prior to the review of your reports.



STANDARD INFORMATION

CLAUSE	VERDICT	COMMENT
		<i>Additions to existing requirements are underlined and deletions are shown lined out below.</i>
	Info	Determination of solvent vapor concentration shall be made by application of the Vapor Concentration Measurement Test, Section 37 in the <i>Standard for Solvent Distillation Units</i> , ANSI/UL 2208-2006.
6	Info	General Equipment and Solvent Requirements
6.1	Info	General.
		<i>New clause added;</i>
6.1.3		Where a change in solvent class is proposed for use with existing equipment, the requirements of Section 6.2 and the applicable requirements of Chapters 7 through 10 shall apply.
6.2	Info	Change of Solvent.
6.2.3		Explosion Protection Equipment with explosion hazards resulting from modification of existing equipment or change in solvent class from a previous approval shall be provided with explosion protection, in accordance with NFPA 69.
		<i>New section added;</i>
6.3		Change in Version of Drycleaning Equipment in Existing Facilities.
6.3.1		The AHJ shall be notified of a proposed change in the version of equipment, in accordance with 1.5.1.
6.3.2		Where a change in the version of equipment occurs, the applicable provisions of Chapters 6 through 9 shall apply.
		<i>New section added;</i>
6.4		Drycleaning Equipment.
6.4.1		Equipment shall be designed, listed, and labeled for the class of solvent used.
6.4.2		Equipment shall be constructed of materials that are compatible with the solvent(s) for which the equipment is designed in accordance with 6.5.3 and 6.5.4.
6.4.3		Where required by the equipment manufacturer, equipment shall be securely attached to the floor or, if necessary, to special foundations to minimize transmission of vibration to surrounding areas.
6.4.4		All equipment shall be marked or furnished with a label affixed to the equipment indicating safe operation, warnings, and precautions and shall include the following:
		(1) Minimum allowable solvent flash point



CLAUSE	VERDICT	COMMENT
		(2) Warnings that the equipment is not to be operated with a solvent class other than the solvent class stated (3) Warnings the equipment can only be operated with compatible solvents and materials (4) Warnings that equipment can only be operated by trained personnel
6.4.5		All solvent-handling equipment shall be constructed and maintained so as to prevent leakage.
7	Info	Type II Drycleaning Facilities
7.3	Info	Building Services
		<i>New clause added;</i>
7.3.2		Electrical Installations. Electrical wiring and utilization equipment shall comply with the provisions of NFPA 70 for use in Class I Division 2 hazardous classified locations.
		<i>New section added;</i>
7.4		Automatic Sprinklers.
7.4.1		Facilities shall be protected throughout by an approved automatic sprinkler system in accordance with 4.6.2 except as permitted in 7.4.1.1.
		Automatic sprinklers shall not be required in facilities where the quantity of Class II solvents for facilities using Version III equipment, and storage does not exceed 568 L (150 gal), providing the equipment incorporates an integral automatic fire-extinguishing system, and includes instrumentation, equipment, or controls that provide one of the following:
7.4.1.1		(1) Features that limit oxygen concentrations to less than 8 percent by volume (2) Features that limit solvent vapor concentration to less than 25 percent of the LEL (3)* Features that limit solvent vapor concentration at or below 60 percent of the LEL, where automatic instrumentation with safety interlocks is provided in accordance with NFPA 69
7.5	Info	Storage Tanks.
		<i>New clause added;</i>
7.5.2		Tank Vents. Tank vents shall be installed and constructed in accordance with NFPA 30.
		<i>New clause added;</i>
7.5.2.2		Where a gauge glass or sight glass is mounted on a solvent tank, it shall be protected in a way that prevents it from allowing solvent to escape.
7.6	Info	Interconnecting Components and Plumbing from Individual Pieces of Equipment and Tanks



CLAUSE	VERDICT	COMMENT
		<i>New clause added;</i>
7.6.1		Underground piping, valves, and fittings shall be installed and tested in accordance with NFPA 30.
7.6.3		Flexible hose suitable for the solvent shall be permitted as necessary for connections between vibrating and stationary equipment <u>and shall be visible for periodic inspection of leakage and wear.</u>
7.6.5.3		All pumps that handle solvent shall be identified for use with flammable liquids <u>Class II solvents.</u>
7.6.5.5		Where a continuous solvent flow circulation is maintained by means of a circulating pump, solvent coolers shall be provided to maintain a solvent temperature not exceeding 32.2°C (90°F) <u>to exceed 30 degrees below flash point.</u>
7.6.5.5.1		Visual and audible alarm devices <u>and automatic shutdown of non-safety related components</u> shall be provided to warn the operator if solvent temperature exceeds 32.2°C (90°F) <u>is not maintained 30 degrees below solvent flashpoint.</u>
7.7	Info	Drycleaning Equipment and Stills.
7.7.2		Equipment with drying capabilities, reclaiming dryers, or washers with solvent heating capabilities shall be equipped with all of the following: (1) Automatic extinguishing systems installed and maintained in accordance with 4.6.3 (2) Self-closing explosion hatch area equal to at least 0.22 m ² /m ³ (1 ft ² /15 ft ³) of cylinder volume <u>(3) Hatches that open away from the operator</u>
8	Info	Type III Drycleaning Facilities
8.3		<i>New section added;</i> Building Services.
8.3.1		Electrical Installations. Electrical equipment and wiring in Type III facilities shall be in accordance with NFPA 70 Class I Division 2, except as permitted in 8.5.2.3.2.
8.5		<i>New section added;</i> Process and Equipment Requirements.
8.5.1		Storage Tanks. Storage tanks over 60 gal shall be constructed and installed in accordance with NFPA 30.
8.5.1.1		In facilities located in buildings with other occupancies or without sprinklers, each aboveground tank shall have a capacity of not more than 1250 L (330 gal), and the total solvent capacity of such occupancy, including inside aboveground and underground storage tanks, shall not exceed 5000 L (1320 gal).
8.5.2		Equipment and Still Requirements.



CLAUSE	VERDICT	COMMENT
8.5.2.1		<p>Equipment with drying capabilities, reclaiming dryers, or washers with solvent heating capabilities shall be equipped with all of the following except as permitted in 8.5.2.1.1:</p> <p>(1) Automatic extinguishing systems installed and maintained in accordance with 4.6.3</p> <p>(2) Self-closing explosion hatch area equal to at least 0.22 m²/m³ (1 ft²/15 ft³) of cylinder volume</p> <p>(3) Hatches that open away from the operator</p>
8.5.2.1.1		<p>Automatic extinguishing systems and self-closing hatches shall not be required if the equipment has integrated instrumentation, systems, or controls that independently provide any one of the following:</p> <p>(1) Features that limit oxygen concentrations to less than 8 percent by volume</p> <p>(2) Features that limit solvent vapor concentrations to less than 25 percent of the LEL</p> <p>(3)* Features that limit solvent vapor concentration at or below 60 percent of the LEL where automatic instrumentation with safety interlocks is provided in accordance with NFPA 69</p>
8.5.2.2		If steam is used as the source for heat, a pressure regulating valve shall be installed in the steam supply line.
8.5.2.2.1		Stills shall be liquid tight and gastight.
8.5.2.2.2		Stills shall be designed for operation based on the vacuum principle.
8.5.2.2.3		If a relief valve is provided, it shall be equipped with a vent line extending to the outside of the building.
8.5.2.2.4		Each still shall be provided with a combination vacuum and pressure gauge.
8.5.2.3		Equipment Electrical Requirements.
8.5.2.3.1		<p>For equipment in which solvent is heated above ambient temperatures in washing or drying to a temperature that allows the solvent vapor concentration to equal or exceed 25 percent of the LEL, the electrical equipment and wiring shall be designed in accordance with NFPA 70 Class I Division 2, except as permitted in 8.5.2.3.2.</p> <p>The electrical equipment and wiring shall be in accordance with NFPA 70, as long as it contains instrumentation, systems, or controls that are active in washing or drying that provide any one or combination of the following:</p>
8.5.2.3.2		<p>(1) Features that limit oxygen concentrations to less than 8 percent by volume</p> <p>(2) Features that limit solvent vapor concentration to less than 25 percent of the LEL</p> <p>(3)* Features that limit solvent vapor concentration at or below 60 percent of the LEL where automatic instrumentation with safety interlocks is provided in accordance with NFPA 69.</p>
8.5.2.3.3		Visual and audible alarm devices and automatic shutdown of non-safety related components shall be provided to deenergize equipment if its integrity has been compromised and not functioning as designed.



CLAUSE	VERDICT	COMMENT
9	Info	Type IV Drycleaning Facilities
9.3	Info	Processes and Equipment.
9.3.4	Info	Drycleaning Using Nonflammable Liquefied Gases in Pressure Vessels.
9.3.4.2	Info	Liquefied Gas Requirements.
9.3.4.2.1	Info	Liquefied Carbon Dioxide Requirements.
9.3.4.2.1.1		<u>Where carbon dioxide storage tanks are installed inside buildings</u> , a listed gas detection system <u>with an audible local alarm</u> shall be installed to notify building occupants if a leak of carbon dioxide occurs.
CUSTOMERS PLEASE NOTE: This Table and column "Verdict" can be used in determining how your current or future production is or will be in compliance with new/revised requirements.		