

VIRGINIA FIRE SERVICES BOARD

Codes and Standards Subcommittee

Tuesday, May 14, 2019

A regular meeting of the Codes and Standards Subcommittee was held at VDFP HQ on Tuesday, May 14 . Code Subcommittee Chair, Andrew Milliken facilitated this meeting.

COMMITTEE MEMBERS PRESENT

Andrew C. Milliken, Chair
Perry Weller
Ernie Little
Steven Sites
Brian McGraw, State Fire Marshal
Mike Perdue
Linda Hale

COMMITTEE MEMBERS ABSENT

Garret Dyer
Henry Rosenbaum
Maurice Wilson
Sean P. Farrell
Elain B. Gall
Kris Bridges

GUESTS PRESENT

N/A

AGENCY MEMBERS PRESENT

Mohamed G. Abbamin

UNFINISHED BUSINESS

A. Chapters 24-27

NEW BUSINESS

N/A

COMMENTS FROM FIRE PREVENTION AND CONTROL CHAIRMAN

Chair Milliken welcomed everyone. He advised attendees of the upcoming Stakeholder Meeting @ DHCD/BHCD on May 23. He requested for VDFP staff to send a calendar invite/notice to the full board members.

Chair Milliken also added that the group would skip Chapter 50 and 57 due to its length.

UNFINISHED BUSINESS

Topic: 2015 VSFPC Amendments

Motion: N/A

Topic Discussion: The discussion continued to cover the below chapters (Green);

Chapter 20 – Linda Hale	Chapter 29 – Andrew Milliken
Chapter 21 – Steve Sites	Chapter 30 – Andrew Milliken
Chapter 22 – Perry Weller	Chapter 31 – Linda Hale
Chapter 23 – State FM McGraw	Chapter 32 – Maurice Wilson
Chapter 24 – Mike Perdue	Chapter 33 – Steve Sites
Chapter 25 – Ernie Little	Chapter 34 – George Fitzgerald
Chapter 26 – Perry Weller	Chapter 35 – Steve Sites
Chapter 27 – State FM McGraw	Chapter 36 – Kris Bridges

Chapter 28 – Linda Hale	Chapter 37 – Ernie Little
Chapter 51 – Andrew Milliken	Chapter 55 – Andrew Milliken

See Enclosure 1 – Spreadsheet

Vote: N/A

Topic: Chapters 24 and 27

Motion: Motion to approve the committee’s recommendations of chapters 24 and 27 of the 2018 Virginia Statewide Fire Prevention Code. These chapters will be submitted to the 2018 code development process for consideration at the May 23 workgroup session

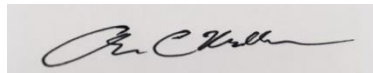
Topic Discussion: Edits made to the above chapters.

Vote: Unanimous

Motion Action: Motion Carries

See Enclosure 1 – Spreadsheet

REVIEWED BY:



Andrew Milliken, Committee Chair

May 14, 2019
Date

Enclosure 1: Spreadsheet

DRAFT

2012 VSFPC	2015 VSFPC Amendment	Notes	VFSB CSC Recommendation	VFSB CSC Vote	Other Comments or Recommendations
2401.3 Permits. Permits shall be required as set forth in Section 107.2.	2401.3 Permits. Permits shall be required as set forth in Section 107.2		No change		
2403.2.1 Electrical wiring and equipment. Electrical wiring and equipment shall comply with this chapter and NFPA 70.	(N)2403.2.1 Electrical wiring and equipment. Electrical wiring and equipment shall be maintained in accordance with the applicable building code	add the words "and the International Fire Code" because the building code does not address this	2403.2.1 Electrical wiring and equipment. Electrical wiring and equipment shall be maintained in accordance with this chapter, chapter 6 and NFPA 70.		
2403.2.1.1 Flammable vapor areas. Electrical wiring and equipment in flammable vapor areas shall be of an explosionproof type approved for use in such hazardous locations. Such areas shall be considered to be Class I, Division 1 or Class II, Division 1 hazardous locations in accordance with NFPA 70.	(N)2403.2.1.1 Flammable vapor areas. Electrical wiring and equipment in flammable vapor areas shall be of an explosion proof type approved for use in such hazardous locations and maintained in accordance with the applicable building code.		2403.2.1.1 Flammable vapor areas. Electrical wiring and equipment in flammable vapor areas shall be of an explosion proof type approved for use in such hazardous locations as classified by the applicable building code and maintained in accordance with NFPA 70, and chapter 6.		
2403.2.1.2 Areas subject to deposits of residues. Electrical equipment, flammable vapor areas or drying operations that are subject to splashing or dripping of liquids shall be specifically approved for locations containing deposits of readily ignitable residue and explosive vapors. Exceptions: 1.This provision shall not apply to wiring in rigid conduit, threaded boxes or fittings not containing taps, splices or terminal connections. 2.This provision shall not apply to electrostatic equipment allowed by Section 2407. In resin application areas, electrical wiring and equipment that is subject to deposits of combustible residues shall be listed for such exposure and shall be installed as required for hazardous (classified) locations. Electrical wiring and equipment not subject to deposits of combustible residues shall be installed as required for ordinary hazard locations.	(N)2403.2.1.2 Areas subject to deposits of residues. Flammable vapor areas or drying operations that are subject to splashing or dripping of liquids shall be specifically approved for locations containing deposits of readily ignitable residue and explosive vapors.	use 2012 language	2403.2.1.2 Areas subject to deposits of residues. Electrical equipment, flammable vapor areas or drying operations that are subject to splashing or dripping of liquids shall be specifically approved for locations containing deposits of readily ignitable residue and explosive vapors. Exceptions: 1.This provision shall not apply to wiring in rigid conduit, threaded boxes or fittings not containing taps, splices or terminal connections. 2.This provision shall not apply to electrostatic equipment allowed by Section 2407. In resin application areas, electrical wiring and equipment that is subject to deposits of combustible residues shall be listed for such exposure and shall be installed as required for hazardous (classified) locations. Electrical wiring and equipment not subject to deposits of combustible residues shall be installed as required for ordinary hazard locations.		
2403.2.1.3 Areas adjacent to spray booths. Electrical wiring and equipment located outside of, but within 5 feet (1524 mm) horizontally and 3 feet (914 mm) vertically of openings in a spray booth or a spray room, shall be approved for Class I, Division 2 or Class II, Division 2 hazardous locations, whichever is applicable.	(N)2403.2.1.3 Areas adjacent to spray booths. Electrical wiring and equipment located outside of, but within 5 feet (1524 mm) horizontally and 3 feet (914 mm) vertically of, openings in a spray booth or a spray room shall be maintained in accordance with the applicable building code.	use 2012 language. electrical equipment not requiring a building permit may be placed there	2403.2.1.3 Areas adjacent to spray booths. Electrical wiring and equipment located outside of, but within 5 feet (1524 mm) horizontally and 3 feet (914 mm) vertically of openings in a spray booth or a spray room, shall be approved for hazardous locations in accordance with the applicable building code and maintained in accordance with NFPA 70 and Chapter 6.		
2403.2.5 Grounding. Metal parts of spray booths, exhaust ducts and piping systems conveying Class I or II liquids shall be electrically grounded in accordance with NFPA 70. Metallic parts located in resin application areas, including but not limited to exhaust ducts, ventilation fans, spray application equipment, workpieces and piping, shall be electrically grounded.	(N)2403.2.5 Grounding. The grounding of metal parts of spray booths, exhaust ducts, and piping systems conveying Class I or II liquids shall be maintained in accordance with the applicable building code	Use 2012 language. The USBC does not address grounding and refers back to the IFC which does.	2403.2.5 Grounding. Metal parts of spray booths, exhaust ducts and piping systems conveying Class I or II liquids shall be electrically grounded in accordance with NFPA 70. Metallic parts located in resin application areas, including but not limited to exhaust ducts, ventilation fans, spray application equipment, workpieces and piping, shall be electrically grounded.		

<p>2404.1 General. The application of flammable or combustible liquids by means of spray apparatus in continuous or intermittent processes shall be in accordance with the requirements of Sections 2403 and 2404.2 through 2404.9.4.</p>	<p>(N)2404.1 General. The application of flammable or combustible liquids by means of spray apparatus in continuous or intermittent processes shall be in accordance with the requirements of Sections 2403 and 2404.</p>		<p>no change</p>		
<p>2404.2 Location of spray-finishing operations. Spray finishing operations conducted in buildings used for Group A, E, I or R occupancies shall be located in a spray room protected with an approved automatic sprinkler system installed in accordance with Section 903.3.1.1 and separated vertically and horizontally from other areas in accordance with the International Building Code. In other occupancies, spray-finishing operations shall be conducted in a spray room, spray booth or spraying space approved for such use.</p> <p>Exceptions:</p> <ol style="list-style-type: none"> 1. Automobile undercoating spray operations and spray-on automotive lining operations conducted in areas with approved natural or mechanical ventilation shall be exempt from the provisions of Section 2404 when approved and where utilizing Class IIIA or IIIB combustible liquids. 2. In buildings other than Group A, E, I or R occupancies, approved limited spraying space in accordance with Section 2404.9. 3. Resin application areas used for manufacturing of reinforced plastics complying with Section 2409 shall not be required to be located in a spray room, spray booth or spraying space. 	<p>(N)2404.2 Location of spray-finishing operations. (Section deleted)</p>	<p>Location of spray finishing operations. Spray finishing operations shall not be conducted in buildings used for group A,E,I, or R Exception-buildings that are provided fire protection system in accordance with the USBC</p>	<p>2404.2 Location of spray-finishing operations. Spray finishing operations shall not be conducted in buildings used for Group A, E, I or R occupancies except where approved in accordance with the applicable building code. In other occupancies, spray-finishing operations shall be conducted in a spray room, spray booth or spraying space approved for such use.</p> <p>Exceptions:</p> <ol style="list-style-type: none"> 1. Automobile undercoating spray operations and spray-on automotive lining operations conducted in areas with approved natural or mechanical ventilation shall be exempt from the provisions of Section 2404 when approved and where utilizing Class IIIA or IIIB combustible liquids. 2. In buildings other than Group A, E, I or R occupancies, approved limited spraying space in accordance with Section 2404.9. 3. Resin application areas used for manufacturing of reinforced plastics complying with Section 2409 shall not be required to be located in a spray room, spray booth or spraying space. 		
<p>2404.3 Design and construction. Design and construction of spray rooms, spray booths and spray spaces shall be in accordance with Sections 2404.3 through 2404.3.3.1.</p>	<p>(N)2404.3 Design and construction. (Section deleted)</p>	<p>Design and construction of spray booths shall be in accordance with the USBC</p>	<p>2404.3 Design and construction. Design and construction of spray rooms, spray booths and spray spaces shall be in accordance with the applicable building code and Sections 2404.3 through 2404.3.3.1.</p>		
<p>2404.3.1 Spray rooms. Spray rooms shall be constructed and designed in accordance with this section and the International Building Code, and shall comply with Sections 2404.4 through 2404.8.</p>	<p>(N)2404.3.1 Spray rooms. Spray rooms shall be maintained in accordance with the applicable building code.</p>	<p>Design and construction of spray rooms shall be in accordance with the USBC</p>	<p>2404.3.1 Spray rooms. Spray rooms shall be maintained in accordance with this section and remain in accordance with the applicable building code.</p>		
<p>2404.3.1.1 Floor. Combustible floor construction in spray rooms shall be covered by approved, noncombustible, nonsparking material, except where combustible coverings, including but not limited to thin paper or plastic and strippable coatings, are utilized over noncombustible materials to facilitate cleaning operations in spray rooms.</p>	<p>(N)2404.3.1.1 Floor. Combustible floor construction in spray rooms shall be maintained in accordance with the applicable building code.</p>	<p>Use 2012 language. Its not construction related. it maintenance and operational. This addresses what the floor is made of</p>	<p>2404.3.1.1 Floor. Combustible floor construction in spray rooms shall be covered by approved, noncombustible, nonsparking material, except where combustible coverings, including but not limited to thin paper or plastic and strippable coatings, are utilized over noncombustible materials to facilitate cleaning operations in spray rooms.</p>		

2404.3.2 Spray booths. The design and construction of spray booths shall be in accordance with Sections 2404.3.2.1 through 2404.3.2.6, Sections 2404.4 through 2404.8 and NFPA 33.	(N)2404.3.2 Spray booths. Spray booths shall be maintained in accordance with the applicable building code.	Spray booths shall be constructed in accordance with the applicable building code. Or delete	2404.3.2 Spray booths. The design and construction of spray booths shall be in accordance with the applicable building code and maintained in accordance with section 2404.3.2.2 through 2403.3.2.5 and 2304 through 2304.8 and NFPA 33.		
2404.3.2.1 Construction. Spray booths shall be constructed of approved noncombustible materials. Aluminum shall not be used. Where walls or ceiling assemblies are constructed of sheet metal, single-skin assemblies shall be no thinner than 0.0478 inch (18 gage) (1.2 mm) and each sheet of double-skin assemblies shall be no thinner than 0.0359 inch (20 gage) (0.9 mm). Structural sections of spray booths are allowed to be sealed with latex-based or similar caulks and sealants.	(N)2404.3.2.1 Construction. (Section deleted)		No change		
2404.3.2.2 Surfaces. The interior surfaces of spray booths shall be smooth; shall be constructed so as to permit the free passage of exhaust air from all parts of the interior, and to facilitate washing and cleaning; and shall be designed to confine residues within the booth. Aluminum shall not be used.	(N)2404.3.2.2 Surfaces. The interior surfaces of spray booths shall be maintained in accordance with the applicable building code.	Use 2012 language. Its not construction related. it maintenance and operational	2404.3.2.2 Surfaces. The interior surfaces of spray booths shall be smooth; shall be maintained so as to permit the free passage of exhaust air from all parts of the interior, and to facilitate washing and cleaning; and shall be maintained to confine residues within the booth. Aluminum shall not be used unless approved by the applicable building code.		
2404.3.2.3 Floor. Combustible floor construction in spray booths shall be covered by approved, noncombustible, nonsparking material, except where combustible coverings, including but not limited to thin paper or plastic and strippable coatings, are utilized over noncombustible materials to facilitate cleaning operations in spray booths.	(N)2404.3.2.3 Floor. Combustible floor construction in spray booths shall be maintained in accordance with the applicable building code.	Is floor covering a building code item or an operational item? The 2012 has guidance for combustible coverings.	2404.3.2.3 Floor covering. Combustible floor construction in spray booths shall be covered by approved, noncombustible, nonsparking material, except where combustible coverings, including but not limited to thin paper or plastic and strippable coatings, are utilized over noncombustible materials to facilitate cleaning operations in spray booths.		
2404.3.2.4 Means of egress. Means of egress shall be provided in accordance with Chapter 10. Exception: Means of egress doors from premanufactured spray booths shall not be less than 30 inches (762 mm) in width by 80 inches (2032 mm) in height.	(N)2404.3.2.4 Means of egress. Means of egress shall be maintained in accordance with the applicable building code.	2404.3.2.4 Means of egress. Means of egress shall be maintained in accordance with Chapter 10 and remain in accordance with the applicable building code.	(N)2404.3.2.4 Means of egress. Means of egress shall be maintained in accordance with the applicable building code and Chapter 10.		

<p>2404.3.2.5 Clear space. Spray booths shall be installed so that all parts of the booth are readily accessible for cleaning. A clear space of not less than 3 feet (914 mm) shall be maintained on all sides of the spray booth. This clear space shall be kept free of any storage or combustible construction.</p> <p>Exceptions:</p> <p>1.This requirement shall not prohibit locating a spray booth closer than 3 feet (914 mm) to or directly against an interior partition, wall or floor/ceiling assembly that has a fire-resistance rating of not less than 1 hour, provided the spray booth can be adequately maintained and cleaned.</p> <p>2.This requirement shall not prohibit locating a spray booth closer than 3 feet (914 mm) to an exterior wall or a roof assembly, provided the wall or roof is constructed of noncombustible material and the spray booth can be adequately maintained and cleaned.</p>	<p>(N)2404.3.2.5 Clear space. A clear space of not less than 3 feet (914 mm) shall be maintained on all sides of the spray booth. This clear space shall be kept free of any storage or combustible construction.</p>		<p>2404.3.2.5 Clear space. Spray booths shall be installed so that all parts of the booth are readily accessible for cleaning. A clear space of not less than 3 feet (914 mm) shall be maintained on all sides of the spray booth. This clear space shall be kept free of any storage or combustible construction.</p> <p>Exceptions: If approved in accordance with the applicable building code,</p> <p>1.This requirement shall not prohibit locating a spray booth closer than 3 feet (914 mm) to or directly against an interior partition, wall or floor/ceiling assembly that has a fire-resistance rating of not less than 1 hour, provided the spray booth can be adequately maintained and cleaned.</p> <p>2.This requirement shall not prohibit locating a spray booth closer than 3 feet (914 mm) to an exterior wall or a roof assembly, provided the wall or roof is constructed of noncombustible material and the spray booth can be adequately maintained and cleaned.</p>		
<p>2404.3.2.6 Size. The aggregate area of spray booths in a building shall not exceed the lesser of 10 percent of the area of any floor of a building or the basic area allowed for a Group H-2 occupancy without area increases, as set forth in the International Building Code. The area of an individual spray booth in a building shall not exceed the lesser of the aggregate size limit or 1,500 square feet (139 m²).</p> <p>Exception: One individual booth not exceeding 500 square feet (46 m²).</p>	<p>(N)2404.3.2.6 Size. (Section deleted)</p>		<p>no change</p>		
<p>2404.3.3 Spraying spaces. Spraying spaces shall be designed and constructed in accordance with the International Building Code, and Section 2404.3.3.1 and Sections 2404.4 through 2404.8 of this code.</p>	<p>(N)2404.3.3 Spraying spaces. Spraying spaces shall be maintained in accordance with the applicable building code.</p>	<p>Change "maintained" to read "constructed. Maintained creates confusion on the "operational maintenance" of a spray space</p>	<p>2404.3.3 Spraying spaces. Spraying spaces shall be designed and constructed in accordance with the applicable building code and maintained in accordance with Section 2404.3.3.1 and Sections 2404.4 through 2404.8 of this code.</p>		
<p>2404.3.3.1 Floor. Combustible floor construction in spraying spaces shall be covered by approved, noncombustible, nonsparking material, except where combustible coverings, such as thin paper or plastic and strippable coatings, are utilized over noncombustible materials to facilitate cleaning operations in spraying spaces.</p>	<p>(N)2404.3.3.1 Floor. Combustible floor construction in spraying spaces shall be maintained in accordance with the applicable building code.</p>	<p>use 2012 language. It is maintenance related not construction</p>	<p>2404.3.3.1 Floor covering. Combustible floor construction in spraying spaces shall be covered by approved, noncombustible, nonsparking material, except where combustible coverings, such as thin paper or plastic and strippable coatings, are utilized over noncombustible materials to facilitate cleaning operations in spraying spaces.</p>		
<p>2404.4 Fire protection. Spray booths and spray rooms shall be protected by an approved automatic fire-extinguishing system complying with Chapter 9. Protection shall also extend to exhaust plenums, exhaust ducts and both sides of dry filters when such filters are used</p>	<p>(N)2404.4 Fire protection. Automatic fireextinguishing systems provided for spray booths shall be maintained in accordance with the applicable building code.</p>	<p>use 2012 language- the building code makes no reference to the maintenance of fire protection systems</p>	<p>2404.4 Fire protection. Unless otherwise permitted by the applicable building code, spray booths and spray rooms shall be protected by an approved automatic fire-extinguishing system complying with the requirements of the applicable building code and maintained in accordance with Chapter 9.</p>		<p>2404.4 Fire protection. Automatic fire extinguishing systems provided for spray booths shall be maintained in accordance with Chapter 9 and remain in accordance with the applicable building code.</p>

<p>2404.6.2.1 Glass panels. Panels for luminaires or for observation shall be of heat-treated glass, wired glass or hammered wire glass and shall be sealed to confine vapors, mists, residues, dusts and deposits to the flammable vapor area. Panels for luminaires shall be separated from the luminaire to prevent the surface temperature of the panel from exceeding 200°F (93°C).</p>	<p>(N)2404.6.2.1 Glass panels. Panels for luminaires or for observation shall be maintained in accordance with the applicable building code.</p>	<p>No change? Building Code 307.1.1 references the IFC</p>	<p>2404.6.2.1 Glass panels. Panels for luminaires or for observation shall maintain seals to confine vapors, mists, residues, dusts and deposits to the flammable vapor area. Panels for luminaires shall be separated from the luminaire to prevent the surface temperature of the panel from exceeding 200°F (93°C).</p>		<p>1978 BOCA: F-702.3.7 Illumination: When spraying areas are illuminated through glass panels or other transparent materials, only fixed lighting units shall be used as a source of illumination. Panels shall effectively isolate the spraying area from the area in which the lighting unit is located and shall be of noncombustible material of such a nature or so protected that breakage will be unlikely. Panels shall be so arranged that normal accumulations of residue on the exposed surface of the panel will not be raised to a dangerous temperature</p>
<p>2404.6.2.2 Exterior luminaires. Luminaires attached to the walls or ceilings of a flammable vapor area, but outside of any classified area and separated from the flammable vapor areas by vapor-tight glass panels, shall be suitable for use in ordinary hazard locations. Such luminaires shall be serviced from outside the flammable vapor areas.</p>	<p>(N)2404.6.2.2 Exterior luminaires. Luminaires attached to the walls or ceilings of a flammable vapor area, but outside of any classified area and separated from the flammable vapor areas by vapor-tight glass panels, shall be maintained in accordance with the applicable building code.</p>	<p>add the words- and the International Fire since that's what the building code refers to.</p>	<p>2404.6.2.2 Exterior luminaires. Luminaires attached to the walls or ceilings of a flammable vapor area, but outside of any classified area and separated from the flammable vapor areas by vapor-tight glass panels, shall be suitable for use in ordinary hazard locations. Such luminaires shall be serviced from outside the flammable vapor areas.</p>		
<p>2404.6.2.3 Integral luminaires. Luminaires that are an integral part of the walls or ceiling of a flammable vapor area are allowed to be separated from the flammable vapor area by glass panels that are an integral part of the luminaire. Such luminaires shall be listed for use in Class I, Division 2 or Class II, Division 2 locations, whichever is applicable, and also shall be suitable for accumulations of deposits of combustible residues. Such luminaires are allowed to be serviced from inside the flammable vapor area.</p>	<p>(N)2404.6.2.3 Integral luminaires. Luminaires that are an integral part of the walls or ceiling of a flammable vapor area are allowed to be separated from the flammable vapor area by glass panels that are an integral part of the luminaire. Such luminaires shall be maintained in accordance with the applicable building code.</p>	<p>add the words- and the International Fire since that's what the building code refers to.</p>	<p>2404.6.2.3 Integral luminaires. Luminaires that are an integral part of the walls or ceiling of a flammable vapor area are allowed to be separated from the flammable vapor area by glass panels that are an integral part of the luminaire. Such luminaires shall be used only if listed for use in hazardous locations in accordance with the applicable building code and also shall be suitable for accumulations of deposits of combustible residues. Such luminaires are allowed to be serviced from inside the flammable vapor area.</p>		<p>Delete?</p>
<p>2404.7 Ventilation. Mechanical ventilation of flammable vapor areas shall be provided in accordance with Section 502.7 of the International Mechanical Code.</p>	<p>(N)2404.7 Ventilation. Mechanical ventilation of flammable vapor areas shall be maintained in accordance with the applicable building code</p>	<p>2404.7 Ventilation. Mechanical ventilation of flammable vapor areas shall be maintained in accordance with this section and remain in accordance with the applicable building code</p>	<p>2404.7 Ventilation. Mechanical ventilation of flammable vapor areas shall be maintained in accordance with this section and remain in accordance with the applicable building code.</p>		
<p>2404.7.1 Operation. Mechanical ventilation shall be kept in operation at all times while spraying operations are being conducted and for a sufficient time thereafter to allow vapors from drying coated articles and finishing material residue to be exhausted. Spraying equipment shall be interlocked with the ventilation of the flammable vapor areas such that spraying operations cannot be conducted unless the ventilation system is in operation.</p>	<p>(N)2404.7.1 Operation. Where provided, mechanical ventilation shall be kept in operation at all times while spraying operations are being conducted and for a sufficient time thereafter to allow vapors from drying coated articles and finishing material residue to be exhausted.</p>				

<p>2404.7.2 Recirculation. Air exhausted from spraying operations shall not be recirculated.</p> <p>Exceptions:</p> <p>1. Air exhausted from spraying operations is allowed to be recirculated as makeup air for unmanned spray operations, provided that:</p> <p>1.1. The solid particulate has been removed.</p> <p>1.2. The vapor concentration is less than 25 percent of the LFL.</p> <p>1.3. Approved equipment is used to monitor the vapor concentration.</p> <p>1.4. When the vapor concentration exceeds 25 percent of the LFL, the following shall occur:</p> <p>a. An alarm shall sound; and</p> <p>b. Spray operations shall automatically shut down.</p> <p>1.5. In the event of shutdown of the vapor concentration monitor, 100 percent of the air volume specified in Section 510 of the International Mechanical Code is automatically exhausted.</p> <p>2. Air exhausted from spraying operations is allowed to be recirculated as makeup air to manned spraying operations where all of the conditions provided in Exception 1 are included in the installation and documents have been prepared to show that the installation does not pose a life safety hazard to personnel inside the spray booth, spraying space or spray room.</p>	<p>(N)2404.7.2 Recirculation. (Section deleted)</p>	<p>use 2012 language- this is operational not constructions related</p>	<p>2404.7.2 Recirculation. Air exhausted from spraying operations shall not be recirculated.</p> <p>Exceptions:</p> <p>1. Air exhausted from spraying operations is allowed to be recirculated as makeup air for unmanned spray operations, provided that:</p> <p>1.1. The solid particulate has been removed.</p> <p>1.2. The vapor concentration is less than 25 percent of the LFL.</p> <p>1.3. Approved equipment is used to monitor the vapor concentration.</p> <p>1.4. When the vapor concentration exceeds 25 percent of the LFL, the following shall occur:</p> <p>a. An alarm shall sound; and</p> <p>b. Spray operations shall automatically shut down.</p> <p>1.5. In the event of shutdown of the vapor concentration monitor, 100 percent of the air volume specified in Section 510 of the International Mechanical Code is automatically exhausted.</p>		
<p>2404.7.3 Air velocity. Ventilation systems shall be designed, installed and maintained such that the average air velocity over the open face of the booth, or booth cross section in the direction of airflow during spraying operations, shall not be less than 100 feet per minute (0.51 m/s).</p>	<p>(N)2404.7.3 Air velocity. The required air velocity for ventilation systems shall be maintained in accordance with the applicable building code.</p>		<p>no change</p>		
<p>None</p>	<p>(N)2404.7.3.1 Open-face or open-front spray booth. For spray application operations conducted in an open-face or open-front spray booth, the ventilation system shall be maintained in accordance with the applicable building code.</p>	<p>add the words- and the International Fire Code because its not addressed in the building code.</p>	<p>2404.7.3.1 Open-face or open-front spray booth. For spray application operations conducted in an open-face or open-front spray booth, the ventilation system air velocity shall be maintained in accordance with the requirements of the applicable building code.</p>		
<p>None</p>	<p>(N)2404.7.3.2 Enclosed spray booth or spray room with openings for product conveyance. For spray application operations conducted in an enclosed spray booth or spray room with openings for product conveyance, the ventilation system shall be maintained in accordance with the applicable building code.</p>	<p>add the words- and the International Fire Code because its not addressed in the building code.</p>	<p>2404.7.3.2 Enclosed spray booth or spray room with openings for product conveyance. For spray application operations conducted in an enclosed spray booth or spray room with openings for product conveyance, the ventilation system air velocity shall be maintained in accordance with the requirements of the applicable building code.</p>		

<p>2404.7.5 Independent ducts. Each spray booth and spray room shall have an independent exhaust duct system discharging to the outside.</p> <p>Exceptions:</p> <p>1. Multiple spray booths having a combined frontal area of 18 square feet (1.67 m²) or less are allowed to have a common exhaust when identical spray finishing material is used in each booth. If more than one fan serves one booth, fans shall be interconnected such that all fans will operate simultaneously.</p> <p>2. Where treatment of exhaust is necessary for air pollution control or for energy conservation, ducts shall be allowed to be manifolded if all of the following conditions are met:</p> <p>2.1. The sprayed materials used are compatible and will not react or cause ignition of the residue in the ducts.</p> <p>2.2. Nitrocellulose-based finishing material shall not be used.</p> <p>2.3. A filtering system shall be provided to reduce the amount of overspray carried into the duct manifold.</p> <p>2.4. Automatic sprinkler protection shall be provided at the junction of each booth exhaust with the manifold, in addition to the protection required by this chapter.</p>	<p>(N)2404.7.5 Independent ducts. (Section deleted)</p>	<p>construction?</p>	<p>no change</p>		
<p>2404.7.6 Termination point. The termination point for exhaust ducts discharging to the atmosphere shall not be less than the following distances:</p> <p>1. Ducts conveying explosive or flammable vapors, fumes or dusts: 30 feet (9144 mm) from the lot line; 10 feet (3048 mm) from openings into the building; 6 feet (1829 mm) from exterior walls and roofs; 30 feet (9144 mm) from combustible walls or openings into the building that are in the direction of the exhaust discharge; 10 feet (3048 mm) above adjoining grade.</p> <p>2. Other product-conveying outlets: 10 feet (3048 mm) from the lot line; 3 feet (914 mm) from exterior walls and roofs; 10 feet (3048 mm) from openings into the building; 10 feet (3048 mm) above adjoining grade.</p>	<p>(N)2404.7.6 Termination point. The termination point for exhaust ducts discharging to the atmosphere shall be maintained in accordance with the applicable building code.</p>		<p>(N)2404.7.6 Termination point. The termination point for exhaust ducts discharging to the atmosphere shall remain in accordance with the applicable building code.</p>		

2404.7.7 Fan motors and belts. Electric motors driving exhaust fans shall not be placed inside booths or ducts. Fan rotating elements shall be nonferrous or nonsparking or the casing shall consist of, or be lined with, such material. Belts shall not enter the duct or booth unless the belt and pulley within the duct are tightly enclosed.	2404.7.7 Fan motors and belts. Electric motors driving exhaust fans shall not be placed inside booths or ducts, unless approved. Fan rotating elements shall be nonferrous or nonsparking or the casing shall consist of, or be lined with, such material. Belts shall not enter the duct or booth unless the belt and pulley within the duct are tightly enclosed.		no change		
2404.7.8 Filters. Air intake filters that are part of a wall or ceiling assembly shall be listed as Class I or II in accordance with UL 900. Exhaust filters shall be required.	(N)2404.7.8 Filters. Air intake filters that are part of a wall or ceiling assembly shall be maintained.		2404.7.8 Filters. Air intake filters that are part of a wall or ceiling assembly shall be listed as Class I or II in accordance with UL 900. Exhaust filters shall be required.		
2404.7.8.1 Supports. Supports and holders for filters shall be constructed of noncombustible materials.	(N)2404.7.8.1 Supports. Supports and holders for filters shall be maintained.	use 2012 language. the word constructed is intended to mean "made of" not building construction	2404.7.8.1 Supports. Supports and holders for filters shall be maintained as noncombustible materials unless otherwise approved by the applicable building code.		
2404.7.8.3 Maintaining air velocity. Visible gauges, audible alarms or pressure-activated devices shall be installed to indicate or ensure that the required air velocity is maintained.	(N)2404.7.8.3 Maintaining air velocity. The required air velocity shall be maintained in accordance with the applicable building code.	use 2012 language- this is not addressed in the building code and is not construction related	2404.7.8.3 Maintaining air velocity. Where provided, visible gauges, audible alarms or pressure-activated devices shall be maintained to indicate or ensure that the required air velocity is maintained.		
2404.7.8.4 Filter rolls. Spray booths equipped with a filter roll that is automatically advanced when the air velocity is reduced to less than 100 feet per minute (0.51 m/s) shall be arranged to shut down the spraying operation if the filter roll fails to advance automatically.	(N)2404.7.8.4 Filter rolls. Filter rolls for spray booths shall be maintained in accordance with applicable building code.	and the words "and International Fire Code" because the building code does not address this	2404.7.8.4 Filter rolls. Unless otherwise permitted by the applicable building code, where spray booths are equipped with a filter roll that is automatically advanced it shall be arranged to shut down the spraying operation if the filter roll fails to advance automatically.		
2404.7.8.7 Waterwash spray booths. Waterwash spray booths shall be of an approved design so as to prevent excessive accumulation of deposits in ducts and residue at duct outlets. Such booths shall be arranged so that air and overspray are drawn through a continuously flowing water curtain before entering an exhaust duct to the building exterior.	(N)2404.7.8.7 Waterwash spray booths. Waterwash spray booths shall be maintained in accordance with the applicable building code	and the words "and International Fire Code" because the building code does not address this	2404.7.8.7 Waterwash spray booths. Waterwash spray booths shall be maintained so as to prevent excessive accumulation of deposits in ducts and residue at duct outlets. Such booths shall be maintained so that air and overspray are drawn through a continuously flowing water curtain before entering an exhaust duct to the building exterior.		
2404.8 Interlocks. Interlocks for spray application finishes shall be in accordance with Sections 2404.8.1 through 2404.8.2.	(N)2404.8 Interlocks. Interlocks for spray application finishes shall be maintained in accordance with the applicable building code.	and the words "and International Fire Code" because the building code does not address this	(N)2404.8 Interlocks. Interlocks for spray application finishes shall be maintained fully operational and remain in accordance with the applicable building code.		
2404.8.1 Automated spray application operations. Where protecting automated spray application operations, automatic fire-extinguishing systems shall be equipped with an approved interlock feature that will, upon discharge of the system, automatically stop the spraying operations and workpiece conveyors into and out of the flammable vapor areas. Where the building is equipped with a fire alarm system, discharge of the automatic fire-extinguishing system shall also activate the building alarm notification appliances.	(N)2404.8.1 Automated spray application operations. (Section deleted)	Delete?	use 2012 language and add "in accordance with the USBC"		
2404.8.1.1 Alarm station. A manual fire alarm and emergency system shutdown station shall be installed to serve each flammable vapor area. When activated, the station shall accomplish the functions indicated in Section 2404.8.1.	(N)2404.8.1.1 Alarm station. Where required, a manual fire alarm and emergency system shutdown station shall be maintained in accordance with the applicable building code.	add "and the International Fire Code" because the building code does not address this	(N)2404.8.1.1 Alarm station. Where required, a manual fire alarm and emergency system shutdown station shall be maintained accessible, fully operational and remain in accordance with the applicable building code.		

2404.8.1.2 Alarm station location. At least one manual fire alarm and emergency system shutdown station shall be readily accessible to operating personnel. Where access to this station is likely to involve exposure to danger, an additional station shall be located adjacent to an exit from the area.	(N)2404.8.1.2 Alarm station location. (Section deleted)	use 2012 language	delete? see above for access		
2404.8.2 Ventilation interlock prohibited. Air makeup and flammable vapor area exhaust systems shall not be interlocked with the fire alarm system and shall remain in operation during a fire alarm condition. Exception: Where the type of fire-extinguishing system used requires such ventilation to be discontinued, air makeup and exhaust systems shall shut down and dampers shall close.	(N)2404.8.2 Ventilation interlock prohibited. (Section deleted)	use 2012 language	2404.8.2 Ventilation interlock prohibited. Unless otherwise permitted by the applicable building code, air makeup and flammable vapor area exhaust systems shall not be interlocked with the fire alarm system and shall remain in operation during a fire alarm condition. Exception: Where permitted by the applicable building code such as where the type of fire-extinguishing system used requires such ventilation to be discontinued and dampers close.		
2404.9.3 Ventilation. Positive mechanical ventilation providing a minimum of six complete air changes per hour shall be installed. Such system shall meet the requirements of this code for handling flammable vapor areas. Explosion venting is not required.	(N)2404.9.3 Ventilation. Positive mechanical ventilation providing a minimum of six complete air changes per hour shall be maintained in accordance with the applicable building code.		no change		
2404.9.4 Electrical wiring. Electrical wiring within 10 feet (3048 mm) of the floor and 20 feet (6096 mm) horizontally of the limited spraying space shall be designed for Class I, Division 2 locations in accordance with NFPA 70.	(N)2404.9.4 Electrical wiring. Electrical wiring within 10 feet (3048 mm) of the floor and 20 feet (6096 mm) horizontally of the limited spraying space shall be designed for Class I, Division 2 locations in accordance with the applicable building code.	add "and the International Fire Code" because the building code does not address this	no change		2404.9.4 Electrical wiring. Electrical wiring within 10 feet (3048 mm) of the floor and 20 feet (6096 mm) horizontally of the limited spraying space shall be maintained as required for hazardous location in accordance with NFPA 70 and Chapter 6.
2405.2 Location of dip-tank operations. Dip-tank operations conducted in buildings used for Group A, I or R occupancies shall be located in a room designed for that purpose, equipped with an approved automatic sprinkler system and separated vertically and horizontally from other areas in accordance with the International Building Code.	(N)2405.2 Location of dip-tank operations. (Section deleted)	use 2012 language	2405.2 Location of dip-tank operations. Dip-tank operations conducted in buildings used for Group A, I or R occupancies shall be located in a room designed for that purpose, equipped with an approved automatic sprinkler system and separated vertically and horizontally from other areas in accordance with the applicable building code.		
2405.3 Construction of dip tanks. Dip tanks shall be constructed in accordance with Sections 2405.3.1 through 2405.3.4.3 and NFPA 34. Dip tanks, including drain boards, shall be constructed of noncombustible material and their supports shall be of heavy metal, reinforced concrete or masonry.	(N)2405.3 Construction of dip tanks. (Section deleted)	use 2012 language. this is not building construction related. it deals with what the tank is made of	2405.3 Construction of dip tanks. Unless regulated by the applicable building code, dip tanks shall be constructed in accordance with Sections 2405.3.1 through 2405.3.4.3 and NFPA 34. Dip tanks, including drain boards, shall be constructed of noncombustible material and their supports shall be of heavy metal, reinforced concrete or masonry.		
2405.3.1 Overflow. Dip tanks greater than 150 gallons (568 L) in capacity or 10 square feet (0.93 m2) in liquid surface area shall be equipped with a trapped overflow pipe leading to an approved location outside the building. The bottom of the overflow connection shall not be less than 6 inches (152 mm) below the top of the tank.	(N)2405.3.1 Overflow. Overflow piping required for dip tanks shall be maintained in accordance with the applicable building code.	add "and the International Fire Code" because the building code does not address this	2405.3.1 Overflow. To operate dip tanks greater than 150 gallons (568 L) in capacity or 10 square feet (0.93 m2) in liquid surface area, they shall be equipped with a trapped overflow pipe leading to an approved location outside the building. The bottom of the overflow connection shall not be less than 6 inches (152 mm) below the top of the tank.		

<p>2405.3.2 Bottom drains. Dip tanks greater than 500 gallons (1893 L) in liquid capacity shall be equipped with bottom drains that are arranged to automatically and manually drain the tank quickly in the event of a fire unless the viscosity of the liquid at normal atmospheric temperature makes this impractical. Manual operation shall be from a safe, accessible location. Where gravity flow is not practicable, automatic pumps shall be provided. Such drains shall be trapped and discharged to a closed, vented salvage tank or to an approved outside location.</p> <p>Exception: Dip tanks containing Class IIIB combustible liquids where the liquids are not heated above room temperature and the process area is protected by automatic sprinklers.</p>	<p>(N)2405.3.2 Bottom drains. Bottom drains required for dip tanks shall be maintained in accordance with the applicable building code. Manual operation shall be from a safe, accessible location. Where gravity flow is not practicable, automatic pumps shall be provided.</p>	<p>add "and the International Fire Code" because the building code does not address this</p>	<p>2405.3.2 Bottom drains. Dip tanks greater than 500 gallons (1893 L) in liquid capacity shall only be operated with bottom drains that are arranged to automatically and manually drain the tank quickly in the event of a fire unless the viscosity of the liquid at normal atmospheric temperature makes this impractical. Manual operation shall be from a safe, accessible location. Where gravity flow is not practicable, automatic pumps shall be provided. Such drains shall be trapped and discharged to a closed, vented salvage tank or to an approved outside location.</p> <p>Exception: Dip tanks containing Class IIIB combustible liquids where the liquids are not heated above room temperature and the process area is protected by automatic sprinklers.</p>		
<p>2405.4 Fire protection. Dip-tank operations shall be protected in accordance with Sections 2405.4.1 through 2405.4.2.</p>	<p>(N)2405.4 Fire protection. Dip tank operations shall be protected in accordance with the applicable building code.</p>	<p>add "and the International Fire Code" because the building code does not address this</p>	<p>(N)2405.4 Fire protection. Dip tank operations shall be protected with a fire protection system in accordance with the applicable building code and maintained in accordance with Chapter 9.</p>		
<p>2405.4.1 Fixed fire-extinguishing equipment. An approved automatic fire-extinguishing system or dip-tank cover in accordance with Section 2405.3.4 shall be provided for the following dip tanks:</p> <p>1. Dip tanks less than 150 gallons (568 L) in capacity or 10 square feet (0.93 m²) in liquid surface area.</p> <p>2. Dip tanks containing a liquid with a flash point below 110°F (43°C) used in such manner that the liquid temperature could equal or be greater than its flash point from artificial or natural causes, and having both a capacity of more than 10 gallons (37.9 L) and a liquid surface area of more than 4 square feet (0.37 m²).</p>	<p>(N)2405.4.1 Fixed fire-extinguishing equipment. Fixed fire-extinguishing equipment required for dip tanks shall be maintained in accordance with the applicable building code.</p>	<p>add "and the International Fire Code" because the building code does not address this</p>	<p>2405.4.1 Fixed fire-extinguishing equipment. Unless otherwise permitted by the applicable building code, an approved automatic fire-extinguishing system or dip-tank cover in accordance with Section 2405.3.4 shall be provided for the following dip tanks:</p> <p>1. Dip tanks less than 150 gallons (568 L) in capacity or 10 square feet (0.93 m²) in liquid surface area.</p> <p>2. Dip tanks containing a liquid with a flash point below 110°F (43°C) used in such manner that the liquid temperature could equal or be greater than its flash point from artificial or natural causes, and having both a capacity of more than 10 gallons (37.9 L) and a liquid surface area of more than 4 square feet (0.37 m²)</p>		
<p>2405.4.1.1 Fire-extinguishing system. An approved automatic fire-extinguishing system shall be provided for dip tanks with a 150-gallon (568 L) or more capacity or 10 square feet (0.93 m²) or larger in a liquid surface area. Fire-extinguishing system design shall be in accordance with NFPA 34.</p>	<p>(N)2405.4.1.1 Fire-extinguishing system. Fire-extinguishing systems provided for dip tanks maintained in accordance with the applicable building code.</p>	<p>add "and the International Fire Code" because the building code does not address this</p>	<p>2405.4.1.1 Fire-extinguishing system. Unless otherwise permitted by the applicable building code, an approved automatic fire-extinguishing system shall be provided for dip tanks with a 150-gallon (568 L) or more capacity or 10 square feet (0.93 m²) or larger in a liquid surface area. Fire-extinguishing system design shall be in accordance with NFPA 34.</p>		
<p>2405.7 Ventilation of flammable vapor areas. Flammable vapor areas shall be provided with mechanical ventilation adequate to prevent the dangerous accumulation of vapors. Required ventilation systems shall be arranged such that the failure of any ventilating fan shall automatically stop the dipping conveyor system.</p>	<p>(N)2405.7 Ventilation of flammable vapor areas. Ventilation provided for flammable vapor areas shall be maintained in accordance with the applicable building code.</p>	<p>use 2012 language- this is operational not construction related</p>	<p>2405.7 Ventilation of flammable vapor areas. Flammable vapor areas shall be operated with mechanical ventilation adequate to prevent the dangerous accumulation of vapors in accordance with the applicable building code. Where required, ventilation systems shall be maintained such that the failure of any ventilating fan shall automatically stop the dipping conveyor system.</p>		
<p>2405.9.1 Location. Tanks shall be located as far as practical from furnaces and shall not be located on or near combustible floors.</p>	<p>(N)2405.9.1 Location. (Section deleted)</p>	<p>use 2012 language. this is not building construction related. its operational and deals with what the floor is made of</p>	<p>2405.9.1 Location. Unless otherwise required by the applicable building code, tanks shall be located as far as practical from furnaces and shall not be located on or near combustible floors.</p>		

2405.9.2 Hoods. Tanks shall be provided with a noncombustible hood and vent or other approved venting means, terminating outside of the structure to serve as a vent in case of a fire. Such vent ducts shall be treated as flues and proper clearances shall be maintained from combustible materials.	(N)2405.9.2 Hoods. Hoods provided for tanks shall be maintained in accordance with the applicable building code.	add "and the International Fire Code" because the building code does not address this	2405.9.2 Hoods. Unless otherwise required by the applicable building code, tanks shall be operated only with a noncombustible hood and vent or other approved venting means, terminating outside of the structure to serve as a vent in case of a fire. Such vent ducts shall be treated as flues and proper clearances shall be maintained from combustible materials.		
2405.9.3 Alarms. Tanks shall be equipped with a high-temperature limit switch arranged to sound an alarm when the temperature of the quenching medium reaches 50°F (10°C) below the flash point.	(N)2405.9.3 Alarms. (Section deleted)	use 2012 language. this is an operational issue not building construction	2405.9.3 Alarms. Tanks shall be operated with a high-temperature limit switch maintained to sound an alarm when the temperature of the quenching medium reaches 50°F (10°C) below the flash point or other approved level as required by the applicable building code.		
2405.9.4 Fire protection. Hardening and tempering tanks greater than 500 gallons (1893 L) in capacity or 25 square feet (2.3 m2) in liquid surface area shall be protected by an approved automatic fire-extinguishing system complying with Chapter 9.	(N)2405.9.4 Fire protection. Fire protection provided hardening and tempering tanks shall be maintained in accordance with the applicable building code.	use 2012 language. this is an operational issue not building construction	2405.9.4 Fire protection. Unless otherwise required by the applicable building code, hardening and tempering tanks greater than 500 gallons (1893 L) in capacity or 25 square feet (2.3 m2) in liquid surface area shall be protected by an approved automatic fire-extinguishing system maintained in accordance with Chapter 9.		
2405.10.1 Paint supply. Paint shall be supplied by a gravity tank not exceeding 10 gallons (38 L) in capacity or by direct low-pressure pumps arranged to shut down automatically in case of a fire by means of approved heat-actuated devices.	(N)2405.10.1 Paint supply. (Section deleted)	use 2012 language. this is an operational issue not building construction	2405.10.1 Paint supply. Unless otherwise required by the applicable building code, paint operations shall be supplied by a gravity tank not exceeding 10 gallons (38 L) in capacity or by direct low-pressure pumps arranged to shut down automatically in case of a fire by means of approved heat-actuated devices.		
2405.11 Roll-coating operations. Roll-coating operations shall comply with Section 2405.10. In roll-coating operations utilizing flammable or combustible liquids, sparks from static electricity shall be prevented by electrically bonding and grounding all metallic rotating and other parts of machinery and equipment and by the installation of static collectors, or by maintaining a conductive atmosphere such as a high relative humidity.	(N)2405.11 Roll-coating operations. Rollcoating operations shall be maintained in accordance with the applicable building code.	add "and the International Fire Code" because the building code does not address this	2405.11 Roll-coating operations. Roll-coating operations shall comply with Section 2405.10. In roll-coating operations utilizing flammable or combustible liquids, sparks from static electricity shall be prevented by electrically bonding and grounding all metallic rotating and other parts of machinery and equipment and by the installation of static collectors, or by maintaining a conductive atmosphere such as a high relative humidity.		
2406.2 Location. Powder coating operations shall be conducted in enclosed powder coating rooms, enclosed powder coating facilities which are ventilated or ventilated spray booths.	(N)2406.2 Location. Powder coating operations shall be conducted in enclosed powder coating rooms, enclosed powder coating facilities that are ventilated, or ventilated spray booths and in accordance with applicable building code.	add "and the International Fire Code" because the building code does not address this	no change		
2406.3 Construction of powder coating rooms and booths. Powder coating rooms shall be constructed of noncombustible materials. Spray booths shall be constructed in accordance with Section 2404.3.2. Exception: Listed spray-booth assemblies that are constructed of other materials shall be allowed.	(N)2406.3 Construction of powder coating room and booths. (Section deleted)	use 2012 language- not building construction related. it only addresses what the room is made of	2406.3 Construction of powder coating rooms and booths. Powder coating rooms shall be constructed of noncombustible materials in accordance with the applicable building code. Spray booths shall be constructed in accordance with Section 2404.3.2. Exception: Listed spray-booth assemblies that are constructed of other materials shall be allowed.		2406.3 Construction of powder coating rooms and booths. Powder coating rooms shall be constructed in accordance with the applicable building code.
2406.4 Fire protection. Areas used for powder coating shall be protected by an approved automatic fire-extinguishing system complying with Chapter 9.	(N)2406.4 Fire protection. Fireextinguishing systems provided for areas used for powder coating shall be maintained in accordance with the applicable building code.	add "and the International Fire Code" because the building code does not address this	2406.4 Fire protection. Areas used for powder coating shall be protected by an approved automatic fire-extinguishing system maintained in accordance with Chapter 9.		

<p>2406.4.1 Additional protection for fixed systems. Automated powder application equipment shall be protected by the installation of an approved, supervised flame detection apparatus that shall react to the presence of flame within 0.5 second and shall accomplish all of the following:</p> <p>1. Shutting down of energy supplies (electrical and compressed air) to conveyor, ventilation, application, transfer and powder collection equipment.</p> <p>2. Closing of segregation dampers in associated ductwork to interrupt airflow from application equipment to powder collectors.</p> <p>3. Activation of an alarm that is audible throughout the powder coating room or booth.</p>	<p>(N)2406.4.1 Additional protection for fixed systems. (Section deleted)</p>		<p>no change</p>		
<p>2406.6.4 Grounding and bonding. Precautions shall be taken to minimize the possibility of ignition by static electrical sparks through static bonding and grounding, where possible, of powder transport, application and recovery equipment.</p>	<p>(N)2406.6.4 Grounding and bonding. Grounding and bonding provided for powder coating operations shall be maintained in accordance with the applicable building code.</p>	<p>add "and the International Fire Code" because the building code does not address this</p>	<p>2406.6.4 Grounding and bonding. Precautions shall be taken to minimize the possibility of ignition by static electrical sparks through static bonding and grounding, where possible, of powder transport, application and recovery equipment.</p>		
<p>2406.7 Ventilation. Exhaust ventilation shall be sufficient to maintain the atmosphere below one-half the minimum explosive concentration for the material being applied. Nondeposited, air-suspended powders shall be removed through exhaust ducts to the powder recovery system.</p>	<p>(N)2406.7 Ventilation. Exhaust ventilation shall be maintained in accordance with the applicable building code.</p>	<p>add "and the International Fire Code" because the building code does not address this</p>	<p>2406.7 Ventilation. Exhaust ventilation shall be sufficient to maintain the atmosphere below one-half the minimum explosive concentration for the material being applied. Nondeposited, air-suspended powders shall be removed through exhaust ducts to the powder recovery system.</p>		
<p>2407.2 Location and clear space. A space of at least twice the sparking distance shall be maintained between goods being painted or deteared and electrodes, electrostatic atomizing heads or conductors. A sign stating the sparking distance shall be conspicuously posted near the assembly.</p> <p>Exception: Portable electrostatic paint-spraying apparatus listed for use in Class I, Division 1, locations.</p>	<p>(N)2407.2 Location and clear space. A sign stating the sparking distance shall be conspicuously posted near the assembly. The location and clear space required for electrostatic apparatus and devices shall be maintained in accordance with the applicable building code and manufacturer's instructions.</p>	<p>add "and the International Fire Code" because the building code does not address this</p>	<p>2407.2 Location and clear space. A space of at least twice the sparking distance shall be maintained between goods being painted or deteared and electrodes, electrostatic atomizing heads or conductors. A sign stating the sparking distance shall be conspicuously posted near the assembly.</p> <p>Exception: Portable electrostatic paint-spraying apparatus listed for use in Class I, Division 1, locations.</p>		
<p>2407.3 Construction of equipment. Electrodes and electrostatic atomizing heads shall be of approved construction, rigidly supported in permanent locations and effectively insulated from ground. Insulators shall be nonporous and noncombustible.</p> <p>Exception: Portable electrostatic paint-spraying apparatus listed for use in Class I, Division 1, locations.</p>	<p>(N)2407.3 Construction equipment. (Section deleted)</p>	<p>use 2012 language. this is not building construction related</p>	<p>2407.3 Construction of equipment. Electrodes and electrostatic atomizing heads shall be maintained of approved construction, rigidly supported in permanent locations and effectively insulated from ground. Insulators shall be nonporous and noncombustible.</p> <p>Exception: Portable electrostatic paint-spraying apparatus listed for use in Class I, Division 1, locations.</p>		

<p>2407.3.1 Barriers. Booths, fencing, railings or guards shall be placed about the equipment such that either by their location or character, or both, isolation of the process is maintained from plant storage and personnel. Railings, fencing and guards shall be of conductive material, adequately grounded, and at least 5 feet (1524 mm) from processing equipment.</p> <p>Exception: Portable electrostatic paint-spraying apparatus listed for use in Class I, Division 1, locations.</p>	<p>(N)2407.3.1 Barriers. Booths, fencing, railings or guards shall be in accordance with the applicable building code.</p>	<p>add "and the International Fire Code" because the building code does not address this</p>	<p>2407.3.1 Barriers. Booths, fencing, railings or guards shall be maintained about the equipment such that either by their location or character, or both, isolation of the process is maintained from plant storage and personnel. Railings, fencing and guards shall be of conductive material, adequately grounded, and at least 5 feet (1524 mm) from processing equipment.</p> <p>Exception: Portable electrostatic paint-spraying apparatus listed for use in Class I, Division 1, locations.</p>		
<p>2407.4 Fire protection. Areas used for electrostatic spray finishing with fixed equipment shall be protected with an approved automatic fire-extinguishing system complying with Chapter 9 and Section 2407.4.1.</p>	<p>(N)2407.4 Fire protection. Fireextinguishing systems provided for areas used for electrostatic spray finishing with fixed equipment shall be maintained in accordance with the applicable building code.</p>	<p>add "and the International Fire Code" because the building code does not address this</p>	<p>2407.4 Fire protection. Areas used for electrostatic spray finishing with fixed equipment shall be protected with an approved automatic fire-extinguishing system and maintained in accordance with Chapter 9.</p>		
<p>2407.4.1 Protection for automated liquid electrostatic spray application equipment. Automated liquid electrostatic spray application equipment shall be protected by the installation of an approved, supervised flame detection apparatus that shall, in the event of ignition, react to the presence of flame within 0.5 second and shall accomplish all of the following:</p> <ol style="list-style-type: none"> 1.Activation of a local alarm in the vicinity of the spraying operation and activation of the building alarm system, if such a system is provided. 2.Shutting down of the coating material delivery system. 3.Termination of all spray application operations. 4.Stopping of conveyors into and out of the flammable vapor areas. 5.Disconnection of power to the high-voltage elements in the flammable vapor areas and disconnection of power to the system. 	<p>(N)2407.4.1 Protection for automated liquid electrostatic spray application equipment. Flame detection apparatus required for automated liquid electrostatic spray application equipment shall be maintained in accordance with the applicable building code.</p>	<p>add "and the International Fire Code" because the building code does not address this</p>	<p>2407.4.1 Protection for automated liquid electrostatic spray application equipment. Where provided, automated liquid electrostatic spray application equipment shall maintain an approved, supervised flame detection apparatus that shall, in the event of ignition, react to the presence of flame within 0.5 second and shall accomplish all of the following:</p> <ol style="list-style-type: none"> 1.Activation of a local alarm in the vicinity of the spraying operation and activation of the building alarm system, if such a system is provided. 2.Shutting down of the coating material delivery system. 3.Termination of all spray application operations. 4.Stopping of conveyors into and out of the flammable vapor areas. 5.Disconnection of power to the high-voltage elements in the flammable vapor areas and disconnection of power to the system. 		
<p>2407.7 Ventilation. The flammable vapor area shall be ventilated in accordance with Section 2404.7.</p>	<p>(N)2407.7 Ventilation. Ventilation provided for flammable vapor areas shall be maintained in accordance with the applicable building code.</p>		<p>no change</p>		

<p>2407.8 Emergency shutdown. Electrostatic apparatus shall be equipped with automatic controls operating without time delay to disconnect the power supply to the high-voltage transformer and signal the operator under any of the following conditions:</p> <p>1. Stoppage of ventilating fans or failure of ventilating equipment from any cause.</p> <p>2. Stoppage of the conveyor carrying articles past the high-voltage grid.</p> <p>3. Occurrence of a ground or an imminent ground at any point of the high-voltage system.</p> <p>4. Reduction of clearance below that required in Section 2407.2.</p>	(N)2407.8 Emergency shutdown. Emergency shutdown controls shall be maintained in accordance with the applicable building code.	add "and the International Fire Code" because the building code does not address this	<p>2407.8 Emergency shutdown. Where provided, electrostatic apparatus shall be maintained with automatic controls operating without time delay to disconnect the power supply to the high-voltage transformer and signal the operator under any of the following conditions:</p> <p>1. Stoppage of ventilating fans or failure of ventilating equipment from any cause.</p> <p>2. Stoppage of the conveyor carrying articles past the high-voltage grid.</p> <p>3. Occurrence of a ground or an imminent ground at any point of the high-voltage system.</p> <p>4. Reduction of clearance below that required in Section 2407.2.</p>		
<p>2407.9 Ventilation interlock. Hand electrostatic equipment shall be interlocked with the ventilation system for the spraying area so that the equipment cannot be operated unless the ventilating system is in operation.</p>	(N)2407.9 Ventilation interlock. Ventilation interlock required for electrostatic equipment shall be maintained in accordance with the applicable building code.	add "and the International Fire Code" because the building code does not address this	2407.9 Ventilation interlock. Unless otherwise permitted by the applicable building code, hand electrostatic equipment shall be maintained as interlocked with the ventilation system for the spraying area so that the equipment cannot be operated unless the ventilating system is in operation.	Has not changed since 1978 BOCA	
<p>2408.2 Use of organic peroxide coatings. Spraying operations involving the use of organic peroxides and other dual-component coatings shall be conducted in approved sprinklered spray booths complying with Section 2404.3.2.</p>	(N)Use of organic peroxide coatings. (Section deleted)	use 2012 language and add "in accordance with the USBC"	2408.2 Use of organic peroxide coatings. Spraying operations involving the use of organic peroxides and other dual-component coatings shall be conducted in approved sprinklered spray booths complying with the applicable building code.		
<p>2409.3 Fire protection. Resin application areas shall be protected by an automatic sprinkler system. The sprinkler system design shall not be less than that required for Ordinary Hazard, Group 2, with a minimum design area of 3,000 square feet (279 m²). Where the materials or storage arrangements are required by other regulations to be provided with a higher level of sprinkler system protection, the higher level of sprinkler system protection shall be provided.</p>	(N)2409.3 Fire protection. Automatic sprinkler systems provided for resin application areas shall be maintained in accordance with the applicable building code.	add "and the International Fire Code" because the building code does not address this	2409.3 Fire protection. Areas used for spray application of resin shall be maintained with an approved automatic fire-extinguishing system in accordance with Chapter 9 and remain in accordance with the applicable building code.		
<p>409.6 Ventilation. Mechanical ventilation shall be provided throughout resin application areas in accordance with Section 2404.7. The ventilation rate shall be adequate to maintain the concentration of flammable vapors in the resin application area at or below 25 percent of the LFL.</p> <p>Exception: Mechanical ventilation is not required for buildings that have 75 percent of the perimeter unenclosed.</p>	(N)2409.6 Ventilation. Mechanical ventilation shall be maintained in accordance with the applicable building code.	no change?	<p>2409.6 Ventilation. Mechanical ventilation shall be maintained throughout resin application areas in accordance with 2404.7 and remain in accordance with the building code. The ventilation rate shall be adequate to maintain the concentration of flammable vapors in the resin application area at or below 25 percent of the LFL.</p> <p>Exception: Mechanical ventilation is not required for buildings that have 75 percent of the perimeter unenclosed.</p>		
<p>2409.6.1 Local ventilation. Local ventilation shall be provided inside of workpieces where personnel will be under or inside of the workpiece.</p>	(N)2409.6.1 Local ventilation. Local ventilation shall be maintained in accordance with the applicable building code.	no change?	2409.6.1 Local ventilation. Local ventilation shall be provided inside of workpieces where personnel will be under or inside of the workpiece.		

2012 VSFPC	2015 VSFPC Amendment	Notes	VFSB CSC Recommendation	VFSB CSC Vote	Other Comments or Recommendations
<p>2701.1 Scope. Semiconductor fabrication facilities and comparable research and development areas classified as Group H-5 shall comply with this chapter and the International Building Code. The use, storage and handling of hazardous materials in Group H-5 shall comply with this chapter, other applicable provisions of this code and the International Building Code.</p>	<p>2701.1 Scope. Semiconductor fabrication facilities and comparable research and development areas classified as Group H-5 shall comply with this chapter to the extent that the provisions of this chapter relate to operation and maintenance and not to the construction of Group H-5 buildings or structures.</p>		<p>2701.1 Scope. The operation and maintenance of semiconductor fabrication and comparable research and development areas classified as Group H-5 shall comply with this chapter. The use, storage and handling of hazardous materials in Group H-5 shall comply with this chapter, other applicable provisions of this code and requirements of the applicable building code.</p>		
<p>2701.4 Existing buildings and existing fabrication areas. Existing buildings and existing fabrication areas shall comply with this chapter, except that transportation and handling of HPM in corridors and enclosures for stairways and ramps shall be allowed when in compliance with Section 2705.3.2 and the International Building Code.</p>	<p>(N)2701.4 Existing buildings and existing fabrication areas. (Section deleted)</p>		<p>no change</p>		
<p>2701.5 Permits. Permits shall be required as set forth in Section 107.2.</p>	<p>2701.5 Permits. Permits shall be required as set forth in Section 107.2.</p>		<p>no change</p>		

<p>2703.1.3 Signals. The emergency control station shall receive signals from emergency equipment and alarm and detection systems. Such emergency equipment and alarm and detection systems shall include, but not be limited to, the following where such equipment or systems are required to be provided either in this chapter or elsewhere in this code:</p> <ol style="list-style-type: none"> 1. Automatic sprinkler system alarm and monitoring systems. 2. Manual fire alarm systems. 3. Emergency alarm systems. 4. Continuous gas detection systems. 5. Smoke detection systems. 6. Emergency power system. 7. Automatic detection and alarm systems for pyrophoric liquids and Class 3 water-reactive liquids required by Section 2705.2.3.4. 8. Exhaust ventilation flow alarm devices for pyrophoric liquids and Class 3 water-reactive liquids cabinet exhaust ventilation systems required by Section 2705.2.3.4. 	<p>(N)2703.1.3 Signals. Emergency equipment and alarm and detection systems providing signals to emergency control stations shall be maintained in accordance with the applicable building code.</p>	<p>Requirements for Semiconductor Fabrication Facilities first appeared in the 1987 BOCA Fire Prevention Code. An Emergency Control Station was defined as "An approved location on the premises of an HPM use facility, where signals for emergency equipment are received. Gas detection systems were specifically required to be connected to the emergency control station. The 2000 IBC required systems 1 through 6 to send signals to the Emergency Control Station. The requirements for systems 7 and 8 dealing with pyrophoric and water-reactive liquids first appeared in the 2006 Fire Code.</p>	<p>2703.1.3 Signals. Unless specifically approved otherwise in accordance with the applicable building code, the emergency control station shall receive signals from emergency equipment and alarm and detection systems. Such emergency equipment and alarm and detections systems shall include, but not be limited to, the following where such equipment or systems are required to be provided by the applicable building code. 1. Automatic sprinkler system alarm and monitoring systems. 2. Manual fire alarm systems. 3. Emergency alarm systems. 4. Continuous gas detection systems. 5. Smoke detection systems. 6. Emergency power system. 7. Automatic detection and alarm systems for pyrophoric liquids and Class 3 water-reactive liquids required by Section 2705.2.3.4. 8. Exhaust ventilation flow alarm devices for pyrophoric liquids and Class 3 water-reactive liquids cabinet exhaust ventilation systems required by Section 2704.2.3.4.</p>		
<p>2703.2.2 General requirements. In addition to the requirements in Section 2703.2, systems, equipment and processes shall also comply with Section 5003.2, other applicable provisions of this code, the International Building Code and the International Mechanical Code.</p>	<p>2703.2.2 General requirements. In addition to the requirements in Section 2703.2, systems, equipment and processes shall also comply with Section 5003.2, other applicable provisions of this code.</p>		<p>2703.2.2 General requirements. In addition to the requirements in Section 2703.2, systems, equipment and other processes shall also comply with Section 5003.2, other applicable provisions of this code and the applicable building code.</p>		
<p>2703.3 Construction requirements. Construction of semiconductor fabrication facilities shall be in accordance with Sections 2703.3.1 through 2703.3.9.</p>	<p>(N)2703.3 Construction requirements. (Section deleted)</p>		<p>no change</p>		
<p>2703.3.1 Fabrication areas. Construction and location of fabrication areas shall comply with the International Building Code.</p>	<p>(N)2703.3.1 Fabrication areas. (Section deleted)</p>		<p>no change</p>		

2703.3.2 Pass-throughs in exit access corridors. Pass-throughs in exit access corridors shall be constructed in accordance with the International Building Code.	(N)2703.3.2 Pass-throughs in exit access corridors. Pass-throughs in exit access corridors shall be in accordance with the applicable building code.		2703.3.2 Pass-throughs in exit access corridors. Pass-throughs in exit access corridors shall comply with the applicable building code.		
2703.3.3 Liquid storage rooms. Liquid storage rooms shall comply with Chapter 57 and the International Building Code.	(N)2703.3.3 Liquid storage rooms. Liquid storage rooms shall be maintained in accordance with the applicable building code.		2703.3.3 Liquid storage rooms. Liquid storage rooms shall comply with Chapter 57 and the applicable building code.		
2703.3.4 HPM rooms. HPM rooms shall comply with the International Building Code.	(N)2703.3.4 HPM rooms. Hazardous production materials (HPM) rooms shall be maintained in accordance with the applicable building code.		2703.3.4 HPM rooms. HPM rooms shall comply with the applicable building code.		
2703.3.5 Gas cabinets. Gas cabinets shall comply with Section 5003.8.6.	(N)2703.3.5 Gas cabinets. Gas cabinets shall be maintained in accordance with the applicable building code		2703.3.5 Gas cabinets. Gas cabinets shall comply with Section 5003.8.6.		
2703.3.6 Exhausted enclosures. Exhausted enclosures shall comply with Section 5003.8.5.	(N)2703.3.6 Exhausted enclosures. Exhausted enclosures shall be maintained in accordance with the applicable building code.		2703.3.6 Exhausted enclosures. Exhausted enclosures shall be maintained in accordance with Section 5003.8.5 and remain in accordance with the applicable building code.		
2703.3.7 Gas rooms. Gas rooms shall comply with Section 5003.8.4.	(N)2703.3.7 Gas rooms. Gas rooms shall be maintained in accordance with the applicable building code		2703.3.7 Gas rooms. Gas rooms shall be maintained in accordance with Section 5003.8.4 and remain in accordance with the applicable building code.		
2703.3.8 Service corridors. Service corridors shall comply with Section 2705.3 and the International Building Code.	(N)2703.3.8 Service corridors. Service corridors shall be maintained in accordance with the applicable building code.		2703.3.8 Service corridors. Service corridors shall comply with Section 2705.3 and the remain in accordance with the applicable building code.		
2703.7 Electrical wiring and equipment. Electrical wiring and equipment in HPM facilities shall comply with Sections 2703.7.1 through 2703.7.3.	(N)2703.7 Electrical wiring and equipment. Electrical wiring and equipment in HPM facilities shall be maintained in accordance with the applicable building code.		2703.7 Electrical wiring and equipment. Electrical wiring and equipment in HPM facilities shall comply with Sections 2703.7.1 through 2703.7.3.		
2703.7.1 Fabrication areas. Electrical wiring and equipment in fabrication areas shall comply with NFPA 70.	(N)2703.7.1 Fabrication areas. Electrical wiring and equipment in fabrication areas shall be maintained in accordance with the applicable building code.		2703.7.1 Fabrication areas. Electrical wiring and equipment in fabrication areas shall be maintained in accordance with NFPA 70 and remain in accordance with the applicable building code.		

<p>2703.7.2 Workstations. Electrical equipment and devices within 5 feet (1524 mm) of workstations in which flammable or pyrophoric gases or flammable liquids are used shall comply with NFPA 70 for Class I, Division 2 hazardous locations. Workstations shall not be energized without adequate exhaust ventilation in accordance with Section 2703.14.</p> <p>Exception: Class I, Division 2 hazardous electrical equipment is not required when the air removal from the workstation or dilution will prevent the accumulation of flammable vapors and fumes on a continuous basis.</p>	(N)2703.7.2 Workstations. (Section deleted)	<p>2703.7.2 Workstations. Electrical equipment and devices within 5 feet (1524 mm) of workstations in which flammable or pyrophoric gases or flammable liquids are used shall be maintained in accordance with NFPA 70 for hazardous locations. Workstations shall not be energized without adequate exhaust ventilation in accordance with Section 2703.14.</p> <p>Exception: Not required when the air removal from the workstation or dilution will prevent the accumulation of flammable vapors and fumes on a continuous basis.</p>		
<p>2703.7.3 Hazardous production material (HPM) rooms, gas rooms and liquid storage rooms. Electrical wiring and equipment in HPM rooms, gas rooms and liquid storage rooms shall comply with NFPA 70.</p>	(N)2703.7.3 HPM rooms, gas rooms, and liquid storage rooms. Electrical wiring and equipment in HPM rooms, gas rooms, and liquid storage rooms shall be maintained in accordance with the applicable building code.	<p>2703.7.3 Hazardous production material (HPM) rooms, gas rooms and liquid storage rooms. Electrical wiring and equipment in HPM rooms, gas rooms and liquid storage rooms shall be maintained in accordance with NFPA 70.</p>		
<p>2703.10 Automatic sprinkler system. An approved automatic sprinkler system shall be provided in accordance with Sections 2703.10.1 through 2703.10.5 and Chapter 9.</p>	(N)2703.10 Automatic sprinkler system. Automatic sprinkler systems shall be maintained in accordance with the applicable building code.	<p>2703.10 Automatic sprinkler system. An approved automatic sprinkler system shall be maintained in accordance with Chapter 9, this section and remain in accordance with the applicable building code.</p>		
<p>2703.10.1 Workstations and tools. The design of the sprinkler system in the area shall take into consideration the spray pattern and the effect on the equipment.</p>	(N)2703.10.1 Workstations and tools. (Section deleted)	no change		

<p>2703.10.1.1 Combustible workstations. A sprinkler head shall be installed within each branch exhaust connection or individual plenums of workstations of combustible construction. The sprinkler head in the exhaust connection or plenum shall be located not more than 2 feet (610 mm) from the point of the duct connection or the connection to the plenum. When necessary to prevent corrosion, the sprinkler head and connecting piping in the duct shall be coated with approved or listed corrosion-resistant materials. The sprinkler head shall be accessible for periodic inspection.</p> <p>Exceptions:</p> <ol style="list-style-type: none"> 1.Approved alternative automatic fire-extinguishing systems are allowed. Activation of such systems shall deactivate the related processing equipment. 2.Process equipment which operates at temperatures exceeding 932°F (500°C) and is provided with automatic shutdown capabilities for hazardous materials. 3.Exhaust ducts 10 inches (254 mm) or less in diameter from flammable gas storage cabinets that are part of a workstation. 4.Ducts listed or approved for use without internal automatic sprinkler protection. 	(N)2703.10.1.1 Combustible workstations. (Section deleted)		no change		
<p>2703.10.2 Gas cabinets and exhausted enclosures. An approved automatic sprinkler system shall be provided in gas cabinets and exhausted enclosures containing HPM compressed gases.</p> <p>Exception: Gas cabinets located in an HPM room other than those cabinets containing pyrophoric gases.</p>	(N)2703.10.2 Gas cabinets and exhausted enclosures. (Section deleted)		no change		
<p>2703.10.3 Pass-throughs in existing exit access corridors. Pass-throughs in existing exit access corridors shall be protected by an approved automatic sprinkler system.</p>	(N)2703.10.3 Pass-throughs in existing exit access corridors. (Section deleted)		no change		
<p>703.10.4 Exhaust ducts for HPM. An approved automatic sprinkler system shall be provided in exhaust ducts conveying gases, vapors, fumes, mists or dusts generated from HPM in accordance with this section and the International Mechanical Code.</p>	(N)2703.10.4 Exhaust ducts for HPM. (Section deleted)		no change		
<p>2703.10.4.1 Metallic and noncombustible nonmetallic exhaust ducts. An approved automatic sprinkler system shall be provided in metallic and noncombustible nonmetallic exhaust ducts when all of the following conditions apply:</p> <ol style="list-style-type: none"> 1.When the largest cross-sectional diameter is equal to or greater than 10 inches (254 mm). 2.The ducts are within the building. 3.The ducts are conveying flammable gases, vapors or fumes. 	(N)2703.10.4.1 Metallic and noncombustible nonmetallic exhaust ducts. (Section deleted)		no change		

<p>2703.10.4.2 Combustible nonmetallic exhaust ducts. An approved automatic sprinkler system shall be provided in combustible nonmetallic exhaust ducts when the largest cross-sectional diameter of the duct is equal to or greater than 10 inches (254 mm).</p> <p>Exceptions:</p> <p>1.Ducts listed or approved for applications without automatic sprinkler system protection.</p> <p>2.Ducts not more than 12 feet (3658 mm) in length installed below ceiling level.</p>	<p>(N)2703.10.4.2 Combustible nonmetallic exhaust ducts. (Section deleted)</p>		no change		
<p>2703.10.4.3 Exhaust connections and plenums of combustible workstations. Automatic fire-extinguishing system protection for exhaust connections and plenums of combustible workstations shall comply with Section 2703.10.1.1.</p>	<p>(N)2703.10.4.3 Exhaust connections and plenums of combustible workstations. (Section deleted)</p>		no change		
<p>2703.10.4.4 Exhaust duct sprinkler system requirements. Automatic sprinklers installed in exhaust duct systems shall be hydraulically designed to provide 0.5 gallons per minute (gpm) (1.9 L/min) over an area derived by multiplying the distance between the sprinklers in a horizontal duct by the width of the duct. Minimum discharge shall be 20 gpm (76 L/min) per sprinkler from the five hydraulically most remote sprinklers.</p>	<p>(N)2703.10.4.4 Exhaust duct sprinkler system requirements. (Section deleted)</p>		no change		
<p>2703.10.4.4.1 Sprinkler head locations. Automatic sprinklers shall be installed at 12-foot (3658 mm) intervals in horizontal ducts and at changes in direction. In vertical runs, automatic sprinklers shall be installed at the top and at alternate floor levels.</p>	<p>(N)2703.10.4.4.1 Sprinkler head locations. (Section deleted)</p>		no change		
<p>2703.10.4.4.2 Control valve. A separate indicating control valve shall be provided for sprinklers installed in exhaust ducts.</p>	<p>(N)2703.10.4.4.2 Control valve. Control valves provided for sprinklers installed in exhaust ducts shall be maintained in accordance with the applicable building code</p>		no change		
<p>2703.10.4.4.3 Drainage. Drainage shall be provided to remove sprinkler water discharged in exhaust ducts.</p>	<p>(N)2703.10.4.4.3 Drainage. Drainage provided to remove sprinkler water discharged in exhaust ducts shall be maintained</p>		no change		
<p>2703.10.4.4.4 Corrosive atmospheres. Where corrosive atmospheres exist, exhaust duct sprinklers and pipe fittings shall be manufactured of corrosion-resistant materials or coated with approved materials.</p>	<p>(N)2703.10.4.4.4 Corrosive atmospheres. (Section deleted)</p>		no change		
<p>2703.10.5 Sprinkler alarms and supervision. Automatic sprinkler systems shall be electrically supervised and provided with alarms in accordance with Chapter 9. Automatic sprinkler system alarm and supervisory signals shall be transmitted to the emergency control station.</p>	<p>(N)2703.10.5 Sprinkler alarms and supervision. Automatic sprinkler systems shall be maintained in accordance with applicable building code</p>		2703.10.5 Sprinkler alarms and supervision. Automatic sprinkler systems, associated electronic supervision and alarms shall be maintained in accordance with Chapter 9. Where provided, automatic sprinkler system alarm and supervisory signals shall also remain transmitted to the emergency control station in accordance with the applicable building code.		

<p>2703.11 Manual fire alarm system. A manual fire alarm system shall be installed throughout buildings containing a Group H-5 occupancy. Activation of the alarm system shall initiate a local alarm and transmit a signal to the emergency control station. Manual fire alarm systems shall be designed and installed in accordance with Section 907.</p>	<p>(N)2703.11 Manual fire alarm system. Manual fire alarm systems shall be maintained in accordance with the applicable building code.</p>		<p>2703.11 Manual fire alarm system. Where provided, a manual fire alarm system shall be maintained in accordance with Chapter 9 and remain throughout buildings containing a Group H-5 occupancy in accordance with the applicable building code. Where provided, activation of the alarm system shall also be maintained to transmit a signal to the emergency control station.</p>		
<p>2703.12 Emergency alarm system. Emergency alarm systems shall be provided in accordance with Sections 2703.12.1 through 2703.12.3, Section 5004.9 and Section 5005.4.4. The maximum allowable quantity per control area provisions of Section 5004.1 shall not apply to emergency alarm systems required for HPM.</p>	<p>(N)2703.12 Emergency alarm system. Emergency alarm systems shall be maintained in accordance with the applicable building code.</p>		<p>2703.12 Emergency alarm system. Emergency alarm systems shall be maintained in accordance with Chapter 9 and remain in accordance with the applicable building code. Where provided, emergency alarm systems shall also remain transmitted to the emergency control station in accordance with the applicable building code.</p>		
<p>2703.12.1 Where required. Emergency alarm systems shall be provided in the areas indicated in Sections 2703.12.1.1 through 2703.12.1.3.</p>	<p>(N)2703.12.1 Where required. (Section deleted)</p>		<p>no change</p>		
<p>2703.12.1.1 Service corridors. An approved emergency alarm system shall be provided in service corridors, with at least one alarm device in the service corridor.</p>	<p>(N)2703.12.1.1 Service corridors. (Section deleted)</p>		<p>no change</p>		
<p>2703.12.1.2 Corridors and interior exit stairways and ramps. Emergency alarms for corridors, interior exit stairways and ramps and exit passageways shall comply with Section 5005.4.4.</p>	<p>(N)2703.12.1.2 Corridors and interior exit stairways and ramps. Emergency alarms for corridors, interior exit stairways and ramps, and exit passageways shall be maintained in accordance with the applicable building code.</p>		<p>delete</p>		
<p>2703.12.1.3 Liquid storage rooms, HPM rooms and gas rooms. Emergency alarms for liquid storage rooms, HPM rooms and gas rooms shall comply with Section 5004.9.</p>	<p>(N)2703.12.1.3 Liquid storage rooms, HPM rooms and gas rooms. Emergency alarms for liquid storage rooms, HPM rooms, and gas rooms shall be maintained in accordance with the applicable building code.</p>		<p>delete</p>		
<p>2703.12.2 Alarm-initiating devices. An approved emergency telephone system, local alarm manual pull stations, or other approved alarm-initiating devices are allowed to be used as emergency alarm-initiating devices.</p>	<p>(N)2703.12.2 Alarm-initiating devices. (Section deleted)</p>		<p>no change</p>		
<p>2703.12.3 Alarm signals. Activation of the emergency alarm system shall sound a local alarm and transmit a signal to the emergency control station.</p>	<p>(N)2703.12.3 Alarm signals. (Section deleted)</p>		<p>no change</p>		

<p>2703.13 Continuous gas detection systems. A continuous gas detection system shall be provided for HPM gases when the physiological warning threshold level of the gas is at a higher level than the accepted permissible exposure limit (PEL) for the gas and for flammable gases in accordance with Sections 2703.13.1 through 2703.13.2.2.</p>	<p>(N)2703.13 Continuous gas detection systems. Continuous gas detection systems shall be maintained in accordance with the applicable building code.</p>		<p>2703.13 Continuous gas detection systems. Where provided, a continuous gas detection system shall be maintained for HPM gases. Such a system shall remain in accordance with the applicable building code where the physiological warning threshold level of the gas is at a higher level than the accepted permissible exposure limit (PEL) for the gas and for flammable gases.</p>		
<p>2703.13.1 Where required. A continuous gas detection system shall be provided in the areas identified in Sections 2703.13.1.1 through 2703.13.1.4.</p>	<p>(N)2703.13.1 Where required. (Section deleted)</p>		<p>no change</p>		
<p>2703.13.1.1 Fabrication areas. A continuous gas detection system shall be provided in fabrication areas when gas is used in the fabrication area.</p>	<p>(N)2703.13.1.1 Fabrication areas. (Section deleted)</p>		<p>no change</p>		
<p>2703.13.1.2 HPM rooms. A continuous gas detection system shall be provided in HPM rooms when gas is used in the room.</p>	<p>(N)2703.13.1.2 HPM rooms. (Section deleted)</p>		<p>no change</p>		
<p>2703.13.1.3 Gas cabinets, exhausted enclosures and gas rooms. A continuous gas detection system shall be provided in gas cabinets and exhausted enclosures. A continuous gas detection system shall be provided in gas rooms when gases are not located in gas cabinets or exhausted enclosures.</p>	<p>(N)2703.13.1.3 Gas cabinets, exhausted enclosures and gas rooms. (Section deleted)</p>		<p>no change</p>		
<p>2703.13.1.4 Corridors. When gases are transported in piping placed within the space defined by the walls of a corridor and the floor or roof above the corridor, a continuous gas detection system shall be provided where piping is located and in the corridor. Exception: A continuous gas detection system is not required for occasional transverse crossings of the corridors by supply piping which is enclosed in a ferrous pipe or tube for the width of the corridor.</p>	<p>(N)2703.13.1.4 Corridors. (Section deleted)</p>		<p>no change</p>		

<p>2703.13.2 Gas detection system operation. The continuous gas detection system shall be capable of monitoring the room, area or equipment in which the gas is located at or below all the following gas concentrations:</p> <ol style="list-style-type: none"> 1.Immediately dangerous to life and health (IDLH) values when the monitoring point is within an exhausted enclosure, ventilated enclosure or gas cabinet. 2.Permissible exposure limit (PEL) levels when the monitoring point is in an area outside an exhausted enclosure, ventilated enclosure or gas cabinet. 3.For flammable gases, the monitoring detection threshold level shall be vapor concentrations in excess of 25 percent of the lower flammable limit (LFL) when the monitoring is within or outside an exhausted enclosure, ventilated enclosure or gas cabinet. 4.Except as noted in this section, monitoring for highly toxic and toxic gases shall also comply with Chapter 60. 	<p>(N)2703.13.2 Gas detection system operation. (Section deleted)</p>	<p>2703.13.2 Gas detection system operation. In accordance with the applicable building code, a continuous gas detection system shall be maintained capable of monitoring the room, area or equipment in which the gas is located at or below all the following gas concentrations:</p> <ol style="list-style-type: none"> 1.Immediately dangerous to life and health (IDLH) values when the monitoring point is within an exhausted enclosure, ventilated enclosure or gas cabinet. 2.Permissible exposure limit (PEL) levels when the monitoring point is in an area outside an exhausted enclosure, ventilated enclosure or gas cabinet. 3.For flammable gases, the monitoring detection threshold level shall be vapor concentrations in excess of 25 percent of the lower flammable limit (LFL) when the monitoring is within or outside an exhausted enclosure, ventilated enclosure or gas cabinet. 4.Except as noted in this section, monitoring for highly toxic and toxic gases shall also comply with Chapter 60. 		
<p>2703.13.2.1 Alarms. The gas detection system shall initiate a local alarm and transmit a signal to the emergency control station when a short-term hazard condition is detected. The alarm shall be both visible and audible and shall provide warning both inside and outside the area where the gas is detected. The audible alarm shall be distinct from all other alarms.</p>	<p>(N)2703.13.2.1 Alarms. (Section deleted)</p>	<p>no change</p>		
<p>2703.14 Exhaust ventilation systems for HPM. Exhaust ventilation systems and materials for exhaust ducts utilized for the exhaust of HPM shall comply with Sections 2703.14.1 through 2703.14.3, other applicable provisions of this code, the International Building Code and the International Mechanical Code.</p>	<p>(N)2703.14 Exhaust ventilation systems for HPM. Exhaust ventilation systems and materials for exhaust ducts utilized for the exhaust of HPM shall be maintained in accordance with the applicable building code.</p>	<p>2703.14 Exhaust ventilation systems for HPM. Exhaust ventilation systems and materials for exhaust ducts utilized for the exhaust of HPM shall be maintained and operated in accordance with this chapter, other applicable provisions of this code, and remain in accordance with the applicable building code.</p>		

<p>2703.14.1 Where required. Exhaust ventilation systems shall be provided in the following locations in accordance with the requirements of this section and the International Building Code:</p> <p>1.Fabrication areas: Exhaust ventilation for fabrication areas shall comply with the International Building Code. The fire code official is authorized to require additional manual control switches.</p> <p>2.Workstations: A ventilation system shall be provided to capture and exhaust gases, fumes and vapors at workstations.</p> <p>3.Liquid storage rooms: Exhaust ventilation for liquid storage rooms shall comply with Section 5004.3.1 and the International Building Code.</p> <p>4.HPM rooms: Exhaust ventilation for HPM rooms shall comply with Section 5004.3.1 and the International Building Code.</p> <p>5.Gas cabinets: Exhaust ventilation for gas cabinets shall comply with Section 5003.8.6.2. The gas cabinet ventilation system is allowed to connect to a workstation ventilation system. Exhaust ventilation for gas cabinets containing highly toxic or toxic gases shall also comply with Chapter 60.</p> <p>6.Exhausted enclosures: Exhaust ventilation for exhausted enclosures shall comply with Section 5003.8.5.2. Exhaust ventilation for exhausted enclosures containing highly toxic or toxic gases shall also comply with Chapter 60.</p> <p>7.Gas rooms: Exhaust ventilation for gas rooms shall comply with Section 5003.8.4.2. Exhaust ventilation for gas rooms containing highly toxic or toxic gases shall also comply with Chapter 60.</p> <p>8.Cabinets containing pyrophoric liquids or Class 3 water-reactive liquids: Exhaust ventilation for cabinets in fabrication areas containing pyrophoric liquids or Class 3 water-reactive liquids shall be as required in Section 2705.2.3.4.</p>	<p>(N)2703.14.1 Where required. (Section deleted)</p>	<p>2703.14.1 Operations and Maintenance of HPM areas. Exhaust ventilation systems shall be maintained in the following locations in accordance with the requirements of this section and remain in accordance with the applicable building code:</p> <p>1.Fabrication areas: Exhaust ventilation for fabrication areas shall comply with the applicable building code.</p> <p>2.Workstations: A ventilation system shall be maintained to capture and exhaust gases, fumes and vapors at workstations.</p> <p>3.Liquid storage rooms: Exhaust ventilation for liquid storage rooms shall comply with Section 5004.3.1 and the applicable building code.</p> <p>4.HPM rooms: Exhaust ventilation for HPM rooms shall comply with Section 5004.3.1 and the applicable building code.</p> <p>5.Gas cabinets: Exhaust ventilation for gas cabinets shall comply with Section 5003.8.6.2. The gas cabinet ventilation system is allowed to connect to a workstation ventilation system. Exhaust ventilation for gas cabinets containing highly toxic or toxic gases shall also comply with Chapter 60.</p> <p>6.Exhausted enclosures: Exhaust ventilation for exhausted enclosures shall comply with Section 5003.8.5.2. Exhaust ventilation for exhausted enclosures containing highly toxic or toxic gases shall also comply with Chapter 60.</p> <p>7.Gas rooms: Exhaust ventilation for gas rooms shall comply with Section 5003.8.4.2. Exhaust ventilation for gas rooms containing highly toxic or toxic gases shall also comply with Chapter 60.</p> <p>8.Cabinets containing pyrophoric liquids or Class 3 water-reactive liquids: Exhaust ventilation for cabinets in fabrication areas containing pyrophoric liquids or Class 3 water-reactive liquids shall be as required in Section 2705.2.3.4.</p>	<p>Adjust language to reference Chapter 50. This technology was not introduced into Virginia until the 1990s when the BOCA codes provided requirements for these facilities.</p>
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<p>2703.14.2 Penetrations. Exhaust ducts penetrating fire barriers constructed in accordance with Section 707 of the International Building Code or horizontal assemblies constructed in accordance with Section 711 of the International Building Code shall be contained in a shaft of equivalent fire-resistance-rated construction. Exhaust ducts shall not penetrate fire walls. Fire dampers shall not be installed in exhaust ducts.</p>	(N)2703.14.2 Penetrations. (Section deleted)	no change		
<p>2703.15 Emergency power system. An emergency power system shall be provided in Group H-5 occupancies where required by Section 604. The emergency power system shall be designed to supply power automatically to required electrical systems when the normal supply system is interrupted.</p>	(N)2703.15 Emergency power system. Emergency power system systems shall be maintained in accordance with the applicable building code.	2703.15 Emergency power system. An emergency power system shall be maintained in Group H-5 occupancies in accordance with Section 604.		
<p>2703.15.1 Required electrical systems. Emergency power shall be provided for electrically operated equipment and connected control circuits for the following systems:</p> <ol style="list-style-type: none"> 1.HPM exhaust ventilation systems. 2.HPM gas cabinet ventilation systems. 3.HPM exhausted enclosure ventilation systems. 4.HPM gas room ventilation systems. 5.HPM gas detection systems. 6.Emergency alarm systems. 7.Manual fire alarm systems. 8Automatic sprinkler system monitoring and alarm systems. 9Automatic alarm and detection systems for pyrophoric liquids and Class 3 water-reactive liquids required in Section 2705.2.3.4. 10.Flow alarm switches for pyrophoric liquids and Class 3 water-reactive liquids cabinet exhaust ventilation systems required in Section 2705.2.3.4. 11.Electrically operated systems required elsewhere in this code or in the International Building Code applicable to the use, storage or handling of HPM. 	(N)2703.15.1 Required electrical systems. (Section deleted)	<p>2703.15.1 Required electrical systems. Where provided or required by the applicable building code, emergency power shall be maintained for electrically operated equipment and connected control circuits for the following systems:</p> <ol style="list-style-type: none"> 1.HPM exhaust ventilation systems. 2.HPM gas cabinet ventilation systems. 3.HPM exhausted enclosure ventilation systems. 4.HPM gas room ventilation systems. 5.HPM gas detection systems. 6.Emergency alarm systems. 7.Manual fire alarm systems. 8Automatic sprinkler system monitoring and alarm systems. 9Automatic alarm and detection systems for pyrophoric liquids and Class 3 water-reactive liquids required in Section 2705.2.3.4. 10.Flow alarm switches for pyrophoric liquids and Class 3 water-reactive liquids cabinet exhaust ventilation systems required in Section 2705.2.3.4. 11.Electrically operated systems required elsewhere in this code or in the applicable building code that are applicable to the use, storage or handling of HPM. 		

<p>2703.15.2 Exhaust ventilation systems. Exhaust ventilation systems are allowed to be designed to operate at not less than one-half the normal fan speed on the emergency power system when it is demonstrated that the level of exhaust will maintain a safe atmosphere.</p>	<p>(N)2703.15.2 Exhaust ventilation systems. Exhaust ventilation systems shall be maintained in accordance with the applicable building code.</p>	<p>2703.15.2 Exhaust ventilation systems. Exhaust ventilation systems are allowed to be maintained to operate at not less than one-half the normal fan speed on the emergency power system when it is demonstrated that the level of exhaust will maintain a safe atmosphere.</p>		
<p>2703.16 Sub-atmospheric pressure gas systems. Sub-atmospheric pressure gas systems (SAGS) shall be in accordance with NFPA 318.</p>	<p>(N)2703.16 Subatmospheric pressure gas systems. Subatmospheric pressure gas systems (SAGS) shall be maintained in accordance with the applicable building code.</p>	<p>2703.16 Sub-atmospheric pressure gas systems. Sub-atmospheric pressure gas systems (SAGS) shall be maintained in accordance with NFPA 318 and remain in accordance with the applicable building code.</p>		<p>NFPA 318 has maintenance language.</p>
<p>2704.1 General. Storage of hazardous materials shall comply with Section 2703 and this section and other applicable provisions of this code.</p>	<p>(N)2704.1 General. Storage of hazardous materials shall comply with Section 2703 and this section and other applicable provisions of this code to the extent that such requirements are operational in nature and do not affect how a building is constructed.</p>	<p>2704.1 General. Storage of hazardous materials shall comply with Section 2703 and this section and other applicable provisions of this code.</p>		
<p>2704.2.1 Location of HPM storage in fabrication areas. Storage of HPM in fabrication areas shall be within approved or listed storage cabinets, gas cabinets, exhausted enclosures or within a workstation as follows.</p> <ol style="list-style-type: none"> 1.Flammable and combustible liquid storage cabinets shall comply with Section 5704.3.2. 2.Hazardous materials storage cabinets shall comply with Section 5003.8.7. 3.Gas cabinets shall comply with Section 5003.8.6. Gas cabinets for highly toxic or toxic gases shall also comply with Section 6004.1.2. 4.Exhausted enclosures shall comply with Section 5003.8.5. Exhausted enclosures for highly toxic or toxic gases shall also comply with Section 6004.1.3. 5.Workstations shall comply with Section 2705.2.3. 	<p>2704.2.2.1 Storage and use in fabrication areas. The maximum quantities of hazardous materials stored or used in a single fabrication area shall not exceed the quantities set forth by the applicable building code.</p>	<p>2704.2.1 Location of HPM storage in fabrication areas. Storage of HPM in fabrication areas shall be maintained within approved or listed storage cabinets, gas cabinets, exhausted enclosures or within a workstation as follows.</p> <ol style="list-style-type: none"> 1.Flammable and combustible liquid storage cabinets shall comply with Section 5704.3.2. 2.Hazardous materials storage cabinets shall comply with Chapter 50. 3.Gas cabinets shall comply with Chapter 50. Gas cabinets for highly toxic or toxic gases shall also comply with Chapter 60. 4.Exhausted enclosures shall comply with Chapter 50. Exhausted enclosures for highly toxic or toxic gases shall also comply with Chapter 60. 5.Workstations shall comply with Section 2705.2.3. 		

<p>2704.2.2.1 Storage and use in fabrication areas. The maximum quantities of hazardous materials stored or used in a single fabrication area shall not exceed the quantities set forth in Table 2704.2.2.1.</p> <p>TABLE 2704.2.2.1</p> <p>QUANTITY LIMITS FOR HAZARDOUS MATERIALS IN A SINGLE FABRICATION AREA IN GROUP H-5a</p>	<p>(N)TABLE 2704.2.2.1 QUANTITY LIMITS FOR HAZARDOUS MATERIALS IN A SINGLE FABRICATION AREA IN GROUP H-5 (Table deleted)</p>	<p>2704.2.2.1 Storage and use in fabrication areas. The maximum quantities of hazardous materials stored or used in a single fabrication area shall not exceed the quantities set forth in Table 2704.2.2.1 unless otherwise approved by the applicable building code.</p> <p>TABLE 2704.2.2.1</p> <p>QUANTITY LIMITS FOR HAZARDOUS MATERIALS IN A SINGLE FABRICATION AREA IN GROUP H-5a</p>	
<p>2704.3.1 HPM storage. The indoor storage of HPM in quantities greater than those listed in Sections 5003.1.1 and 3404.3.4 shall be in a room complying with the requirements of the International Building Code and this code for a liquid storage room, HPM room or gas room as appropriate for the materials stored.</p>	<p>2704.3.1 HPM storage. The indoor storage of HPM in quantities greater than those listed in Sections 5003.1.1 and 3404.3.4 shall be in a room complying with the requirements of this code for a liquid storage room, HPM room, or gas room as appropriate for the materials stored.</p>	<p>2704.3.1 HPM storage. The indoor storage of HPM in quantities greater than those listed in Sections 5003.1.1 and 3404.3.4 shall be in a room complying with the requirements of the applicable building code and this code for a liquid storage room, HPM room or gas room as appropriate for the materials stored.</p>	
<p>2705.1 General. The use and handling of hazardous materials shall comply with this section, Section 2703 and other applicable provisions of this code.</p>	<p>2705.1 General. The use and handling of hazardous materials shall comply with this section, Section 2703, and other applicable provisions of this code to the extent that such requirements are operational in nature and do not affect how a building is constructed.</p>	<p>2705.1 General. The use and handling of hazardous materials shall comply with this section, Section 2703 and other applicable provisions of this code.</p>	<p>See title of section</p>

<p>2705.2.3.2 Protection of vessels. Vessels containing hazardous materials located in or connected to a workstation shall be protected as follows:</p> <p>1.HPM: Vessels containing HPM shall be protected from physical damage and shall not project from the workstation.</p> <p>2.Hazardous cryogenic fluids, gases and liquids: Hazardous cryogenic fluid, gas and liquid vessels located within a workstation shall be protected from seismic forces in an approved manner in accordance with the International Building Code.</p> <p>3.Compressed gases: Protection for compressed gas vessels shall also comply with Section 5303.5.</p> <p>4.Cryogenic fluids: Protection for cryogenic fluid vessels shall also comply with Section 5503.5.</p>	<p>(N)2705.2.3.2 Protection of vessels. Vessels containing hazardous materials located in or connected to a workstation shall be protected as follows: 1. HPM: Vessels containing HPM shall be protected from physical damage and shall not project from the workstation. 2. Compressed gases: Protection for compressed gas vessels shall also comply with Section 5303.5. 3. Cryogenic fluids: Protection for cryogenic fluid vessels shall also comply with Section 5503.5.</p>	<p>2705.2.3.2 Protection of vessels. Vessels containing hazardous materials located in or connected to a workstation shall be protected as follows:</p> <p>1.HPM: Vessels containing HPM shall be protected from physical damage and shall not project from the workstation.</p> <p>2.Hazardous cryogenic fluids, gases and liquids: Hazardous cryogenic fluid, gas and liquid vessels located within a workstation shall be maintained as protected from seismic forces in an approved manner in accordance with the applicable building code.</p> <p>3.Compressed gases: Protection for compressed gas vessels shall also comply with Section 5303.5.</p> <p>4.Cryogenic fluids: Protection for cryogenic fluid vessels shall also comply with Section 5503.5.</p>		
<p>2705.3.1 Corridors and enclosures for stairways and ramps. Corridors and enclosures for exit stairways and ramps in new buildings or serving new fabrication areas shall not contain HPM, except as permitted in corridors by Section 415.10.6.4 of the International Building Code and Section 2705.3.2 of this code.</p>	<p>(N)2705.3.1 Corridors and enclosures for stairways and ramps. Corridors and enclosures for exit stairways and ramps in new fabrication areas shall not contain HPM, except as permitted in corridors by Section 2705.3.2 and the applicable building code.</p>	<p>no change</p>		
<p>2705.3.2.1 Fabrication area alterations. When existing fabrication areas are altered or modified in existing buildings, HPM is allowed to be transported in existing corridors when such corridors comply with Section 5003.10 of this code and Section 415.10.2 of the International Building Code.</p>	<p>2705.3.2.1 Fabrication area alterations. Where existing fabrication areas are altered or modified in existing buildings, HPM is allowed to be transported in existing corridors where such corridors comply with the applicable building code.</p>	<p>2705.3.2.1 Fabrication area alterations. When existing fabrication areas are altered or modified from the original approval, HPM is allowed to be transported in existing corridors when such corridors comply with Section 5003.10 of this code and the applicable building code.</p>		
<p>2705.3.3 Service corridors. When a new fabrication area is constructed, a service corridor shall be provided where it is necessary to transport HPM from a liquid storage room, HPM room, gas room or from the outside of a building to the perimeter wall of a fabrication area. Service corridors shall be designed and constructed in accordance with the International Building Code.</p>	<p>(N)2705.3.3 Service corridors. (Section deleted)</p>	<p>2705.3.3 Service corridors. Where service corridors are required by the applicable building code and it is necessary to transport HPM from a liquid storage room, HPM room, gas room or from the outside of a building to the perimeter wall of a fabrication area, such transport shall be through approved service corridors.</p>		