

# City of Waynesboro

Willard H. Crocker

City Fire Chief

Ken Roberts

Code Enforcement

Date: \_\_\_\_\_

## PLAN REVIEW COMPLIANCE

Permit Number			
Address			
City	Waynesboro	Construction Type	
Project Name		Occupancy Classification	
		Floor Area	
Owner		Number of Stories	
		Height	
		Fire Sprinklers	<input type="checkbox"/> 13 <input type="checkbox"/> 13R <input type="checkbox"/> 13D

This office has received and reviewed the above-listed project. The plans have been reviewed in accordance with the following:

- City of Waynesboro Fire Code (IFC 2009)
- City of Waynesboro Building Code (IBC2009)
- NFPA 20
- Other \_\_\_\_\_
- NFPA 13
- NFPA 72

### MEET THE FOLLOWING REQUIREMENTS. THE PERMIT WILL NOT BE ISSUED UNTIL THE FOLLOWING ITEMS HAVE BEEN ADDRESSED.

#### Access

1. The allowable building area is based on an increase for frontage in accordance with IBC Section 506.2. The frontage used to increase the allowable area must be accessible for fire apparatus access. Identify the frontage on the site plan. (IBC Section 506.2.2)
2. Fire apparatus access roads must be provided to within 150 feet of all exterior walls of the first floor of the building. Provide access on the \_\_\_\_\_. (Section 503.1.1)
3. Apparatus access roads must have a minimum unobstructed width of 20 feet. (Section 503.2.1)
4. Apparatus access roads must have vertical clearance of 13 feet 6 inches. (Section 503.2.1)
5. Fire apparatus access roads shall have an all-weather surface and be capable of supporting a gross vehicle weight of \_\_\_\_\_. (Section 503.2.3)
6. The dead-end fire apparatus access road exceeds 150 feet in length. Provide an approved turn around, or extend the access road so that it is not dead-end. (Section 503.2.5)
7. The inside turning radius of fire apparatus access roads and fire lanes shall be \_\_\_\_\_. (Section 503.2.7)

8. The building exceeds 62,000 square feet (or exceeds 124,000 square feet when sprinklered). Two separate and approved fire apparatus access roads shall be provided. (Appendix D, Section D104.2)
9. Fire apparatus access roads and fire lanes cannot exceed a grade of \_\_\_\_\_. (Section 503.2.7)
10. Install fire lane signs along the fire apparatus access roads. Signs shall state “NO PARKING—FIRE LANE”. (Appendix D, Section D103.6)
11. Provide walkways from the building openings at the \_\_\_\_\_ side of the building to the public way or fire department access road. (Section 504.1)
12. Install a permanent sign with the site address. The address must be on a contrasting background and visible from the street. (Section 505.1)
13. Provide a Knox Box at the \_\_\_\_\_. Obtain application for Knox Box from the Fire Prevention Office. (Section 506.1)
14. Building has a roof slope of 4:12 or less, and is 4 or more stories. Provide at least one stairway to the roof. (Section 504.3)
15. Security gates across the fire apparatus access road must open to provide clear opening of at least 20 feet. Provide a receiver to accept a signal from Opticom Signal Pre-emption transmitter to open the gate. (Section 503.6)

### **Water Supply**

16. Install fire hydrants along the street at the following locations: \_\_\_\_\_ (Section 508.5.1)
17. Install on-site fire hydrants at the following locations: \_\_\_\_\_ (Section 508.5.1)
18. The required fire flow for this building is \_\_\_\_\_ gallons per minute at 20 PSI residual pressure. (Section 508.3)
19. Fire hydrants at the following locations shall be protected from vehicular damage by the installation of guard posts: \_\_\_\_\_. (Section 508.5.6)

### **During Construction**

20. An approved fire apparatus access road shall be made serviceable before and during construction. (Section 1410.1)
21. An approved water supply shall be installed and made serviceable before and during construction. (Section 1412.1)

22. Permanent or temporary street signs shall be installed at each street intersection when construction of new roadways allows passage by vehicles. (Section 505.2)
23. Provide temporary stairway floor number signs. (Section 1411.3)
24. The building is 4 or more stories and shall be provided with at least one standpipe during construction. The standpipe shall be installed before the progress of construction is more than 40 feet above the lowest level of fire department access. (Section 1413.1)
25. Standpipes shall be extended as construction progresses to within one floor of the highest point of construction. (Section 1413.1)

### **Fire Sprinkler Systems**

26. An automatic fire sprinkler system shall be installed. (Section 903.2)
27. Obtain permit from Fire Prevention Office for the installation of the fire sprinkler system. (Section 105.7.1)
28. Plans and specifications shall be submitted for review and approval prior to installation. This shall include hydraulic calculations. (Section 901.2)
29. Plans and hydraulic calculations shall be submitted for review and approval of limited area sprinkler systems. (Section 903.3.5.1.1)
30. The fire sprinkler system shall be monitored by an approved central, proprietary or remote station service, or an approved constantly attended location. (Section 903.4)
31. The fire department connection and the closest fire hydrant shall be located so that fire apparatus and hose connected to supply the FDC will not obstruct access to the buildings for other fire apparatus. (Section 912.2)
32. The Fire department connection shall be located on the street side of building and in an approved location. (Section 912.2.1)

### **Standpipe Systems**

33. Standpipe system shall be installed. (Section 905.3)
34. Obtain permit from Fire Prevention Office for the installation of the standpipe system. (Section 105.7.12)
35. Plans and specifications shall be submitted for review and approval prior to installation. (Section 901.2)
36. The fire department connection and the closest fire hydrant shall be located so that fire apparatus and hose connected to supply the FDC will not obstruct access to the buildings for other fire apparatus. (Section 912.2)

37. The Fire department connection shall be located on the street side of building and in an approved location. (Section 912.2.1)

**Fire Extinguishing Systems**

38. Install an approved automatic fire-extinguishing system to protect the cooking equipment. (Section 904.2.1)

39. Obtain permit from Fire Prevention Office for the installation of the automatic fire extinguishing system. (Section 105.7.1)

40. Plans and specifications shall be submitted for review and approval prior to installation. (Section 901.2)

**Fire Alarm Systems**

41. An  automatic  manual fire alarm system shall be installed. (Section 907.2)

42. Obtain permit from Fire Prevention Office for the installation of the fire alarm system. (Section 105.7.4)

43. Plans and specifications for fire alarm systems shall be submitted for review and approval prior to system installation. This shall include battery calculations. (Section 907.1.1)

44. The fire alarm system shall be monitored at an approved central, proprietary or remote station service. (Sections 907.15)

45. The alarm system shall provide both audible and visual signals. (Section 907.10.1)

46. All automatic fire-extinguishing systems shall be connected to the fire alarm system. (Section 907.14)

**Egress**

47. Install exit signs at the following locations: (Section 1011.1)

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48. Provide panic hardware on the following doors: (Section 1008.1.9)

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49. Exit signs shall have secondary source of power. (Section 1001.5.3)

50. Egress way lighting shall have emergency power. (Section 1006.3)

51. The following doors serve an occupant load of 50 or more and must swing in the direction of

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52. The common path of travel is exceeded in the following locations. Redesign and resubmit. (Section 1014.3)

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53. The following areas must be provided with two exits: (Section 1015.1)

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54. The exits from the following rooms must be at least  1/2  1/3 of the diagonal apart: (Section 1015.2.1)

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55. Travel distance shall be measured using a route consisting of perpendicular turns. The exit access travel distance has been exceeded in the following rooms: (Section 1016.1)

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56. The dead-end corridors in the following locations exceed the allowable distance. Redesign and resubmit. (Section 1017.3)

**Operational Hazards**

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57. Provide data on the flame spread rate of the finishes for the following areas: (IBC Section 803.3)

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58. Install an approved, permanently attached spark arrester on incinerators. (Section 603.8.2)

59. Attics, under-floor and concealed spaces intended for storage, shall have one-hour fire-resistive construction on the storage side, or shall be protected by a fire sprinkler system. (Section 315.2.4)

60. Elevators shall be provided with Phase I emergency recall operation and Phase II emergency in-car operation in accordance with ASME A17.1. (Section 607.1)

61. Dumpster location shall be at least 5 feet from combustible walls, openings or combustible roof eave lines. (Section 304.3.3)

### **Battery Charging Operations**

62. Battery chargers shall be of an approved type and combustible storage shall be kept a minimum of 3 feet (915 mm) away from such chargers. (Section 309.2)
63. Provide ventilation in the battery charging areas. (Section 309.3)
64. Areas containing battery chargers shall be provided with a fire extinguisher having a minimum rating of 4-A:20-B:C within 20 feet of the battery charger. (Section 309.4)

### **Stationary Storage Battery Systems**

65. Obtain permit from Fire Prevention Office for the installation of the stationary storage battery system. (Section 105.7.2)
66. Provide a  1-HR  2-HR fire-resistance rated separation between the stationary storage battery system and the remainder of the building. (Section 608.4, IBC Table 508.2)
67. Provide spill control for stationary storage battery systems. (Section 608.5)
68. Provide an approved method to neutralize spilled electrolyte. (Section 608.5)
69. Provide a ventilation system for stationary storage battery systems. (Section 608.6)
70. Battery systems shall be seismically braced. (Section 608.8)
71. Provide a smoke detection system for the battery storage room. (Section 608.9)
72. Obtain permit from Fire Prevention Office for the installation of the smoke detection system. (Section 105.7.4)

### **Spray-finishing Operations**

73. Spray finishing operations shall be conducted in a spray room protected with an approved automatic sprinkler system. (Section 1504.2)
74. Spray finishing operations shall be conducted in a spray booth protected with an approved automatic sprinkler system, or in a spray booth. (Section 1504.2)
75. Obtain permit from Fire Prevention Office for the construction of spray room or spray booth. (Section 105.7.11)
76. The aggregate floor area of all spray booths is limited to 10 percent of the floor area or the basic allowable area for a Group H-2 Occupancy without area increases, whichever is smaller. (Section 1504.3.2.6)

77. Each individual spray booth size shall not exceed 1,500 square feet or the aggregate size limit, whichever is smaller. (Section 1504.3.2.6)
78. Provide a minimum 3-foot separation from other operations around spray booths. (Section 1504.3.2.5)
79. The average air velocity over the open face of spray booths or spray booth cross sections in the direction of airflow shall be a minimum of 100 lineal feet per minute. (Section 1504.7.3)
80. Spray booths shall have an independent exhaust system discharging to the exterior of the building. (Section 1504.7.5)
81. Install an approved automatic fire-extinguishing system in spray booths and spray rooms. (Section 1504.4)
82. Obtain permit from Fire Prevention Office for the installation of the automatic fire extinguishing system. (Section 105.7.1)
83. Spray booth electric motors driving exhaust fans shall not be placed inside booths or ducts. (Section 1504.7.7)

### **Refrigeration Systems**

84. Install a refrigerant detector with an audible and visual alarm in refrigeration machinery rooms. Detectors and alarms shall be placed in approved locations. (Section 606.8)
85. Provide remote control of the mechanical equipment and appliances in the machinery room at an approved location immediately outside and adjacent to the main entrance to the machinery room. (Section 606.9)
86. Install a break-glass type switch which provides off-only control of electrically energized equipment and appliances in the machinery room. Switch shall be clearly identified and in an approved location. (Section 606.9.1)
87. Install a switch of the break-glass type which provides on-only control of the machinery room ventilation fans. Switch shall be clearly identified and in an approved location. (Section 606.9.2)
88. Refrigeration systems containing more than 6.6 pounds of flammable, toxic or highly toxic refrigerant or ammonia shall be provided with an emergency pressure control system. (Section 606.10)

### **High-piled Combustible Storage**

89. Submit a storage plan indicating type of storage, commodity classification, storage configuration, height of storage, location and width of aisles, location of exits, exit access doors, exit signs, and locations of hazardous materials for review and approval. (Section 2301.3)

90. Obtain permit from Fire Prevention Office for the operation of a high-piled storage area. (Section 105.6.222)
91. Submit an evacuation plan for public accessible areas and a separate set of plans indicating location and width of aisles, location of exits, exit access doors, exit signs, height of storage, and locations of hazardous materials for review and approval. (Section 2301.4)
92. Install access doors in each 100 lineal feet, or portion thereof, of exterior walls around the portion of the building used for high piled combustible storage. (Section 2306.6.1)
93. Install fire sprinkler systems throughout the building or to 1-hour fire barrier walls. (Sections 2307.2, 2308.2)
94. Obtain permit from Fire Prevention Office for the installation of the automatic fire sprinkler system. (Section 105.7.1)
95. Install fire detection systems throughout the high-piled storage area which must be monitored. (Section 2306.5)
96. Obtain permit from Fire Prevention Office for the installation of the automatic fire detection system. (Section 105.7.1)
97. Provide an approved method of smoke and heat removal. (Section 2306.7)
98. Install draft curtains in accordance with Section 910.3.4. (Section 2306.7)
99. Dead end aisles in the storage area shall not exceed 20 feet. (Sections 2306.9.3, 1017.3)
100. Aisles shall be open from floor to ceiling. (Section 2306.9.2)

### **Repair Garages**

101. Obtain permit from Fire Prevention Office for the operation of the repair garage. (Section 105.6.39)
102. Ignition sources shall be 18" above the floor. (Section 2211.3)
103. Basements or pits where vapors from Class I liquids or LP-gas could accumulate shall be provided with mechanical ventilation at a minimum rate of 1.5 cfm/ft<sup>2</sup>. (Section 2211.4.3)
104. Inside tanks storing Class IIIB liquids in repair garages below or above grade shall be provided that drainage or containment. (Section 2211.2.2.1)
105. An approved mechanical ventilation system shall be provided in accordance with Section 2211.7.1.
106. Install a flammable gas detection system for the repair of hydrogen, LNG, or CNG-fueled vehicles. (Section 2211.7.2)
107. Submit details of the procedure for discharging the CNG or hydrogen storage tank for



108. Submit construction documents for the CNG or hydrogen defueling system to be utilized. (Section 2211.8.1.2.2, 2208.8.1.2.1)

### **Motor Vehicle Fuel Dispensing Operations**

109. Obtain permit from Fire Prevention Office for the fuel dispensing operation. (Section 105.6.16)
110. Dispensing devices shall be located as follows (Section 2203.1):
- a. 10 feet minimum from property lines.
  - b. 10 feet minimum from buildings with combustible exteriors or noncombustible exteriors with less than 1-HR construction.
  - c. All portions of the vehicle must fit on the premises.
  - d. The nozzle, when fully extended, cannot reach to within 5 feet of building openings.
  - e. 20 feet minimum from fixed ignition sources.
111. Nozzles shall be listed and incorporate a latch-open device. (Section 2206.7.6.1)
112. Dispensing hose shall be a maximum of 18 feet in length. (Section 2206.7.5)
113. Install a manually operated switch labeled EMERGENCY FUEL SHUTDOWN DEVICE within 100 feet of the fuel dispensers, but no closer than 20 feet. (Section 2203.2)
114. Provisions shall be made for the dispensing devices shall be in clear view of the attendant at all times. (Section 2204.2.4)
115. Provide a method for the attendant to communicate with persons in the dispensing area at all times. (Section 2204.2.5)
116. Class I liquids shall be stored and dispensed from underground tanks, special enclosures, protected above-ground tanks, or above- or below-grade vaults. (Section 2206.2)
117. Class II and III-A liquids shall be stored and dispensed from underground tanks, special enclosures, protected above-ground tanks, above- or below-grade vaults or other tanks meeting the requirements of Chapter 34. (Section 2206.2)
118. A method shall be provided to safeguard above-ground tanks from public access. (Section 2206.3)
119. Above-ground tanks shall be provided with secondary containment. (Section 2206.5)
120. Breakaway devices are required for dispenser hoses with Class I and II liquids. (Section 2206.7.5.1)
121. Install approved automatic emergency shear valves in the fuel and vapor lines at the base of each dispenser. (Section 2206.7.4)
122. Dispensing devices shall be protected from vehicular damage by mounting on a concrete

123. Provide drainage control to restrict accidental spills from entering buildings. (Section 2205.3)
124. Provide portable fire extinguishers with a minimum rating of 2-A:20-B:C within 75 feet of dispensing, storage tank and tank fill locations. (Section 2205.5)
125. LPG containers shall be located in accordance with Table 3804.3. (Section 2207.1)
126. Obtain permit from Fire Prevention Office for installation of the LPG container. (Section 105.7.9)
127. LPG storage vessels shall be at least 20 feet from aboveground storage tanks containing flammable and combustible liquids. (Section 3404.2.9.5.3)
128. The point of transfer for LPG shall be at least 25 feet from (Section 2207.4):
  - a. Buildings having combustible exterior walls
  - b. Buildings having noncombustible walls not of at least 1-HR construction
  - c. Property line that may be built upon
  - d. Sidewalks
  - e. Public streets
  - f. Railroads
129. The point of transfer for LPG shall be 10 feet from (Section 2207.4):
  - a. Driveways
  - b. Buildings having noncombustible walls with at least a 1-HR fire-resistive rating
130. LPG dispensing hose shall be a maximum of 18 feet in length and be provided with hydrostatic relief valves. (Section 2207.5.2)
131. LPG containers shall be provided with vehicle impact protection. (Section 2207.5.3)
132. Provide a remote, readily accessible manual shutoff valve in the CNG gas piping system. (Section 2208.6)
133. CNG dispensing equipment and storage containers shall be located as follows (Section 2208.3.1):
  - a. Not located beneath power lines.
  - b. 10 feet minimum from the nearest building, property line, public street, sidewalk or source of ignition.
  - c. 25 feet minimum from the nearest rail of any railroad track.
  - d. 50 feet minimum from the nearest main railroad track or transit line where power for train propulsion is provided.
  - e. 50 feet minimum from the vertical plain below the nearest overhead wire of a trolley bus line.
134. Install an emergency shutdown device at least 75 feet, but not less than 25 feet from CNG vessels, dispensers and equipment. (Section 2208.7)

135. Hydrogen generation, compression, storage and dispensing equipment shall be located in accordance with Sections 2209.3.1. (Section 2208.3.1)
136. Indoor hydrogen generation, compression, storage and dispensing equipment shall be located in rooms or areas constructed in accordance with the IBC. (Section 2209.3.2.3)
137. Above-ground liquefied hydrogen storage containers, compression and vaporization equipment shall be at least 25 feet from (Section 2209.3.2.5.1):
  - a. Buildings having combustible exterior walls
  - b. Buildings having noncombustible walls not of at least 1-HR construction
  - c. Property line that may be built upon
  - d. Wall openings
  - e. Public streets
  - f. Parked vehicles
138. Gaseous hydrogen compression and storage equipment located on top of motor fuel-dispensing facility canopies shall be in accordance with Section 2209.3.2.6.
139. Hydrogen storage and dispensing systems shall be protected from vehicular damage by guard post or other approved methods. (Section 2209.5.1)
140. Provide a manual emergency shutoff valve to shut down the flow of gas from the hydrogen supply. (Section 2209.5.2)
141. Install a remotely located, manual emergency shutdown switch shall be provided within 75 feet, but not less than 25 feet (7620 mm) from, dispensers and hydrogen generators. (Section 2209.5.3)

#### **Hazardous Materials in Retail Storage and Display – Group M**

142. Submit documentation on the quantity of hazardous materials per control area for both storage and display areas. (Sections 2703.11.1, 3404.3.4.1)
143. Submit plans for storage and display areas. This is to include racks and permanent or portable shelving units. Indicate areas and quantities for hazardous material storage/display areas. (Sections 2703.11.1, 3404.3.6.5)
144. The aggregate amount of nonflammable solid and nonflammable or noncombustible liquid hazardous materials stored and displayed within a single control area shall not exceed the amounts set forth in Table 2703.11.1. (Section 2703.11.1)
145. The aggregate amount of nonflammable solid and nonflammable or noncombustible liquid hazardous materials within an outdoor control area shall not exceed the amounts set forth in Table 2703.11.1. (Section 2703.11.2)
146. Storage and display of solid hazardous materials shall not exceed 200 pounds per square foot of floor area actually occupied by solid merchandise. (Section 2703.11.3.1)
147. Storage and display of liquid hazardous materials shall not exceed 20 gallons per square

- 148. The display height of hazardous materials shall not exceed 6 feet above the finished floor in display areas. (Section 2703.11.3.2)
- 149. Racks and shelves shall be adequately braced for the anticipated load. (Section 2703.11.3.4)
- 150. Individual containers of hazardous materials shall not exceed 100 pounds for solids or 10 gallons for liquids in storage and display areas. (Section 2703.11.3.6)
- 151. Floors shall be of noncombustible construction. (Section 2703.11.3.8)
- 152. Aisles 4 feet in width shall be maintained on three sides of the hazardous materials storage and display areas. (Section 2703.11.3.9)
- 153. Provide hazard identification signs in accordance with NFPA 704. (Section 2703.11.3.10)
- 154. Indoor storage of flammable and combustible liquids shall not exceed the maximum allowable quantities per control area indicated in Table 3404.3.4.1. (Section 3404.3.4.1)
- 155. The fire protection system and container storage/display arrangements for flammable and combustible liquids shall be in accordance with Section 3404.3.6.3.

**Hazardous Materials – For Quantities Above and Below the MAQ**

- 156. Submit Hazardous Materials Inventory Statement to document on the quantity of hazardous materials. (Sections 2703.11.1, 3404.3.4.1)
- 157. Determine the Maximum Allowable Quantity of Hazardous Materials per Control Area using the table below

Material Category	Situation (Storage, Use-open, Use- closed)	Tabular Value (Tables 2703.1.1)	Sprinkler Increase? (Yes/No)	Storage Method Increase? (Yes/No)	Floor Level (Table 2703.8.3.2)		MAQ per Control Area
					# of Control Areas	% MAQ Allowed	


- 158. Piping, tubing, valves and fittings shall be in accordance with Section 2703.2.2.
- 159. All equipment, machinery and required detection and alarm system associated with the storage use or handling of hazardous materials shall be approved or listed. (Section 2703.2.3)
- 160. Liquid level controls shall be provided for atmospheric tanks greater than 500 gallons. (Section 2703.2.7)
- 161. Provide seismic restraint for all machinery and equipment utilizing hazardous materials. (Section 2703.2.8)
- 162. Install Hazardous Material Signs in accordance with Sections 2703.5 and 2703.6.
- 163. Control areas shall be separated from each other as required in Section 2703.8.3.4.
- 164. The maximum number of Control Areas on the \_\_\_\_\_ floor is \_\_\_\_\_. Quantities within each Control Area shall be limited in accordance with Table 2703.8.3.2.
- 165. Storage tanks connected piping, valves and fittings; dispensing areas and use areas shall be protected from vehicle damage. (Section 2703.9.3)
- 166. Provide a means to avoid the accumulation of static charge. (Section 2703.9.5)
- 167. Incompatible materials must be separated when containers exceed 5 lbs. or ½ gallon. (Section 2703.9.8)

**Hazardous Materials – Quantities Exceeding MAQ**

- 168. Submit a Hazardous Materials Management Plan. (Section 2701.5.1)
- 169. Obtain permit from Fire Prevention Office for the use, handling or storage of hazardous materials. (Section 105.6.16)
- 170. Provide an operational statement indicating the processes and operations occurring in the facility.
- 171. Provide secondary containment. (Section 2704.2.2)
- 172. Provide ventilation of at least 1 cfm per square foot. (Section 2704.3)
- 173. Install an automatic fire sprinkler system. (Section 903.2.4)
- 174. Obtain permit from Fire Prevention Office for the installation of the fire sprinkler system.

175. The minimum sprinkler system design must be Ordinary Hazard Group 2 over 3,000 square feet. (Section 2704.5)
176. Provide a method of explosion control (Table 911.1)
177. Provide emergency or standby power for mechanical ventilation systems, treatment systems, temperature controls, alarm systems, detection or other required electrically operated systems. (Section 2704.7)
178. Install a manual emergency alarm system in H-5 occupancies. (Section 2704.9)
179. All emergency alarm, detection and automatic fire-extinguishing systems shall be supervised by a central, proprietary or remote station service or a constantly attended location on-site. (Section 2704.10)
180. Floors of hazardous materials storage areas shall be noncombustible. This does not include surfacing. (Section 2704.12)
181. Detached buildings shall be provided for storage of hazardous materials in quantities in excess of Table 2703.8.2. (Section 2703.8.2)

#### **Indoor Dispensing and Use of Hazardous Materials – Exceeding the MAQ**

182. Provide safeguards to prevent a low-liquid level in a tank from creating a hazardous condition. (Section 2705.1.4.2)
183. Temperature controls shall be provided in accordance with Section 2704.8.1. (Section 2705.1.4.3)
184. Pressure controls shall be provided in accordance with Section 2704.8.2. (Section 2705.1.4.4)
185. Provide emergency or standby power for mechanical ventilation systems, treatment systems, temperature control, manual alarm, detection or other electrically operated systems. (Section 2705.1.5)
186. Provide ventilation of at least 1 cfm per square foot. (Section 2705.1.9)
187. Provide details of method of transfer/dispensing of liquids with a hazard ranking of 3 or 4. (Section 2705.1.10)
188. Floors where liquid or solid hazardous materials are dispensed or used in open systems shall be of noncombustible, liquid-tight construction. (Section 2705.1.2)
189. Open tanks where liquid hazardous materials are used shall be equipped with liquid-level limit control. (Section 2705.1.4.1)
190. Provide mechanical exhaust ventilation to capture gases, fumes, mists or vapors at the point

191. Provide explosion control where an explosive environment can occur because of the characteristics or nature of the hazardous materials dispensed or used, or as a result of the dispensing or use process. (Section 2705.2.1.2)
192. Provide spill control where hazardous material liquids are dispensed into vessels exceeding a 1.3-gallon capacity. (Section 2705.2.1.3)
193. Provide spill control where hazardous material liquids are used in open systems exceeding a 5.3-gallon. (Section 2705.2.1.3)
194. Provide secondary containment in buildings, rooms or areas where hazardous material liquids are dispensed or used in open systems when required by Table 2705.2.1.4.
195. All automatic controls shall be designed to be fail safe. (Section 2705.2.2.1)
196. Provide mechanical exhaust ventilation where closed systems are designed to be opened as part of normal operations to capture gases, fumes, mists or vapors at the point of generation for liquids or solids having a hazard ranking of 3 or 4. (Section 2705.2.2.2)
197. Provide explosion control where an explosive environment can occur because of the characteristics or nature of the hazardous materials dispensed or used, or as a result of the dispensing or use process. (Section 2705.2.2.3)
198. Provide spill control where hazardous material liquids are used in closed vessels exceeding a 55-gallon capacity. (Section 2705.2.2.4)
199. Provide secondary containment in buildings, rooms or areas where hazardous material liquids are dispensed or used in open systems when required by Table 2705.2.1.4.

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**Willard H. Crocker**  
**Fire Marshal**

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**Ken Roberts**  
**Building Code Enforcement**