**Section 160.90 Venting of Tanks – Special Safety or Emergency Relief Vents**

a) Additional vent openings or safety valves to relieve any excessive pressure due to external heat shall be provided, of a type which shall be self-closing when pressure is relieved and meet the requirements of NFPA 30 (1981).

b) Vent Capacity: Tank venting systems shall be equipped in accordance with NFPA 30 (1981) to prevent blowback of vapor or liquid at the fill opening while the tank is being filled. Vent pipes shall not be less than 1¼-in. nominal inside diameter. The required venting capacity depends upon the filling or withdrawal rate, whichever is greater, and the vent line length. Unobstructed vent piping sized in accordance with the table below will prevent back-pressure development in tanks from exceeding 2.5 psig. Where tank venting devices are installed in vent lines, their flow capacities shall be determined in accordance with NFPA 30 (1981).

c) Vent line diameters shall conform to the following table:

Vent Line Diameters

|  |  |  |  |
| --- | --- | --- | --- |
| Maximum Flow  GPM | 50 ft. | Pipe Length\*  100 ft. | 200 ft. |
| 100 | 1 ¼-inch | 1 ¼-inch | 1 ¼-inch |
| 200 | 1 ¼-inch | 1 ¼-inch | 1 ¼-inch |
| 300 | 1 ¼-inch | 1 ¼-inch | 1 ¼-inch |
| 400 | 1 ¼-inch | 1 ¼-inch | 2-inch |
| 500 | 1 ¼-inch | 1 ¼-inch | 2-inch |
| 600 | 1 ¼-inch | 2-inch | 2-inch |
| 700 | 2-inch | 2-inch | 2-inch |
| 800 | 2-inch | 2-inch | 3-inch |
| 900 | 2-inch | 2-inch | 3-inch |
| 1000 | 2-inch | 2-inch | 3-inch |

\*Vent lines of 50 ft. 100 ft. and 200 ft. of pipe plus 7 ells.

(Source: Amended at 9 Ill. Reg. 10012, effective October 1, 1985)