

CHANGE TYPE: Deletion

CHANGE SUMMARY: Flame arresters or pressure-vacuum (PV) breather valves are no longer required on all protected above-ground storage tanks, only those containing Class I flammable liquids.

2015 CODE: **5704.2.9.7.3 Flame Arresters.** — Approved flame arresters or pressure vacuum breather valves shall be installed in normal vents.

CHANGE SIGNIFICANCE: The requirement for either a flame arrester or a PV breather valve on all protected above-ground storage tanks has been removed. The 2012 IFC required such a device on all protected above-ground tanks. A protected above-ground tank must pass the fire testing in UL 2085, Protected Aboveground Tanks for Flammable and Combustible Liquids. The tanks must pass the testing criteria without a flame arrester or PV breather installed.

Consider a diesel generator with an integral steel above-ground tank listed to UL 142, Steel Aboveground Tanks for Flammable and Combustible Liquids. The UL 142 tank is not required to be equipped with a flame arrester on the normal vent. However, as soon as that tank is replaced with a protected above-ground storage tank listed to UL 2085, the 2012 IFC requires a flame arrester or PV breather valve even though the tank contains the same fuel, supplies the same diesel generator, and provides a higher level of safety. This inconsistency has been corrected in the 2015 IFC.

In the 2015 IFC, there are places where a flame arrester or a PV breather valve is required, even on a protected above-ground tank. Those situations are dependent on the product contained in the tank. Specifically, the stor-

5704.2.9.7.3 continues

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Flame Arresters on Protected Above-ground Storage Tanks



Flame arrester or PV breather valve required on protected above-ground tanks storing Class I flammable liquids

age of a Class I flammable liquid requires either a flame arrester or a PV breather valve. IFC Section 5704.2.7.3.2 applies to all types of tanks including protected above-ground storage tanks. This requirement, in pertinent part, reads as follows:

5704.2.7.3.2 Vent-Line Flame Arresters and PV Vents. Listed or approved flame arresters or PV vents that remain closed unless venting under pressure or vacuum conditions shall be installed in normal vents of tanks containing Class IB and IC liquids.

Exception: Where determined by the fire code official that the use of such devices can result in damage to the tank.

Flame arresters or PV breather valves are now required based on the contents having a higher volatility; the requirement is not based on the type of tank.