EFVT.GuideInfo - Special-purpose Tanks

[Containment Products for Flammable and Combustible Liquids]
(Fixed and Stationary Storage Tanks) Special-purpose Tanks

See General Information for Fixed and Stationary Storage Tanks

USE AND INSTALLATION

This category covers special-purpose, shop-fabricated, steel primary, secondary and diked containment-type tank constructions intended for aboveground storage of noncorrosive, stable, flammable and/or combustible liquids at atmospheric pressure as indicated in the individual certifications. Liquids are limited to 1.0 spg, unless otherwise evaluated and marked for the maximum spg.

These tanks are intended for fixed or stationary installation and use in accordance with one or more of the following codes as noted under TANK TYPES below, and/or other requirements of the Authority Having Jurisdiction (AHJ):

ANSI/NFPA 30, "Flammable and Combustible Liquids Code"

ANSI/NFPA 30A, "Code for Motor Fuel Dispensing Facilities and Repair Garages"

ANSI/NFPA 31, "Installation of Oil-Burning Equipment"

ANSI/NFPA 37, "Installation and Use of Stationary Combustion Engines and Gas Turbines"

ANSI/NFPA 110, "Emergency and Standby Power Systems"

This category covers only the basic tank constructions and optional tank accessories specifically identified in the individual certifications that are investigated to additional requirements under the base tank standards.

This category does not cover field-erected tanks or portable/mobile tanks intended for shipping and transport, which are covered under separate requirements or regulations from the American Petroleum Institute, U.S. Department of Transportation, etc., or United Nations publications; or general-purpose tanks.

These products have not been investigated for resistance to or use after hurricanes, tornadoes, earthquakes, floods or other natural disasters; or vehicle and similar impacts; and fire.

TANK TYPES

The following types of steel tank basic-containment constructions and special-purpose designs are indicated in the individual certifications:

Generator base tank (#) — Tank used for combined combustible fuel storage and structural support for diesel- or turbine-engine power generators and intended to be installed in accordance with ANSI/NFPA 30, ANSI/NFPA 37 and ANSI/NFPA 110. These tanks are typically rectangular, and of maximum 25,000 gal capacity for Class II combustible fuels, such as diesel, kerosene, or turbine oils. Covered options may include fire resistance, damage resistance and/or tank supports.

Secondary-containment generator base tank (#) — Generator base tank of a secondary-containment type (constructed with two shells that form an interstitial space capable of being pressurized and monitored for leakage).

(*) Diked generator base tank (#) — Generator base tank of a diked containment type (aboveground storage tank within a steel containment dike vessel that is capable of being monitored for leakage, but not capable of being pressurized).

Fire-resistant generator base tank (#) — Generator base tank provided with thermal insulation and other features to keep the primary tank shell temperature at no more than 800°F (max avg rise) and 1000°F (max point) during a two-hour 2000°F fire exposure. These tanks may optionally meet vehicle-impact- and/or projectile-impact-resistance requirements (+).
Fire-resistant secondary-containment generator base tank (#) — Fire-resistant generator base tank of a secondary-containment type (constructed with two shells that form an interstitial space capable of being pressurized and monitored for leakage). These tanks may optionally meet vehicle-impact- and/or projectile-impact-resistance requirements (+).

Protected secondary-containment generator base tank (#) — Generator base tank of a secondary-containment type (constructed with two shells that form an interstitial space capable of being pressurized and monitored for leakage) provided with thermal insulation and other features to keep the primary tank shell temperature at no more than 260°F (max avg rise) and 400°F (max point) during a two-hour 2000°F fire exposure. These tanks may optionally meet vehicle-impact- and/or projectile-impact-resistance requirements (+).

Work-top (or Workbench) tank (#) — Tank used for combined combustible-liquid storage and work-top (or workbench) surface intended to be installed in accordance with ANSI/NFPA 30, ANSI/NFPA 30A, or ANSI/NFPA 31. These tanks are typically rectangular, and of maximum 5,000 gal capacity for only Class IIIB combustible liquids, such as new/used lube oils, hydraulic/transmission or similar working fluids, or heavy oils. Covered options may include racks, shelves, vices and/or tank supports.

Secondary-containment work-top (or workbench) tank (#) — Work-top (or workbench) tank of a secondary-containment type (constructed with two shells that form an interstitial space capable of being pressurized and monitored for leakage).

Lube-oil tank (#) — Tank used for storage of unused lubricating oils and intended to be installed in accordance with ANSI/NFPA 30, ANSI/NFPA 30A, or ANSI/NFPA 31. Lube oils are limited to 5,000 gal of Class IIIA or IIIB types, such as motor crankcase oils, hydraulic/transmission oils, machine/cutting oils, or similar fluids. Covered options may include dispensing equipment and/or tank supports.

Secondary-containment lube-oil tank (#) — Lube-oil tank of a secondary-containment type (constructed with two shells that form an interstitial space capable of being pressurized and monitored for leakage).

Used-oil tank (#) — Tank used for storage of used lubricating oils and intended to be installed in accordance with ANSI/NFPA 30, ANSI/NFPA 30A, or ANSI/NFPA 31. Lube oils are limited to 5,000 gal of Class IIIA or IIIB types, such as motor crankcase oils, hydraulic/transmission oils, machine/cutting oils, or similar fluids. Covered options may include recycling equipment and/or tank supports.

Secondary-containment used-oil tank (#) — Used-oil tank of a secondary-containment type (constructed with two shells that form an interstitial space capable of being pressurized and monitored for leakage).

Day tank (#) — Tank of capacities from 20 to 200 gal and intended for temporary or backup supply of fuel for engine-driven equipment such as pumps or generators, and fuel-burning appliances such as furnaces or heaters, or other equipment used in farm, construction, mining, forestry, or similar applications. They are intended to be installed in accordance with ANSI/NFPA 30, ANSI/NFPA 30A, ANSI/NFPA 31, and ANSI/NFPA 110. Day tanks are limited to specific fuels as marked, such as flammable Class I gasoline or combustible Class II kerosene, diesel fuel or heating oil. Covered options may include dispensing equipment and/or tank supports.

Secondary-containment day tank (#) — Day tank of a secondary-containment type (constructed with two shells that form an interstitial space capable of being pressurized and monitored for leakage).

(*) Diked day tank (#) — Day tank of a diked containment type (aboveground storage tank within a steel containment dike vessel that is capable of being monitored for leakage, but not capable of being pressurized).

Process tank (#) — Tanks up to 1320 gal intended for mixing of different flammable or combustible liquids and/or other materials typically added/monitored through a top hatch and dispensed through bottom hose outlets. These tanks have easily removable tops for frequent cleaning and maintenance, and are intended to be installed in accordance with ANSI/NFPA 30. Covered options may include attached accessories and equipment, such as pumps, gauges and valves, and/or tank supports.

Secondary-containment process tank (#) — Process tank of a secondary-containment type (constructed with two shells that form an interstitial space capable of being pressurized and monitored for leakage).

(+) Fire-resistant or protected tank impact-resistance investigation options are either:

(*) Diked tank designs are either:

"Open-top" — Dikes provided without covers that resist rain or debris entering the dike.

"Closed-top" — Dikes provided with covers that resist rain or debris entering the dike.

"Projectile-resistant" — Designs compliant with the Projectile Test in UL 2080 or ANSI/UL 2085.

TANK ACCESSORIES

The following optional accessories noted in the individual certifications and investigated to additional requirements in ANSI/UL 142, "Steel Aboveground Tanks for Flammable and Combustible Liquids," or UL 142A, "Outline of Investigation for Specific Flammable and Combustible Liquids," may also be attached to the base tank:

- **Access devices** — Ladders, stairs or runways provided for access, working or walking surfaces on the tank.
- **Lifting devices** — Structural lugs, hooks or other means to facilitate lifting of the tank during fabrication, transport or installation.
- **Heating devices** — Heating coils or hot wells provided within the tank for heating liquids in the tank.
- **Miscellaneous options** — Equipment racks or brackets, dispensing equipment, recycling equipment, pumps, valves and gauges.

FEATURES COVERED

The basic features of tanks covered under this category include all containment spaces and their respective openings (manways, emergency vents, normal vents, fill/withdraw, gauging, monitoring and other functional openings) with connections (threaded- or flanged-type fittings), and the tank accessories identified above.

All primary-tank compartment(s) are provided with normal and emergency vent openings. All secondary-tank interstitial space(s) are provided with emergency vent openings. It is anticipated the continued venting will be provided when installed in accordance with the applicable Code.

In addition to vent openings, all primary-tank compartment(s) are provided with openings to accommodate filling, withdrawing, and inventory control; and all secondary-tank interstitial spaces are provided with openings for leak-detection monitoring.

All tank-containment compartments have been factory leak-tested by the manufacturer before shipping.

ACCESSORIES/FEATURES NOT INVESTIGATED

This category covers only the accessories and features specifically identified in the individual certifications. Any other accessories or components that are shipped with the tanks, attached to the tanks, or added to the tanks are not included in the scope of the tank certification. It is intended that the AHJ approve the use and/or installation of any such accessories independent of the tank certification.

In cases where either the tank is not marked for a specific fuel blend, or the liquid(s) to be stored in the tank is not known by the manufacturer, manway gasket compatibility is determined by the tank buyer.

RELATED PRODUCTS

See Fire-resistant Aboveground Tanks for Flammable and Combustible Liquids (EEZI) for tanks investigated to UL 2080, "Fire Resistant Tanks for Flammable and Combustible Liquids."

See Protected Aboveground Tanks for Flammable and Combustible Liquids (EELU) for tanks investigated to ANSI/UL 2085, "Protected Aboveground Tanks for Flammable and Combustible Liquids."

See Below-grade Vaults for Flammable-liquid Storage Tanks (EHOJ) for below-grade vaults investigated to UL 2245, "Below-Grade Vaults for Flammable Liquid Storage Tanks."

See Aboveground Flammable-liquid Tanks (EEEV) for general-purpose tanks constructed of steel and intended for flammable and combustible liquids used in general applications and investigated to ANSI/UL 142, "Steel Aboveground Tanks for Flammable and Combustible Liquids."

ADDITIONAL INFORMATION

For additional information, see Fixed and Stationary Storage Tanks (EDOX), Containment Products for Flammable and Combustible Liquids (ECPR) and Flammable and Combustible Liquids and Gases Equipment (AAPQ).
The basic requirements used to investigate products in this category are contained in UL 142A, "Outline of Investigation for Specific Flammable and Combustible Liquids," with reference to applicable parts of ANSI/UL 142, "Steel Aboveground Tanks for Flammable and Combustible Liquids," and, if so marked:

Fire-resistant generator base tanks and fire-resistant secondary generator base tanks are additionally investigated to UL 2080, "Fire Resistant Tanks for Flammable and Combustible Liquids."

Protected secondary generator base tanks are additionally investigated to ANSI/UL 2085, "Protected Aboveground Tanks for Flammable and Combustible Liquids."

**UL MARK**

The Certification Mark of UL on the product is the only method provided by UL to identify products manufactured under its Certification and Follow-Up Service. The Certification Mark for these products includes the UL symbol, the words “CERTIFIED” and “SAFETY,” the geographic identifier(s), and a file number.

**Alternate UL Mark**

This Listing Mark of UL on the product is the only method provided by UL to identify products manufactured under its Listing and Follow-Up Service. The Listing Mark for these products includes the UL symbol (as illustrated in the Introduction of this Directory) together with the word "LISTED," a control number, and the appropriate tank construction as indicated in the individual Listings.

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