



## LOS ANGELES FIRE DEPARTMENT INSTALLATION REQUIREMENTS FOR VST VAPOR RECOVERY SYSTEM

VAPOR RECOVERY AND VAPOR PROCESSING SYSTEMS SHALL BE INSTALLED AND REGULATED IN ACCORDANCE WITH SECTIONS 2206.7.9.1 – 2206.7.9.2.4 OF THE CALIFORNIA FIRE CODE; NFPA 30A CHAPTER-10, NFPA-70 AND THE NEC.

### GROUND MOUNTED LOCATIONS:

- The VST must be installed and permanently anchored to a concrete pad with minimum dimensions of 3'-6" long x 2'-6" wide, with a 6" minimum thickness
- There must be a minimum 36" clear perimeter around the Processor for maintenance and testing
- The Processor must be located at least 10' from adjacent property lines, Buildings or public ways
- The maximum distance the processor can be from the vent riser is 100'
- The Processor shall be located a minimum of 20' from fuel dispensers and tank fill openings
- The Processor shall be located 15' from unenclosed combustible materials storage areas
- The Processor shall not be located beneath canopies, overhangs or areas where vapors may become trapped

### ROOF/ CANOPY MOUNTED LOCATIONS:

The roof-mounted units must comply with ground mount requirements in addition to the following requirements:

- A permit from Building and Safety Structural plan check and an approved Cal- OSHA access ladder shall be provided for all roof/canopy-mounted units
- The Processor must be protected within the VST 1-hour fire resistant enclosure
- The structure must be strong enough to hold the weight of the Processor
- The processor shall be mounted on its attached legs or secured to a steel structure attached to the canopy or rooftop
- The Processor shall be located as close as possible to and in direct line with the vent riser
- The Processor **shall not** be located within 5' of the pressure vacuum vent valves
- The Processor and all exposed piping shall be protected against physical damage by an approved means
- There must be a 36" clear perimeter around the Processor for maintenance and testing
- The height of the Processor and all piping inlets and outlets must be **above** the Building's parapet to allow for the proper vapor-piping slopes
- Any equipment located on the roof that is rated as **class 1, Div.2** cannot be within 10' of the Processor, unless the equipment is at least 18" above the rooftop

### VENT LINE PIPING CONNECTIONS:

- Vapor return lines of the UST **must be manifolded** below ground to equalize tank pressures
- A complete **enlarged detail** of the existing underground piping runs shall be provided on a separate 18"x24" page with all lines identified by use
- There must be a minimum of **two above ground vent risers**, which are not manifolded together for the system to operate
- The **vapor-inlet** and **vapor-return lines must never** be connected to the same vent risers
- The Processor's **vapor- inlet line** must be connected to the **highest-octane vent risers**

#### VENT LINE PIPING CONNECTIONS CONT:

- The Processor's **vapor-return line** must be connected to the **lowest-octane vent risers**
- The Processor's **Air-Outlet-Riser must never** be manifolded with any other vent riser
- All UST vent risers** shall terminate a minimum of 12' above grade and be a minimum 2" interior diameter
- The Vapor Processor's **air outlet vent riser** can be a minimum of 1" diameter
- The Processor **must not** be installed within 5' of a vent riser's P/V valve
- All vapor piping connecting the Processor to the vent risers shall slope downwards a minimum of ¼" per. foot towards the vent riser
- Underground vapor piping **from dispensers to the UST and from the UST to the vent riser** must be a minimum 2" inside diameter
- The lines **connecting the processor to the vent riser** shall be minimum 1" galvanized if less than 10' in length, if longer than 10' the lines shall be 1 ½" in diameter

#### DISPENSER REQUIREMENTS:

- The dispensers must be a balance type dispenser
- The addition/replacement of 50% or more of buried vapor piping triggers Unihose Dispenser requirements; [I.E. installing a new vent line for single vent riser facilities]
- There are **no Flow Limiters** allowed for the VST system
- There shall be **one ISD pressure sensor** installed in the dispenser nearest the USTs
- The **ISD pressure sensor** must be installed in the **vertical position**, sensing port pointing down, and the **connection** to the vapor line must be **below** the vapor line's shear valve

#### MONITORING SYSTEM REQUIREMENTS:

- Monitoring Panels must be installed in a normally occupied location, or remotely monitored at a occupied location
- Must have a Veeder-Root TLS-350 or other approved monitoring system to control the Processor
- The **(PMC)** Pressure Management Control software is an optional feature that may be used with the Veeder-Root system to control the Processor
- The PMC has a nonvolatile memory to retain data after a power failure
- The **(ISD)** In-Station-Diagnostics software is required for throughputs **over 600,000 gallons**

#### PROCESSOR PROTECTION REQUIREMENTS:

- When the required setbacks cannot be met, the Processor shall be protected by the VST Fire-Resistant Enclosure
- In **no case** shall the Vapor-Processing equipment **{even protected}** be located within 5' of a public way or adjacent property lines that can be built upon
- The Processor and all external vapor piping shall be protected from damage by concrete filled Bollards or Guardrails on all sides in accordance with **California Fire code Chapter-3.**

#### WARNING SIGNAGE REQUIREMENTS:

- A sign stating "**Warning Flammable Vapors Processor**" shall be posted on the Processor or the Enclosure in minimum 3" high letters on a contrasting background

#### CONTRACTOR CERTIFICATION REQUIREMENTS:

- Must be a VST [ASC] Authorized Service Contractor
- Must have a level (B) or (C) VST certification card for installations
- Must have a valid ICC certification for EVR-phase-II
- Must possess the appropriate Veeder-Root certification level 1,2/3 or 4.
- Must possess a valid current State and City Contractors license

To confirm a VST Authorized Service Contractor Status, Go to [WWW.VSTHOSE.COM](http://WWW.VSTHOSE.COM)