

Product Bulletin



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UPDATE:

ENVIRO-LOC™ ECO
Dripless / Spitless
Conventional Gas Nozzles
CARB Certified

10.11.19

VST's UL 2586 Listed ENVIRO-LOC™ ECO Dripless / Spitless Conventional Gas Nozzle has been California Air Resources Board (CARB) certified under Executive Order NVR-1-E. See Attachments.

This patented dripless and safety interlock design:

- Exceeds CARB standards for drip, spillage and liquid retention
- Offers fewer fuel drips
- Allows for a cleaner forecourt
- Improves customer satisfaction
- Self-policing feature – Nozzle is designed to not dispense if an interlock return spring were to break

The lightweight, easy-to-use nozzle also offers a lower cost of ownership for station owners:

- Easy front-end replacement kits
- Long service life
- Core return program
- Rebuild program



Contact VST or your VST Distributor of choice for details and availability of these products.

**State of California
AIR RESOURCES BOARD**

EXECUTIVE ORDER NVR-1-E

**Relating to Certification of Non-Vapor Recovery Hoses and
Enhanced Conventional Nozzles**

**For Use at Gasoline Dispensing Facilities with
No Phase II Vapor Recovery Systems**

WHEREAS, pursuant to California Health and Safety Code Sections 25290.1.2, 39600, 39601 and 41954, the California Air Resources Board (CARB) has established certification procedures for control of gasoline vapor emissions from low permeation hoses and nozzles with no vapor recovery function in its Certification Procedure for Enhanced Conventional (ECO) Nozzles and Low Permeation Conventional Hoses for Use at Gasoline Dispensing Facilities (CP-207), as last amended on June 4, 2019, incorporated by reference in Title 17, California Code of Regulations, Sections 94017;

WHEREAS, CARB has established, pursuant to California Health and Safety Code Sections 39600, 39601, 39607, and 41954, test procedures for determining the compliance of low permeation hoses and ECO nozzles with applicable performance standards;

WHEREAS, Executive Order NVR-1 was first issued on June 10, 2014, and was last modified on March 1, 2019, by Executive Order NVR-1-D;

WHEREAS, Vapor System Technologies, Inc. (VST) has requested certification of their Model VST-NV-ND(cc) and VST-NV-ND(cc)R ENVIRO-LOC™ ECO Nozzle;

WHEREAS, CP-207 provides that the CARB Executive Officer shall issue an Executive Order if he determines that an ECO nozzle conforms to the applicable nozzle standards set forth in CP-207;

WHEREAS, I, Richard W. Corey, CARB Executive Officer, find that the VST Model Enviro-Loc ECO Nozzle conforms with all requirements set forth in CP-207 and result in a spillage rate which shall not exceed the standard of 0.12 pounds/1000 gallons, liquid retention which shall not exceed the standard of 100 milliliter (mL)/1000 gallons, spitting which shall not exceed 1.0 mL per nozzle per test and post-fueling drips which shall not exceed 3 Drops/Refueling;

NOW, THEREFORE, IT IS HEREBY ORDERED that the above-referenced components are certified that they will not exceed their applicable performance standards when installed, operated, and maintained as specified herein and in the following exhibits. Exhibit 1 contains a list of the certified components covered by the Executive Order.

Exhibit 2 contains the performance standards and specifications applicable to the components as installed in a gasoline dispensing facility (GDF) with no Phase II vapor recovery systems. Exhibit 3 contains the warranty for each manufacturer.

IT IS FURTHER ORDERED that compliance with the applicable certification requirements, rules and regulations of the Office of the State Fire Marshal of the Department of Forestry and Fire Protection, the Division of Occupational Safety and Health of the Department of Industrial Relations and the Division of Measurement Standards of the Department of Food and Agriculture are made conditions of this certification.

IT IS FURTHER ORDERED that the manufacturer of each component listed in Exhibit 1 shall provide a warranty to the initial purchaser that shall be honored by the manufacturer for each and every subsequent purchaser of the applicable component within the warranty period. The warranty shall warrant that the applicable component listed in the Executive Order complies with all warranty requirements in Section 10.4 of CP-207 and will continue to meet all applicable performance standards for the duration of the warranty period. Manufacturers may specify that the warranty is contingent upon the use of trained installers. The manufacturer warranty tag, included with each component, shall be provided to the service station owner/operator at the time of installation.

IT IS FURTHER ORDERED that certified components shall be installed, operated, and maintained in accordance with the CARB Approved Installation, Operation, and Maintenance Manual. A copy of the Executive Order and the CARB Approved Installation, Operation and Maintenance Manual shall be maintained at each GDF where certified low permeation hoses and ECO nozzles are installed.

IT IS FURTHER ORDERED that components listed in Exhibit 1, unless exempted, shall be clearly identified by a permanent identification showing the manufacturer's name, model number, and serial number.

IT IS FURTHER ORDERED that any alteration in the equipment parts, design, installation, or operation of the listed components provided in the manufacturers' certification application or documents and certified hereby is prohibited and deemed inconsistent with this certification, unless the alteration has been submitted in writing pursuant to the process Executive Order amendments set forth in Section 12 of CP-207 and approved in writing by the CARB Executive Officer. Any sale, offer for sale, or installation of components without CARB approval as set forth above is subject to enforcement action.

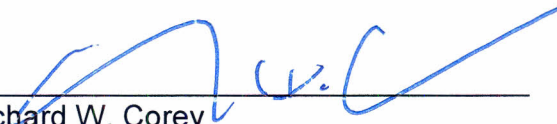
IT IS FURTHER ORDERED that the listed low permeation hoses and ECO nozzle are certified as being compatible with gasoline in common use in California at the time of certification and is not compatible with gasoline containing more than 15 percent

ethanol. Any modifications to comply with future California gasoline requirements shall be approved in writing by the CARB Executive Officer.

IT IS FURTHER ORDERED that the certification of the low permeation hoses and nozzle listed in Exhibit 1 of this Executive Order is valid through June 19, 2022.

IT IS FURTHER ORDERED that Executive Order NVR-1-D issued on March 1, 2019, is hereby superceded by this Executive Order. Low permeation hoses and ECO nozzles certified by Executive Orders NVR-1 through NVR-1-D may remain in use at existing installations up to four years after the expiration date of this Executive Order if the certification is not renewed.

Executed at Sacramento, California, this 9th day of October 2019



Richard W. Corey
Executive Officer

Attachments:

- Exhibit 1 Component List
- Exhibit 2 Component Specifications
- Exhibit 3 Manufacturer Warranties

VST's Highly Engineered Conventional ENVIRO-LOC™ ECO Nozzle



VST ENVIRO-LOC™ ECO Nozzles are highly engineered products designed to give customers the best positive experience through ease of use. Utilizing the technology developed for one of the most stringent markets in the world, California, this nozzle design exceeds even those performance standards for drips, spillage and liquid retention. With less than 0.003 lbs of emissions/1,000 gal. dispensed (including post-fueling drips) fuel and maintenance savings add up with VST's ENVIRO-LOC™ ECO Nozzle.



Vapor Systems Technologies, Inc.

VST ENVIRO-LOC™ ECO Nozzle Specifications



VST ENVIRO-LOC™ ECO Nozzle Customer Benefits and Performance Characteristics:

- Light weight
- Easy to handle
- Fewer fuel spills/cleaner forecourt
- Reduces exposure to fuel vapors
- Built-in splash guard
- Superior nozzle performance

Lower cost of ownership:

- Easy front end replacement
- Long service life
- Low maintenance cost
- Rebuild program
- Core return program
- Full factory warranty

Design Features:

Patented Dripless and Safety Interlock Design Features:

- Exceeds CARB standards for drip, spillage and liquid retention
- Saves the Gasoline Dispensing Facility money
- Fewer fuel spills
- Greater customer satisfaction
- Safer refueling with patented interlock design
- Nozzle is designed to not dispense gasoline if an interlock return spring were to break
- Secondary safety device significantly reduces the probability of errant spills associated with damage to the nozzles caused by customer abuse, drive-off or end of life.

Category	Current USA Standards	CARB EVR Requirement	VST EVR Nozzle CARB Test Results
Liquid Retention	No known standard	≤ 100 ml per 1,000 gal dispensed	Zero
Spillage	≤ 0.70 lbs per 1,000 gal dispensed	≤ 0.24 lbs per 1,000 gal dispensed	< 0.003 lbs per 1,000 gal dispensed
Spitting	No known standard	≤ 1.0 ml per refueling	Zero
Drops/Refueling	No known standard	** ≤ 3 drops per refueling	** < 1 drop per refueling
**included in spillage totals			

Certifications & Listings:

- UL 2586 Listed Nozzle
- CARB Certified

Seals/O-Rings: Viton Seals and Nitrile O-Rings

Temperature Range: -40°F to +120°F (-40°C to +49°C) continuous service

Weight: 3 lbs

Product Specification:

These products are not recommended where components are exposed to contact with fuels containing more than 5% methanol, 10% ethanol, 15% MTBE by volume, any exposure to M85/E85, other alcohol rich fuels, or bio-diesel style fuels.

All VST products are covered under the company warranty.

The warranty may be found at www.vstthose.com

Gallons/Month Dispensed	Gallons/Year Saved
200,000	300
500,000	700
1,000,000	1400

Part Numbers: VST-NV-NDBK (new)
VST-NV-NDBKR (rebuilt)

Casting: Aluminum

Spout: Aluminum



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