



DMS Notice  
D-10-05  
Discard: Retain

October 4, 2010

**TO:** WEIGHTS AND MEASURES OFFICIALS  
**SUBJECT:** Vapor Systems Technologies, Inc. (VST) nozzles

An issue has arisen in various California county weights and measures jurisdictions relating to VST retail motor fuel dispenser nozzles. Specifically, although the nozzles were certified by the California Air Resources Board (CARB) in 2007, a small number of spray incidents were reported to the State in 2010. The California Office of the State Fire Marshal (OSFM) concluded that these incidents involved VST nozzles that had somehow remained in the open position for at least a short period of time, thereby resulting in unwanted gas flow. As a result, the OSFM decided that the hold-open clips should be removed and issued a mandate to that effect.

A properly functioning VST nozzle inserted into a vehicle's fuel tank receptacle will depress a bellows that disengages a fuel shut-off mechanism. When this occurs, gasoline is then permitted to flow into the fuel tank. Once the fuel reaches the nozzle, the shut-off mechanism stops the flow of fuel.

However, if the nozzle has been dropped or has been tampered with, the shut off mechanism may allow fuel to flow freely once the dispenser is activated, typically in a prepay situation. In these situations, once the dispenser is activated, fuel may immediately flow from the nozzle, possibly creating a fuel spill and hazard if the nozzle has not already been inserted into the vehicle. The flow of fuel may be stopped by shutting off the dispenser. Alternatively, if the nozzle is dropped, it is also designed to shut off on impact.

Recently, CARB and Division of Measurement Standards (DMS) met and discussed the issues of potential nozzle shut off failure and the proposed solutions. On September 22, 2010, CARB certified a VST nozzle with a secondary hold-open release mechanism (SRM) for use in the State of California. Additionally, on August 24, 2010, CARB authorized the use of VST nozzles without hold-open latches. Accordingly, while the proper installation, use, inspection, maintenance, and design are factors in minimizing risk to the public, the two nozzle options currently available appear to address these concerns. Further, DMS has concluded that the shut-off mechanism has no metrological effect on the nozzles, and no further action is necessary from DMS at this time.

While the SRM is not regulated or type approved by DMS CTEP, if an unsafe condition is found with this equipment, mark the equipment "Out of Order" (Red Tag), issue a "Notice of Violation" for failure to maintain the equipment, and notify the station manager immediately.

If you have any questions or need additional information regarding this matter, please contact Gary Castro or Dan Reiswig by calling (916) 229-3000.

Sincerely,

Edmund E. Williams  
Director

Enclosure

Cc: Kristin Macey, Director, CDFA County Liaison Office  
Jay McKeeman, CIOMA  
Erin Faessler, VST, Inc.  
Alberto Ayala, ARB  
Pat Bennett, ARB





Linda S. Adams  
Secretary for  
Environmental Protection

# Air Resources Board

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Mary D. Nichols, Chairman  
1001 I Street • P.O. Box 2815  
Sacramento, California 95812 • [www.arb.ca.gov](http://www.arb.ca.gov)



Arnold Schwarzenegger  
Governor

September 22, 2010

Mr. Glenn K. Walker, President  
Vapor Systems Technologies, Inc.  
650 Pleasant Valley Drive  
Springboro, Ohio 45066

Dear Mr. Walker:

In a letter dated August 10, 2010, you requested Air Resources Board (ARB) evaluation of a secondary hold-open latch release mechanism (SRM) on the Vapor Systems Technologies (VST) enhanced vapor recovery (EVR) nozzle, models VST-EVR-NB and VST-EVR-NB-R. The purpose of the hold-open latch release mechanism is to ensure the nozzle lever is disengaged (e.g. fuel and vapor valve closed) at any time the nozzle is placed back into the dispenser cradle. Figure 1 shows the VST EVR nozzle with the hold-open latch release mechanism. The VST nozzle model number will not change. As shown in Figure 1, VST nozzle model number will be placed on the bottom of the nozzle hand guard.

To support your request, you included a drawing and a durability report on the SRM. The VST EVR nozzles with SRM were also installed at a gasoline dispensing facility (GDF) for the purpose of ARB staff "in-use" evaluation. In addition, VST and ARB staff visited several GDFs to ensure the SRM operated properly when hung on different makes and models of dispensers. At this time, ARB staff is only aware one dispenser, Gilbarco Encore series, that will need a plate inserted on the bottom of the dispenser nozzle cradle. When VST determined that other dispenser models may need special installation instructions or parts for proper operation of SRM, VST shall notify ARB staff and issue a Technical Service Bulletin. For these cases, VST will provide instructions, and parts if applicable.

ARB has received approval for the VST EVR nozzle with SRM from the following State Agencies:

- Department of Forestry and Fire Protection  
Office of the State Fire Marshal
- Department of Industrial Relations  
Division of Occupational Safety and Health
- Department of Food and Agriculture  
Division of Measurement Standards
- State Water Resources Control Board  
Division of Water Quality

*The energy challenge facing California is real. Every Californian needs to take immediate action to reduce energy consumption. For a list of simple ways you can reduce demand and cut your energy costs, see our website: <http://www.arb.ca.gov>.*

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California Environmental Protection Agency

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ARB has determined that addition of the SRM on the VST EVR nozzle will not affect the performance of the vapor recovery system. Therefore, pursuant to Section 18.2.4 of Vapor Recovery Certification Procedure 201 (CP-201), amendments to Executive Orders VR-203-A to H, VR-204-A to H, VR-205-A to B, and VR-209-A are not necessary. The VST nozzle with SRM is hereby approved for use in California.

On August 24, 2010, ARB approved the VST nozzle without the hold open latch for use in California. This approval of the VST nozzles with SRM does not revoke or supersede the approval of VST nozzles without the latches. GDF operators will have the option of continuing to use VST nozzles without hold open latches or opt to replace them with VST nozzles with SRM.

If you have questions, please contact Pat Bennett at (916) 322-8959 or via email at [pbennett@arb.ca.gov](mailto:pbennett@arb.ca.gov), or George Lew at (916) 327-0900 or via by email at [glew@arb.ca.gov](mailto:glew@arb.ca.gov).

Sincerely,

A handwritten signature in black ink, appearing to read 'Alberto Ayala', with a long horizontal flourish extending to the right.

Alberto Ayala, Ph.D., M.S.E.  
Chief, Monitoring and Laboratory Division

cc: See next page.

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cc: Ben Ho  
Office of the State Fire Marshal

James Parsegian  
Office of the State Fire Marshal

Jay McKeeman  
California Independent Oil Marketers Association

Sunny Campbell  
California Service Station and Automotive Repair Association

Tupper Hull  
Western States Petroleum Association

James White  
BP/ARCO

John Marvin  
Bay Area Air Quality Management District

Kevin Tokunaga  
Glenn County Air Pollution Control District

Randy Smith  
San Diego County Air Pollution Control District

Matt Stevens  
Department of Food and Agriculture

Joel Foss  
Department of Industrial Relations

Kevin Graves  
State Water Resources Control Board

Figure 1

VST EVR Nozzle with Secondary Hold-Open Latch Release Mechanism (SRM)

