



Air Resources Board



Matthew Rodriguez
Secretary for
Environmental Protection

Mary D. Nichols, Chairman
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Edmund G. Brown Jr.
Governor

April 25, 2014

To Interested Parties:

As part of ongoing efforts to increase the cost effectiveness of Enhanced Vapor Recovery (EVR) for aboveground storage tanks (AST) while maintaining hydrocarbon emission reductions, Air Resources Board (ARB) staff examined the requirement for standing loss control of painting protected ASTs¹ not listed in Executive Order (EO) VR-301, *Standing Loss Control Vapor Recovery Systems for Existing Installations of Aboveground Storage Tanks*. Currently, an existing AST, single-wall or protected, not certified under EO VR-301 must apply a certified coating and install a certified pressure/vacuum vent valve (P/V valve) to meet the standing loss control emission factor limit of 2.26 pounds of hydrocarbons per 1,000 gallons of ullage per day. New installations of protected ASTs are certified to not exceed 0.57 pounds of hydrocarbons per 1,000 gallons of ullage per day, and are listed in EO VR-302, *Standing Loss Control Vapor Recovery Systems for New Installations of Aboveground Storage Tanks*.

The issue has been raised as to the necessity of painting non-certified protected ASTs to comply with standing loss control requirements when such tanks share similar construction and characteristics to the protected tanks listed in EOs VR-301 and VR-302, which do not require additional coating for compliance. Additionally, existing ASTs, with the application of a certified coating and P/V valve, are certified to a standing loss control emission factor that is four times higher than the ASTs certified for new installations. During certification testing, protected ASTs that met the new installation emission factor were automatically included in the existing installation EO VR-301. The coating systems certified to the existing installation emission factor were all tested on single-wall steel ASTs.

ARB staff conducted an engineering evaluation of protected ASTs previously certified in pre-EVR executive orders, comparing them to the protected ASTs listed in EOs VR-301 and VR-302. The majority of these tanks share characteristics of certified protected ASTs, such as having several inches of lightweight concrete insulation and being constructed and listed to the Underwriters' Laboratories (UL) 2085, *Standard for*

¹ Protected ASTs are typically constructed with a primary (inner) steel tank encased by either a layer of insulating materials, usually lightweight concrete or a similar material, or by a layer of insulating materials and a secondary (outer) steel tank.

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>.

California Environmental Protection Agency

Protected Aboveground Tanks for Flammable and Combustible Liquids. UL 2085 covers requirements for shop fabricated ASTs intended for storage of stable flammable or combustible liquids that are constructed to limit the heat transferred to the primary tank when the AST is exposed to a two hour hydrocarbon pool fire. These ASTs have an integral secondary containment intended to prevent leakage from the primary tank from entering the environment.

Based on the engineering evaluation, ARB staff has determined that the protected ASTs previously certified in the pre-EVR EOs and that are listed as UL 2085 ASTs are equivalent to the protected ASTs listed in EO VR-301. In the next revision of Executive Order VR-301, the pre-EVR, UL 2085 protected ASTs listed below will be added to the appropriate Exhibits. While these protected ASTs will not be subject to the application of a certified coating to comply with standing loss control requirements, the installation of a certified P/V valve will still be required. As of April 1, 2013, existing ASTs located in state ozone non-attainment areas have been required to comply with standing loss control by either being a certified protected AST or applying a certified coating, and by installing a certified P/V valve. Existing ASTs that have not complied with standing loss control requirements face potential enforcement action by their local air district.

Tank Name/Manufacturer	Pre-EVR Executive Order
SuperVault FL / Trusco Tank, Inc	G-70-132
Fuel Safe / Ace Tank and Equipment Company	G-70-137
Mosier Brothers Tanks and Manufacturing	G-70-152
Ecovault / RECoVAULT Incorporated	G-70-156, G-70-157
Hoover Fuelmaster / Hoover Containment Systems, Inc	G-70-161
EnviroVault / Bakersfield Tank Company	G-70-167

While ARB staff completes the EO revision and review process, AST owners/operators are permitted to utilize the ASTs listed above, along with a certified P/V valve, to meet their standing loss control requirement for existing installations. This letter may be utilized until the EO process is complete.

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If you have questions, please contact Ms. Donielle Jackson at (916) 445-9308, or via email at dljackso@arb.ca.gov, or Mr. Lou Dinkler at (916) 324-9487, or via email at ldinkler@arb.ca.gov.

Sincerely,

A handwritten signature in black ink that reads "George Lew". The signature is written in a cursive style with a large, stylized "G" and "L".

George Lew, Chief
Engineering and Certification Branch
Monitoring and Laboratory Division

cc: See next page.

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cc: Jon Adams
San Diego County Air Pollution Control District

Jim Swaney
San Joaquin Valley Air Pollution Control District

Danny Luong
South Coast Air Quality Management District

John Marvin
Bay Area Air Quality Management District

Randy Matsuyama
South Coast Air Quality Management District

Kevin Tokunaga
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James Parsegian
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