



Winston H. Hickox  
Agency Secretary

# Air Resources Board

Alan C. Lloyd, Ph.D.  
Chairman

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Gray Davis  
Governor

November 2, 2001

Dear (vapor recovery nozzle manufacturer):

As you know, the Enhanced Vapor Recovery (EVR) amendments require vapor recovery equipment to be certified to new standards. Several of the standards were viewed by the Air Resources Board to be technology forcing and were adopted with future effective dates. The Board directed staff to conduct a technology review on these future standards to assess the technological feasibility of the EVR requirements. As part of this technology review, we are contacting you to request information as to the feasibility of several standards related to nozzle performance.

At the first EVR Technology Review workshop held on October 9, 2001, the feasibility status of several standards pertaining to nozzles was presented. As the enclosed tables indicate, ARB staff have data demonstrating that almost all the requirements are met by currently certified nozzles. However, we are still evaluating whether the standards for spillage, post-fueling drips and nozzle spitting are achievable by the April 2004 effective date.

We are requesting any data or information you can provide as to the technological feasibility of these standards. If you believe a standard will not be achievable, please suggest an alternative standard that would address EVR goals. Please estimate the cost increase of a nozzle that could meet the EVR standards and/or a proposed alternate standard. We will honor your request to keep sensitive material confidential. We would appreciate this information by November 30, 2001 so that we can include your input into the draft technical review report scheduled for release in January 2002. The next workshop will be held on February 5, 2002.

We look forward to working with you in evaluating the EVR standards. You can download materials relating to the EVR Technical Review at [www.arb.ca.gov/vapor/vapor.htm](http://www.arb.ca.gov/vapor/vapor.htm).

If you have questions, please contact Cindy Castronovo at (916) 322-8957 or [ccastron@arb.ca.gov](mailto:ccastron@arb.ca.gov).

Sincerely,

## ORIGINAL SIGNED BY

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

Enclosure

*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

## "Nozzle" Standards

Standard/Specification	Feasibility Status
Balance: vapor check valve	Yes
Balance: insertion interlock	Yes
Balance: Check valve leakrate < 0.07 CFH at 2 in water	Yes

## "Nozzle" Standards

Standard/Specification	Feasibility Status
Assist: vapor check valve	Yes
Assist: mini-boot	Yes
Assist: Check valve leakrate $\leq$ 0.038 CFH at +2 in water	Yes
Assist: Check valve leakrate $\leq$ 0.07 CFH at -100 in water	Yes

## "Nozzle" Standards

Standard/Specification	Feasibility Status
OD $\leq$ 0.84 in for 2.5 in of spout (Ring Test)	Yes
Fuel Any Vehicle that can be Fueled with Conventional Nozzle	Yes
Liquid Retention $\leq$ 100 ml/1000 gal	Yes

## "Nozzle" Standards

Standard/Specification	Feasibility Status
Spillage (incl. Spout Drips) $\leq$ 0.24 lbs/1000 gal	Maybe
Post-Refueling Drips $\leq$ 1 drop/refueling	Maybe
Nozzle Spitting < 1.0 ml/nozzle/test	Maybe