California Environmental Protection Agency

Air Resources Board

Vapor Recovery Advisory

Gasoline Dispensing Facility

Implications of Enhanced Vapor Recovery in 2001

Number 196 **July 18, 2001**

The Enhanced Vapor Recovery (EVR) regulations became state law on April 1, 2001. EVR establishes new vapor recovery requirements that will apply to new and existing gasoline dispensing facilities. To promote an orderly transition, various EVR requirements will be phased-in over the next several years.

This advisory pertains to July 1, 2001, requirements for Phase I vapor recovery systems and existing Phase II nozzles for gasoline dispensing facilities. As other EVR requirements become effective, the Air Resources Board (ARB) staff will issue future advisories to explain their implications.

PHASE I VAPOR RECOVERY SYSTEMS

NEW OR MODIFIED GASOLINE DISPENSING FACILITIES

All new gasoline dispensing facilities, including major modifications,[1] constructed on or after July 1, 2001, must comply with the new Phase I EVR requirements. The date on which the facility is considered "constructed" depends on the local air district permitting regulations, guidelines, or policies. Please note that all facilities with installed non-EVR certified Phase I systems must upgrade to meet the new EVR requirements by April 1, 2005.

A list of certified EVR Phase I Vapor Recovery Systems can be found at the ARB vapor recovery web site, http://www.arb.ca.gov/vapor/eo-evrphaseI.htm. ARB staff will update this list as new Phase I systems are certified.

EXISTING GASOLINE DISPENSING FACILITIES

Existing gasoline dispensing facilities are defined as those in operation or constructed before July 1, 2001. As noted above, the date on which the facility is considered "constructed" depends on the local air district permitting regulations, guidelines, or policies. All existing facilities must comply with the EVR Phase I requirements by no later than April 1, 2005.

[1] "Major Modifications" as defined in D-200 means the addition, replacement, or removal of an underground storage tank, underground piping, vapor piping within a dispenser, or a dispenser of an existing installation. The replacement of a dispenser is not a major modification, when the replacement is occasioned by end user damage to a dispenser.

REPLACEMENT PARTS

The EVR regulations encourage the use of EVR certified Phase I parts or components as replacement parts when they are compatible with systems certified prior to EVR. EVR does not require use of parts or components when ARB has determined that they are not commercially available or if they are not compatible with Phase I systems certified prior to EVR. This means replacement parts for pre-EVR-certified Phase I systems may continue to be sold until April 1, 2005, if EVR-certified parts are not commercially available or compatible.

Parts are replaced for a variety of reasons such as being worn or broken. Under the EVR regulations, the installation of replacement components or parts does not trigger a requirement that the entire facility be upgraded to a Phase I EVR certified systems. As stated earlier, existing facilities will have until April 1, 2005, to comply. However, an existing facility that undergoes a major modification must comply with the Phase I EVR requirement at the time of the modification.

To illustrate the requirements for replacement parts, consider the following: Use a pressure/vacuum (P/V) valve from an EVR certified Phase I system as a replacement for any pre-EVR Phase I system whenever one is compatible and commercially available. However, use and sale of a pre-EVR P/V valve as a replacement part for a pre-EVR Phase I system may continue if an EVR P/V valve is not commercially available or is not compatible. Additionally, components or parts of pre-EVR Phase I systems that are not compatible to the Phase I EVR system may continue to be sold and used as replacement parts until such time as an EVR certified part or component is certified, or until April 1, 2005. For example, on July 1, 2001, there will be no Phase I EVR certified drop tube with a overfill prevention valve. Therefore, all certified overfill drop tube prevention valves for pre-EVR Phase I systems may continue to be sold as replacements until at least one EVR-certified drop tube overfill prevention valve is commercially available or compatible, or until April 1, 2005, whichever is earlier.

LIQUID RETENTION NOZZLE REQUIREMENT

NEW OR MODIFIED GASOLINE DISPENSING FACILITIES

Effective July 1, 2001, the EVR regulations require that vapor recovery nozzles for new gasoline dispensing facility installations comply with the liquid retention requirement outlined in “CP-201 Certification Procedure for Vapor Recovery Systems at Gasoline Dispensing Facilities.” The liquid retention standard is 350 milliliters per 1,000 gallons of gasoline dispensed. Liquid retention is defined as gasoline in the atmospheric side

of the vapor check valve and/or in the nozzle liquid path. Nozzles complying with the liquid retention

standard are listed in Exhibit 1 of the Executive Order G-70-199. ARB staff will update Exhibit 1 as nozzle models successfully complete testing. The latest updated list is located on the ARB vapor recovery web site: http://www.arb.ca.gov/vapor/eo-PhaseII.htm.

EXISTING GASOLINE DISPENSING FACILITIES

Exhibit 2 of Executive Order G-70-190 lists replacement nozzles for existing certified Phase II vapor recovery systems. This list will be updated as nozzles complete the liquid retention testing conducted by ARB staff. For systems without any nozzles meeting the liquid retention standard, non-compliant nozzles may continue to be sold as replacement parts only. Nozzles that are already installed on a system may be repaired with certified parts offered by manufacturers until the nozzle is replaced. The only prohibition to the use of the repair parts pertains to nozzles that are listed in Exhibit 3.

To help in understanding these new requirements responses to frequently asked questions have been prepared. These responses are attached to this advisory.

Because of the many different situations, we request you submit your questions in writing to Mr. William V. Loscutoff at the address listed below or by e-mail using the "submit a question" feature at the bottom of the FAQ vapor recovery web site. We will post on the ARB Vapor Recovery FAQ web page our responses to questions commonly asked.

Mr. William V. Loscutoff, Chief
Monitoring and Laboratory Division
Air Resources Board
P.O. Box 2815,
Sacramento, CA 95812-2815

Information on the Vapor Recovery program is available at the Air Resources Board vapor recovery web site at http://www.arb.ca.gov/vapor/vapor.htm or by contacting the ARB Engineering and Certification Branch at (916) 327-0900.

FREQUENTLY ASKED QUESTIONS ABOUT THE NEW ENHANCED VAPOR RECOVERY REQUIREMENTS FOR 2001

July 18, 2001

GENERAL

1. What are these new requirements, and when do they go into effect?

   ANSWER: On March 23, 2000, the Air Resources Board (ARB) approved the EVR requirements to address equipment reliability issues and to seek additional emission reductions to meet state and federal requirements. Adopting these requirements will result in the phasing-out of less effective existing equipment and will require the installation of equipment that meets the EVR requirements. State law provides that existing facilities will have four years from the effective date to comply with the new requirements. New installations or major modifications will have to comply on or after the operative date of the new requirements. To promote an orderly transition, new requirements will be phased-in over the next several years. The "EVR Implementation Timeline" that lists effective dates and operative dates of each requirement can be downloaded from ARB Web Site at http://www.arb.ca.gov/vapor/whatsnew.htm.

   The first EVR requirements, Phase I vapor recovery systems and the replacement of existing nozzles with new nozzles that meet the liquid retention standard, will start on July 1, 2001. All new installations or major modifications of existing gasoline dispensing facilities will be required to comply with these requirements. Existing gasoline dispensing facilities will have until April 1, 2005, to comply with these new requirements.

2. How can I get copies of the EVR Executive Orders?

   ANSWER: The easiest way is to download the Executive Orders from the ARB web site at http://www.arb.ca.gov/vapor/eo-evrphaseI.htm for a copy of certified Phase I EVR systems and http://www.arb.ca.gov/vapor/eo-PhaseII.htm for a copy of Executive Order G-70-199 listing nozzles which meet the liquid retention requirements. Otherwise, you can request a copy by calling (916) 327-0900.

3. What do I do if I am unable to buy an EVR-certified component due to limited commercial availability?

   ANSWER: The ARB realizes some shortages may occur in the initial period after the new requirements take effect. If you have this problem, please send a letter that explains which components or parts are not available, along with an invoice from equipment manufacturers stating that the part or component is not available. The letter should be sent to:

Mr. William V. Loscutoff, Chief
Monitoring and Laboratory Division
Air Resources Board
P. O. Box 2815
Sacramento, California 95812-2815

Alternatively, you can send your request, along with supporting information, by FAX at (916) 322-2444 or by e-mail by using the "submit a question" feature at the bottom of the vapor recovery FAQ page.

The ARB staff will review each request and make a determination of commercial availability on a statewide basis. The determination will be available and updated on the ARB web site: http://www.arb.ca.gov/vapor/vapor.htm.

LIQUID RETENTION REQUIREMENT

4. What are the requirements for replacement nozzles after July 1, 2001?

ANSWER: The ARB has determined that nozzles listed in Exhibit 1 of Executive Order G-70-199 will not be commercially available until July 16, 2001. The new EVR liquid retention requirement will not take effect until after July 15, 2001. All nozzles certified prior to July 1, 2001, may be purchased, repaired, or replaced through July 15, 2001. After July 15, 2001, only those nozzles listed in Exhibit 1 can be used for new installations, and those nozzles listed in Exhibit 2 can be used to replace nozzles that fail and cannot be repaired.

5. Can I repair a non-EVR certified nozzle after July 15, 2001?

ANSWER: In most cases, the answer is "yes" provided that certified factory replacement parts (or kits) are available for items such as spouts, boots, vapor guards and hold-open latches. Exhibit 3 of Executive Order, G-70-199 lists nozzles which cannot be repaired, even if factory repair kits or parts are available.

To use nozzles as replacements (even those already purchased by the station) at existing facilities after July 15, 2001, the nozzles must be listed in Exhibit 2 of Executive Order G-70-199.

6. Can I install a nozzle not listed in Exhibit 2 that is in storage at a station or in inventory after July 15, 2001?

ANSWER: No. After July 15, 2001, only nozzles listed in Exhibit 2 can be used as replacements.

7. Does the Executive Order require the removal of any nozzles now in use on or after July 15, 2001?

ANSWER: No. All nozzles in use prior to July 16, 2001 may be kept in service until replaced. If replaced, only those nozzles listed in Exhibit 2 of Executive Order G-70-199 may be used.

8. The number of EVR-certified nozzles are limited. Are more certifications in progress?

ANSWER: Yes, the following nozzles are currently undergoing evaluation and certification testing by the ARB:

Catlow ICVN	Emco Wheaton 4005	Emco Wheaton 4007	Emco Wheaton 4015
Emco Wheaton 4500	Emco Wheaton 4505	EZ-flo 11VF	EZ-flo 5005
EZ-flo 5015	Healy 800	Husky V3	OPW 11 VAI-27
OPW 11 VAI-37	OPW 12VW	Richards Astrovac	

If these nozzles successfully complete testing, the ARB will add them to Exhibits 1 and 2 of the updated Executive Order G-70-199. Please check the ARB web site at http://www.arb.ca.gov/vapor/eo-PhaseII.htm for the latest version of Executive Order G-70-199. If any of the nozzles fail to meet the new Liquid Retention standard, they will be listed in Exhibit 3.

9. A dispensing nozzle is missing as a result of a drive-off and needs to be replaced. What nozzle can I use as a replacement after July 15, 2001?

ANSWER: The replacement nozzle is one of those nozzles listed in Exhibit 2 of Executive Order G-70-199 for your system.

10. What if there are no EVR-certified nozzles for my system?

ANSWER: Exhibit 2 of Executive Order G-70-199 lists replacement nozzle models by Phase II system type. All Phase II systems will have at least one model of replacement nozzle. However, you may not use a nozzle listed in Exhibit 3 of the EVR Nozzle Executive Order, G-70-199.

11. I have a Gilbarco/Marconi system (G-70-150-AE) which uses a nozzle at an Air-to-Liquid (A/L) range of 1.00 to 1.20 (such as Emco Wheaton A4500, Husky V3, or OPW VAI-27). The only nozzle available is for the lower range (.90 to 1.10), what am I required to do? What if it is a multi hose dispenser?

ANSWER: The nozzle must be replaced with a nozzle listed in Exhibit 2, and the system must be adjusted to the lower A/L range. In the case of multi hose dispensers, one vapor pump controls all three nozzles and therefore the nozzles requiring different A/L ranges may not be used. Thus all three nozzle would have to be replaced.

12. What should I do if someone wants to sell me a nozzle not listed on Exhibits 1 or 2 after July 15, 2001?

ANSWER: State law and Executive Order G-70-199 prohibit the offer for sale, or installation of nozzles that are not listed on Exhibits 1 or 2 after July 15, 2001. Installation of such nozzles after July 15, 2001, would be illegal and subject to enforcement action by districts.

13. When a boot or spout fails, I remove the nozzle from the hose and replace it with an identical one that was previously in service, but has been repaired. For nozzles not listed on Exhibit 2, can I continue this practice?

ANSWER: If the nozzle is not listed on Exhibit 2, the answer is “no” after July 15, 2001. Only nozzles operating on July 15, 2001, (except those listed in Exhibit 3) can be repaired. New or refurbished nozzles in storage not listed in Exhibit 2 cannot be used or installed.

14. Is it all right to remove a nozzle from the hose to perform a repair?

ANSWER: Yes. Before removing the nozzle, the dispenser must be taken out of service. The same nozzle body must be returned to use after the repair is completed.

15. If a station installs a new hose or changes the hose configuration on a dispenser, must the station replace the nozzle with one which meets the liquid retention requirement?

ANSWER: No, the replacement of a hose or change in hose configuration (examples of hose configurations are included in the Exhibits of G-70-52-AM) is not considered a major modification and does not initiate a requirement to replace the nozzle.

PHASE I EVR SYSTEM

16. What is the status of available EVR-certified, Phase I systems for new or modified construction?

ANSWER: Currently, one system is certified: the Phil-Tite Phase I Vapor Recovery System (Executive Order VR-101-A). This system must be used for all new gasoline dispensing facilities or for major modifications of existing gasoline dispensing facilities on or after July 1, 2001. Please refer to the response to Question 17 pertaining to facilities receiving an Authority to Construct prior to July 1, 2001, where actual construction will not begin until after July 1.

Other Phase I system manufacturers have submitted applications to the ARB.

NOTE: As more EVR-certified systems become available, future Executive Orders will list components that can be interchanged among various certified systems.

17. I currently have an open Authority to Construct from my local air pollution agency. Can I still install a non-EVR certified Phase I system after July 1, 2001?

ANSWER: Consult with your local APCD/AQMD permitting authority as permitting practices vary somewhat from district to district.

18. What about replacement of Phase I components?

ANSWER: In general, you replace failed components on Phase I systems with EVR-certified components or parts. However, if Phase I EVR components or parts are not compatible, pre-EVR certified parts or components may continue to be sold and used. For example, the Phil-Tite Phase I EVR system is certified with a ball float overfill prevention valve. If an existing system has a drop tube overfill prevention valve which malfunctions, the facility operator can replace the drop tube overfill prevention valve with any certified drop tube overfill prevention

valve that was certified prior to July 1, 2001. If a drop tube overfill prevention valve is later certified and is deemed compatible with specific pre-EVR Phase I systems, only that drop tube overfill prevention valve can be used as a replacement part.

19. Do I have to replace everything in the Phase I system if one non-EVR-certified component fails?

ANSWER: No, replacing one component will not trigger the requirement that the current Phase I system be upgraded to comply with the Phase I EVR requirements. However, by April 1, 2005, all existing Phase I systems must use 100% EVR-certified equipment. As mentioned earlier, new installation of gasoline dispensing facilities or major modifications of gasoline dispensing facilities occurring on or after July 1, 2001, must use a Phase I EVR certified system. Please consult with your local air district to determine the requirements.

20. What if the Phil-Tite system can't be easily installed on my system?

ANSWER: Please refer to answer from question 16 for new installations and major modifications, and questions 18 and 19 for replacement parts.