



Number 321

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The Enhanced Vapor Recovery (EVR) regulations became state law on April 1, 2001 with recent amendments becoming effective by December 2003. This advisory pertains to current and future EVR requirements for Phase I and Phase II vapor recovery systems at gasoline dispensing facilities (GDFs) with underground storage tanks.

**EVR DEADLINES DEPEND ON GDF CLASSIFICATION AS “NEW” OR “EXISTING”**

The EVR program is being phased-in according to the attached EVR timeline. EVR requirements apply to both new and existing vapor recovery system installations. New installations must comply with all EVR requirements in effect at time of installation. State law provides four years after the effective date of the EVR requirement for existing systems to comply. **However, changes to the GDF that qualify as a “major modification” will change the status of an “existing installation” to a “new installation” and thus may require immediate upgrades to meet EVR requirements in effect at the time of the modification.** This includes voluntary GDF upgrades or changes prompted by requirements of other agencies, such as the local water quality agency, except where specifically exempted from the “major modification” definition.

I. Modifications that Trigger EVR **Phase I** Requirements:

**Modification that causes the tank top to be unburied, including replacement or removal of an underground storage tank.**

II. Modifications that Trigger EVR **Phase II** Requirements (including unihose dispensers):

- Addition, replacement or removal of 50 percent or more of the buried vapor piping.
- The replacement of dispensers.
- Modifications to dispensers may require use of unihose configurations as described in CP-201 section 4.11.\*

Exceptions:

- The replacement of a dispenser is not a major modification when the replacement is due to accident or vandalism.
- Phase II system upgrades to make the systems ORVR compatible do not constitute a major modification.
- Phase II system upgrades to comply with the under-dispenser containment requirement (CCR, Title 23, section 2636(h)(1)) initiated before January 1, 2004 do not constitute a major modification.\*

\*underlined language added in amendments expected to be effective December 2003

The EVR program requirements are discussed in the next several sections.

## **PHASE I VAPOR RECOVERY SYSTEMS**

Phase I system components reduce emissions associated with gasoline deliveries to the underground tank. All new GDFs, or those undergoing Phase I major modifications, constructed after July 1, 2001, must comply with EVR Phase I requirements. **Existing facilities must upgrade to meet the EVR Phase I requirements by April 1, 2005.** Information on certified EVR Phase I Vapor Recovery Systems can be found at <http://www.arb.ca.gov/vapor/eo-evrphase1.htm>. This webpage is updated as new EVR Phase I systems are certified.

EVR certified Phase I parts or components must be used 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 pre-EVR Phase I systems. Installation of replacement components or parts does not require that the entire facility upgrade to a Phase I EVR certified system unless the equipment replacement is part of a Phase I major modification.

## **LIQUID RETENTION NOZZLE REQUIREMENT**

Effective July 1, 2001, vapor recovery nozzles at new gasoline dispensing facility installations must comply with the liquid retention requirement of 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 latest version of Executive Order G-70-199 located at <http://www.arb.ca.gov/vapor/eo-PhaseII.htm>.

Exhibit 2 of the latest version of Executive Order G-70-199 series lists replacement nozzles for existing certified Phase II vapor recovery systems. 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.

## **UNIHOSE DISPENSERS**

Facilities with non-unihose dispensers installed before April 1, 2003, are not required to change to unihose dispensers unless:

1. A facility replaces more than 50 percent of the dispensers or makes a modification, other than the installation of required sensors, that modifies over 50 percent of the vapor piping in the dispensers. For example, modifications to

assist dispensers to transform to balance dispensers could trigger the unihose requirement.

2. Facility modifications occur that meet the definition of “major modification” for a Phase II system.

Exception: dispensers which must be replaced due to damage resulting from an accident or vandalism may be replaced with the previously installed type of dispenser.

**ORVR COMPATIBILITY**

Phase II vapor recovery systems installed after April 1, 2003 must be compatible with Onboard Refueling Vapor Recovery (ORVR) systems. ORVR systems were introduced in 1998 model vehicles and now are required on most new cars and light-duty trucks. Phase II systems currently certified as ORVR compatible are provided below.

Phase II System	CARB Executive Order & Approval Letters	Method of Achieving ORVR Compatibility
Healy	G-70-186 G-70-191	Nozzle senses ORVR vehicles and turns off assist vapor pump
Balance	G-70-52 Letter 03-04	No vapor pump, so no forced air ingestion into underground tank
Hirt	G-70-177-AA Letter 03-06	Vapor processor maintains negative pressure. Limited to 8 fueling points

Existing facilities must have ORVR compatible Phase II systems by April 2005. CARB staff are working with equipment manufacturers to certify components to make existing systems ORVR compatible until EVR Phase II systems are available (see next section).

**EVR PHASE II (INCLUDING EVR NOZZLES AND IN-STATION DIAGNOSTICS)**

Phase II vapor recovery systems control emissions associated with vehicle fueling. EVR Phase II systems are certified to several new standards, including ORVR compatibility, more stringent spillage and “dripless nozzle” requirements, in-station diagnostics (ISD), and storage tank pressure limits. Several manufacturers have submitted applications for EVR Phase II certification, but no system has yet been certified. By regulation the implementation date for the new EVR Phase II system standards, other than ORVR compatibility, has been delayed to April 1, 2004. The regulations also permit the ARB Executive Officer to administratively re-evaluate the April 1, 2004 implementation date if more time is needed to certify systems. At present, existing facilities have up to April 2008 to upgrade to EVR Phase II systems.

**ISD PHASE-IN AND EXEMPTION FOR LOW THROUGHPUT FACILITIES**

ISD monitors will be certified in conjunction with EVR Phase II systems and will alert the station operator when a vapor recovery system failure occurs and will shut down dispensing if the problem is not addressed. Deadlines for ISD installation depend on facility gasoline throughput as shown in the following table.

<b>Gasoline Annual Throughput (gal/yr)</b>	<b>ISD Required for New/Modified* Facilities</b>	<b>ISD Required for Existing Facilities</b>
> 1.8 million	April 2004	April 2008
≥ 600,000 and ≤ 1.8 million	April 2005	April 2009
< 600,000	NOT REQUIRED	NOT REQUIRED

\*modification meeting definition of Phase II major modification in D-200

### **AIR POLLUTION CONTROL DISTRICTS/AIR QUALITY MANAGEMENT DISTRICTS**

Although the State Air Resources Board sets vapor recovery system standards and is responsible for certifying systems to meet those standards, districts have primary authority for regulating GDFs under vapor recovery rules. Districts also issue GDF permits and conduct compliance inspections and testing. GDF operators should contact the local air district for specific information on local vapor recovery requirements – especially before modifying the facility.

### **PARTIAL EVR EXEMPTION FOR OZONE ATTAINMENT DISTRICTS**

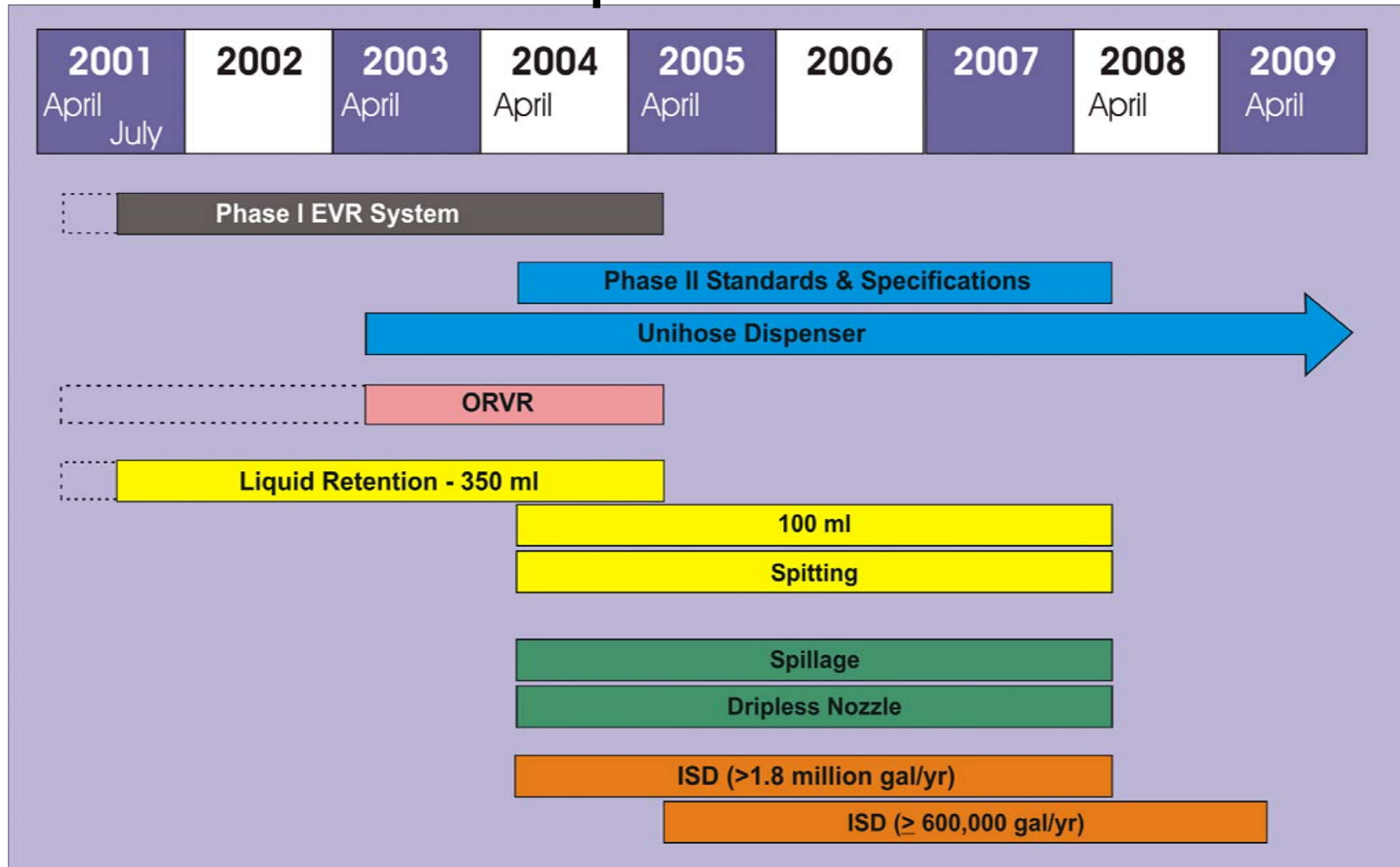
Existing GDFs in districts that are in attainment with the state ozone standard are exempt from most EVR requirements and may continue to use pre-EVR Phase II systems. These facilities are still subject to the April 2005 deadline for ORVR compatibility. Also, new GDFs and existing GDFs undergoing a Phase II major modification in attainment areas must comply with EVR requirements.


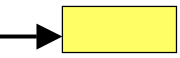
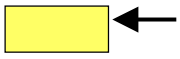

### **FOR MORE INFORMATION**

Answers to frequently asked questions on the vapor recovery requirements are available at <http://www.arb.ca.gov/vapor/faq.htm>. You can also submit a question at this website. Answers to the most common questions will be posted.

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. Information on the State Water Resources Control Board's California Underground Storage Tank program can be found at <http://www.swrcb.ca.gov/cwphome/ust/>.

# Revised Proposed EVR Timeline



-  Dotted box: time between start of 4-year clock and operative date
-  Start of solid bar: date required for new or modified facilities (operative date)
-  End of solid bar: date required for existing facilities (installed before start of bar)
-  Not required for dispensers installed before April 2003 **July 2003**