



Number 336

April 15, 2005

The Enhanced Vapor Recovery (EVR) regulations became state law on April 1, 2001 with recent amendments adopted on February 9, 2005 (effective March 24, 2005). 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. This advisory supercedes Advisory 327 issued on September 10, 2004.

The February 9, 2005, amendments affect several EVR implementation dates including the Onboard Refueling Vapor Recovery (ORVR) compatibility deadlines. In addition, the in-station diagnostics requirement for new installations has been delayed by Executive Order G-70-207 to August 1, 2005. These changes are discussed as part of this advisory.

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 GDFs. State law provides four years after the effective date of the EVR requirement for existing systems to comply. **Per CP-201, new GDFs and GDFs undergoing “major modifications”, as defined in D-200, must comply with all EVR requirements in effect at time of the installation or modification.** Major modifications may include 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.

See exceptions to Phase II Major Modification on next page:

Exceptions to Phase II Major Modification:

- The replacement of a dispenser is not a major modification when the replacement is due to an accident or vandalism.
- Phase II upgrades to make a system 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.

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

PHASE I VAPOR RECOVERY SYSTEMS

Phase I system components reduce emissions associated with gasoline deliveries to the underground storage tank. **All GDFs must be equipped with an ARB certified EVR Phase I system.** The deadline for EVR Phase I was April 1, 2005. Note that existing GDFs, in operation prior to July 2001 and located in districts that meet the state ozone standard, are exempt from EVR Phase I requirements unless the facility undergoes a major modification. See page 4 of this advisory for more information on EVR exemptions.

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.

LIQUID RETENTION NOZZLE REQUIREMENT

All GDFs must operate with nozzles that comply with the 350 ml liquid retention standard. The deadline for this upgrade was on April 1, 2005. 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>.

UNIHOSE DISPENSERS

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

1. The facility replaces more than 50 percent of the dispensers.
2. Facility modifications occur that meet the definition of "major modification" for a Phase II system.

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

ORVR COMPATIBILITY

After April 1, 2003, new GDFs and GDFs undergoing “major modifications”, as defined in D-200, must install an ARB certified Phase II vapor recovery system 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-70-191 VR-201-A	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.
Gilbarco VaporVac/OPW Vaporsaver	G-70-204	Membrane processor maintains negative pressure.

Under recent amendments, existing GDFs must have ORVR compatible Phase II systems according to the schedule below.

Station Annual Throughput (gal/year)	ORVR Compatible System Installation Deadlines
> 2 million	September 1, 2005
1 million to 2 million	January 1, 2006
< 1 million	March 1, 2006

The 2003 calendar year throughput shall be used for calculating station annual throughput for the ORVR compatibility schedule (CP-201, section 2.4.5).

Existing GDFs must upgrade to an ORVR compatible system or a full EVR system by the ORVR compatibility deadline.

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. The Healy EVR Phase II System Not Including ISD is currently certified under Executive Order VR-201-A (available at <http://www.arb.ca.gov/vapor/eos/eo-vr201/eo-vr201a.htm>.) The Healy EVR Phase II System With ISD is expected to be certified by August 1, 2005. By ARB Executive Officer action (Executive Order G-70-207), the implementation date for in-station diagnostics has been delayed to August 1, 2005. At present, existing GDFs have until January 1, 2009 to upgrade to EVR Phase II systems.

ISD PHASE-IN AND EXEMPTION FOR LOW THROUGHPUT GDFs

ISD systems 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 the facility gasoline throughput as shown in the following table, which reflect recent extensions approved by the ARB Executive Officer.

Gasoline Annual Throughput (gal/yr)	ISD Required for New/Modified* GDFs	ISD Required for Existing GDFs
> 1.8 million	August 1, 2005	April 1, 2009
≥ 600,000 and ≤ 1.8 million	April 1, 2006	April 1, 2010
< 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 before modifying the facility.

PARTIAL EVR EXEMPTION FOR OZONE ATTAINMENT DISTRICTS

Existing GDFs in districts where all areas in the district are in attainment with the state ozone standard are exempt from most EVR requirements and may continue to use pre-EVR systems. **These GDFs are still subject to the deadline for ORVR compatibility.** Also, new GDFs and existing GDFs undergoing a major modification in attainment areas must comply with the applicable EVR requirements.

The districts that qualify for the ozone attainment EVR exemption at the date of this advisory are as follows:

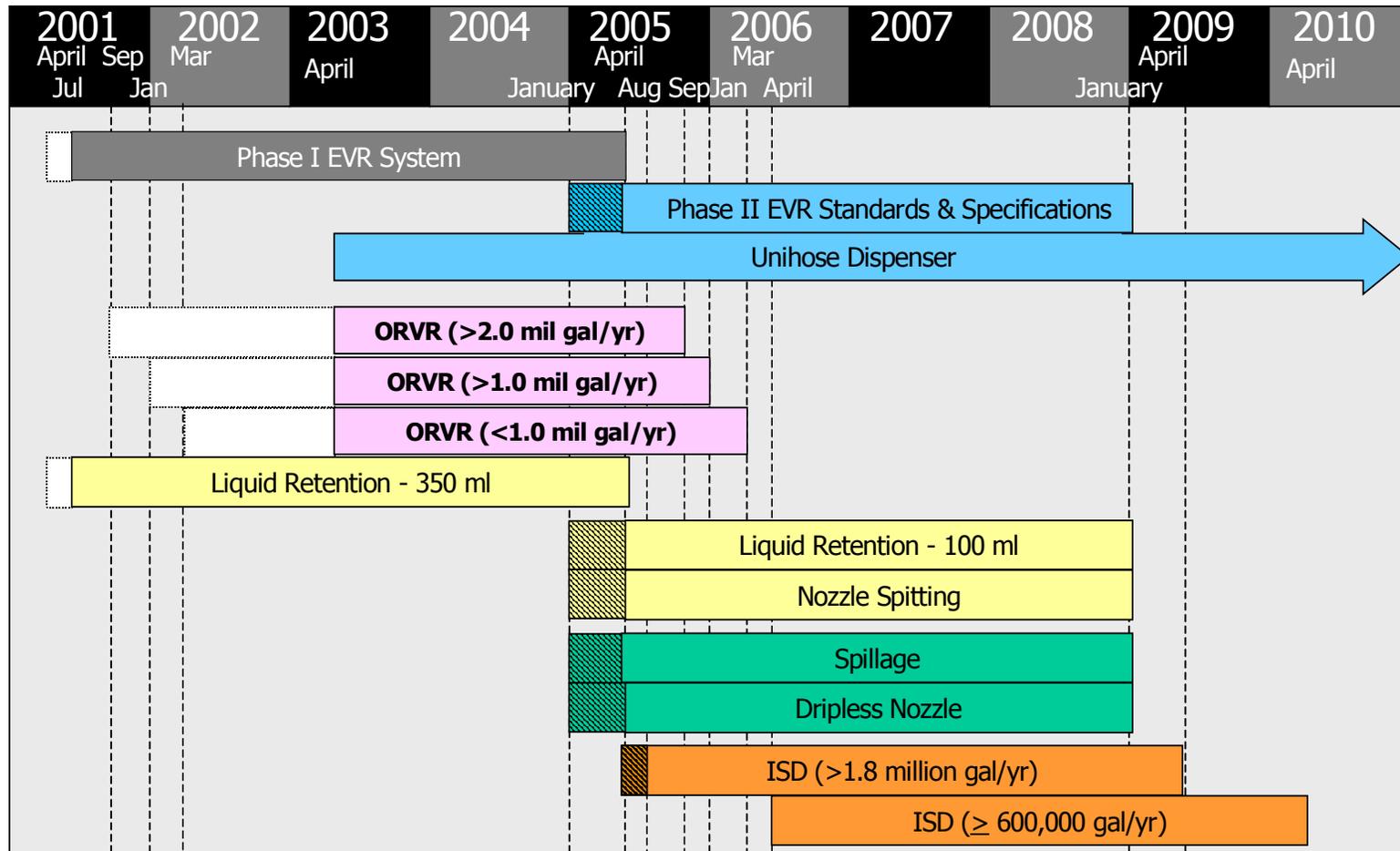
Lake County Air Quality Management District
Lassen County Air Pollution Control District
Mendocino County Air Quality Management District
Modoc County Air Pollution Control District
North Coast Unified Air Quality Management District (Humbolt, Trinity and Del Norte counties)
Northern Sonoma County Air Pollution Control District
San Luis Obispo County Air Pollution Control District
Siskiyou County Air Pollution Control District

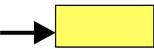
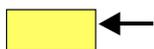
FOR MORE INFORMATION

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/>.

EVR Timeline (updated April 2005)



-  Striped box: Executive Order delay as systems meeting these standards are not yet commercially available
-  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