



Enhanced Vapor Recovery

August 7, 2008

Agenda

- Introduction
- Certified EVR Equipment
- New Rule Requirements
- Compliance Plan
- Upgrade Issues
- Questions

Introduction

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Background

- Tenth year of Enhanced Vapor Recovery (EVR)
(First introduced in 1998)
- Past phases have been rough upon due dates
- Started outreach efforts in June 2007
- In March 2008, AQMD Governing Board amended Rule 461 to require early planning

South Coast Air Basin

➤ Basin Population	17 Million
➤ Number of Vehicles	12 Million
➤ Retail GDF	3,400
➤ Non-Retail GDF	1,100

*Approximately 7 Billion Gallons of Gasoline
Dispensed Annually into Motor Vehicles*

Emissions from Gasoline Dispensing

Total emission controlled by EVR when fully implemented:

55,860 tons/year or 153 tons/day

> 47,000 gallons/day when condensed

	Phase I (lbs/1000 gals)	Phase II (lbs/1000 gals)
Uncontrolled Emissions	8.4	8.3
Controlled Emissions (EVR)	0.42	0.32
Emissions Prevented	7.98	7.98

EVR & ISD Implementation Dates

	New or Major Modifications	Existing Facilities
Phase II EVR	April 2005	April 2009
ISD > 1.8 million gal/year ~38% of Retail GDFs	September 1, 2005	September 1, 2009
> 600,000 gal/year ~56% of Retail GDFs	September 1, 2006	September 1, 2010

•By September 2010, 94% of Retail GDFs will be required to have ISD

EVR Installation Status

Gasoline Dispensing Facilities (GDFs) – August 5, 2008

Total 4,500

✓ Permitted 2,226

✓ Completed Phase II 623 ✓

Stations to permit 2,274

Stations to upgrade 3,877



Early AQMD Actions

- Started outreach effort early (June 2007)
 - ✓ 3 Public Meetings
 - ✓ 2 Advisories
 - ✓ Meetings with major gasoline dealers
- CUPA
 - ✓ Maintain close coordination
 - ✓ Developed application template
- Local city departments
 - ✓ 4 meetings in different locales
- Amended Rule 461

Sources of Information

- Information related to Gasoline Dispensing:

<http://www.aqmd.gov/comply/Rule461/EVR-Update.htm>

- AQMD Website:

<http://www.aqmd.gov>

Certified EVR Equipment

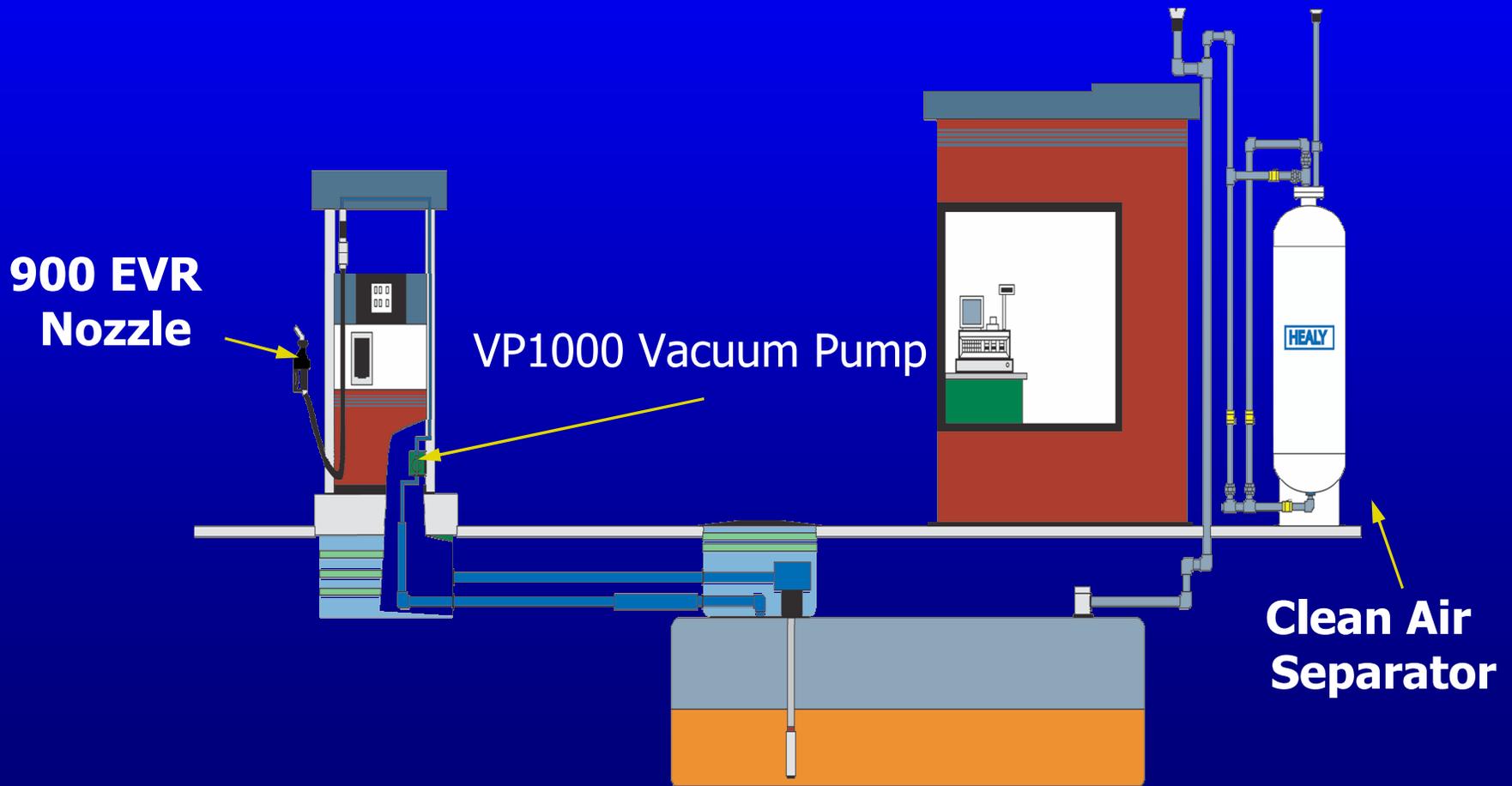
Nola Oriola
A.Q. Analysis and Compliance Supervisor
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EVR Phase II Certified Systems

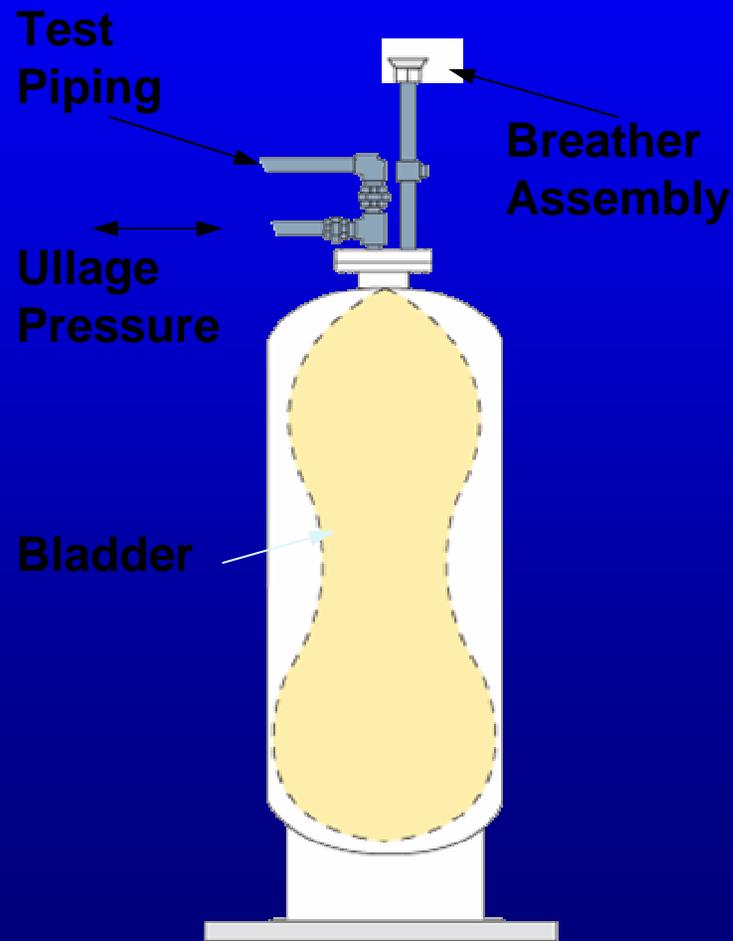
- Healy EVR Phase II System (assist)
 - ✓ Not including ISD: VR-201
 - ✓ Including ISD: VR-202

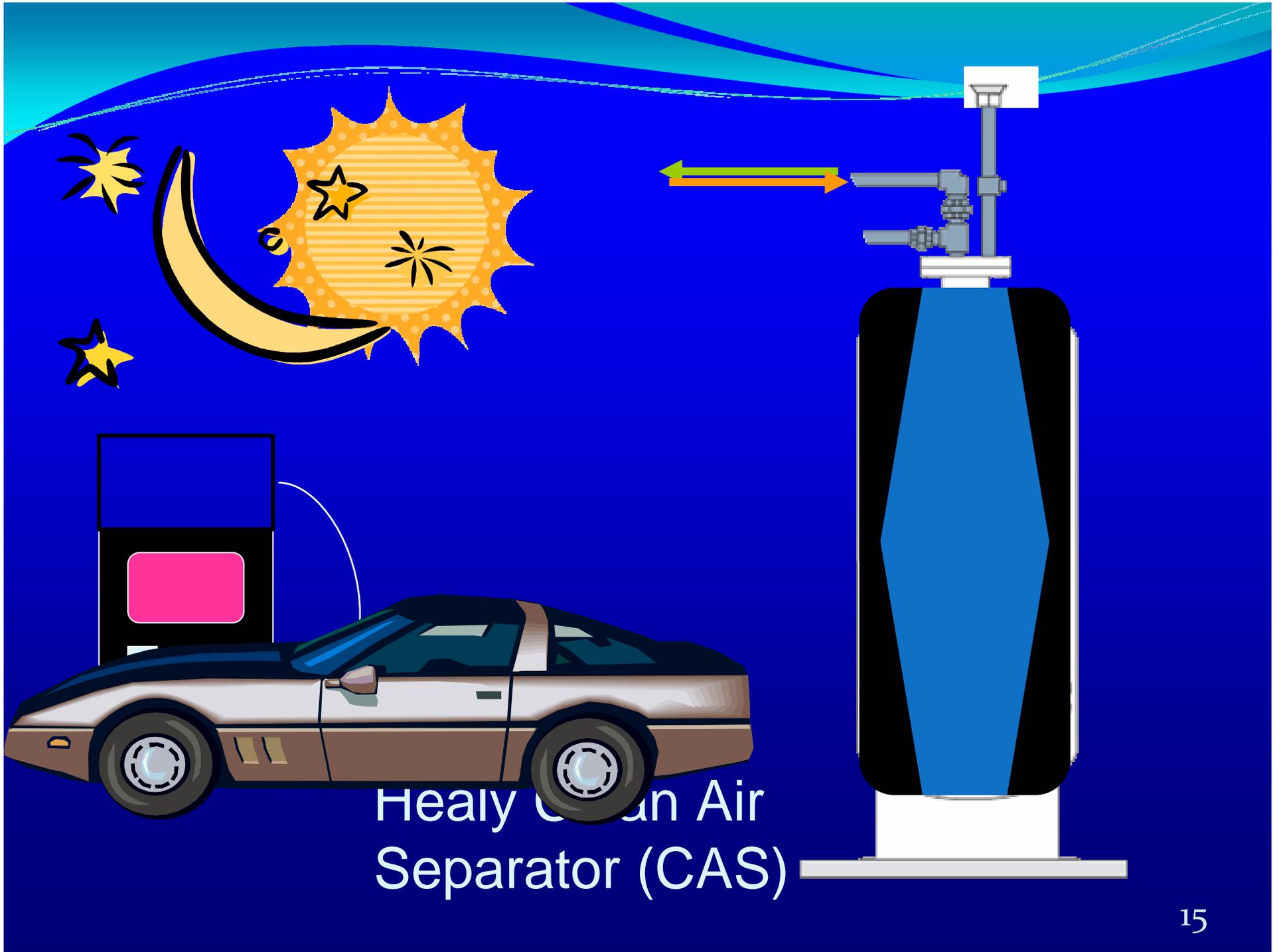
- VST EVR Phase II System (balance)
 - ✓ Not including ISD: VR-203
 - ✓ Including ISD: VR-204

Healy EVR Phase II System



Healy Clean Air Separator (CAS)





Heavy Clean Air Separator (CAS)

Healy Clean Air Separator



Healy Clean Air Separator



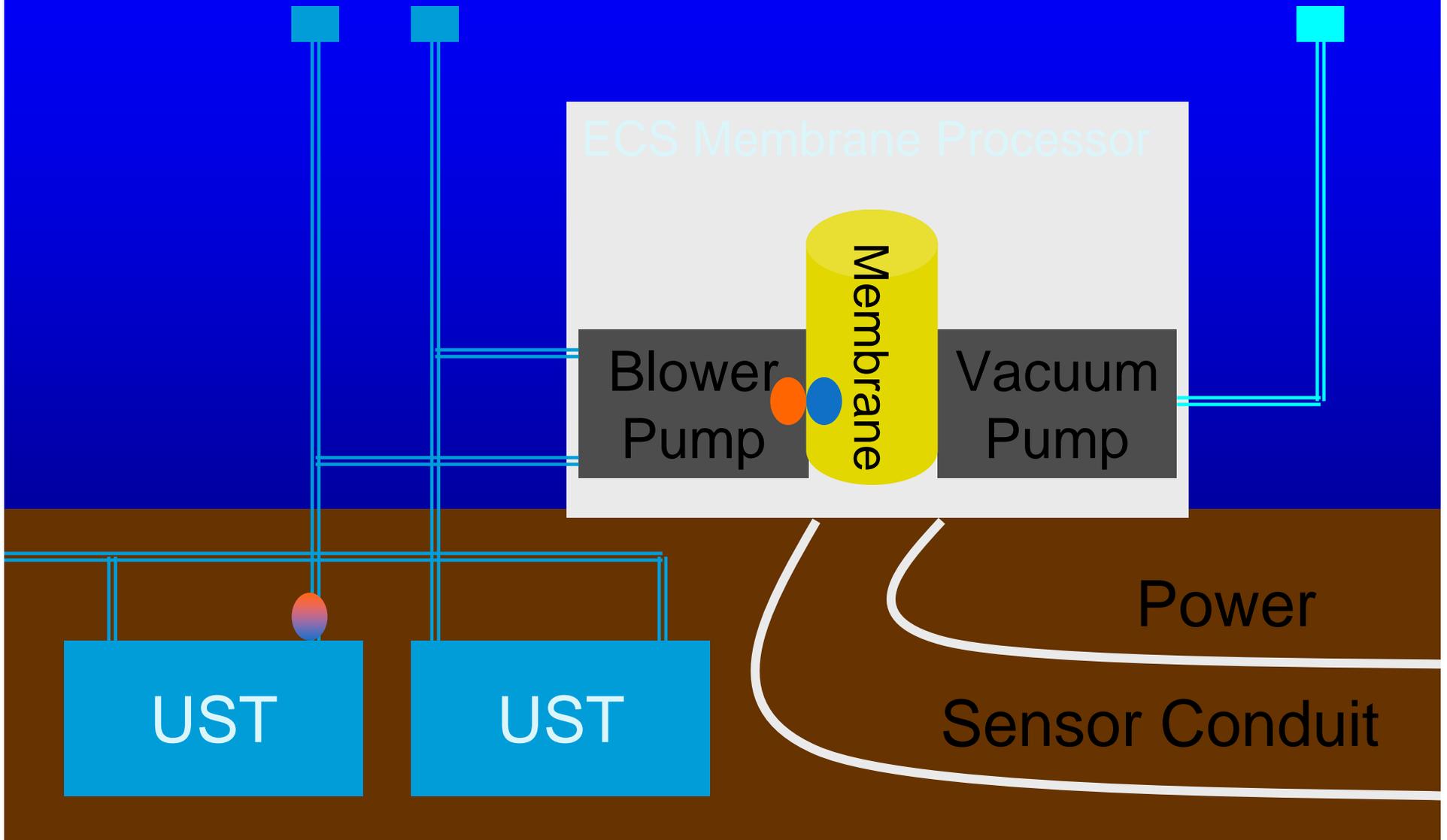
Another Option: Horizontal CAS



VST EVR Phase II System



VST Processor Operation



Which System Fits Best?

Balance vs. Assist

- Most GDF operators believe EVR balance system will be cheaper than EVR assist as they already have the balance system
- Total cost depends more on which EVR processor fits with GDF site layout
- Healy: large and may need enclosure, but no electrical or sensors
- VST: small, but requires 2 vent lines, electrical & sensor conduit (even the non-ISD version)

In-Station Diagnostics (ISD)

- Identifies issues automatically
- Notifies station operator
- Reduces emissions by early detection and prompt repair
- Supplements district inspections
- Concept similar to OBD for vehicles
- Tie-in to existing UST leak monitors

ISD Implementation Deadlines

**> 1.8 million
gallons/yr**

**600,000 – 1.8 million
gallons/yr**

**≤ 600,000
gallons/yr**

**New and Major
Mod Sites:
Sept. 2005**

**Existing Sites:
Sept. 2009**

**New and Major
Mod Sites:
Sept. 2006**

**Existing Sites:
Sept. 2010**

**Exempt
From
ISD**

How ISD Works

Monitors Two Primary VRS Functions:

1. Collection of Vapors during Fueling
 - ✓ ISD flow monitor
2. Containment of Vapors in UST system
 - ✓ ISD pressure monitor
 - ✓ ISD leak test

New Rule Requirements

George Kasper
Supervising Inspector
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Rule Amendment

- Plan for Phase II EVR upgrade if not installed by October 1, 2008
- Performance and reverification testing schedule
- Testing contractor requirements
- Certification for contractors and operators
- Delay EVR implementation on E85 and ORVR fleets

Equipment Testing

- More flexible test scheduling
 - ✓ Deadline based on month instead of day of month
 - ✓ Late or missing test will not change schedule
- Conduct Performance Tests within 10 days of transferring fuel to vehicle
- Contractor Sanctions for failing to properly conduct tests

Contractor Qualification

- Contractors who repair or install equipment need to be certified by:
 - ✓ Equipment Manufacturer
 - ✓ International Code Council (ICC) – Vapor Recovery
- Persons conducting tests of EVR equipment need to be certified by:
 - ✓ AQMD
 - ✓ Equipment Manufacturer
 - ✓ ICC – certification for tester when available

Delays in EVR Implementation

- Delay EVR requirements for non-retail ORVR fleets until April 1, 2012, provided all are met:
 - ✓ Use dripless and spitless nozzles
 - ✓ Monitor and record storage tank pressure
 - ✓ Dispense only to ORVR equipped vehicles
 - ✓ Maintain fueling records for each vehicle
- Delay EVR requirements for E85 fueling until April 1, 2012 to allow for equipment certification

Compliance Plan

Early Planning for EVR

- Increments of Progress within permit application or compliance plan
 - ✓ Application submittal
 - ✓ Equipment order
 - ✓ Installation contract
 - ✓ Testing contract
 - ✓ Equipment installation
 - ✓ Equipment testing
 - ✓ Declaration

Plan Submittal

Two Options:

- Incorporate Increment of Progress within permit (due 9/1/2008)
- Submit Compliance Plan separate from permit (due 10/1/2008)

Not needed if upgrade completed by 10/1/08

Option 1

Complete application package to include:

- Form 400-A
- Form 400-CEQA
- Form 400-E-11
- Form 461-CP
- Filing fee of \$1,287.22

Due by 9/1/2008

Option 2

File Compliance Plan separate from application, package to include:

- Form 400-A
- Form 461-CP
- Filing fee of \$224.60*

Due by 9/1/2008

*If ceasing operation after 4-1-09, file Form 461-CP without filing fee

Form 461-CP

<http://www.aqmd.gov/comply/Forms/R461CP.pdf>

Plan Approval Criteria

- Must demonstrate ability to comply by April 1, 2009
- Dates must meet:
 - ✓ Application dates must be at least 2 months prior to the planned start of construction
 - ✓ Equipment must be ordered no later than 7 days after all permits are received
 - ✓ Date for signing of contracts for installation and testing must be no less than one month prior to the planned construction start date
 - ✓ Date for starting installation must be on or before March 1, 2009
 - ✓ Date for starting equipment testing must be on or before March 21, 2009

Compliance FAQs

- What next after plan submittal
 - ✓ District issue an approved compliance plan
 - ✓ Monitor and assure due dates are met
- If the plan was denied
 - ✓ Submit an approvable plan within 30 days
- If missing a deadline
 - ✓ Submit plan alteration to change dates if there is still time
 - ✓ Apply for variance if circumstances are beyond reasonable control
 - ✳ **Violation is subject to penalty**
- If permit did not include IOP and not complete by 10/1/08
 - ✓ Submit a separate compliance plan by 10/1/08
- Equipment availability issues:
 - ✓ Notify AQMD and ARB

Upgrade Issues

Danny Luong

Reported Issues

- Delay in permitting from local jurisdictions
- Equipment reconfigurations
- Waiting for another certified system
- Financing options
- ✳ There is no reported shortage of contractors, equipment supply or testers

Contact Information

AQMD Permitting

➤ Any Questions Regarding Permitting Issues

✓ Randy Matsuyama (909) 396-2551

✓ Maria Vibal (909) 396-2422

Contact Information

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Acknowledgments

➤ Cindy Castronovo, CARB

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Information Website:

www.evrhome.org

236 days left and counting
Are you ready?

Questions?

