



# **Proposed Amendments to Enhanced Vapor Recovery Regulations**

December 10, 2020

# Rulemaking Goals



## Goals

Improve Cost Effectiveness

Preserve Emission Reductions

Improve Flexibility, Enforceability & Clarity

# Ongoing Need for Vapor Recovery

California Gasoline Consumption  
~15 billion gallons per year



Reduce Ozone & Benzene



# California's Vapor Recovery Program

Bulk  
Gasoline  
Storage &  
Transfer  
Terminals



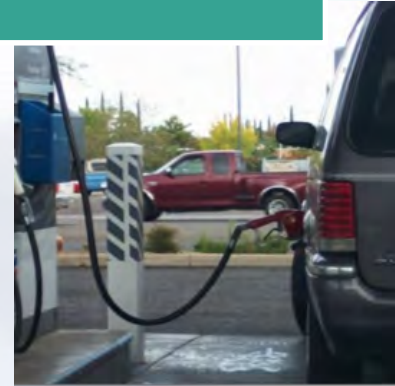
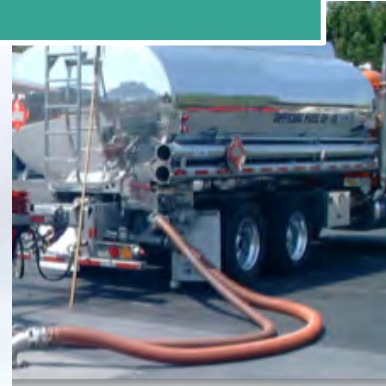
Cargo Tanks



Gas Station  
Deliveries  
Phase I  
Vapor Recovery



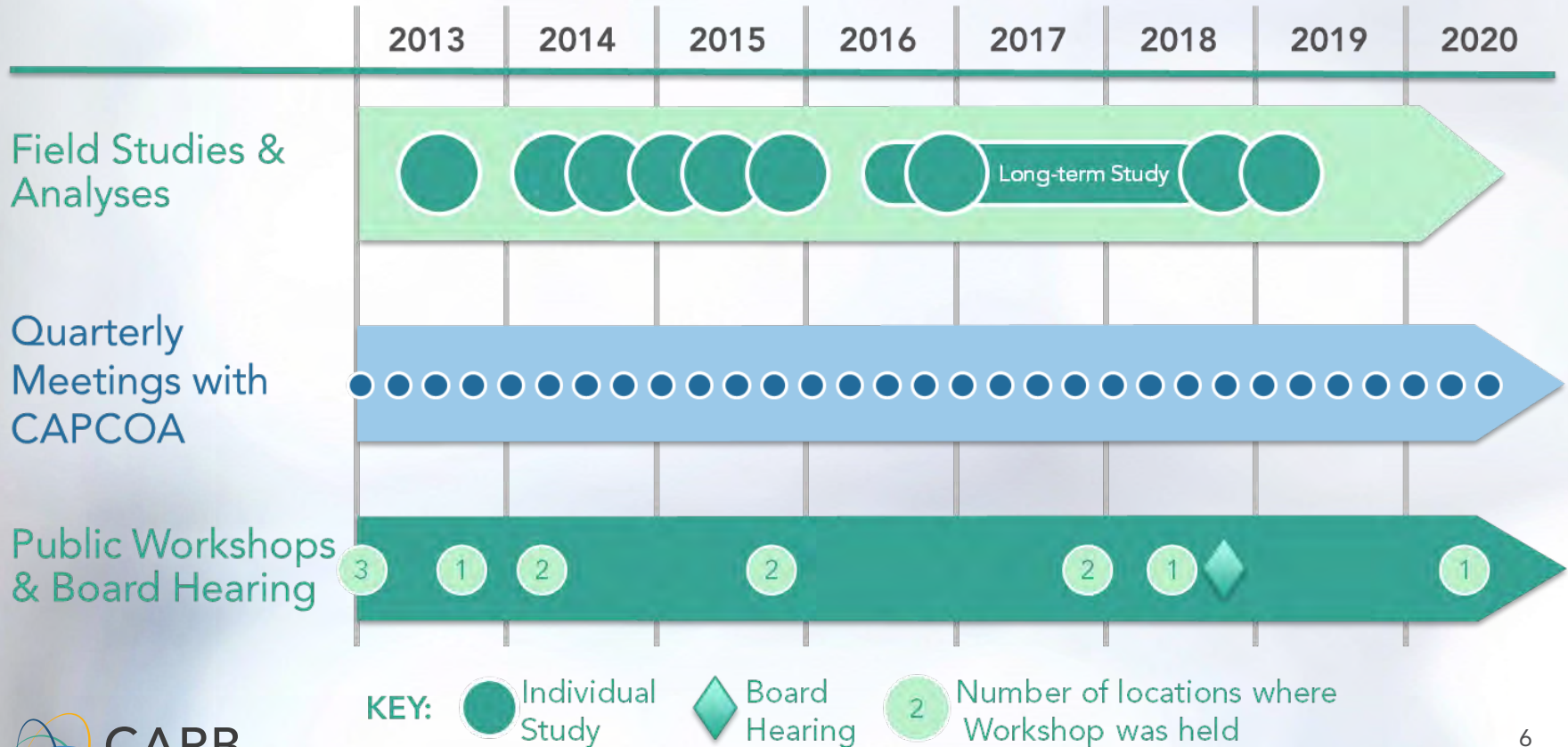
Dispensing  
to Vehicles  
Phase II  
Vapor Recovery



# Three Parts to Staff Proposal

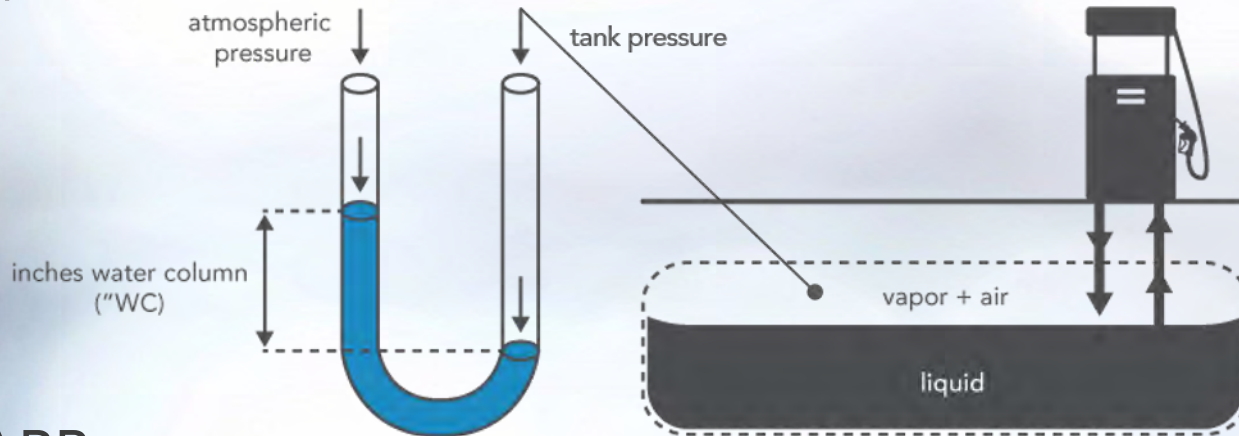
- Part 1: In-Station Diagnostic System  
Overpressure Alarms
- Part 2: Nozzle Spillage Standards
- Part 3: Changes to Improve Flexibility,  
Enforceability, and Clarity

# Collaborative Process



# Part 1: In-Station Diagnostic System (ISD) Overpressure Alarm

- Intended to notify operators of potential equipment problems
- Assesses the amount of time that pressure in the gasoline storage tank is positive
- Tank pressure must exceed 1.5 inches water column to trigger overpressure alarm

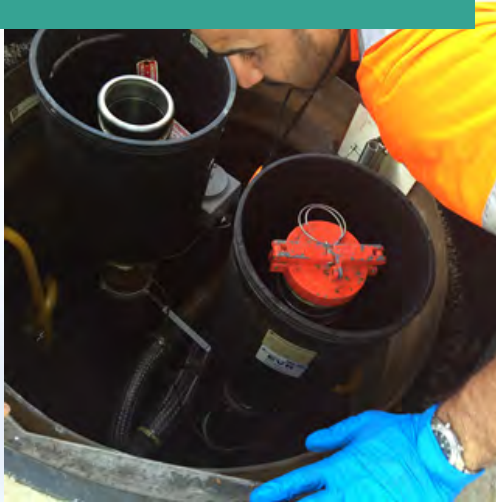


# Overpressure Alarm Response

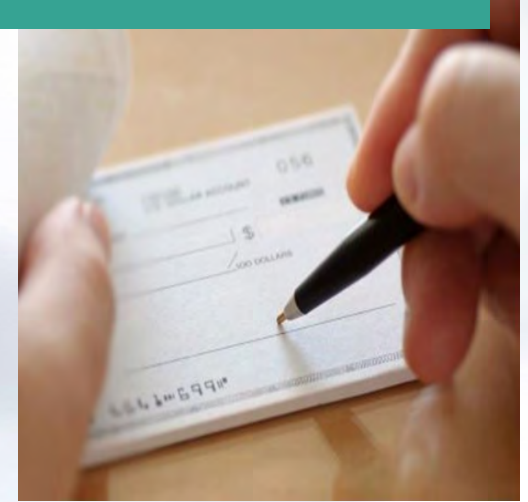
ISD Alarm Triggered



Conduct Troubleshooting



Average Response Cost ~\$800





# The Overpressure Alarm Problem

- There is a high frequency of overpressure (OP) alarms.
  - ~5,300 GDF have one or more OP alarms per year
  - ~2,100 GDF have ten or more OP alarms per year
- Alarm response cost without associated benefits.
  - 95% of alarms are not caused by equipment problems
  - Equipment problems related to the remaining 5% are identified by other means
  - Eliminating the OP alarm will not affect GDF emissions
- Advisory 405 provides temporary relief.

# Proposed Amendments to ISD Monitoring Requirements

## Current

- ISD OP alarm occurs when time at pressure exceeds weekly or monthly criteria

## Proposed

- Eliminate all ISD OP alarms year-round
- Increase data storage to improve assessment of emissions by CARB and District staff

# Applicability

Applicability	Implementation Strategy
Existing GDFs	<ul style="list-style-type: none"><li>• ISD software upgrade is voluntary based on potential cost savings</li><li>• Existing software allowed for remaining useful life of ISD console</li></ul>
New GDFs & Major Modifications	<ul style="list-style-type: none"><li>• Newest ISD software will be required</li><li>• Negligible increase compared to current cost</li></ul>

# Part 2: Adopt More Stringent Nozzle Spillage Standards



# Proposed Amendments to Nozzle Spillage Standards

## Proposal

- Reduce performance standard to 0.05 pounds per 1,000 gallons dispensed (lbs/kgal) in all certification procedures

## Benefits

- All currently certified nozzles achieved 0.05 lbs/kgal
- Requires no action by station operators
- Preserves current emission reductions and prevents backsliding
- Administrative cost to nozzle manufacturers is minor

# Part 3: Amendments to Improve Flexibility, Enforceability and Clarity

1. Revise ISD communication port requirement
2. Require manufacturers to submit samples of certified vapor recovery components for CARB archive
3. Amend Phase I drop tube test procedures to accommodate remote fill systems
4. Various administrative changes

# Statewide Economic Impact of Proposed Amendments

## Net Costs

for Equipment Manufacturers from  
ISD Software Manufacturing Costs  
and Increased Certification Costs

~\$290,000 to \$3.0 million  
through 2030

## Net Cost-Savings

for Gas Station Owners Who  
Eliminate ISD Overpressure  
Alarm Response Costs

~\$32 million to \$98 million  
in savings through 2030  
for businesses

# Staff Recommendations

- Staff recommends that the Board approve today's proposal to amend Enhanced Vapor Recovery regulations:
  - Eliminate overpressure alarms from ISD software to improve cost-effectiveness
  - Make nozzle spillage standards more stringent to preserve current emission reduction benefits
  - Amend procedures to improve flexibility, enforceability and clarity



# Proposed Amendments to Enhanced Vapor Recovery Regulations

## End of Presentation

