

# California Air Resources Board Monitoring and Laboratory Division Regulation Development

## Portable Outboard Marine Tanks and Components



**April 10, 2008**

# Agenda

- Purpose
- ARB Regulation
- ARB Certification Procedure
- ARB Test Procedures
- Next Steps
- Contact Information

# Purpose

- Present Portable Outboard Marine Tanks and Components (OMT) regulatory package
- Regulatory timeline
- Request for additional comments

# Agenda

- Purpose
- ARB Regulation
- ARB Certification Procedure
- ARB Test Procedures
- Next Steps
- Contact Information

# ARB Regulation

- **Applicability**

- **Applies to:**

- Fuel hose produced on/after January 1, 2009
    - Cap produced on/after January 1, 2010
    - Tank and primer bulb produced on/after January 1, 2011

# ARB Regulation

- Performance Standards
  - Must be certified in accordance with CP-510
  - Before January 1, 2009
    - Fuel Hose Permeation Rate  $\leq 15$  g/m<sup>2</sup>/day
  - Before January 1, 2010
    - Self Sealing Cap
  - Before January 1, 2011
    - Primer Bulb Permeation Rate  $\leq 15$  g/m<sup>2</sup>/day
    - Marine Tank Emission Rate  $\leq 1.5$  g/m<sup>2</sup>/day

# ARB Regulation

## ■ Prohibitions

- Not certified or;
- Not in compliance with certification;
- You may not sell, supply, offer for sale, advertise or manufacture for sale in California any of the components or complete systems

# ARB Regulation

- Exemptions

- This regulation does not apply to:

- Tanks and components manufactured and delivered to a California retail outlet prior to applicability dates
    - Tanks and components intended for shipment and use outside of California

# ARB Regulation

- Innovative Products
  - Allows for unique tanks and components
- Administrative Requirements
  - Representative Code
    - Manufacture Date and EO #
  - Code Explanation to ARB

# ARB Regulation

- **Variances**
  - Extraordinary reasons beyond manufacturers control
    - Specific grounds
    - Compliance plan and date
    - Extraordinary economic hardship
    - Public benefit from granting variance outweighs public harm from increased emissions

# ARB Regulation

- Test Procedures
  - CP-510 for certification
  - TP-511 for diurnal emission rate
  - TP-512 for permeation rate
- Enforcement
  - Certification can be revoked for failure to comply with standards

# Agenda

- Purpose
- ARB Regulation
- ARB Certification Procedure
- ARB Test Procedures
- Next Steps
- Contact Information

# ARB Certification Procedure

- **Applicability**

- **Applicable to Portable Outboard Marine:**

- Tanks
    - Self Sealing Caps
    - Fuel Hoses
    - Primer Bulbs

- **Compliance with this does not exempt from other State or Federal regulations**

# ARB Certification Procedure

- General Certification Requirements
  - Will accept EPA certification
  - California certification
    - Application must include applicable test results
    - Testing on 6 tanks plus one trip blank tank
    - Testing on 6 fuel hoses or primer bulbs
    - Testing by an accredited independent lab

# ARB Certification Procedure

## Portable Outboard Marine Tank

Performance Type	Requirement	Effective Date
Self Sealing Cap	Automatically closes and seals	January 1, 2010
Emission Rate	$\leq 1.5 \text{ g/m}^2/\text{day}$	January 1, 2011

## Portable Outboard Marine Tank Fuel Hose & Portable Outboard Marine Tank Primer Bulb

Performance Type	Requirement	Effective Date
Fuel Hose Permeation Rate	$\leq 15 \text{ g/m}^2/\text{day}$	January 1, 2009
Primer Bulb Permeation Rate	$\leq 15 \text{ g/m}^2/\text{day}$	January 1, 2011

# ARB Certification Procedure

- Complete Application Includes:
  - Model Number
  - Size (if applicable)
  - Applicable test results
  - Engineering drawings of the component
  - Sample of component

# ARB Certification Procedure

- Complete Application Includes: (continued)
  - Sample of permanent marking on component (after issuance of EO this marking cannot be changed)
  - Sample of component label
  - Sample of instruction label or decal for each component (as applicable)
  - Manufacturers warranty

# ARB Certification Procedure

- Complete Application Includes: (continued)
  - Material description for all components including gaskets, O-rings or seals
  - Evidence of component manufacturers use notification

# ARB Certification Procedure

- *Application Review and Acceptance*
  - Completeness determination within 60 days
  - If additional information is submitted  
completeness determination within 30 days
  - Approval determination within 120 days of  
application completeness

# ARB Certification Procedure

- Engineering (Application) Evaluation
  - Executive Officer will evaluate the application
    - Deny certification to those components not meeting requirements
    - Will not re-evaluate component until proof of deficiency correction is provided

# ARB Certification Procedure

- Alternative Test and Inspection Procedures
  - Not allowed without prior written authorization of the Executive Officer

# Agenda

- Purpose
- ARB Regulation
- ARB Certification Procedure
- ARB Test Procedures
- Next Steps
- Contact Information

# ARB Test Procedures

- TP – 511 Diurnal Rate from Portable Outboard Marine Tanks
  - Preconditioning is required:
    - Test Fuel (E-10; CA RFG3 with 10% ethanol)
    - 140 days @ ambient conditions, or
    - 70 days @ constant temperature  $\geq 104^{\circ}\text{F}$  after pressure cycling
  - Leak check
    - Increase ambient temperature  $\geq 40^{\circ}\text{F}$
    - Submersion in water bath

# ARB Test Procedures

- TP – 511 Diurnal Rate from Portable Outboard Marine Tanks - continued
  - Acclimate at  $65^{\circ}\text{F} \pm 5^{\circ}\text{F}$  for 6 – 36 hours
  - Check balance for accuracy
  - Weigh tanks and trip blank
  - Begin 24 hour diurnal cycle
    - $65^{\circ}\text{F}$  to  $105^{\circ}\text{F}$  to  $65^{\circ}\text{F}$
  - Leak check
  - Calculate weight loss

# ARB Test Procedures

- TP - 512 Permeation Rate from Fuel Hoses and Primer Bulbs
  - Preconditioning is required
    - Test fuel (E-10; CA RFG3 with 10% ethanol)
    - 8 weeks @  $73^{\circ}\text{F} \pm 9^{\circ}\text{F}$  or
    - 4 weeks @  $110^{\circ}\text{F} \pm 9^{\circ}\text{F}$
  - Acclimate at  $73^{\circ}\text{F} \pm 4^{\circ}\text{F}$  for 6 – 36 hours
  - Check balance for accuracy
  - Weigh test assembly

# ARB Test Procedures

- TP - 512 Permeation Rate from Fuel Hoses and Primer Bulbs - continued
  - Keep test apparatus at constant temperature  $73^{\circ}\text{F} \pm 4^{\circ}\text{F}$
  - Check balance and weigh apparatus
  - Minimum of 15 days
  - Calculate permeation rate

# Agenda

- Purpose
- ARB Regulation
- ARB Certification Procedure
- ARB Test Procedures
- Next Steps
- Contact Information

# Next Steps

- Request for additional comments
- Finalize economic analysis and emission inventory
- 45 day public notice in July
- Present to Board in September

# Agenda

- Purpose
- ARB Regulation
- ARB Certification Procedure
- ARB Test Procedures
- Next Steps
- Contact Information

# Contact Information

- LaMar Mitchell  
916-445-9371  
[lmitchel@arb.ca.gov](mailto:lmitchel@arb.ca.gov)
  
- Dennis Goodenow  
916-322-2886  
[dgoodeno@arb.ca.gov](mailto:dgoodeno@arb.ca.gov)