

# Portable Fuel Container (PFC) Regulation Amendments



California Air Resources Board  
Monitoring and Laboratory Division  
September 15, 2005

# Agenda

- PFC Regulation
- Existing Regulation Benefits
- Existing Regulation Problems
- Proposed Regulation Solutions
- Impacts of Proposal
- Additional Issues
- ARB Staff Recommendation

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# PFC Regulation

- ARB adopted the existing PFC regulation in September 1999
- Existing regulation includes:
  - Automatic closure
  - Automatic shutoff
  - Flow rate and fill height
  - Single opening
  - 10 psig pressure requirement
  - 0.40 gram/gallon-day permeation
  - Gasoline and diesel containers

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# Existing Regulation Benefits

- Over 70 tpd ROG reductions (mostly from the automatic closure requirement)
- Reduces spillage in some applications
- Improves consumer safety

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# Existing Regulation Problems

- Allows the sale of utility jugs as PFCs
- Does not include kerosene containers
- Does not control spillage as expected
- Low consumer acceptance
- Poor quality control

# Existing Regulation Problems

## Utility Jugs

- Current regulation allows the sale of utility jugs as PFCs
- These containers contribute 13.3 tpd of ROG
- Consumers purchase utility jugs for use with gasoline because they are durable and fashionable

# Existing Regulation Problems

## Utility Jugs



# Existing Regulation Problems

## Kerosene Containers

- Current regulation does not include kerosene containers
- These containers contribute 3.2 tpd of ROG
- Consumers purchase kerosene containers for use with gasoline because they are less expensive

# Existing Regulation Problems

## Kerosene Containers



# Existing Regulation Problems

## Spillage

- Spillage is controlled by automatic closure and automatic shutoff
- Automatic closure works well
- Automatic shutoff works in some applications only
- Spillage is reduced by about half of what was expected

# Existing Regulation Problems

## Spillage



# Existing Regulation Problems

## Spillage



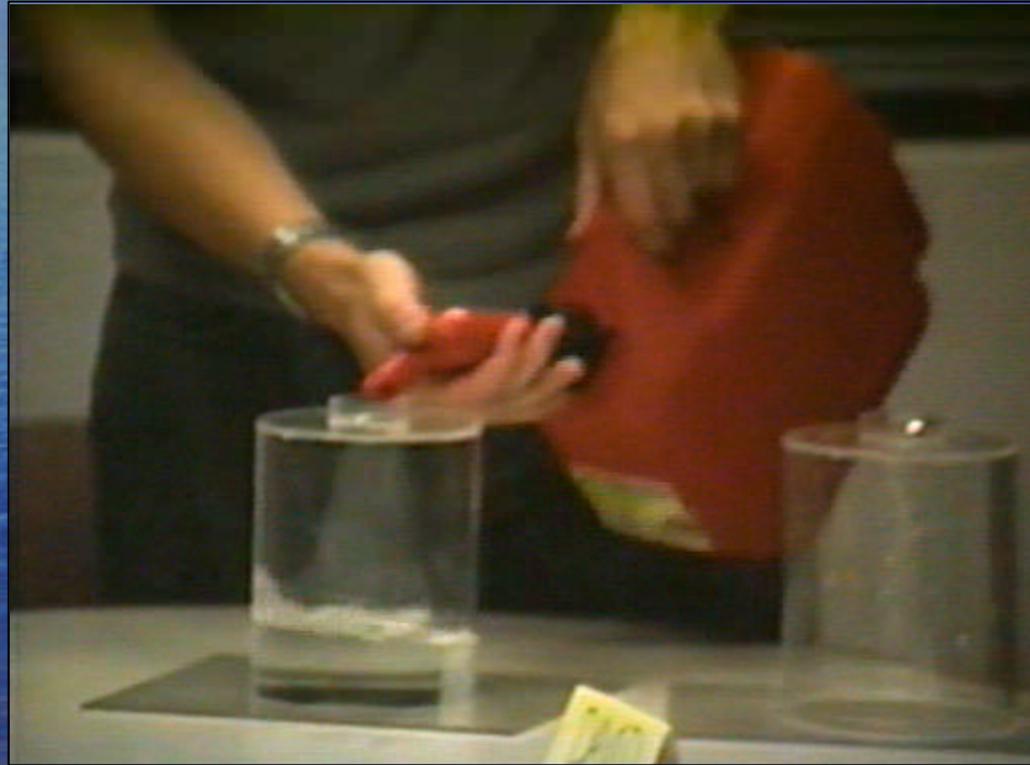
# Existing Regulation Problems

## Low Consumer Acceptance

- Consumers have difficulties with automatic shutoff
- Spouts cannot fit into many fuel tanks
- Consumers do not like the new spouts when they spill

# Existing Regulation Problems

## Low Consumer Acceptance



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# Proposed Regulation Solutions

- Clarify the definition of PFC to prohibit the sale of utility jugs as PFCs
- Expand the definition of PFC to include kerosene containers
- Reduce spillage
- Improve consumer acceptance
- Include certification program
- Include a diurnal standard

# Proposed Regulation Solutions

## Expand the Definition of PFC

- Prohibit the sale of utility jugs as PFCs
- Include kerosene containers in PFC definition
- Improve emission reductions and consumer safety
- Reduce emission by 16.5 tpd
- Implement the definition of a PFC by January 1, 2006

# Proposed Regulation Solutions

## Reduce Spillage

- Remove fill height and flow rate requirements
- Remove automatic shutoff requirement (increased visibility and control)

# Proposed Regulation Solutions

## Improve Consumer Acceptance

- Allow spout designs to improve visibility and control
- Reduce pressure requirement
- Include a voluntary consumer acceptance program

# Proposed Regulation Solutions

## Voluntary Consumer Acceptance

- Manufacturers submit Consumer Acceptance Plan
- ARB staff approves the Consumer Acceptance Plan
- Manufacturers convene consumer focus group
- Consumers score each product
- ARB staff authorizes Consumer Acceptance Stars

# Proposed Regulation Solutions Include Certification Program

- Require PFC manufacturers to certify PFCs prior to sale
- Will ensure quality products in California
- Reduce enforcement activities
- Provides manufacturers with assurance that their products meet the Regulation

# Proposed Regulation Solutions Include a Diurnal Standard

- Diurnal standard 0.4 grams/gal-day in 2007
- Reduce diurnal standard to 0.3 grams/gal-day in 2009
- Test consistent with in-use conditions

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# Impacts of Proposal

- Prohibiting the sale of utility jugs as PFCs reduces 13.3 tpd ROG
- Including kerosene containers reduces 3.2 tpd ROG
- Reduced spillage reduces 1.4 tpd ROG
- Diurnal standard reduces 0.5 tpd ROG
- Proposal costs about \$.40 to \$.70 per pound of ROG reduced

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# Additional Issues

- Notice retailers and distributors of changes in PFC definition
- Opposition to removing the automatic shutoff requirement
- Coordination with US EPA

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# ARB Staff Recommendation

- Adopt PFC definition separately
- Adopt amended regulation
- Adopt CP-501 (Certification Procedure)
- Adopt TP-501 (Spout Test Procedure)
- Adopt TP-502 (Diurnal Test Procedure)

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