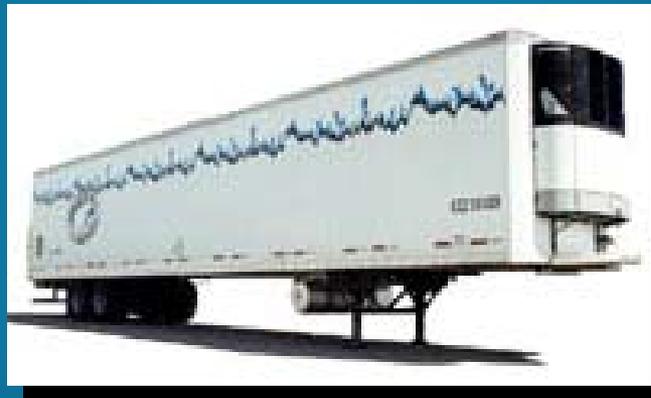


**AIRBORNE TOXIC CONTROL MEASURE
FOR IN-USE DIESEL-FUELED
TRANSPORT REFRIGERATION UNITS (TRU) AND TRU
GENERATOR SETS AND FACILITIES WHERE TRUs OPERATE**



February 26, 2004



California Environmental Protection Agency

Air Resources Board

Overview

- What is a TRU?
- Proposed TRU ATCM
- Benefits and Costs
- Key comments & responses

What is a TRU?

- Refrigeration system powered by a diesel engine to control the environment of temperature-sensitive products
 - ◆ Trailer vans
 - ◆ Truck vans
 - ◆ Railcars
 - ◆ Shipping containers

Proposed TRU Airborne Toxic Control Measure



Key Provisions

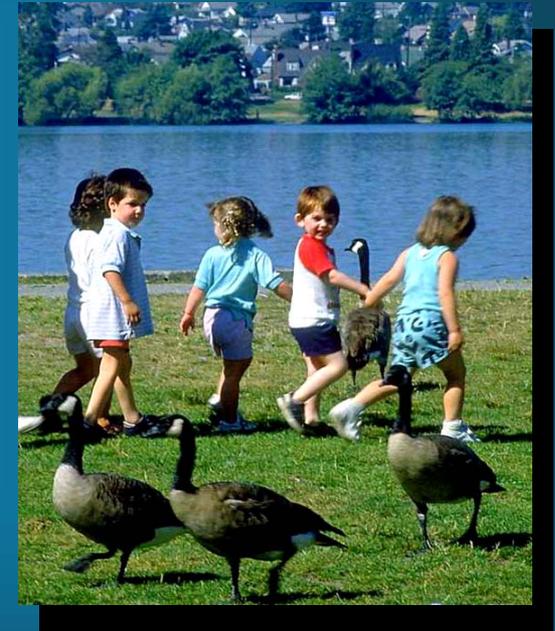
- Progressively lower in-use performance standards for PM
- Compliance options achieve PM emission reductions by
 - ◆ Accelerated engine/TRU replacement
 - ◆ Retrofit of existing engines
 - ◆ Use of alternative technologies

Other Elements

- Recordkeeping & reporting
 - ◆ Owner/Operator
 - ◆ Facility
- Registration and I.D. numbering system
 - ◆ Affects all TRUs and TRU gen sets based in California
- Early compliance incentive
- Technology reviews in 2007 and 2009

Air Quality Benefits Include Reduced Diesel PM and Criteria Pollutant Emissions

- PM Reductions
 - 65% by 2010
 - 92% by 2020
- NO_x - 10% to 50% reduction
- ROG - about 30% reduction



Costs

■ Capital Costs

- ◆ Retrofit: \$2,000 to \$2,300/unit
- ◆ New Engine: \$4,000 to \$5,000/unit
- ◆ New TRU unit: \$10,000 to \$20,000/unit

■ Total Costs

- ◆ \$5 to \$15 million per year
- ◆ \$90 to \$160 million total over 13 years

Cost Effectiveness

- Considering only diesel PM reductions -
 - ◆ Between 400,000 to 600,000 pounds per year of diesel PM
 - ◆ \$10 to \$20 per pound of diesel PM reduced

Key Comments & Responses

- Economic impact of accelerated replacement
- Legal authority
- Change to less effective retrofit requirements
- Allow engines that currently comply with in-use standards to count toward LETRU compliance
- Include enforcement and penalty provisions in ATCM

Economic Impact of Accelerated Replacement

- Balances desires of parties:
 - ◆ Use all of remaining useful life without imposing any requirements
 - ◆ Eliminate all TRU engine emissions at facilities
- Reduces emissions & near source risk
 - ◆ Phased approach
 - ◆ Many compliance options
 - ◆ Good cost-effectiveness

Legal Authority

- Interstate Commerce Clause issue
 - ◆ Legal Counsel reviewed
 - ◆ The ATCM will withstand a Commerce Clause challenge
- Clean Air Act preemption issue
 - ◆ ARB will seek a CAA 209(e)(2) authorization from U.S. EPA

Change to Less Effective Retrofit Requirement for Low Emission TRU (LETRU) In-Use Performance Standard

- Comment:
 - ◆ For LETRU - Allow Level 1 in lieu of Level 2
- Level 2 should be available in time
- Technology review planned for 2007

Allow Engines Currently Meeting LETRU to Count Toward Compliance

- Comment:
 - ◆ Some newer TRU engines will meet the LETRU In-Use Performance Standard and should count toward compliance
- Staff agrees
- Minor language modification proposed for 15-Day comment period

Clarify Enforcement/Penalties

- Staff is proposing added language for the 15-Day Comment period
 - ◆ Added a reference to Health and Safety Code §§39674, 39675, 42400, 42402, and 42410

Other Minor Changes

- Non-substantial changes proposed for 15-Day comment period
 - ◆ Added and modified definitions
 - ◆ Corrected and clarified language
 - ◆ Added to facility reporting
 - ◆ Activity data on TRUs used for cold storage

Staff's Recommendation

- Approve staff's proposed ATCM with 15-day changes

THE END