



**San Joaquin Valley
Air Pollution Control District**

Manufacturers Council of the Central Valley

Modesto, California

July 18, 2007



**San Joaquin Valley
Air Pollution
Control District**

Presentation Outline

- ◆ **Regulation**
 - **Inventory**
 - **Rule Purpose**
 - **Affected Equipment**
 - **LSI Rule**
 - **Ag**
 - **Compliance Solutions**
 - **Retrofit Benefits**
- ◆ **SJVAPCD Grant Programs**
 - **Incentives**
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Statewide Inventory

- ◆ **Over 88,000 pieces of off-road, industrial equipment**
 - **Roughly 40,000 forklifts (approximately 10 percent used in agricultural crop preparation services)**
 - **70 tons of smog-forming emissions per day**



Rule Purpose

- ◆ Adopted to reduce emissions from existing uncontrolled equipment
- ◆ Establishes declining fleet average levels beginning in 2009
- ◆ Applies to
 - operators of forklifts, sweepers/scrubbers, tow tractors, and airport ground support equipment



Affected Equipment

- ◆ Spark-ignited engines
 - LPG
 - gasoline
- ◆ Engine size
 - greater than 25 horsepower
 - greater than one liter displacement



ARB LSI Rule

- ◆ **Non-Ag industry requirements**
 - **Meet required fleet wide averages**
- ◆ **Ag requirements**
 - **Must retrofit forklifts to 3.0 g NOx/bhp-hr**
 - **20% by 2009**
 - **80% by 2012**
 - **Or meet a 3.0 g NOx/bhp-hr fleet average**



ARB LSI Rule

- ◆ **Exemptions**
 - **Does not apply to on-field agriculture**
 - **Does not apply to facilities w/ < 4 forklifts**
 - **Does not address 1989 or older for ag applications**



Ag Alternative

**“Agricultural Crop Preparation Services”
means packinghouses, cotton gins, nut
hullers and processors, dehydrators,
feed and grain mills, and other related
activities.**



Ag Alternative

- ◆ **Subject to regulation:**
 - **fleets with four or more forklifts**
- ◆ **Equipment affected:**

- | |
|--|
| 1) Owned forklifts |
| 2) Model-year 1990 and newer |
| 3) Verified systems available |
| 4) Used over 250 hours per year |



Ag Implementation Schedule

Percent of fleet to be controlled	By date	Eligible for assistance?
20	January 1, 2009	No
Remaining 80	January 1, 2012	Yes, if controlled by January 1, 2009



Compliance Solutions

- ◆ **Add or replace with a new electric forklift**
- ◆ **Replace current engine with ARB certified new engine**
- ◆ **Retrofit current engine with ARB verified technology**



Retrofit Benefits

- ◆ Improved engine operation
 - Reduced fuel use (10 to 15 percent)
 - Less maintenance
- ◆ Decreased worker exposure to carbon monoxide
- ◆ Over 90 percent reduction in ozone-forming compounds



Incentives

- ◆ **What can the Air District fund for ARB rule compliance?**
 - **Up to 80% of the affected Ag forklifts are eligible for funding**
 - **Applicant must retrofit 20% of affected forklifts before Air District funds may be used**
 - **Can fund any non-ag projects after fleet has met fleet wide average**



Incentives

- ◆ **How much funding assistance can I receive to retrofit my forklift?**
 - Up to 100% of the cost of an eligible retrofit may be funded
 - **Estimated cost of retrofit device = \$3,500**
 - Applicants may receive funding only once for affected forklifts



Incentives

- ◆ **Fill out an interest card to obtain applications and information for:**
 - **Retrofits**
 - **Repowers (engine replacement)**
 - **New electric purchases**



Operational Requirements

- ◆ **Must be based within SJVAPCD boundaries (except multi-jurisdictional projects)**
- ◆ **25% of operation in SJVAPCD**
- ◆ **Annual reports required during first five years of operation**
- ◆ **All emission reductions retired by SJVAPCD**



SJVAPCD Application Process

- ◆ **Submit SJVAPCD application**
- ◆ **Application reviewed**
- ◆ **Pre-inspection of existing engine**
 - **Must be operational**
- ◆ **Emission reduction calculation to determine incentive amount**



SJVAPCD Application Process

- ◆ **Contract preparation and execution**
- ◆ **Applicant must obtain executed contract from SJVAPCD prior to engine purchase and installation**
- ◆ **This is not a rebate program**



SJVAPCD Application Process

- ◆ **Purchase and install engine**
- ◆ **Submit claim for payment**
- ◆ **Post-inspection**
- ◆ **Issue payment**
- ◆ **Submit simple annual District reports**



ARB Contacts

- ◆ **LSI Activity website address:**
<http://www.arb.ca.gov/msprog/offroad/orspark/orspark.htm>
- ◆ **Contact for LSI Regulation:**
Mark Williams: mwilliam@arb.ca.gov
Tom Evashenk: tevashen@arb.ca.gov
- ◆ **Contact for Carl Moyer Program:**
Robin Myers: rmyers@arb.ca.gov



SJVAPCD Incentives Contact

For More Information, please contact:

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Emission Reduction Incentive Program
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SJVAPCD Contact Information

District Website

www.valleyair.org

Grant Program Hotline

(559) 230-5858

Questions or Comments

(559) 230-5800

