

U.S. Environmental Protection Agency
Clean Diesel Fuel Implementation
Workshop

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Transportation Panel

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ULSD (15ppm) in California

- Preparation has been relatively simple
- Conversion seamless to customers
- Problems have been few



Factors contributing to ease of transition:

- **Average sulfur content of CARB diesel is *already* 140 PPM --range of refinery production from 30PPM to 300PPM**
- ***Product integrity at rack is excellent***
 - **Primarily three refiners making it available at the rack**
 - **Available only at the three producing refiner's local rack and one proprietary (barge transported) terminal**
 - **Pipeline handling strictly on proprietary line(s) to rack tanks**
 - **Dedicated pumps and rack loading systems**
 - **Rigorous testing**



Factors contributing to ease of transition (continued):

- ***Size of market is small-currently less than 2%***
 - ***Overall CA on road demand is approximately 240,000 barrels per day***
 - ***Current size of ULSD market is 4,000 bbl/d***
 - ***Market limited to public transit agencies required to convert by CARB***
 - ***Environmentally ambitious entities***
 - ***Slow growth anticipated in near term***



Current Transportation Preparation

- **Use only selected common carrier.**
- **ULSD handling procedures distributed to and reviewed with carrier**
 - **carrier responsible for driver training**
- **Prefer truck dedicated to ULSD service but *require*:**
 - **Trucks with prior load of jet fuel, EPA Low Sulfur Diesel or gasoline cannot be used (exceeds refiner requirements)**
 - **Prior load of CARB diesel requires only drain dry**



Customer Tankage and Delivery

- **Not necessary to pump out or otherwise clean tanks converted from CARB diesel:**
 - **Conversions thus far predominately ahead of retrofitting**
 - **No compliance testing in field tanks - regulations require transits purchase ULSD but do not spell out tank testing.**
- **Procedure for conversion from CARB usage tank is simply to let inventory run to minimum level then deliver ULSD to tank maximum**
- **If converting *from* a tank in Low Sulfur (500ppm) service or *to* vehicles already equipped with traps we would plan three tank turns to assure tank does not exceed 15ppm.**



The Future

- ***When will California switch to ULSD completely?***
 - **In the South Coast Air Basin (LA area) certain fleet types must purchase alternative fuels at they purchase new vehicles**
 - **Further state or local regulation could accelerate conversion**
 - **Without further regulation CA converts when the demand tide turns, which likely just precedes 2006 national conversion timetable**
 - **Outlying terminal storage does not have adequate capacity to accommodate more than one grade of diesel.**
 - **When the demand shifts favoring the ULSD, the pipeline grade will change.**

