

**Union Pacific Railroad
Community Meeting
Air Resources Board Health Risk Assessment
Stockton Rail Yard
Stockton, CA**



June 5, 2007

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UPRR Stockton Yard

- **Facility Overview**
- **Sources of Emissions**
- **Comparison with Air Basin and Other Area Emissions**
- **Emission Reduction Measures**
- **Emission Trends – Past and Future**

Union Pacific System Overview



Fast Facts

- **Miles of Track**
 - 32,300 in 23 States
 - 3,455 in California
 - 1,272 in Los Angeles area
- **Employees**
 - 50,000+ in US
 - 5,900 in California
 - 200+ in Stockton

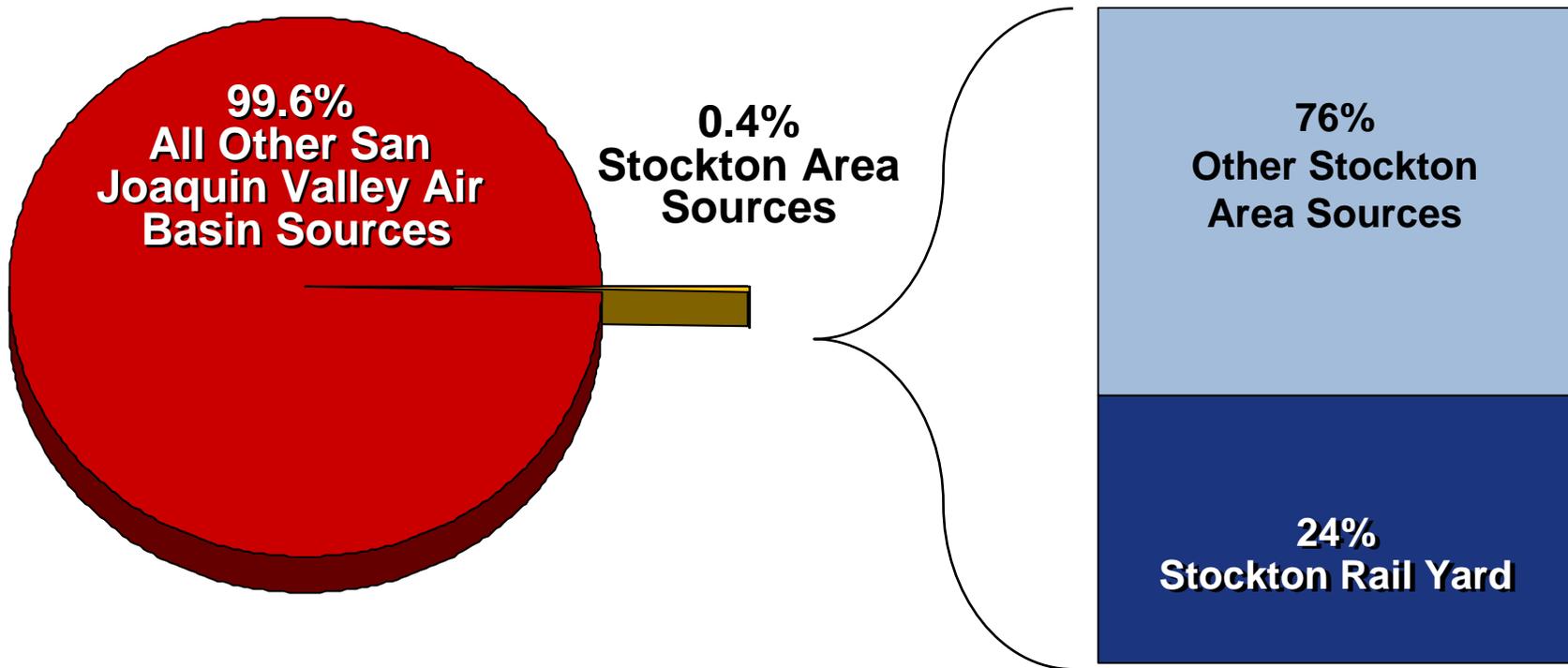
UPRR Stockton Yard

Facility Overview (2005 Baseline Year)

- **40-acre Facility with Rail & Locomotive Maintenance Operations**
- **Yard Includes:**
 - **4 Receiving and Departure Tracks**
 - **16 Tracks Used to Sort Rail Cars by Destination**
 - **3 Tracks Used for Locomotive Service and Repair**
 - **2 Tracks Used to Maintain or Repair Rail Cars**
- **Facility Operates 24 Hours a Day, 365 Days a Year**
- **About 6 Freight Trains a Day Originate or Terminate at UP's Stockton Yard**
- **Another 35 Commuter Trains per Day Originate or Terminate at UP's Stockton Yard**

UPRR Stockton Yard

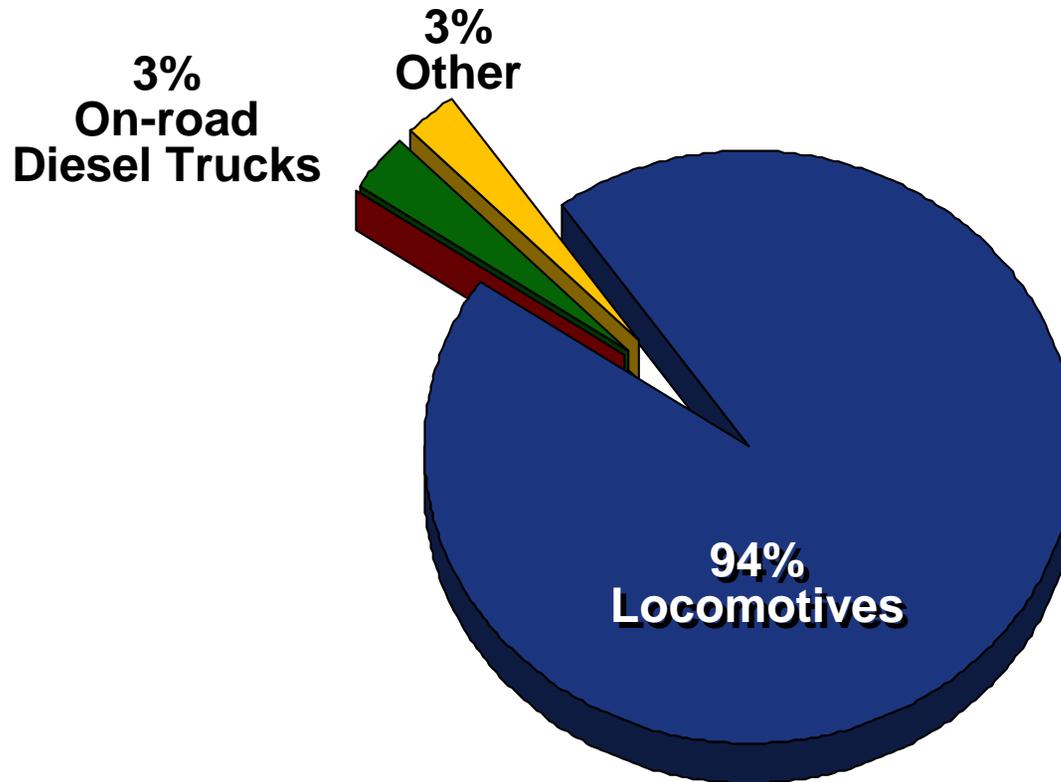
Comparison with Other Sources of DPM Emissions



Total DPM Emissions – All San Joaquin Valley Sources: 4100 tons per year

UPRR Stockton Yard

Sources of Diesel Particulate Matter (DPM) Emissions



Total DPM Emissions – UPRR Stockton Yard: 6.9 tons per year

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UP Emission Reduction Measures

- **Increased Use of Idle Control Devices (ICDs) for Auto Start-Stop of Locomotives**
 - **80% of Stockton Switchers Equipped Now**
 - **78% of the SU Intrastate Units Equipped Now**
 - **100% of CA Intrastate Units Equipped by June, 2008**
 - **35% of UPRR Total Fleet**
 - **All New Locomotives Since 2001 Have Factory ICDs**
- **Aggressive Fuel Conservation Efforts – Since 1995**
 - **12% Improvement in Fuel Efficiency**

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UP Emission Reduction Measures

- **Continued Acquisition of Refrigerated Freight Cars As Fleet Is Upgraded**
- **Dispensing only Ultra-low Sulfur Diesel (ULSD) in CA**
- **Dispensing CARB ULSD at Stockton**
- **Continued Aggressive Employee Training**
 - **Fuel Conservation Via Use of Simulators**
 - **Locomotive Shutdown Procedures**
 - **Visible Emissions**

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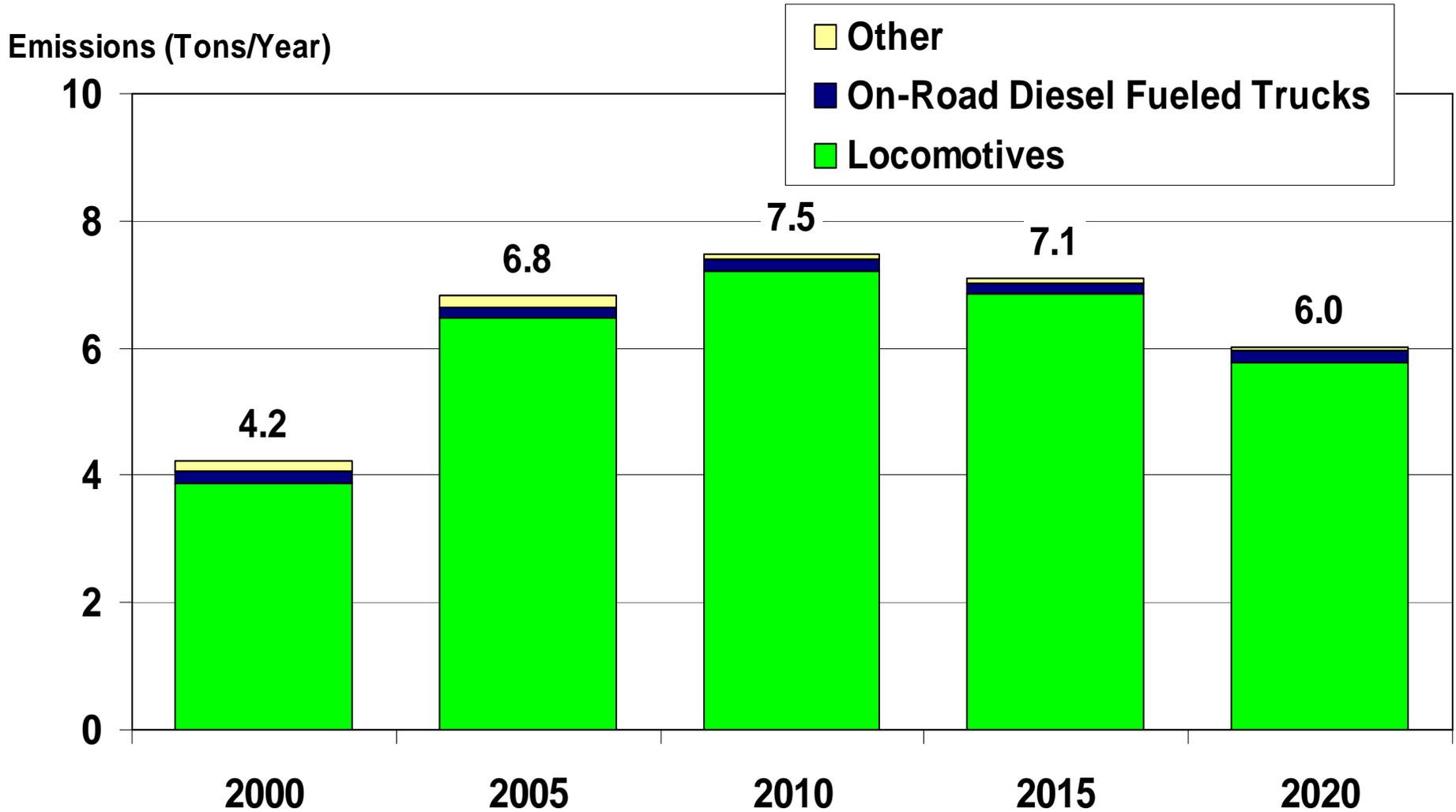
UP Emission Reduction Measures

- **Continued Aggressive Acquisition & Use of Tier 2 Road Locomotives With Advanced Emission Controls**
 - 820+ Tier 2 Locomotives by December, 2007
 - 2,600+ Tier 0, 1, or 2 From 2000 Thru 2006
- **Continued Remanufacture of Older Locomotives With New, Lower Emitting Components**
 - 1,800 Units Since 2000



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DPM Emissions by Source (Calendar Years 2000-2020)



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Emission Trends

- **Locomotive Emissions Will Decrease**
 - Reductions Due To Ongoing Fleet Modernization
 - Greater Reductions Likely Due To Fleet Ave Agreement
 - Pending Tier 3 & Tier 4 Locomotive Standards
- **Overall 12% Reduction From 2005 to 2020**

THE ROAD TO THE FUTURE ISN'T A ROAD AT ALL.



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