Overview of Meeting

• **ARB**
  - Background on BNSF San Bernardino health risk assessment
  - Process for development of draft railyard mitigation plans
  - Explain existing locomotive and railyard regulations and agreements

• **BNSF**
  - Present initial draft railyard mitigation plan for BNSF San Bernardino railyard
  - Discuss next steps to identify and discuss additional mitigation measures

• **Community members encouraged to discuss and provide comments**
Background

• This effort is part of our commitment to address pollution impacts on communities
  • ARB Goods Movement Plan
  • ARB/UP/BNSF Railroad Agreement

• Railyard health risk assessments
  • 18 railyard health risk assessments finalized by July 2008

• The State’s goals:
  • Reduce exposure to toxic diesel PM as quickly as possible
  • Reduce risks by at least 85 percent by 2020
Railyard Mitigation Plan Process

- Railroads prepare initial draft railyard mitigation plans
- ARB provides technical review of draft plans
  - No ARB endorsement or approval of the draft plans
- Public meeting to discuss the draft plans and additional mitigation measures
- Revise the plans based on public comments
- Finalize the plans
Existing Control Measures

- South Coast Locomotive NO\textsubscript{x} Fleet Average Agreement (1998)
- Transport Refrigeration Unit Air Toxic Control Measure (2004)
- Statewide Railroad Agreement (2005)
- ARB Cargo Handling Equipment Regulation (2007)
- On-Road Heavy Duty Diesel Truck Regulation (2007)
- Port and Intermodal Railyard Truck Regulation (2007)
Statewide Locomotive DPM Emissions

Diesel PM Emission (TPD)

- Baseline (without controls)
- Baseline (with existing controls\textsuperscript{1,2,3,4})
- 2008 EPA Rulemaking

1) 1998 US EPA Locomotive Rulemaking
2) 2005 ARB /Railroad Statewide Agreement
3) 1998 Locomotive NOx Fleet Average Agreement in the SCAB
4) 2007 CARB Diesel Fuel Regulation for Intrastate Locomotives
Distribution of 18 Railyard Diesel PM Emissions by Source Category

8 Intermodal Railyards DPM Emission Inventory (2005)
- Locomotives: 39%
- HDD Trucks: 26%
- Cargo Handling Equipment: 22%
- TRUs: 11%
- Other: 2%

10 Classification Railyards DPM Emission Inventory (2005)
- Locomotives: 96%
BNSF San Bernardino Intermodal Railyard
## BNSF San Bernardino Railyard
### Estimated 2005 Diesel PM Emissions

<table>
<thead>
<tr>
<th>Diesel PM Emission Sources</th>
<th>San Bernardino Railyard</th>
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<tr>
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<td>Tons/Year</td>
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<tr>
<td>Locomotives</td>
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### BNSF San Bernardino Railyard

#### Estimated 2015 Diesel PM Emissions

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<td>Tons/Year</td>
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</table>
BNSF San Bernardino Railyard Diesel PM Emissions

- Off-road Vehicles & Equip.
- Cargo Handling Equipment
- On-road Diesel Trucks
- Locomotives

Tons per Year

Year

2005: 22.5 Tons
2010: 12 Tons
2015: 8.2 Tons
2020: 5.4 Tons
BNSF San Bernardino Railyard
Estimated Changes in DPM Cancer Risks by 2015
(from existing measures)

- **MICR** (Maximum Individual Cancer Risk)
  - 2,500
  - 330

- **Exposed Population** (> 10 in a million)
  - 300,000
  - 86,000
Summary

- Diesel PM public health risks are still too high in 2015
- The mitigation plan provides significant diesel PM emissions reductions from 2010 to 2015 and later
- However, still need earlier and more diesel PM emissions reductions
- ARB is preparing a technical document to evaluate:
  - Feasibility and costs of additional locomotive and railyard mitigation measures
  - Provide earlier and more locomotive and railyard emissions reductions
• Separate and complementary effort

• Evaluate potential strategies based on the following criteria:
  • Technical feasibility
  • Potential emission reductions
  • Costs and cost-effectiveness
  • Not intended to address implementation issues (i.e., legal, regulatory, agreement, funding)

• Hold public workshops and request comments
  Fall 2008
Contact Information
Comments and Questions

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• Dr. Eugene Yang, Staff, Engineering Evaluation Section, Stationary Source Division
  • 916.327.1510
  • eyang@arb.ca.gov

• ARB Railyard HRA and Mitigation Plan Website
  • http://www.arb.ca.gov/railyard/hra/hra.htm