Commerce BNSF Railyards
Commerce Mechanical, Commerce Eastern, and Hobart

HRA Mitigation

October 16, 2008
A Guide To Risk Management

Risk managers are responsible for protecting human health, but they must also consider public acceptance as well as technological, economic, social and political factors when arriving at their decisions.
The railroads recognize there are serious air quality concerns, both for ozone and for particulate matter in Southern California.

People living adjacent to rail yards are exposed to similar risks as those faced by persons living adjacent to freeways and other major transportation facilities.

Diesel emissions from rail yards are going down, greater than 70% reductions are projected from 2005 to 2020 even after activity growth rates.

Locomotives account for only one-third of the diesel particulate emissions from Commerce rail yards.

On-road drayage trucks account for one-third of the diesel particulate emissions from rail yards.
Emissions by Facility

30.39 Tons

- Hobart Intermodal, 24.71, 81%
- Eastern Intermodal, 2.71, 9%
- Commerce Mechanical, 2.97, 10%
Combined BNSF Commerce Yards: Sources of Diesel Exhaust Particulate (DPM) Emissions

30.4 tons

On Road Trucks: 39.13%
Cargo Handling Equipment: 20.46%
Adjacent Freight Movements: 4.12%
Adjacent Commuter Rail Operations: 1.85%
Arriving and Departing Trains: 7.80%
Adjacent Commuter Rail Operations: 1.85%
Switch Locomotives: 8.16%
Locomotive Servicing: 7.72%
Other: 1.78%
TRU: 8.99%
Emission Reductions

- Truck drayage fleet turnover for intermodal facilities (by others)
  Port/Intermodal truck rule
- Use of 15 ppm sulfur fuel for purchases in California
- Compliance with the 1998 MOU (Locomotive Fleet Average Agreement for the LA Basin) for nitrogen oxides
  - Large purchases of the newest Line Haul locomotives
- 30% reduction in switch engine idling due to 2005 MOU
- RR reduced idling of current locomotives with idle control devices
- RR accelerated compliance with CARB cargo handling equipment rules including the use of LNG hostler trucks and 1/3 hostlers replaced annually
- Compliance with CARB rules for refrigerated units
- Compliance with CARB rules for off-road equipment
- Compliance with USEPA recently finalized rules for locomotive emissions
Diesel PM Emissions (short tons/yr)

- Off-road (mostly TRU)
- Trucks
- Cargo Handling
- Locomotive Switching
- Locomotive Line-Haul
- Locomotive Service

- 2005: 25% Reduction
- 2010: 55% Reduction
- 2015: 66% Reduction
- 2020: 75% Reduction
Commerce 3 Yards Reductions

Diesel PM Emissions (short tons/yr)

- No Growth
- With Growth

2005 2010 2015 2020
Hobart Intermodal

24.71 tons

- On-Road, 9.70, 43.3%
- TRU, 1.95, 8.7%
- Cargo Handling Equipment, 5.31, 23.7%
- Adjacent Commuter Rail Operations, 0.46, 2.1%
- Adjacent Freight Movements, 0.94, 4.2%
- Arriving and Departing Trains, 1.95, 8.7%
- Switch Locomotives, 2.01, 9.0%
- Other, 0.1, 0.4%
Hobart Intermodal Reductions

Diesel PM Emissions (short tons/yr)

- Off-road (mostly TRU)
- Trucks
- Cargo Handling
- Locomotive Switching
- Locomotive Line-Haul
- Locomotive Service

Reduction:
- 58% Reduction
- 68% Reduction
- 76% Reduction
Hobart Intermodal Reductions

Diesel PM Emissions (short tons/yr)

- No Growth
- With Growth
2.71 Tons

- **On-Road Container Truck Operations**, 1.09, 44.3%
- **Cargo Handling Equipment**, 0.331, 13.4%
- **Adjacent Freight Movements**, 0.09, 3.7%
- **Adjacent Commuter Rail Operations**, 0.02, 0.8%
- **Arriving and Departing Trains**, 0.2, 8.1%
- **Switching Locomotives**, 0.19, 7.7%
- **Other**, 0.01, 0.4%
- **TRU**, 0.53, 21.5%
Diesel PM Emissions (short tons/yr)

- **Off-road (mostly TRU)**
- **Trucks**
- **Cargo Handling**
- **Locomotive Switching**
- **Locomotive Line-Haul**
- **Locomotive Service**

**Reductions:**
- **62% Reduction** (2010 with Growth)
- **75% Reduction** (2015 with Growth)
- **85% Reduction** (2020 with Growth)
Commerce Eastern Reductions

Diesel PM Emissions (short tons)

No Growth
With Growth
Diesel PM Emissions (short tons/yr)

- **2005**: Reduction
- **2010**: Reduction
- **2010 with Growth**: Reduction
- **2015**: Reduction
- **2015 with Growth**: Reduction
- **2020**: Reduction
- **2020 with Growth**: Reduction

**Categories**:
- Off-road Equipment
- Trucks
- Cargo Handling
- Locomotive Switching
- Locomotive Line-Haul
- Locomotive Service

**Reduction Levels**:
- 27%
- 44%
- 63%
Diesel PM Emissions (short tons/yr)

- No Growth
- With Growth

- 2005
- 2010
- 2015
- 2020
Emission Reductions

- Truck drayage fleet turnover for intermodal facilities (by others)
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Evaluation Criteria

- Safe
- Technically Feasible
- Legally Allowable
- Operationally Practical
- Economically Viable
- Other issues