Burlington Northern Santa Fe Corporation

Barstow

February 24, 2009
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.
Barstow Railyard
Barstow Railyard encompasses about 600 acres includes an Intermodal facility, an automotive operation, and some classification tracks.

Principal activities include:

- Classification operations
  - Including a hump operations
- Locomotive inspections and maintenance
# Sources of Emissions – 2005 rev

<table>
<thead>
<tr>
<th>Diesel PM Emission Sources</th>
<th>BNSF Railyard</th>
<th>Off-Site Emissions</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Tons/yr</td>
<td>Tons/yr</td>
</tr>
<tr>
<td></td>
<td>%</td>
<td>%</td>
</tr>
<tr>
<td><strong>Locomotives</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Line Haul</td>
<td>19.1</td>
<td>11</td>
</tr>
<tr>
<td>- Switching</td>
<td>4.7</td>
<td>11</td>
</tr>
<tr>
<td>- Servicing/Testing/Refueling</td>
<td>3.5</td>
<td>11</td>
</tr>
<tr>
<td><strong>Off-Road Equipment/Vehicles</strong></td>
<td>0.64</td>
<td>26.0</td>
</tr>
<tr>
<td><strong>Stationary Sources</strong></td>
<td>0.11</td>
<td>26.0</td>
</tr>
<tr>
<td><strong>On-Road Trucks</strong></td>
<td>0.04</td>
<td>26.0</td>
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<tr>
<td><strong>Cargp Handling Equipment</strong></td>
<td>0.03</td>
<td>26.0</td>
</tr>
<tr>
<td><strong>Off-Site Mobile</strong></td>
<td>26.0</td>
<td>100%</td>
</tr>
<tr>
<td><strong>Off-Site Stationary</strong></td>
<td>0.0</td>
<td>0%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>28.0</td>
<td>11</td>
</tr>
<tr>
<td></td>
<td>100%</td>
<td>100%</td>
</tr>
</tbody>
</table>

Numbers & Percentages do not add precisely due to rounding
Emission Reductions

- Compliance with the 1998 MOU (the Locomotive Fleet Average Agreement for the LA Basin) for nitrogen oxides
- 30% reduction in switch engine idling due to 2005 MOU
- Reduced idling from current locomotives with idle control devices
- Compliance with CARB rules for refrigerated units
- Compliance with CARB rules for off-road equipment
- Compliance with USEPA final rules for locomotive emissions
- Compliance with CARB cargo handling equipment rules
- Use of 15 ppm sulfur fuel for purchases in California
Emission Reductions

![Diagram showing emission reductions over different years and categories.](image)

- **Stationary Sources**: 13%
- **Other Off-Road Track Maintenance**: 44%
- **Other Off-Road TRU**: 62%
- **On-Road Fleet Vehicle**
- **On-Road Container Truck Operations, Contractors**
- **Cargo Handling Equipment**
- **Adjacent Commuter Rail Operations**
- **Adjacent Freight Movements**
- **Arriving and Departing**
- **Switching Engines**
- **Services**
Emission Reductions

DPM Emissions (tons/year)

- Without Growth
- With Growth

Calendar Year

2005 2010 2015 2020
The BNSF recognize there are air quality concerns, both for ozone and for particulate matter in California.

There are a number of programs in place that are driving down emissions. We will be reviewing additional opportunities to reduce emissions and risk.

Projections for Barstow from 2005 to 2020 show between a 45 and 62% reduction depending on growth.
Contact

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