

# 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 (2005)

**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

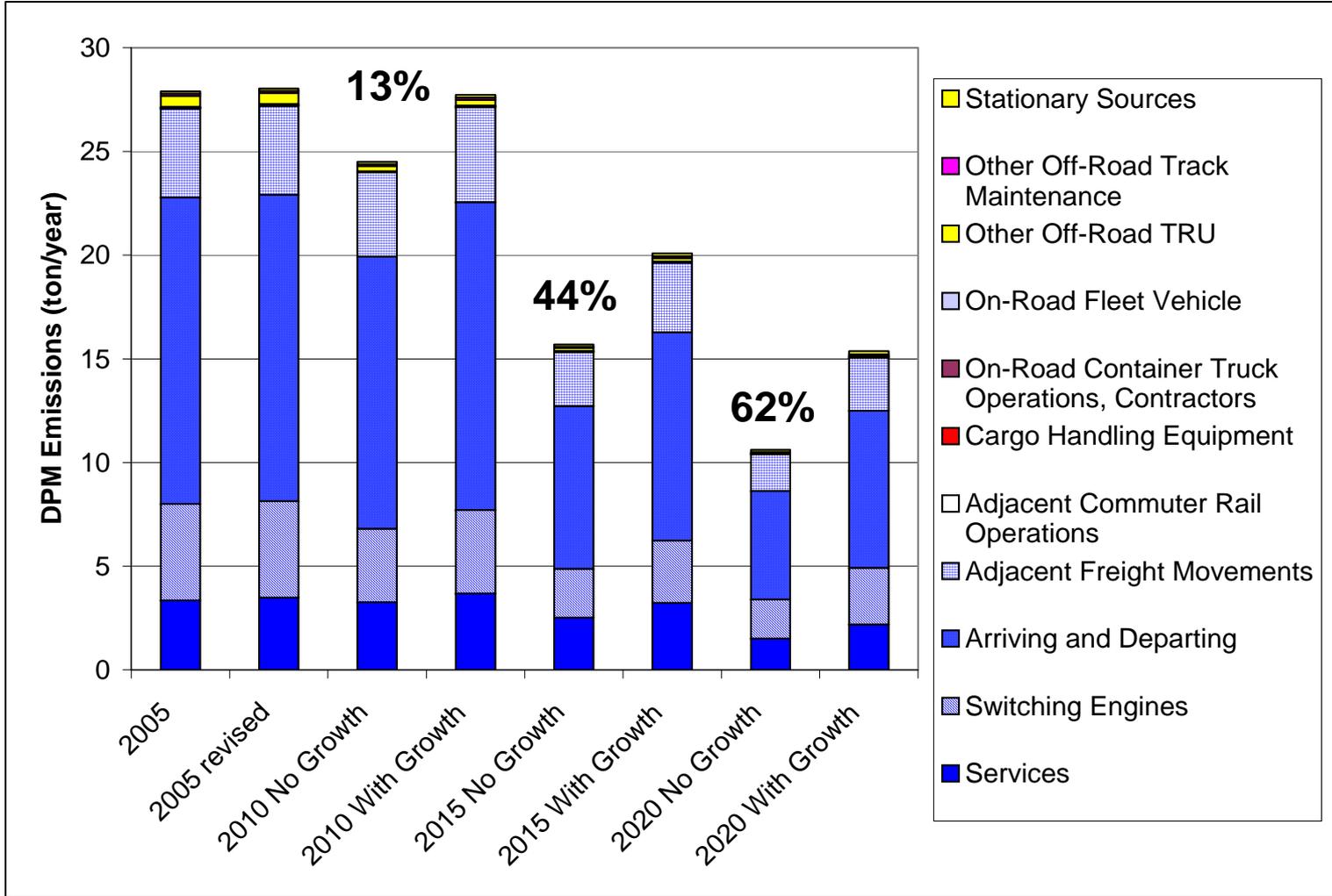
Diesel PM Emission Sources	BNSF Railyard		Off-Site Emissions	
	Tons/yr	%	Tons/yr	%
<b>Locomotives</b>	<b>27.3</b>	<b>97%</b>		
-Line Haul	19.1	68%		
-Switching	4.7	17%		
-Servicing/Testing/Refueling	3.5	12%		
<b>Off-Road Equipment/Vehicles</b>	<b>0.64</b>	<b>2%</b>		
<b>Stationary Sources</b>	<b>0.11</b>	<b>&lt;1%</b>		
<b>On-Road Trucks</b>	<b>0.04</b>	<b>&lt;1%</b>		
<b>Cargp Handling Equipment</b>	<b>0.03</b>	<b>&lt;0.1%</b>		
<b>Off-Site Moble</b>			<b>26.0</b>	<b>100%</b>
<b>Off-Site Stationary</b>			<b>0.0</b>	<b>0%</b>
<b>Total</b>	<b>28.0</b>	<b>100%</b>	<b>11</b>	<b>100%</b>

Numbers & Percentages do not add precisely due to rounding

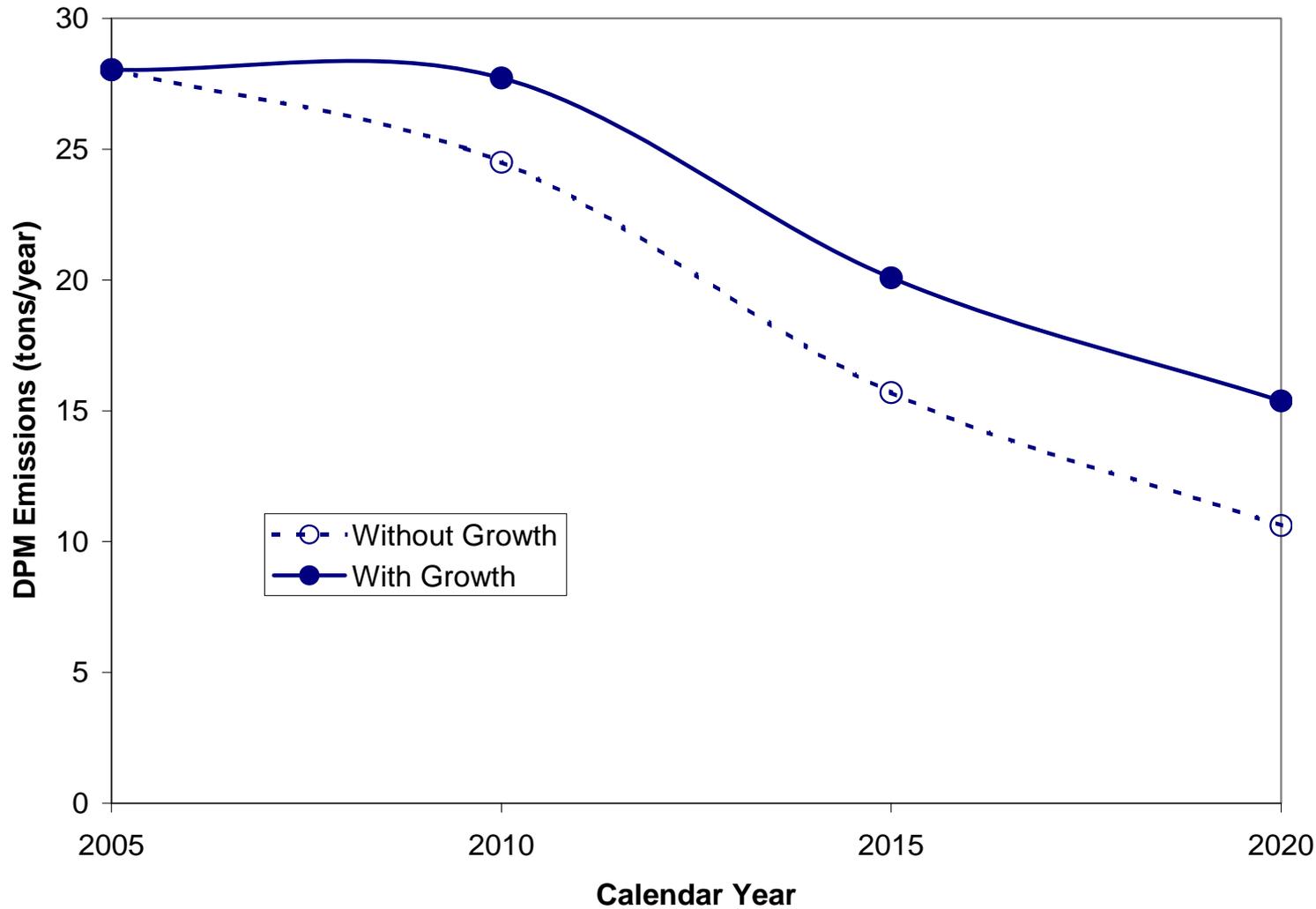
# Emission Reductions

- **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



# Emission Reductions



# Summary

- **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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