

# Perspective on Diesel Emissions Reductions in Baja California

**West Coast Collaborative Partnership Meeting  
Sacramento, CA, March 2007**

## Areas of Opportunity

### ❑ Transport Sector

- Import-Export Trucking Company Fleets
- Industrial Fleets (Material + Labor Transport)
- School Buses
- Tourist Transportation Services
- Public Transportation

### ❑ Construction Industry

Second most relevant economic activity currently in Baja California. The state leads in Mexican housing development.

## Areas of Opportunity

### ❑ Agriculture / Marine

- Mexicali Valley (Agriculture)
- San Quintin (Agriculture, Fisheries)
- San Felipe (Fisheries)
- Ensenada (Fisheries, Marine Tourism)

### ❑ Border Ports

Currently 6 border crossing between BC and CA and 2 more in planning phase. Long wait times for trucks crossing into the U.S. with consequent idling emissions.

### ❑ Marine Harbors

Ensenada and San Felipe are the main maritime ports, with a huge project currently in planning phase for Punta Colonet, south of Ensenada. Plus small tourist harbors planned all along the Pacific and Gulf of California coast.

## Available Information

### Current

- ❑ Tijuana & Mexicali Emissions Inventory (Baseline 1996)
- ❑ National Emissions Inventory (Baseline 1999)

### In Progress

- ❑ Mexicali Emissions Inventory (Baseline 2005)
- ❑ Diesel Emissions Reduction Opportunities US-MEX Border (EPA)
- ❑ Proposals for funding through B-2012: Tijuana Emissions Inventory and Truck Idling Emissions Study at the Otay Border Crossing

## Available Information

Mexico Diesel Engine Emissions (NEI, 1999)								
	NO <sub>x</sub>		SO <sub>x</sub>		PM <sub>10</sub>		PM <sub>2.5</sub>	
	MG/Yr	(%)	MG/Yr	(%)	MG/Yr	(%)	MG/Yr	(%)
On-Road	273,283	63	4,257	17	9,696	47	8,940	47
Off-Road	263,768		3,486		37,240		36,123	
<b>Total</b>	<b>567,051</b>		<b>7,743</b>		<b>46,936</b>		<b>45,063</b>	

(%) Emission as percentage of total emissions for on-road mobile sources.

Baja California Diesel Engine Emissions (NEI, 1999)								
	NO <sub>x</sub>		SO <sub>x</sub>		PM <sub>10</sub>		PM <sub>2.5</sub>	
	MG/Yr	(%)	MG/Yr	(%)	MG/Yr	(%)	MG/Yr	(%)
On-Road	8,075	61	131	17	298	47	257	47
Off-Road	9,565		127		1,155		1,120	
<b>Total</b>	<b>17,640</b>		<b>258</b>		<b>1,453</b>		<b>1,377</b>	

(%) Emission as percentage of total emissions for on-road mobile sources.

## Regulations and Compliance Programs

### **Regulations Regarding Diesel Emissions**

- ❑ Federal Standard NOM-045-SEMARNAT-1996, specifies emission opacity for smoke from diesel engines in circulation. Does not apply to construction, mining and agricultural machinery and equipment
- ❑ Federal Regulation NOM-086-SEMARNAT-SENER-SCFI-2005, specifies quality characteristics of fossil fuels. Mandates Ultra Low Sulfur Diesel (15 ppm) for border region @ January 2007.

### **Compliance Programs**

- ❑ No existing municipal (local circulation) and weak federal (inter-state circulation) compliance programs for diesel engines.
- ❑ Lack of incentives programs for self compliance or emissions reductions. SEMARNAT currently promoting a “smart-way” type program.

## Proposed Future Actions

### Short Term

- ❑ Continue support for studies and inventories that will shed light on areas of concern and opportunity.
- ❑ Identify willing Partners in Mexico to join the efforts of the WCC
- ❑ Strengthen Retrofit Program to take advantage of industrial and tourist US based companies with transport fleets.
- ❑ Design pilot projects for School Buses and for Agriculture, Fisheries, Tourism and Construction industries.
- ❑ Continue working within the Binational CA-BC Border Crossings Group.

## Proposed Future Actions

### Mid Term

- ❑ Implementation and expansion phase of successful pilot projects.
- ❑ Define a binational strategy to promote and implement “green ports” (terrestrial & marine).
- ❑ Establish protocols and mechanisms for emissions trading between California and Baja California.
- ❑ Implement diesel emissions compliance programs in Baja California.

# Thank You !

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