



# 2005-2014 AIR QUALITY REPORT CARD

## SAN PEDRO BAY STANDARDS

The San Pedro Bay Standards establish the long-term emissions-reduction and health risk-reduction goals for the ports of Los Angeles and Long Beach.



- Emission Reduction Standard for DPM, NO<sub>x</sub>, and SO<sub>x</sub> have target years of 2014 and 2023 to support state ambient air quality goals.
- Health Risk Reduction Standard has a target year of 2020 to align with CARB's Goods Movement Emission Reduction Plan.

Clean Air Action Plan (CAAP) Goals (% reduction compared to 2005)	2014	2023
DPM	72%	77%
NO <sub>x</sub>	22%	59%
SO <sub>x</sub>	93%	93%
<b>Health Risk Reduction Standard</b> (% reduction in residential cancer risk compared to 2005)	<b>2020</b>	<b>85%</b>

## OVERALL EMISSIONS REDUCTIONS CY 2005-2014



Pollutant	CY 2005-2014	
	%	tons
DPM	85%	749
PM <sub>2.5</sub>	83%	691
PM <sub>10</sub>	84%	810
NO <sub>x</sub>	52%	8,442
SO <sub>x</sub>	97%	4,819

## EMISSIONS PER 10,000 TEU HANDLED



Pollutant	CY 2005-2014	
	%	tons
DPM	86%	1.02
PM <sub>2.5</sub>	85%	0.94
PM <sub>10</sub>	86%	1.10
NO <sub>x</sub>	57%	12.34
SO <sub>x</sub>	98%	6.46

## OCEAN-GOING VESSEL EMISSIONS REDUCTIONS



Pollutant	CY 2005-2014	
	%	tons
DPM	87%	412
PM <sub>2.5</sub>	85%	372
PM <sub>10</sub>	87%	474
NO <sub>x</sub>	31%	1,641
SO <sub>x</sub>	97%	4,668

## HEAVY-DUTY VEHICLE/CLEAN TRUCK EMISSIONS REDUCTIONS



Pollutant	CY 2005-2014	
	%	tons
DPM	97%	241
PM <sub>2.5</sub>	97%	230
PM <sub>10</sub>	97%	240
NO <sub>x</sub>	71%	4,496
SO <sub>x</sub>	91%	41

## HARBOR CRAFT EMISSIONS REDUCTIONS



Pollutant	CY 2005-2014	
	%	tons
DPM	47%	26
PM <sub>2.5</sub>	47%	24
PM <sub>10</sub>	47%	26
NO <sub>x</sub>	39%	517
SO <sub>x</sub>	90%	6

## RAIL EMISSIONS REDUCTIONS



Pollutant	CY 2005-2014	
	%	tons
DPM	49%	28
PM <sub>2.5</sub>	51%	27
PM <sub>x10</sub>	49%	28
NO <sub>x</sub>	52%	893
SO <sub>x</sub>	99%	97

## CARGO HANDLING EQUIPMENT EMISSIONS REDUCTIONS



Pollutant	CY 2005-2014	
	%	tons
DPM	81%	43
PM <sub>2.5</sub>	78%	38
PM <sub>10</sub>	78%	42
NO <sub>x</sub>	57%	895
SO <sub>x</sub>	81%	8

## CO<sub>2</sub> EQUIVALENT EMISSIONS BY SOURCE TYPE



Source Type	CY 2005-2014	
	%	tons
Ocean-Going Vessels	25%	71,489
Harbor Craft	2%	1,033
Cargo Handling Equipment	-27%	-36,120
Rail	17%	13,884
Heavy-Duty Vehicles	24%	111,098
<b>TOTAL</b>	<b>16%</b>	<b>161,383</b>

**PRIMARY POLLUTANTS DEFINED:**  
DPM = Diesel Particulate Matter  
NO<sub>x</sub> = Oxides of Nitrogen

SO<sub>x</sub> = Oxides of Sulfur  
PM<sub>2.5</sub> = Particulate Matter less than 2.5 microns in diameter  
PM<sub>10</sub> = Particulate Matter less than 10 microns in diameter

CO<sub>2</sub> = Carbon Dioxide  
(A Green House Gas contributor)