

## 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 California Air Resources Board's Goods Movement Emission Reduction Plan.

Clean Air Action Plan (CAAP) Goals (% reduction compared to 2005)	CY 2005-2015	
	2014	2023
DPM	72%	77%
NO <sub>x</sub>	22%	59%
SO <sub>x</sub>	93%	93%

**Health Risk Reduction Standard 2020 85%**  
(% reduction in residential cancer risk compared to 2005)

## OVERALL EMISSIONS REDUCTIONS CY 2005-2015



Pollutant	CY 2005-2015	
	%	tons
DPM	85%	743
PM <sub>2.5</sub>	83%	683
PM <sub>10</sub>	84%	801
NO <sub>x</sub>	51%	8,324
SO <sub>x</sub>	97%	4,824

## EMISSIONS PER 10,000 TEU HANDLED REDUCTIONS



Pollutant	CY 2005-2015	
	%	tons
DPM	86%	1.01
PM <sub>2.5</sub>	84%	0.93
PM <sub>10</sub>	85%	1.09
NO <sub>x</sub>	55%	12
SO <sub>x</sub>	98%	6.46

## OCEAN-GOING VESSEL EMISSIONS REDUCTIONS



Pollutant	CY 2005-2015	
	%	tons
DPM	87%	406
PM <sub>2.5</sub>	84%	364
PM <sub>10</sub>	86%	465
NO <sub>x</sub>	29%	1,511
SO <sub>x</sub>	97%	4,673

## HEAVY-DUTY VEHICLE/CLEAN TRUCK EMISSIONS REDUCTIONS



Pollutant	CY 2005-2015	
	%	tons
DPM	97%	241
PM <sub>2.5</sub>	97%	230
PM <sub>10</sub>	97%	240
NO <sub>x</sub>	70%	4,411
SO <sub>x</sub>	91%	41

## HARBOR CRAFT EMISSIONS REDUCTIONS



Pollutant	CY 2005-2015	
	%	tons
DPM	45%	25
PM <sub>2.5</sub>	45%	23
PM <sub>10</sub>	45%	25
NO <sub>x</sub>	37%	493
SO <sub>x</sub>	89%	6

## RAIL EMISSIONS REDUCTIONS



Pollutant	CY 2005-2015	
	%	tons
DPM	47%	26
PM <sub>2.5</sub>	48%	25
PM <sub>10</sub>	47%	26
NO <sub>x</sub>	52%	893
SO <sub>x</sub>	99%	97

## CARGO HANDLING EQUIPMENT EMISSIONS REDUCTIONS



Pollutant	CY 2005-2015	
	%	tons
DPM	86%	46
PM <sub>2.5</sub>	83%	41
PM <sub>10</sub>	83%	45
NO <sub>x</sub>	65%	1,016
SO <sub>x</sub>	81%	8

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



Source Type	CY 2005-2015	
	%	tons
Ocean-Going Vessels	13%	38,531
Harbor Craft	-7%	-4,088
Cargo Handling Equipment	-27%	-36,090
Rail	17%	13,769
Heavy-Duty Vehicles	19%	87,522
<b>TOTAL</b>	<b>10%</b>	<b>99,644</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)