

## 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)

	<b>2014</b>	<b>2023</b>
DPM	72%	77%
NO <sub>x</sub>	22%	59%
SO <sub>x</sub>	93%	93%
Health Risk	2020	85%



#### Reduction Standard

*(% reduction in residential cancer risk compared to 2005)*

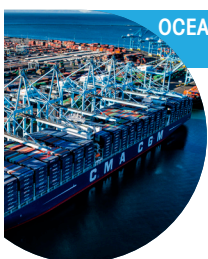


### OVERALL EMISSIONS REDUCTIONS CY 2005-2017

<b>Pollutant</b>	<b>%</b>	<b>tons</b>
DPM	87%	765
PM <sub>2.5</sub>	85%	700
PM <sub>10</sub>	86%	818
NO <sub>x</sub>	60%	9,670
SO <sub>x</sub>	98%	4,862

### EMISSIONS PER 10,000 TEU HANDLED REDUCTIONS CY 2005-2017

<b>Pollutant</b>	<b>%</b>	<b>tons</b>
DPM	90%	1.05
PM <sub>2.5</sub>	88%	0.97
PM <sub>10</sub>	89%	1.13
NO <sub>x</sub>	68%	14.65
SO <sub>x</sub>	98%	6.53



### OCEAN-GOING VESSEL EMISSIONS REDUCTIONS CY 2005-2017

<b>Pollutant</b>	<b>%</b>	<b>tons</b>
DPM	90%	420
PM <sub>2.5</sub>	87%	373
PM <sub>10</sub>	89%	474
NO <sub>x</sub>	42%	2,234
SO <sub>x</sub>	98%	4,712

## HEAVY-DUTY VEHICLE/CLEAN TRUCK EMISSIONS REDUCTIONS CY 2005-2017



Pollutant	%	tons
DPM	96%	240
PM <sub>2.5</sub>	96%	229
PM <sub>10</sub>	96%	239
NO <sub>x</sub>	76%	4,822
SO <sub>x</sub>	90%	41

## HARBOR CRAFT EMISSIONS REDUCTIONS CY 2005-2017



Pollutant	%	tons
DPM	57%	31
PM <sub>2.5</sub>	57%	29
PM <sub>10</sub>	57%	31
NO <sub>x</sub>	48%	628
SO <sub>x</sub>	90%	6

## RAIL EMISSIONS REDUCTIONS CY 2005-2017



Pollutant	%	tons
DPM	48%	27
PM <sub>2.5</sub>	50%	26
PM <sub>10</sub>	48%	27
NO <sub>x</sub>	51%	873
SO <sub>x</sub>	99%	97

## CARGO HANDLING EQUIPMENT EMISSIONS REDUCTIONS CY 2005-2017



Pollutant	%	tons
DPM	90%	48
PM <sub>2.5</sub>	87%	43
PM <sub>10</sub>	87%	47
NO <sub>x</sub>	71%	1,112
SO <sub>x</sub>	80%	7

## CO2 EQUIVALENT REDUCTIONS BY SOURCE TYPE CY 2005-2017



Source Type	%	tons
Ocean-Going Vessels	27%	79,045
Harbor Craft	3%	1,649
Cargo Handling Equipment	-28%	-38,324
Rail	11%	8,855
Heavy Duty Vehicles	17%	79,310
<b>TOTAL</b>	<b>13%</b>	<b>136,151</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)