



March 18, 2019

California Air Resources Board

1001 "I" Street

Sacramento, CA 95814

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Re: Informational Update on California's Actions for Minimizing Community Health Impacts from Freight (Item 19-3-2)

Thank you for the opportunity for the public to provide written comments on the "informational Update on California's Actions to Minimize Community Health Impacts from Freight," Item 19-3-2, at the March 21, 2019 CARB Board meeting.

As goods movement industry stakeholders have worked collaboratively with CARB on sustainable freight strategy issues for over the past decade, the California Association of Port Authorities (CAPA) and Pacific Merchant Shipping Association (PMSA) are proud of the progress that we have made. Overall emissions from all sectors of the freight industry have been significantly reduced, despite growth in the economy and growth in volumes through our seaports and across the goods movement sector. The significant progress to-date has occurred because of tremendous investment by the industry in response to technology improvement, regulatory requirements, incentives, and application of good business principles.

The successful partnerships between industry and the State of California which have led to many of these new investments have come in the context of long-range planning efforts. These have included CARB's 2006 Emissions Reduction Plan for Ports and Goods Movement (GMERP), the state Goods Movement Action Plan (GMAP) adopted in January 2007, the CalTrans California Freight Mobility Plan (CFMP) of 2015, and the 2016 Sustainable Freight Action Plan (SFAP) adopted pursuant to Governor Brown's Executive Order B-32-15. The Sustainable Freight Action Plan, the most recent and most comprehensive, is an "integrated action plan" which is intended to improve freight efficiency, transition to zero-emission technologies, and increase competitiveness of the goods movement system. CARB, Caltrans, and Go-Biz led the multi-agency effort to work collaboratively with all stakeholders, including industry, to prepare a balanced Plan to achieve the three goals laid out in Executive Order B-32-15.

Existing Regulations, Freight Industry Reduction Efforts, and CARB Planning Have Already Resulted In Exceptionally Significant Emissions Reductions and Will Keep Producing Future Emissions Reductions

California’s freight industry is on the cutting edge of environmental stewardship, leading the nation, and indeed the world, in developing environmentally-friendly systems and operations. Industry is very proud of the environmental stewardship efforts undertaken and the tremendous air quality improvements achieved by the freight sector over the last decade and looks forward to exploring new technologies through efforts such as CARB’s Zero- and Near Zero-Emissions Freight Facilities program.

California has, by far, the toughest mobile source emission standards in the nation. These were often driven by projections of growth in emissions of Diesel PM, an identified air toxic, and criteria pollutants, including NOx and Sox. Emissions at Ports and other goods movement nodes were identified by CARB as raising health risks for nearby communities. In the GMERP, CARB projected most of these emissions from 2001 to 2020 would decrease, with some increases from seaports and international goods movement sources (source GMERP, ES-3, A-3):

Table 1
2001 and 2020 Statewide Emissions
from Ports and Goods Movement
 (tons per day)

Source	Diesel PM		NOx		ROG		SOx	
	2001	2020	2001	2020	2001	2020	2001	2020
Ships	7.8	23.3	95	254	2	7	60	180
Harbor Craft	3.8	1.8	75	39	8	4	<1	<1
Cargo Handling Equipment	0.8	0.2	21	6	3	1	<1	<1
Trucks	37.7	6.2	655	255	56	23	5	1
Transport Refrigeration Units	2.5	0.1	22	28	13	4	<1	<1
Locomotives	4.7	4.5	203	139	12	12	8	<1
Total	57.3	36.1	1071	721	94	51	74	181

Figure A-1 Statewide Goods Movement Emissions

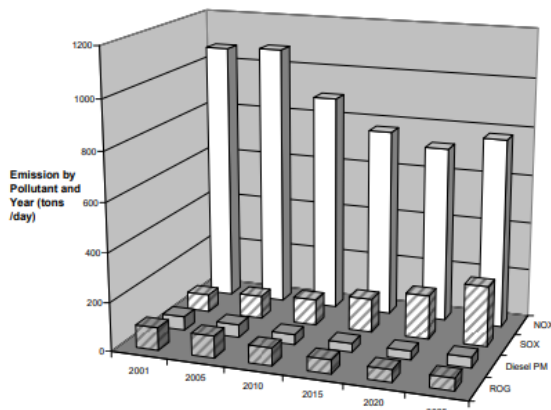
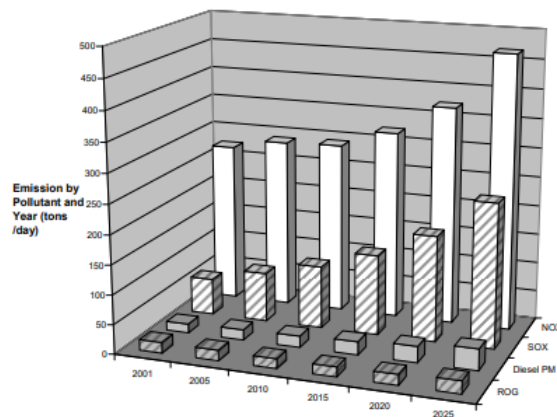


Figure A-2 Port and International Goods Movement Emissions



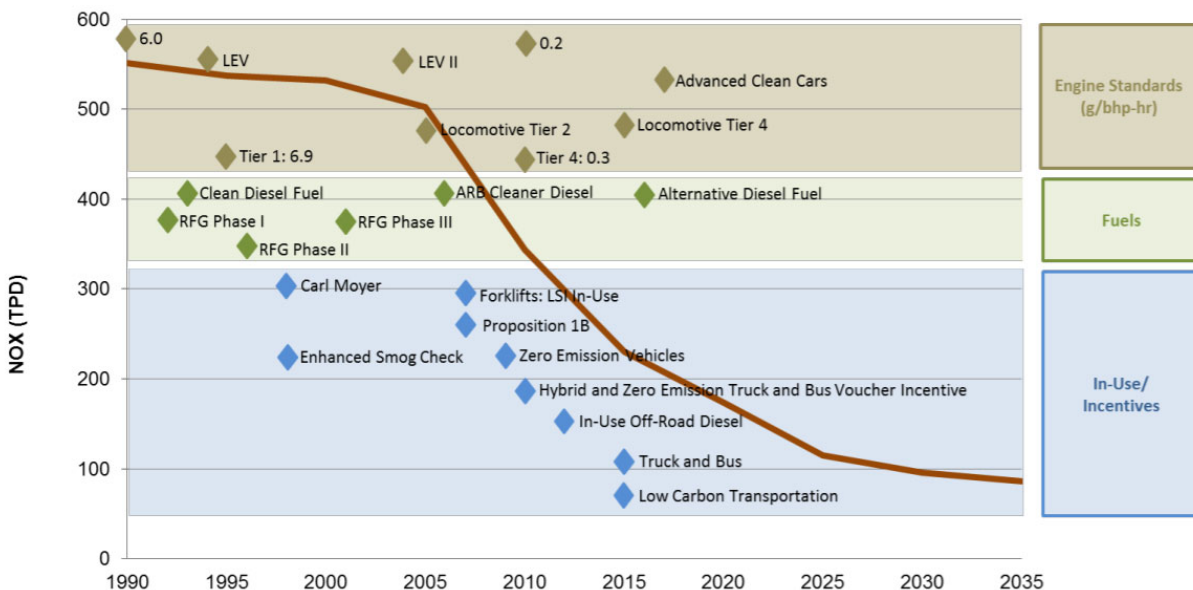
In order to respond to freight emissions trends projected in the GMERP, in particular with respect to operations at seaports, a comprehensive set of regulatory measures were adopted by the CARB Board which affect nearly every aspect of the intermodal supply chain. This set of regulations became effective over the span of 2007-2010 and is still being phased in – for instance, the next benchmark for an increase in fleet compliance for vessels at-berth is in 2020. This unprecedented suite of measures was estimated by CARB to have an implementation cost of approximately \$5 billion.

CARB Regulation	Effective Date	Total Cost
Cargo Handling Equipment	2007	\$71,000,000
Harbor Craft	2009	\$140,000,000
Port Cold Ironing	2009	\$1,800,000,000
Vessel Fuel Switching	2009	\$1,500,000,000
Drayage Trucks	2010	\$1,500,000,000
	TOTAL	\$5,011,000,000

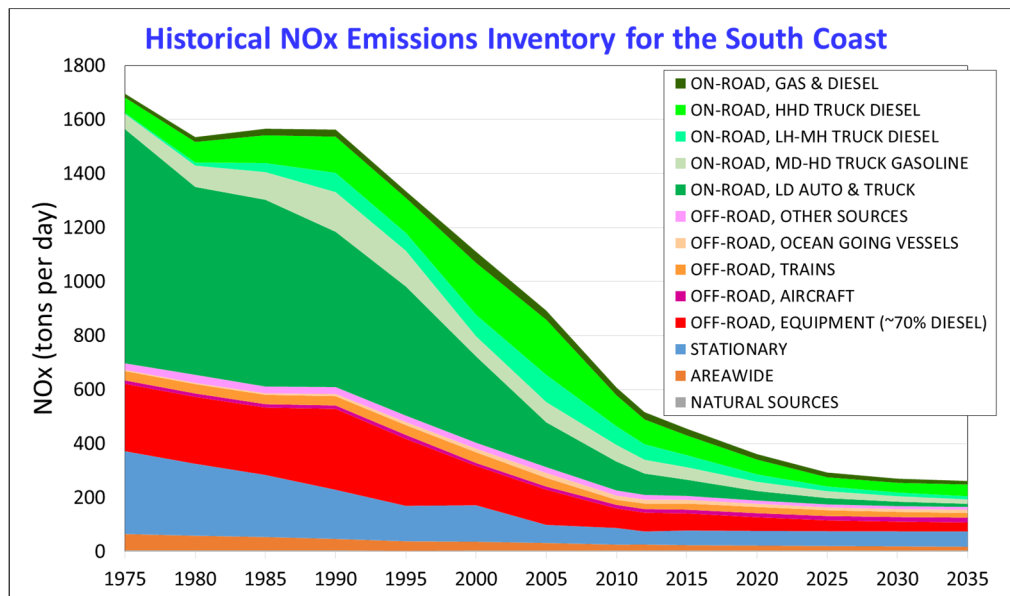
(source: CARB, individual measure ISORs)

Implementation of these new measures was complementary to other measures introduced over the past 30 years which have radically reduced emissions from transportation sources and resulted in improved air quality. In response to the availability of new technology, reaction to new engine and fuel standards, incentives, and regulations, emissions from mobile sources, and especially from freight, have been greatly reduced since 1990.

Impact of Mobile Source Regulation (source: Air Resources Board: 5/25/2017 Update on PM2.5 SIP Development for the San Joaquin Valley)



Historical NOx Emissions Inventory for the South Coast (source: 2016 Ramboll-Environ analysis of South Coast AQMD emission inventory)



Freight equipment emission reductions have advanced dramatically in recent years with the advent of advanced emission controls, voluntary emission reduction programs, and greater efficiency. For example, between 2005-2015, pollutants of greatest local health concern (PM2.5) dropped by 82% with truck pollution alone dropping by 97%. Carbon dioxide fell by 14%, thanks in large part to increased efficiencies.

At our seaports, instead of the dramatic increases in NOx, SOx, and DPM predicted by CARB in the GMERP, we have in fact achieved dramatic reductions across all categories, despite increased business and cargo throughput. For example, at the Port of Los Angeles, since 2005 we have seen reductions on the order of -87% in DPM, -98% in SOx, -60% in NOx, and -13% in CO2e (2017 Emissions Inventory, pg. ES-5).

Table ES.3: Maritime Industry-related Emissions Comparison

EI Year	PM ₁₀ tpy	PM _{2.5} tpy	DPM tpy	NO _x tpy	SO _x tpy	CO tpy	HC tpy	CO ₂ e tonnes
2017	130	120	114	6,536	121	1,925	361	900,725
2016	131	123	116	6,718	114	1,894	357	885,194
2005	948	820	879	16,206	4,983	3,757	850	1,036,876
Previous Year (2016-2017)	-1%	-2%	-2%	-3%	6%	2%	1%	2%
CAAP Progress (2005-2017)	-86%	-85%	-87%	-60%	-98%	-49%	-58%	-13%

These remarkable improvements have been achieved through collaboration and a combination of incentives, voluntary action, and regulatory advancement. The industry is using cleaner burning fuels; using energy efficient utilities; replacing conventional diesel with lower emission trucks; providing shoreside power for vessels at berth; electrifying cargo handling equipment; and investing in advanced clean technology development. Under the current CARB SIP and other Plans, all trends show that freight emissions will continue to decrease in the future.

The best way to continue to maintain the progress to-date towards the creation of a truly sustainable freight system is through collaboration which helps industry grow and re-invest in new infrastructure and technology. A collaborative approach facilitates the private sector investments necessary to identify new technology and infrastructure necessary to meet the Administration's air quality goals.

Consistent with this collaboration and our partnerships over the past decade to facilitate real-world discussions on how to achieve additional emissions reductions, we appreciate and continue to support the direction by the CARB Board and CARB staff recommendation of March 2018 not to pursue Statewide ISRs. We also support the CARB Board's continued support for the multi-agency effort reflected in the Sustainable Freight Action Plan.

The comprehensive planning and collaborative policymaking represented by projects such as Sustainable Freight will not only provide a context for how to address the next round of adverse environmental and community impacts but also provide insight to a myriad of issues that need to be considered, including efficiency, productivity, competitiveness; congestion; safety, security, resilience; repair and maintenance; increased use of advanced technologies; infrastructure impacts and investments; transportation of hazardous materials; jobs, labor, and transition to the workforce of the future; funding, underwriting, and financing; and many more.

All of these issues will continue to play a role in advancing and improving our sustainable freight industry in California and across the country. And, while the focus on local community impacts and Clean Air Act compliance for criteria pollutants remain the core bases of the state's regulatory and incentive programs, we are also mindful of the State's intentions to continue to turn its focus to long-term Greenhouse Gas emissions reduction and control. As this transition continues, the freight industry intends to remain engaged with CARB and the state to ensure that when shifts in the primary focus of these air quality programs occur that they are managed in a manner which is cost-effective, pro-efficiency, and helps to improve our business competitiveness, increase reinvestment and reduce costs.

Thank you for the opportunity to provide comments on this Informational Update to the Board.

*California Association of Port Authorities
Pacific Merchant Shipping Association*