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RE**: Draft Seaport Air Quality 2020 and Beyond Plan**
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The American Trucking Associations' (ATA), California Trucking Association (CTA) and Harbor Trucking Association (HTA) represent licensed motor carrier (LMC) interest in the Port of Oakland.

Thank you for the opportunity to comment on the Draft Seaport Air Quality 2020 and Beyond Plan.

Since the inception of the original Maritime Air Quality Improvement Plan (MAQIP), no equipment category has achieved greater emission reductions than heavy-duty vehicles. Trucks are forecasted to contribute **0%** of the total source category diesel particulate matter (DPM) emissions by 2030.[1]

Table 2.2: Source Category Contribution to 2030 Emissions

	High Activity / High Emission Factor				Low Activity / Low Emission Factor			
	DPM	SOx	NOx	CO_2e	DPM	SOx	NOx	CO_2e
OGV	88%	99%	88%	51%	91%	99%	91%	52%
HC	10%	0%	6%	8%	8%	0%	4%	9%
CHE	1%	1%	2%	31%	1%	1%	2%	32%
HDT	0%	0%	3%	9%	0%	0%	2%	6%
Rail	1%	0%	1%	1%	0%	0%	0%	0%

To achieve these incredible emission reductions, LMCs servicing the Port of Oakland have spent significant sums of money and taken on considerable debt and liability. These are burdens

[1] https://www.portofoakland.com/files/PDF/WV%20FINAL%20POAK%20Task%20V%20Technical%20Memo%20(13%20July%2018)scg.pdf

exclusively bourn by LMCs servicing California ports. Of the next five highest volume container ports in North America, none have adopted truck programs as stringent as the original Clean Truck Management Program and no State in the country has adopted California's strict in-use truck requirements[2].

This is important context for the updated MAQIP as the Port considers the future transition to zero-emission technologies. Currently, according to the Port's estimates, transitioning the drayage truck fleet to zero-emissions technologies is not cost-effective[3].

Table 2.5: Cost-Effectiveness of Emission Reduction Measures for DPM and NOx

Measures	Cost-Effectiveness			
	DPM		NOx	
	($/lb)	(lb/$)	($/lb)	(lb/$)
OGV Vessel Speed Reduction (Outer Zone)	476 - 500	0.0020 - 0 .0021	7.3 - 7.7	0.13 - 0.14
OGV Barge-Based Scrubber System	58 - 62	0.016 - 0.017	1.0 - 1.1	0.93 - 0.99
HC Engine Replacement	670 - 724	0.0014 - 0.0015	29 - 31	0.033 - 0.034
Hybrid Tugboat Retrofit	3,600 - 3,900	0.00026 - 0.00028	103 -126	0.0079 - 0.0097
Hybrid RTG (Replace 13 RTGs)	3,340	0.00030	9.3	0.11
Electrification of CHE	50,000 - 56,000	0.000018 - 0.000020	530 - 588	0.0017 - 0.0019
Zero Emission Trucks	2,300,000 - 3,700,000	0.0000003 - 0.0000004	3,300 - 5,200	0.0002 - 0.0003
Tier 4 Switch Locomotives	225 - 900	0.0011 - 0.0044	3.6 - 11	0.089 - 0.28

As zero-emission trucks come down in cost, they may become more viable as a pollution mitigation strategy, but at this time we would encourage the Port to conduct additional technical and economic feasibility studies on their potential future deployment.

Additionally, the California Air Resources Board (CARB) announced in March of 2018 that they intend to modify the Statewide Drayage Truck Regulation to require the phase-in of zero-emission technologies in the near future[4]. We would encourage the Port to closely coordinate their program with the State to avoid duplication of efforts and potential conflicting requirements.

We urge the ports to work closely with ATA, CTA and HTA to ensure that implementation of the updated MAQIP achieves additional emission reductions in a manner consistent with the ports' jurisdiction and authority.

Conclusion

[2] The California Air Resources Board required all drayage trucks to meet EPA model year 2007 or newer emission standards by 2014 and will require all trucks to meet EPA model year 2010 or newer emission standards by 2023.
[3] https://www.portofoakland.com/files/PDF/WV%20FINAL%20POAK%20Task%20V%20Technical%20Memo%20(13%20July%2018)scg.pdf
[4] https://www.arb.ca.gov/gmp/sfti/revised_freight_facility_concepts_advance_materials_03142018.pdf

The ATA, CTA and HTA look forward to working with the port on implementing the MAQIP.

Please feel free to contact us with any questions.

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