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July 18, 2016

To: California Air Resources Board
1001 I Street
Sacramento, California 95814

Subject: Comments on the proposed California State Implementation Plan Strategy and Draft Environmental Analysis published May 2016; Board Item statesip2016

Submitted electronically at: <http://www.arb.ca.gov/lispub/comm/bclist.php>

Maersk Line appreciates this opportunity to comment on State Implementation Plan (SIP) of May 2016. Many of the issues we see are addressed in our comments on the Sustainable Freight Action Plan (SFAP) Draft Discussion Document of May 2016, which are attached.

Maersk Line is the world's largest container shipping company, and our vessels make port calls to a number of marine terminals in California every week. Our sister company APM Terminals operates Pier 400 in the Port of LA. Maersk Line vessels travel the world; vessels calling California typically spend less than 5% of their operable lifetimes in the waters of any one state or country.

Maersk Line is a conscientious corporate citizen, as demonstrated by our voluntary use of fuels cleaner than required in California ports since March 31, 2006, over 3 years before regulations became effective. In addition, since 2007, Maersk Line has reduced our CO₂ emissions per container per kilometer by 42%. This was accomplished through energy efficiency investments and increasingly efficient network design and execution, and so also results in reduced emissions of criteria pollutants.

We respectfully request your consideration of the following comments:

- 1. The number of different California air quality and freight plans and related opportunities to comment has made it very difficult to fully understand what is proposed, to assess impacts, and to provide useful input.** Many participants in California goods movement are multi-state, national or international in scope. It would be extremely helpful to have access to a consolidated roadmap or reference table of documents, what each covers (and specifically does not cover) and timelines for comments, action by ARB or other entities (e.g., AQMDs, EPA) and implementation. Maersk Line is committed to supporting and participating in the process to improve air quality in California, and could be more effective and better prioritize these efforts with a clear roadmap.
- 2. Maersk commented on several of these issues in our July 6, 2016 comments on the California Sustainable Freight Action Plan - Draft Discussion Document published May 2016, which are attached.** We particularly call your attention to items 2-6 and 8 in our

SFAP comments, which include the following points. Please see the attached SFAP comments for the full comments.

- We agree that IMO is the proper and most effective route for regulating international vessels.
- We question the timing and requirements for the proposed Tier 4 marine engines.
- Recent scientific studies indicate that emissions from “new generation” diesel engine designs (2007 or newer) show significantly reduced toxicity and health impacts, and suggest that new incentives and regulations consider these results.
- Before adding additional environmental requirements, ARB and other regulatory entities should ensure that inventories and projections have accounted for all reductions already in place or underway, including those achieved through energy and operational efficiency, and those due to fuels cleaner than the current standards.
- We would strongly encourage incentive programs, which have been proven to be effective by the excellent progress in air quality achieved by the San Pedro Bay Ports Clean Air Action Plan, as well as at other ports in North America and other regions. Note that significant funding and supportive regulations will be required to make these effective.

3. We urge the ARB to complete and implement the planned amendments to the existing shore power rule before expanding the rule to include additional vessel types.

California is the first major jurisdiction in the world to make shore power mandatory for container vessels. Experience has shown that there are many impractical or unclear areas and issues that are not addressed by the existing rule. These should be addressed and tested prior to further expansion or major investments. We have been working with Staff and other industry participants to understand these issues and develop more practical solutions, and remain committed to this process.

4. We have reviewed and support the comments submitted by the Pacific Merchant Shipping Association (PMSA) on these documents.

Again, thank you for this opportunity to comment. We look forward to working with you further to continue to improve the efficiency, competitiveness and environmental impact of the California freight system. If you have any questions, please feel free to contact me at 704-571-2693 or lee.kindberg@maersk.com.

Sincerely,



B. Lee Kindberg, Ph.D.
Director, Environment & Sustainability
Maersk Line/Maersk Agency USA - North American Operations



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July 6, 2016

To: California Sustainable Freight Interagency Partners:

- The California State Transportation Agency
- California Environmental Protection Agency
- Natural Resources Agency,
- California Air Resources Board,
- California Department of Transportation,
- California Energy Commission, and
- Governor's Office of Business and Economic Development

Subject: Comments on the California Sustainable Freight Action Plan - Draft Discussion Document published May 2016

Submitted electronically at: <http://www.casustainablefreight.org/contributions>

Maersk Line appreciates this opportunity to comment on the Sustainable Freight Action Plan (SFAP) Draft Discussion Document of May 2016. We appreciate the intent of joint agency planning and participated in the process and provided input to the development of the white papers supporting the plan.

Maersk Line is the world's largest container shipping company, and our vessels make port calls to a number of marine terminals in California every week. Our sister company APM Terminals operates Pier 400 in the Port of LA. Maersk Line vessels travel the world; vessels calling California typically spend less than 5% of their operable lifetimes in the waters of any one state or country.

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California has already implemented extensive emission reduction regulations that, with the added impact of Port initiatives, have substantially reduced emissions on vessels and at the ports, but those regulations have come at a steep cost to our industry. Further emission reductions to move the state to zero-emission and near-zero emission technologies will require both helpful regulatory structures and financial commitment from the state to meet those goals.

We respectfully request the Interagency Partners' consideration of the following comments:

1. **We support the Goods Movement Industry Coalition letter** submitted July 6, 2016.

2. **We agree that IMO is the proper and most effective route for regulating international vessels.** State and national programs are most effective when aligned with these global standards. While IMO changes must go through an international process and so are typically adopted more slowly than California might prefer, this approach is the global standard for all ships that may now or in the future call California. Approaches to IMO are best done in concert with US EPA and the US delegation to IMO, in a way to ensure that new requirements can be implemented feasibly at the international level, avoiding differing and potentially conflicting requirements in each country or state port of call.
3. **We question the timing and requirements for the proposed Tier 4 marine engines.** Costs for such a proposal would be significant and have global impact for the industry. Depending on how Tier 4 marine engine performance standards are defined compared to Tier 3, we question whether the technologies required to achieve a tier 4 level will be available and economically viable in time to meet California implementation deadlines. For example, Tier 4 engines are likely to require some Selective Catalytic Reduction (SCR) after treatment, or perhaps even a large SCR plant on each vessel – requirements that would come at a significant cost and vessel space penalty. And while the North American ECA requires Tier 3 engines for new vessels built starting in 2016, Tier 3 will be applied in areas of North Europe after 2021, and is not yet required in the rest of the world. Additional engine Tier requirements may also limit the potential for many vessels to be deployed to services calling the US.
4. **Recent scientific studies indicate that emissions from “new generation” diesel engine designs (2007 or newer) show significantly reduced toxicity and health impacts.** Studies published in 2015 by Health Effects Institute found no cancer endpoint and significantly reduced health effects (<http://pubs.healtheffects.org/view.php?id=447>). This seems to indicate a change in the chemical composition of the emissions (possibly particularly the PM). Therefore we suggest that new incentive programs and regulations consider these and subsequent results, and that programs be designed to reduce health impacts rather than simply emissions in general. E.g., programs might encourage higher capacity utilization through larger ships and Vessel Sharing Agreements, and attracting newer trucks and vessels as well as behaviors to reduce total emissions.
5. **Before adding additional environmental requirements, ARB and other regulatory entities should ensure that inventories and projections have accounted for all reductions already in place or underway, including those achieved through energy and operational efficiency, and those due to fuels cleaner than the current standards.**

The potential for this approach is illustrated by Maersk Line’s highly successful energy efficiency program mentioned above (42% reduction in fuel consumption and CO₂ and other air emissions 2007 to 2015, calculated per TEU per kilometer using the Clean Cargo Working Group methodologies (see below) and verified by Lloyd’s Register).

The annual global benchmarking study by Business for Social Responsibility's Clean Cargo Working Group published in 2015 shows an industry energy efficiency and CO₂ intensity improvement of 29% vs. 2009, based on reports of actual fuel consumed and actual distances traveled for each of the participating vessels. In 2015, over 3,000 ocean-going vessels were included, representing 22 carriers, who carry over 80% of all containers moved globally (including Maersk Line). The majority of ships participating are included in fleets whose data is third-party verified. Further information and annual data by trade lane is available at <http://www.bsr.org/en/collaboration/groups/clean-cargo-working-group> .)

6. **The “Declining Facility Cap” or “Freight Facility Performance Target” concept should not be part of this or other plans.** This concept is not currently included in the SFAP as a separate proposal, but development of Freight Facility Performance Targets is listed as a reason for the planned data collection described in Appendix C, Section C.1, page C-41.

Port Authorities do not control any of the major entities or equipment generating the emissions, either directly or indirectly. The Ports contract with marine terminal companies, who operate cargo-handling equipment, and who contract with shipping lines and vessel operators to provide specific services. The trucks traveling to and from port facilities may be contracted by the cargo owners, the shipping companies, or by Non-vessel-owning Common Carriers (NVOCCs, or freight forwarders). The legal and operational complexities of such a program would be a major impediment.

The Port Authorities and terminal operators in California have neither the legal authority nor the contractual leverage to require vessel operators, rail carriers or trucking companies to replace or upgrade vessels or equipment.

7. **Cost information is extremely general or missing for many of the proposed measures, making it very difficult to evaluate or comment on cost-effectiveness.** We ask that industry be engaged in further development of both technical and programmatic specifics to try to maximize both effectiveness and competitiveness of freight businesses in California.

Lowering costs is essential for California and its businesses to improve the competitiveness of their freight system. While we recognize that there is a certain cost of doing business in California, we must point out that the Golden State is the most expensive state in the U.S. for us to process a container. Our significant emissions reductions discussed above have come with a hefty price-tag, and other costs such as the Alameda Corridor Fee must also be considered. We ask that the environmental and efficiency results of those investments be recognized, and that further costs be spread fairly across the multiple stakeholders involved.

We welcome this partnership approach to planning and hope this will lead to a balanced, common sense approach regarding a sustainable freight system.

8. **We would strongly encourage incentive programs, which have been proven to be effective by the excellent progress in air quality achieved by the San Pedro Bay Ports Clean Air Action Plan, as well as at other ports in North America and other regions.**
Related to incentive programs, we would like to sound two word of caution: First, care should be taken to minimize the administrative burden while maximizing measurable environmental impacts of the programs. This may be of particular concern for the “many small incentive programs” mentioned in the “green lane” concept. Second, incentive program design should include early and thorough industry engagement in order to attract a high level of participation, and accurately define metrics and other factors, such as the amount of money or other incentives likely to be necessary to induce global shipping companies to change vessel deployments or alter behaviors and operational practices. Such programs must be significant and well-designed to become accepted as criteria in global vessel and network design decisions, alongside customer and market demand, inland connections, costs, efficiency and other factors.
9. **The SFAP calls for adding vessel fuel to the cap & trade and/or low carbon fuel standards. Accounting for the fuel used by international vessels that is related only to California would be complex, and could cause international carriers to shift purchase of marine fuels outside of the state, confounding the data and potentially reducing business for California suppliers.**

The description of the low carbon fuel standard proposal refers to comparing the fuel carbon content to “the standard” for that fuel grade. We question how that standard might be set for international marine fuels, and again encourage alignment where feasible with international specifications and standards. We also ask that industry experts (suppliers and users) be involved in defining feasibility and details.

Again, thank you for the opportunity to participate in this process, and for this opportunity to comment on the SFAP draft. We look forward to working with you further to continue to improve the efficiency, competitiveness and environmental impact of the California freight system. If you have any questions, please feel free to contact me at 704-571-2693 or lee.kindberg@maersk.com.

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