



MAHER TERMINALS LLC

JAY RUBLE, SENIOR VICE PRESIDENT & GENERAL COUNSEL

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New Jersey Department of Environmental Protection
Protecting Against Climate Threats (PACT)
NJairrulesmobile@dep.nj.gov

Re: Comment to New Jersey Protecting Against Climate Threats – Cargo Handling Equipment

To Whom It May Concern:

As a tenant of the Port Authority of New York & New Jersey, Maher Terminals LLC (Maher) operates the largest marine container terminal in North America. To maintain its reputation as one of the most efficient terminals, Maher made substantial investments, such as a terminal operating system that optimizes every container move using GPS and custom logic and a modern fleet of straddle carriers as the primary mode of Cargo Handling Equipment (CHE). Maher recognizes that there is a significant overlap of interests between and among our terminal, the ocean carriers, cargo interests, regulators, and other stakeholders: the faster a container is off-loaded from a ship and taken off the terminal, the better for everyone. Efficiency is the key to successful port operations and cargo logistics.

Working closely with various stakeholders in our community, including the Port Authority, to reduce GHG emissions, Maher has assessed and measured its GHG reductions beginning in 2006 (which is the same measurement starting point as the Port Authority). Maher has also been working closely with the EPA, NJDEP, and the local communities such as the City of Elizabeth and Newark's Ironbound Community Corporation. Notably, Maher has reduced its diesel consumption per container by 43% between 2006 and 2019, and reduced its gas consumption per container by 22% for the same period through the use of electric cranes, upgrading to significantly more efficient straddle carriers, and other operational efficiency improvements. Maher understands that reducing electric consumption has an effect on the nearby communities because peaker plants are located in those communities, and reducing electric consumption in its terminal contributes to less usage of those peakers. Through the installation of a solar array, energy efficiency measures in Maher's buildings, and other means, Maher has reduced its electric consumption per container by 27% between 2006 and 2019.

Maher has implemented multiple initiatives to further reduce its fossil fuel and utility consumption by 2025. Maher has undertaken, or will be implementing before the end of 2020: (1) rail volume growth, which allows Maher's business to grow but does not require additional local truck transits to warehouses; (2) retrofit the high mast lighting to LED and eliminate all high-pressure sodium fixtures; (3) installation of state-of-the-art truck processing systems to expedite turn times and greatly reduce truck queuing inside the terminal; (4) transitioning the CHE from diesel to diesel/electric hybrids and all electric (where feasible); and (5) installation of an oily water separator in the maintenance garage that will save over one million gallons of water

annually. Through these and other initiatives, by 2025 Maher will reduce its carbon per container (measured in tCO₂e) by 60%, when compared to 2006.

Maher's sustainability efforts are not limited to GHG reductions. Over half of Maher's management employees participate in one of seven sustainability sub-committees. Maher donates its used crane cables (over 45,000 feet) to a charity that incorporates those cables into pedestrian bridges in rural African regions. Also, Maher worked with the NJDEP's Division of Fish & Wildlife for Maher to soon deploy nearly 3,000 tons of reinforced concrete platforms about 3 miles offshore east of the Manasquan Inlet to create an artificial reef.

As a terminal operator, Maher supports the efforts outlined by NJPACT, especially the effort to transition to Zero Emission (ZE) and Near Zero Emission (NZE) CHE, once the technology is robust enough to function in the marine terminal environment. Marine terminal operations are complex, interactive systems that must be in full coordination to move cargo optimally, economically, and safely between ships, trucks, and rail cars. Each piece of equipment is responsible for executing one or more specific portions of a cargo move. Any delays or deviations caused by any one piece of equipment has the potential to have a ripple effect and reduce efficiencies of other CHE in the process. Maher's over-arching strategy is to efficiency load and off-load containers from ships and terminals in a manner that is safe and efficient. While implementing ZE and NZE equipment is the goal, it can only be accomplished after thorough demonstration programs prove that the technology is suitable for the duty cycles and work environment of the port.

Expedited conversions of CHE fleets and adoption of ZE technology can be done through voluntary programs such as expanding technology demonstrations, funding programs, and infrastructure installation rather than adopting strict regulations that may adversely affect efficiency. The current technology has an extremely low cost-effectiveness relative to emissions reductions due to smaller scales of productions and high costs. Maher is willing to participate in such demonstration programs, and has applied to do so through the NJDEP's Volkswagen Mitigation Trust program for assistance in a trial program for North America's first fully electric ZE straddle carrier. Demonstrations such as this are essential to pave the way for ZE CHE fleets, and are essential to develop detailed information necessary to prove that these new and evolving technologies can satisfy the rigors of regular revenue service. For example, demonstration vehicles will provide a detailed understanding about such factors as operating time between charging events, battery life, vehicle or equipment residual value, infrastructure requirements, and total cost of ownership.

Importantly, before widespread adoption of ZE CHE is possible, installing much-needed electrical infrastructure is necessary to power a ZE fleet, which will also be time and cost intensive. Zero emission CHE will require on-site charging equipment and likely will also require upgrades to transformers and other underlying infrastructure due to the amount of power that larger vehicles and equipment draw from the grid. The power supply that serves Maher's facility is already under immense stress. Maher, and the port, is located at the end of the regional transmission area, and currently faces power quality and capacity issues, which will need to be upgraded as ZE equipment is brought online. Maher will continue to work with local agencies such as the NJDEP, NJBPU, NJEDA, and the Port Authority (and potentially third parties) to bridge the power supply gap between today's CHE fleet to tomorrow's ZE fleets.

Finally, Maher believes that its undertakings and future strategy meets or exceeds the goals and objectives being discussed by the NJDEP related to air quality standards. Additionally, the Port Authority's recent proposal on cargo handling equipment and air quality requirements obviates the need for any new rule proposals. The Port Authority has announced its intention to incorporate certain requirements into the Rules and Regulations for Port Authority Marine Terminals (Federal Maritime Commission Tariff No. 10) in January 2021. Maher is in the process of considering these new requirements, and encourages the State to take an iterative and achievable approach in coordination and consistent with the Port Authority when considering the establishment of new Statewide policies for off-road vehicles and CHE.

Maher's investments, future projects, GHG and emission goals, along with the air quality requirements set by the Port Authority, all lead to a continued path towards air quality improvements. The implementation of ZE and NZE equipment would be more efficient and cost effective if the NJDEP dedicated resources to overcome the infrastructure and technology challenges that presently exist, to the benefit of all stakeholders.

Respectfully submitted,

MAHER TERMINALS LLC



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