

March 15, 2019

Los Angeles Board of Harbor Commissioners
Harbor Administration Building
425 S. Palos Verdes Street
San Pedro, California 90731

c/o Director of Planning and Strategy
Harbor Department
425 S. Palos Verdes Street
San Pedro, California 90731
P.O. Box 151
San Pedro, California 90733

Re: Appeal of Level I Coastal Development Permit No. 18-25

Dear President Lee and Honorable Commissioners:

APM Terminals (“APMT”) respectfully requests that the Board of Harbor Commissioners deny the appeal of Level I Coastal Development Permit No. 18-25 for minor infrastructure improvements that will allow for the implementation of **zero- and near zero-emissions operating equipment and the reduction of emissions associated with drayage hauling** at APM Terminals’ Pier 400 Marine Terminal (the “Level I Permit”).

These infrastructure improvements and associated equipment are consistent with the Port Master Plan and the California Coastal Act. These improvements and associated equipment also comply with the 2017 Port Clean Air Action Plan Update; California, South Coast Air Quality Management District, Port of Los Angeles, and City of Los Angeles environmental plans, policies and requirements; and APM Terminals’ lease obligations.

The Port’s Executive Director approved the Level I Permit for minor infrastructure improvements at APMT’s Pier 400 Marine Terminal. The Executive Director correctly approved the Level I Permit because it is entirely consistent with the Port Master Plan and the Coastal Act, as well as numerous state and local environmental plans, policies and requirements.

The International Longshore Workers Union (“ILWU”) Local 13 appealed the Executive Director’s approval at the February 21, 2019, Board meeting because the new equipment may result in automation and have an impact on employment levels at the Port. Under the Port Master Plan and the Coastal Act such considerations are not a basis upon which an appeal may be granted to overturn the Executive Director’s determination to issue the Level I Permit. Further, **automation is expressly provided for under the Collective Bargaining Agreements between the ILWU and the Pacific Maritime Association.**

The Level I Permit is narrow in scope—it addresses approximately \$1.5 million of minor infrastructure improvements to an existing multi-billion dollar operating marine terminal facility. These improvements will modernize the terminal with zero- and near zero-emissions yard equipment and reduce the drayage hauling idling time and miles traveled within Pier 400 thus reducing associated air emissions. They will be funded entirely by APMT and no public funds will be used.

As detailed below, granting the appeal would be inconsistent with the Port Master Plan and the Coastal Act, and would represent an abuse of the Board’s discretion. Moreover, granting the appeal sets a dangerous precedent for the Port’s decision on future Level I Coastal Development Permits and measures to reduce the Port’s emissions.

Accordingly, we respectfully request that your Board deny the appeal.

I. PROJECT BACKGROUND

In September 2018, APMT applied for Port Permit No. 181108-176. Consistent with the Port Master Plan and the Coastal Act, the permit will modernize Pier 400 with environmentally progressive zero- and near zero-emissions yard equipment and reduce by up to approximately 65 percent emissions associated with drayage hauling within Pier 400. Such measures also will be consistent with various state and local plans, policies and requirements, such as the 2017 Port Clean Air Action Plan Update, the State of California Sustainable Freight Action Plan and mitigation measures in the certified Environmental Impact Reports for the Port Master Plan and Pier 400.

The proposed Pier 400 improvements include electric power vehicle charging stations, racking systems for electric power refrigerated containers, limited installation of antennae poles, and related power conduits that will allow the existing diesel-powered container handling equipment to be replaced with zero- and near zero-emissions yard equipment. The proposed traffic barriers and fencing will reconfigure traffic patterns within Pier 400 and could reduce the idling time and miles traveled for drayage haulers from about 25,500 miles per day to 8,500 miles per day. Specifically the Level I Permit will permit the following minor landside infrastructure improvements (the “Project”):

- recharging stations to provide electrical power to battery-powered container handling equipment;
- permanent scaffolding to create a vertical racking system for electric power refrigerated containers;
- traffic barriers and fencing to enhance the safety of drayage haulers and reduce their emissions;
- limited installation of antenna poles to enhance the Wi-Fi network; and
- electrical conduit to power the recharging stations and vertical racking system.

On November 19, 2018, the Port signed a Notice of Exemption, evidencing its determination that the Project is exempt from California Environmental Quality Act (“CEQA”).

On November 20, 2018, the Port filed the Notice of Exemption with the Los Angeles County Recorder’s Office and on November 21, 2018, the Port filed the Notice of Exemption with the State Clearinghouse. The Notice of Exemption remained posted for 30 days.

As required by the Port Master Plan, on January 8, 2019, following the Executive Director’s approval of the Level I Permit, the Executive Director transmitted a Level I Coastal Development Permit Report to the Board for consideration during the Board’s next scheduled meeting on January 24, 2019. The Executive Director’s report was placed on the Board’s published agenda for the January 24, 2019 meeting. However, the item was “pulled” from the agenda by the Commission Secretary on January 23, 2019.

The Executive Director issued a second Level I Coastal Development Permit Report dated February 14, 2019. This February 14, 2019, report stated that the Executive Director approved the Level I Permit, and the Level I Permit was placed for a second time on the Board’s agenda, this time for the February 21, 2019 meeting. At the February 21, 2019 Board meeting, the ILWU Local 13 Vice President requested an appeal of the Executive Director’s approval of the Level I Permit. A hearing on the appeal was set for the March 21, 2019 Board meeting.

II. THE EXECUTIVE DIRECTOR CORRECTLY APPROVED THE LEVEL I PERMIT – THE PROJECT IS CONSISTENT WITH THE PORT MASTER PLAN AND COASTAL ACT

A. The Executive Director Correctly Categorized the Project as a Level I Coastal Development Permit

Upon submittal of APMT’s Project application, the Executive Director correctly categorized the Project as qualifying for a Level I Coastal Development Permit.

The Port Master Plan explains that Level I Coastal Development Permits are “minor in nature” and “have insignificant impacts on the Port or surrounding environment.” (PMP Section 6.4.2.) Level I Coastal Development Permits shall be issued in the following circumstances:

- a. Minimal resources are involved;
- b. Only minimal change in land and/or water use and in the density or intensity of the use of land and water area may occur; and
- c. There are no significant adverse environmental impacts.

(PMP Section 6.4.2.)

The Port Master Plan also provides examples of Level I Coastal Development Permits. These “include, but are not limited to: minor grading; paving; lighting; fencing; installation of structures such as modular offices/buildings, storage buildings, restrooms facilities, floating docks, and guard houses; demolition of wharves, buildings, tanks, or exterior equipment; removal of pipelines; and major building renovations.” (PMP Section 6.4.2.)

In addition, the enumerated examples of Level II Coastal Development Permits also provide support for the Project being a Level I Coastal Development Permit because the Project

proposes significantly less intensive work than the Level II Coastal Development Permit examples. Level II Coastal Development Permits include “marine terminals; major structures for recreational purposes; creation of new upland or coastal water fills; major dredging of water areas...; and crane additions and/or replacements.” (PMP Section 6.4.3.)

The Project involves the installation of recharging stations for electrical vehicles, scaffolding systems to permit more efficient electrical charging of container refrigeration units, traffic barriers (such as K-rails or stanchions), fencing, some additional antenna poles to enhance Wi-Fi, and additional utility conduit for electrical lines. These infrastructure improvements will allow existing diesel-powered container handling equipment to be replaced with battery-powered electric container handling equipment and reduce drayage haulers’ miles traveled and idling time within Pier 400. All of the Project’s work is confined within Pier 400’s already developed areas.

The Project’s minor infrastructure improvements involve only minimal changes to paved areas and will result in no significant adverse environmental impacts. There is no extensive grading or construction associated with the Project. Simply running electrical conduit to electric vehicle charging stations, installing scaffolding for refrigeration plug-ins, putting up some additional Wi-Fi antennas to communicate with container handling equipment, and installing traffic directional barriers and painting lines on the asphalt cannot and does not result in any significant environmental impacts. There are no significant adverse environmental impacts associated with the Project and the Project is categorically exempt from the CEQA, as discussed further below and in the attached *Technical Evaluation of APM Terminals Landside Infrastructure Project* prepared by Ramboll dated March 12, 2019 (“Ramboll Report”). Accordingly, the Project conforms to the standards of a Level I Coastal Development Permit.

In fact, the Project includes a number of significant environmental benefits associated with a reduction in diesel, greenhouse gas and other emissions. The Project will replace diesel-powered container handling equipment with battery-powered electric container handling equipment and will reduce diesel emissions by reconfiguring the traffic patterns at Pier 400. As a result of reconfiguring the traffic pattern, the number of drayage truck transit miles within Pier 400 could reduce by up to approximately 65 percent from about 25,500 to about 8,500 on a typical day.

Accordingly, given the extremely minor nature of the Project’s improvements the Executive Director appropriately categorized the Project as a Level I Coastal Development Permit.

B. The Executive Director Correctly Determined that the Project is Consistent with the Port Master Plan and the Coastal Act

Once the Executive Director determined the Project was a Level I Coastal Development Permit, the Executive Director, as the designated authority under the Port Master Plan, appropriately approved the Level I Permit based on a determination that the Project is consistent with the following Port Master Plan goals and policies and corresponding Coastal Act Sections:

- PMP Section 7.2.1, Policy 1: Land Use (California Coastal Act Sections 30250, 30255, 30701, 30220);

- PMP Section 7.2.2, Policy 2: Location, Design, and Construction of Development (California Coastal Act Sections 30707, 30708, 30211, 30212, 30212.5, 30223);
- PMP Section 3.2.1, Goal 1: Optimize Land Use; and
- PMP Section 3.2.2, Goal 2: Increase Cargo Terminal Efficiency.

The Project’s consistency with these Port Master Plan and Coastal Act goals and policies, as well as others, are detailed below.

1. The Project is Consistent with the Port Master Plan and Coastal Act Regarding Modernization and Efficiency

The Project improvements are consistent with the following Port Master Plan and Coastal Act express goals, policies, and objectives related to modernization and the efficient use of land:

- Goal 1: Optimize Land Use. Development and the land uses designated on Port land should be compatible with surrounding land uses in order to **maximize efficient utilization of land** and minimize conflicts. Individual terminals within the Port should be compatible with neighboring Port tenants. When incompatible, port areas should be deliberately redeveloped or relocated to eliminate the conflict. Cargo handling facilities should be primarily focused on Terminal Island and other properties that are buffered from the neighboring residential communities of San Pedro and Wilmington. Non-water dependent use facilities should be eliminated from Port cargo-designated waterfront properties. Land use decisions should also take into consideration opportunities for Port tenants to grow and expand their businesses. (PMP Section 3.3.1.)
- Goal 2: Increase Cargo Terminal Efficiency. Cargo terminals should be utilized to their maximum potential in order to meet current and future needs of the Port’s customers and region. The Port should develop and maintain the infrastructure necessary to support the terminals, while **Port tenants should be encouraged to modernize their facilities and implement new technologies, including automated container terminal technology.** Long-term development plans should maximize the utilization of low-performing assets, environmentally contaminated facilities, and unused assets. (PMP Section 3.3.2, emphasis added.)
- PMP Policy 1.3. “The Port is encouraged to **modernize and construct necessary facilities within the boundaries of the Port** in order to minimize or eliminate the necessity for future dredging and filling to create new ports in new areas of the state.” (PMP Section 7.2.1; *see also* PMP Section 1.2.1, emphasis added.)
- California Coastal Act Section 30701(b). “The location of the commercial port districts within the State of California . . . shall be encouraged to **modernize and construct necessary facilities within their boundaries** in order to minimize or eliminate the necessity for future dredging and filling to create new ports in new areas of the state.” (Emphasis added.)

- Port Master Plan Objectives. “The major objectives of the Plan are: . . . To allow the Port to **adapt to changing technology**, cargo trends, regulations, and competition from other U.S. and foreign seaports.” (PMP Section 1.3.)

Pier 400 is located in the heart of the Port container areas on Terminal Island. Uses in the area are similar uses and are compatible. Both the Port Master Plan and the Coastal Act highlight the need for modernization and the efficient use of land. The Port Master Plan specifically provides that Port tenants should be encouraged to implement new technologies, including automated container terminal technology. Modernization and the efficient use of land at the Port are necessary to minimize or eliminate the need for future dredging and filling to create new ports. The protection of the coastal zone is the overarching goal of the Coastal Act. (*See* Coastal Act Section 30001.) Accordingly, minimizing or eliminating the necessity for future dredging and filling is of paramount importance and modernization and the efficient use of land are necessary tools to ensure that coastal resources are protected.

Therefore, the Project is exactly the type of project that the Port Master Plan and Coastal Act encourage because it will result in the installation of modern equipment and traffic controls that will efficiently utilize the Pier 400 space. As noted above, one of the benefits of the Project is the reconfiguration of the traffic pattern at Pier 400, which will be significantly more efficient, reducing the miles driven by drayage haulers within Pier 400.

In addition to encouraging modernization and the efficient use of land to protect coastal resources, a Port Master Plan goal is to improve increased container handling efficiency per acre through implementation of automation. (PMP Section 4.1.1.) Therefore, modernization projects that include the potential for automation are consistent with the Port Master Plan’s assumptions regarding the Port’s goal of increasing efficiency in container handling.

2. The Project is Consistent with the Port Master Plan and Coastal Act Regarding Environmental Impacts

The Project improvements are consistent with the following Port Master Plan and Coastal Act policies related to minimizing environmental impacts, energy consumption, and vehicle miles traveled:

- Policy 2.1. – Locate, design, and construct port-related projects to (1) minimize substantial adverse impacts . . . (PMP Section 7.2.2)
- Coastal Act Section 30708. All port-related developments shall be located, designed, and constructed so as to: (a) Minimize substantial adverse environmental impacts. . .
- Coastal Act Section 30253. New development shall do all of the following: . . . (d) Minimize energy consumption and vehicle miles traveled.

The Project will not have a substantial adverse environmental impact. In fact, the Project will result in environmental benefits over existing conditions. For example, as discussed previously, the Project will reconfigure the traffic pattern allowing for a reduction in vehicle miles traveled within Pier 400, and related emissions, of drayage haulers by up to 65 percent.

Accordingly, the Project is consistent with the Port Master Plan and Coastal Act policies regarding minimizing substantial adverse impacts, energy consumption, and vehicle miles traveled.

III. THE EXECUTIVE DIRECTOR CORRECTLY DETERMINED THAT THE PROJECT IS EXEMPT FROM CEQA

On November 19, 2018, the Port of Los Angeles Director of Environmental Management signed a Notice of Exemption from CEQA providing that the Project is exempt from CEQA in accordance with Class 1(1), Class 1(32), Class 1(12) and Class 3(5). The Executive Director’s January 8, 2019 and February 14, 2019 reports on the Level I Permit cited to the Director of Environmental Management’s CEQA determination.

As explained in the Notice of Exemption, the Project is categorically exempt from CEQA under the categorical exemptions provided in the State CEQA Guidelines and the City of Los Angeles Environmental Quality Act Guidelines. Specifically, the Project is categorically exempt from CEQA as provided in the City of Los Angeles Environmental Quality Act Guidelines under Categorical Exemption Class 1(1), which provides:

Class 1. Existing Facilities; 1) Interior or exterior alterations involving remodeling or minor construction where there (sic) be negligible or no expansion of use.

The Project proposes minor exterior alterations to the existing facilities at Pier 400. The work consists of installation of recharging stations, scaffolding, traffic barriers, fencing, antenna poles, and conduit, which will allow for the replacement of existing diesel-powered container handling equipment with battery-powered electric container handling equipment and the reconfiguration of truck travel patterns. Therefore, the Project is consistent with the Class 1(1) categorical exemption because it is an exterior alteration that involves minor construction/remodeling and negligible or no expansion of use. Accordingly, the Project was properly determined to be exempt from CEQA under Class 1(1).

Specific activities necessary for the Project are also categorically exempt under CEQA. The Project is exempt under:

Class 1. Existing Facilities; 32) Installation, maintenance or modification of mechanical equipment and public convenience devices and facilities which are accessory to the use of the existing structures or facilities and involve the negligible or no expansion of use.

The installation of the charging stations, scaffolding, antenna poles, and conduit are consistent with Class 1(32) as installation of mechanical equipment that is necessary to use the existing structures and facilities at Pier 400. In addition, the Project does not propose an expansion of use at Pier 400. Accordingly, the Project was properly determined to be exempt from CEQA under Class 1(32).

The fencing for the Project also is exempt under Class 1(12) which provides an exemption for “[o]utdoor lighting and fencing for security and operations.”

The conduit that is proposed as part of the Project also is exempt under Class 3(5), which provides:

Class 3. New Construction of Small Structures; 5) Water main, sewage, electrical, gas and other utility extensions of reasonable lengths to serve already approved construction.

In addition to the exemptions cited in the Notice of Exemption, the Project also is exempt under Class 1(3), Class 1(15), Class 3(8), Class 4(12), and Class 11(6) as discussed in the attached Ramboll Report.

Further, as the attached Ramboll Report demonstrates, the Project has no adverse impact on the environment. Rather, the Project will have significant positive benefits to the environment, including reductions in criteria air pollutants and greenhouse gases.

Accordingly, the Director of Environmental Management and Executive Director appropriately concluded that the Project is exempt from CEQA.

IV. THE PROJECT IS CONSISTENT WITH ENVIRONMENTAL LAWS AND POLICIES AS WELL AS APM TERMINALS' LEASE

The Project also is consistent with various environmental laws, policies, and plans required to reduce emissions from cargo handling equipment and drayage trucks at the Port in order to ensure clean air, prevent climate change, and protect public health. Such laws and policies principally include: the Clean Air Action Plan (“CAAP”) Update that the Port adopted in 2017; California’s Sustainable Freight Action Plan; the directives of the California Air Resources Board (“CARB”) and South Coast Air Quality Management District (“SCAQMD”) for achieving compliance with the National Ambient Air Quality Standards under the federal Clean Air Act; California’s statewide greenhouse gas emissions (“GHG”) reduction laws; measures contained in the Environmental Impact Reports for the Port Master Plan and Pier 400; and, the policies of the City of Los Angeles with respect to Port emissions. APMT is required by its lease to comply with such laws.

The Project will allow for the replacement of diesel-powered cargo handling equipment with electric or hybrid cargo handling equipment, reducing emissions of air toxics, criteria pollutants, and GHGs. The Project also will reduce emissions by significantly reducing the distance traveled by drayage trucks at the terminal. As detailed in the Ramboll Report, the Project is consistent with numerous environmental laws and policies calling for such emissions reductions, as well as APMT’s lease, which requires it to comply with laws addressing air quality, climate change, and human health.

A. The Port’s 2017 Clean Air Action Plan Update Requires Emissions Reductions from Cargo Handling Equipment and Drayage Trucks

The Port adopted in 2017 the CAAP Update to provide a framework for reducing emissions from Port operations. To ensure clean air, help meet California’s climate change goals, and protect human health, the 2017 CAAP Update sets the following emission reduction goals:

- Criteria Pollutants: by 2023, reduce port-related emissions by 59 percent for oxides of nitrogen (“NOx”), 93 percent for oxides of sulfur (“SOx”) and 77 percent for diesel particulate matter;
- GHGs: reduce GHGs from port-related sources to 40% below 1990 levels by 2030 and 80% below 1990 levels by 2050; and
- Cancer Risk from Air Toxics: by 2020, reduce residential cancer risk from port-related diesel particulate matter emissions by 85%. (2017 CAAP Update at 25.)

To achieve these goals, the 2017 CAAP Update obligates terminal operators to purchase zero-emission or near-zero emission cargo handling equipment where feasible. In addition, the CAAP sets forth a number of emission reduction measures targeted specifically at reducing vehicle miles traveled by drayage trucks. The CAAP also includes a program to ensure that unnecessary idling of vehicles (including drayage trucks) and equipment does not occur at Port terminals.

1. The “Terminal Equipment Strategy” Sets Specific Goals for Electric and Hybrid Cargo Handling Equipment

As diesel-fueled cargo handling equipment presently comprise a significant portion of diesel particulate matter, NOx, and GHG emissions from the Port, achieving the emission reduction goals in the 2017 CAAP Update will require the transition from diesel-powered cargo handling equipment to electric or hybrid cargo handling equipment. (*Id.* at 49-50.)

The “Terminal Equipment Strategy” in the 2017 CAAP Update sets specific targets to encourage the adoption of zero or near-zero emission cargo handling equipment, including yard tractors, top handlers, side handlers, gentry cranes, reach stackers, fork lifts, dozers, cranes, and assorted loaders. (*Id.* at 49.) Terminal operators are required pursuant to this program to ensure that new equipment purchases be for zero-emission or near-zero equipment, if feasible. And as demonstrated by the Project, it is feasible.

- As required by the 2017 CAAP Update, beginning in 2020, marine terminal operators face a requirement to ensure that newly-purchased cargo handling equipment be zero emissions (electric), if feasible. If zero emissions equipment is not feasible, any newly-purchased equipment must be near-zero emissions (hybrid), if feasible (and if not feasible, the cleanest available). (*Id.* at 52.)

The Project will include infrastructure to power zero emission and near-zero emission cargo handling equipment —and achieving such emissions reductions is the goal of the Terminal Equipment Strategy.

2. The 2017 CAAP Update Calls for the Rapid Installation of Infrastructure to Support Electric and Hybrid Cargo Handling Equipment

To transition from diesel-powered cargo handling equipment to electric or hybrid cargo handling equipment, terminal infrastructure upgrades are needed, including specifically charging

infrastructure for battery-electric technology: “Transitioning the terminal equipment fleet to zero emissions is an ambitious goal, one that is complicated by the current lack of commercially available cleaner technology and inadequate infrastructure to support widespread charging or use of alternative fuels. It is not simply a matter of swapping equipment; there must be years of design, engineering, and construction to install the necessary electric and alternative fuel terminal infrastructure.” (*Id.*) As part of the Project, charging infrastructure will be installed to provide electrical power to battery-powered cargo handling equipment. Construction of such infrastructure for zero and near-zero emissions cargo handling equipment is explicitly directed by the strategy set forth in the 2017 CAAP Update.

Crucially, the 2017 CAAP Update makes clear that it is urgent that terminal operators begin constructing the infrastructure that will be necessary for electrification: “This infrastructure will be costly – as much as \$2 billion according to our estimates – and must be in place before the fleets can transition. Moreover, the longer it takes to install the infrastructure, the less time the operators have to purchase new equipment, which concentrates their costs into a few years and increases their financial burden.” (*Id.*)

In direct contravention of the 2017 CAAP Update, the appeal seeks to stop the installation of infrastructure to provide electrical power to battery-powered cargo handling equipment.

3. The 2017 CAAP Update Targets Drayage Truck Emissions Reductions

Strategies set forth in the 2017 CAAP Update also target emissions reductions from drayage trucks. The strategies include measures to “improve traffic flow, and reduce truck turn times, vehicle miles traveled, and associated truck emissions” and to otherwise “increase overall efficiency for cargo movement in the port complex” by optimizing drayage truck trips. (*Id.* at 78-79.)

The 2017 CAAP Update specifically targets the reduction of air emissions by reducing drayage truck travel times, fuel consumption, and congestion via the implementation of an intelligent transportation system that utilizes the most efficient routes and schedules. (*Id.* at 80.) Under the strategies set forth in the CAAP, emissions from drayage trucks are to decrease due to shorter idling times, improved traffic flow, and fewer total vehicle miles travelled.

The Project will allow for the reduction of drayage truck operational time by up to approximately 65 percent, which will materially reduce associated emissions, including diesel particulate emissions. These reductions will be achieved by making on-terminal drayage truck routes more efficient, directly in line with the 2017 CAAP Update strategy for more efficient drayage truck routes. The Project will achieve the goals of improving traffic flow and lowering vehicle miles travelled, as set forth in the 2017 CAAP Update.

4. The 2017 CAAP Update Specifically Targets Cargo Handling Equipment and Drayage Truck Idling Emissions

The 2017 CAAP Update aims to reduce drayage truck emissions by targeting idling via the Terminal Equipment Idling Reduction Program. (*Id.* at 58-59.) In particular, the CAAP proposes achieving emissions reductions by making operational changes to reduce idling. (*Id.*)

The Project is consistent with the Terminal Idling Reduction Program as it will reduce or eliminate idling emissions for any diesel-fueled cargo handling equipment that are replaced with hybrid or electric cargo handling equipment. Further, more efficient on-terminal truck routes constitute operational changes intended to reduce idling and idling emissions in line with the Terminal Equipment Idling Reduction Program.

5. The 2017 CAAP Update Recognizes the Role of Automation

The 2017 CAAP Update recognizes that automation can contribute to emissions reduction goals:

- “The use of electric cargo-handling equipment on a mass scale was introduced with the opening of the Port of Long Beach Middle Harbor Terminal operated by Long Beach Container Terminal, using commercialized zero-emissions equipment such as automated guided vehicles and intermodal yard cranes. Zero-emissions technology also seems promising for traditionally operated yard tractors and top handlers. Both Ports have begun demonstrating electric yard tractors at multiple terminals with nearly 30 such tractors expected to be in testing or full use by the end of 2019. Additionally, the Port of Los Angeles will demonstrate two battery-electric top handlers beginning in 2019.” (*Id.* at 50-51.)
- “The Ports have recently received grant funding to demonstrate several types of electric terminal equipment including yard tractors, top handlers, high tonnage forklifts, and rubber-tired gantry cranes. These demonstrations include various types of manual, automated, and inductive charging options.” (*Id.* at 74-75.)

The Project’s infrastructure improvements are consistent with the deployment of hybrid and electric cargo handling equipment and the focus on zero emissions technology in the CAAP, which the CAAP recognizes includes automated options.

B. California’s Sustainable Freight Action Plan Sets Targets for Zero Emissions Freight Vehicles and Equipment and Encourages Automation

CARB, the California Department of Transportation, the California Energy Commission, and other agencies issued in 2016 the Sustainable Freight Action Plan as a roadmap for reducing emissions in the freight sector. (*See* State of California, California Sustainable Freight Action Plan (July 2016).) Implementing the Sustainable Freight Action Plan is critical to meeting California’s 2030 targets for GHG emissions reductions, as well as complying with federal Clean Air Act requirements, according to the plan. (*Id.* at 1.) The Sustainable Freight Action Plan sets the following goals:

- Transition to zero emissions technology by deploying over 100,000 freight vehicles and equipment capable of zero emission operation and maximize near-

zero emission freight vehicles and equipment powered by renewable energy by 2030; and

- Improve freight efficiency by 25 percent by increasing the value of goods and services produced from the freight sector, relative to the amount of carbon that it produces by 2030. (*Id.* at 10.)

The Project will result in the construction of infrastructure needed for the deployment of electric and hybrid cargo handling equipment, and the Project is therefore in line with the zero emission equipment goal of the Sustainable Freight Action Plan. Further, the Project will allow for an increase in the efficiency of on-terminal draying truck operations by up to 65 percent, in line with the Sustainable Freight Action Plan’s freight efficiency goal.

1. The Sustainable Freight Action Plan Calls for Electrification of Cargo Handling Equipment

The Sustainable Freight Action Plan calls for “zero emission equipment everywhere feasible, and near-zero emission equipment powered by clean, low-carbon renewable fuels everywhere else.” (*Id.* at 8.)

The Sustainable Freight Action Plan makes clear that emission reduction measures targeting diesel-fired Port cargo handling equipment, such as electrifying cargo handling equipment, are essential to meeting statewide emissions goals: “Currently, freight equipment accounts for about half of the statewide diesel particulate matter emissions, and approximately 45 percent of the statewide nitrogen oxides emissions. Emission reductions from the freight transport system need to be part of the solution.” (*Id.*)

Reducing emissions from diesel-fired Port cargo handling equipment is necessary not just to reduce air emissions but also to reduce adverse impacts to human health caused by toxic substances in the emissions: “Despite substantial progress over the last decade, the diesel equipment operating in and around freight hubs continues to be a significant source of air toxics that can cause localized risks of cancer and other adverse health effects. New health science tells us that infants and children are 1.5 to 3 times more sensitive to the harmful effects of exposure to air toxics than we previously understood, which heightens the need for further risk reduction.” (*Id.* at 6.)

The Sustainable Freight Action Plan includes a number of targeted measures aimed to increase the use of zero emission and near-zero emission cargo handling equipment, and to cause the construction of infrastructure needed for the use of such cargo handling equipment:

- Seaport electrification: the deployment of plug-in electric vehicles and plug-in hybrid electric vehicles and equipment at ports. (*Id.* at C-62.)
- Incentivizing terminal operators to install zero emission vehicle fueling infrastructure, advanced lighting, and other energy efficiency measures. (*Id.* at C-63.)

- The development of medium and heavy duty electric equipment and vehicle charging infrastructure. (*Id.* at C-49.)
- Accelerating the deployment of zero emission technologies in off-road equipment, including forklifts at ports. (*Id.* at C-55.)

Consistent with the overall goals and targeted measures of the Sustainable Freight Action Plan, the Project will result in the construction of infrastructure needed for the use of hybrid and electric cargo handling equipment. If APMT is not permitted to develop the infrastructure to serve electric and hybrid cargo handling equipment, these requirements cannot be met.

2. The Sustainable Freight Action Plan Calls for Reductions in Port Drayage Truck Vehicle Miles Traveled

A primary goal of the Sustainable Freight Action Plan is improving freight efficiency by 25 percent by increasing the value of goods and services produced from the freight sector, relative to the amount of carbon that it produces by 2030. (*Id.* at 10.) The Sustainable Freight Action Plan includes a “Drayage Truck Optimization” strategy that is targeted at port truck operations and intended to improve operational efficiency, reduce congestion, and enhance safety. (*Id.* at C-75.) As recognized by the Sustainable Freight Action Plan, system efficiency improvements can produce air quality benefits by cutting vehicle miles traveled and fuel usage. (*Id.* at E-2.)

The Project will allow for on-terminal draying truck travel to be reduced by up to 65 percent. Enhancing on-terminal route efficiency will enhance the safety of drayage haulers and promote the efficiency goals of the Sustainable Freight Action Plan by reducing emissions associated with the movement of goods. More efficient routes will reduce vehicle miles traveled, and potentially idle time, while decreasing transaction time, allowing for reduced emissions per transaction.

3. California’s Sustainable Freight Action Plan Encourages Automation

The Sustainable Freight Action Plan specifically recognizes that automation can improve efficiency: “Improvements to port terminal efficiency, investments in automated cargo handling and coordination with vessel alliances may benefit port efficiency, increase berth and yard productivity, and alleviate congestion. Efforts are already underway. For example, the Port of Los Angeles’ Pasha terminal and Port of Long Beach’s Long Beach Container Terminal have invested in advanced technology to automate the terminals and improve efficiency.” (*Id.* at G-11.)

The Sustainable Freight Action Plan includes a specific automation strategy targeting the South Coast air basin. (*Id.* at C-61.) The strategy is intended to “accelerate the penetration of zero and near-zero equipment and to promote in-use efficiency gains through use of connected and autonomous vehicles and worksite efficiencies.” (*Id.*) The plan further notes that state and regional air quality regulators will develop “a suite of additional actions through further exploration of opportunities for early penetration of zero and near-zero equipment technologies,

the potential for worksite integration and efficiency, as well as connected and autonomous vehicle technologies.” (*Id.*)

The Project’s infrastructure improvements are consistent with the Sustainable Freight Action Plan’s focus on emissions reductions and worksite efficiencies through zero and near-zero technology.

C. CARB Mandated Zero Emissions Cargo Handling Equipment at Ports by 2030 and Recognizes the Emission Reduction Benefits of Automation

CARB is responsible for developing statewide programs and strategies to reduce air emissions from mobile sources. CARB’s jurisdiction extends to mobile cargo handling equipment used by port terminal operators to transfer goods or perform maintenance and repair activities at ports (such as yard trucks (hostlers), rubber-tired gantry cranes, top handlers, side handlers, forklifts, and loaders).

1. CARB Mandated Zero Emissions Cargo Handling Equipment at Ports by 2030

CARB adopted in 2005 a regulation for mobile diesel-fueled cargo handling equipment at ports, and the regulation was amended in 2011. (13 CCR § 2479, Regulation for Mobile Cargo Handling Equipment at Ports and Intermodal Rail Yards.) CARB’s cargo handling equipment regulation requires emission reductions from in-use cargo handling equipment and sets emissions standards for newly-purchased cargo handling equipment. (*Id.*)

During the adoption of the State Implementation Plan in March 2017, CARB adopted a resolution which directed CARB staff to develop new regulatory requirements for cargo handling equipment that will require up to one hundred percent zero-emissions technologies at ports and intermodal railyards by 2030. (*See* CARB, Addendum to (1) 2016 State Strategy for the State Implementation Plan, Resolution No. 17-7 and (2) 2016 Air Quality Management Plan for Ozone and PM2.5 in the South Coast Air Basin and the Coachella Valley, Resolution No. 17-8 (March 23, 2017).) As part of the same resolution, CARB also directed staff to formulate concepts for an “Indirect Source Rule” to control pollution from large freight facilities, including ports, railyards, warehouses, and distribution centers. (*Id.*)

The Project will include installing recharging stations to provide electrical power to battery-powered container handling equipment. The Project is consistent with CARB’s directives to require zero-emission cargo handling equipment by 2030.

2. CARB Recognizes the Emission Reduction Benefits of Automation

CARB staff released in November 2015 a draft technology assessment for mobile cargo handling equipment (aka CHE) that describes automation as being one of the most promising approaches for reducing air emissions at California ports:

Implementing automated electrified technology at California’s ports and intermodal rail yards represents the most promising

approach for reducing local criteria pollution from CHE to zero or near-zero levels. Staff recommends supporting the transition to automated electrified CHE at container terminals and intermodal rail yards by incentivizing the installation of terminal infrastructure, the development of reliable electrical supply infrastructure, and the purchase of automated equipment. (CARB, Draft Technology Assessment: Mobile Cargo Handling Equipment at III-38 (November 2015).)

CARB's 2015 technology assessment assessed a variety of alternative technologies with the potential to decrease emissions from mobile cargo handling equipment, including: hybrid (electric and hydraulic); all electric (battery and grid source); alternative fuels (hydrogen, compressed or liquefied natural gas); magnetic levitation; lower emission diesel engines (Tier 5); maintenance/reduced engine emissions deterioration; and automated container handling operations. (*See id.*)

CARB concluded that automated technologies (in tandem with electrification) show promise in achieving emissions reduction benefits:

Automated all-electric (battery or grid-powered) equipment has been in use at port container terminals in Europe, Asia, and Australia, since as early as 1993 with the Port of Rotterdam, though it is in very limited use within the United States (U.S.). *Implementing the automation of cargo handling operations requires significant infrastructure investments. However, there are significant efficiencies and safety benefits to be gained with the conversion.* Next steps for encouraging the further deployment of automated electric equipment include both incentivizing the installation of the necessary terminal infrastructure and supporting the development of reliable electrical supply infrastructure necessary for the electrification of the terminals. (*Id.* at ES-4 (emphasis added).)

CARB's 2015 technology assessment found that automation of port terminal and intermodal rail yard container handling operations, particularly for containerized freight, is an energy efficiency strategy that has been discussed since containerized shipping was introduced as a shipping efficiency measure in the mid-1950s. (*Id.* at III-33.) In the view of CARB staff, the advent of technologically advanced cargo handling equipment and container tracking and movement management software has made the terminal efficiency benefits of terminal automation even greater. (*Id.*)

CARB identified a number of operational and infrastructure needs that must be addressed for both terminal automation and electrification, including: electrical infrastructure; concrete foundations and pavement; sensing device matrix embedded in the yard for guiding AGVs; busbars or channels for power reel cables to deliver electricity to electrified cranes; software to coordinate and monitor cargo handling equipment activity as well as organize and coordinate the location and distribution of good being handled; and underground conduit for telecommunication, fiber optics. (*See id.*)

The Long Beach Container Terminal Middle Harbor Project (modernizing and reconfiguring two existing terminals into one fully automated terminal) was estimated to reduce emissions by 50% according to CARB’s findings. (*See id.*)

The Project’s infrastructure improvements are consistent with CARB goals of reduced emission cargo handling equipment.

3. The Project’s GHG Emissions Reductions are Consistent with California’s GHG Reduction Goals

California has legislated aggressive GHG emission reduction goals. Assembly Bill 32, the California Global Warming Solutions Act of 2006, mandated the reduction of GHG emissions to 1990 levels by 2020. Pursuant to AB 32, CARB prepared and adopted a Scoping Plan to “identify and make recommendations on direct emissions reductions measures, alternative compliance mechanisms, market-based compliance mechanisms, and potential monetary and non-monetary incentives” in order to achieve the 2020 goal, and to achieve “the maximum technologically feasible and cost-effective GHG emissions reductions” by 2020 and maintain and continue reductions beyond 2020. (CARB, California’s 2017 Climate Change Scoping Plan at 2 (November 2017).) CARB’s initial AB 32 Scoping Plan called for efficiency measures in the goods movement sector, including electrification measures at ports. (CARB, Climate Change Scoping Plan at 52 (December 2008).) Senate Bill 32, the California Global Warming Solutions Act of 2016, codifies a further reduction in California’s GHG emissions must to 40% below 1990 levels by 2030.

To help achieve these reductions, the Project will allow for the transition of diesel-fueled cargo handling equipment to electric or hybrid cargo handling equipment, and the reduction in operation of diesel-fueled drayage trucks. As such, the Project is consistent with California’s GHG reduction requirements.

D. The Port Master Plan and Accompanying Environmental Impact Report Require Emissions Reduction and Efficiency Measures

As noted above, the improvements proposed as part of the Project are consistent with Port Master Plan policies related to minimizing environmental impacts and minimizing energy consumption and vehicle miles traveled.

The Environmental Impact Report for the Port Master Plan, as well as the mitigation monitoring and reporting program (“MMRP”) adopted by the Los Angeles Harbor Department (“LAHD”) in connection with its adoption of the Port Master Plan, includes the following measures to ensure that potential adverse environmental impacts from the Port Master Plan are reduced to less than significant levels:

- MM AQ-17: Periodic Review Of New Technology And Regulations. “The LAHD shall require Tenants to review, in terms of feasibility and benefits, any LAHD-identified or other new emissions-reduction technology, and report to the LAHD. Such technology feasibility reviews shall take place at the time of LAHD’s consideration of any new lease amendment or facility modification. If

the technology is determined by the LAHD to be feasible in terms of cost, technical and operational feasibility, the Tenant shall work with the LAHD to implement such technology. Potential technologies that may further reduce emission and/or result in cost-savings benefits for the Tenant may be identified through future work on the CAAP, Technology Advancement Program (TAP), Zero Emissions Technology Program, or terminal automation. Over the course of the lease, the Tenant and the LAHD shall work together to identify potential new technologies. Such technology shall be studied for feasibility, in terms of cost, technical and operational feasibility, and emissions reduction benefits. As partial consideration for the LAHD agreement to issue the permit to the Tenant, the Tenant shall implement not less frequently than once every 5 years following the effective date of the permit, new air quality technological advancements, subject to mutual agreement on operational feasibility and cost sharing, which shall not be unreasonably withheld.”

- MM AQ-18: Substitution of New Technology. “If any kind of technology becomes available and is shown to be as effective as or better in terms of emissions reduction performance than the existing measure, the technology could replace the existing measure pending approval by the LAHD. The technology’s emissions reductions must be verifiable through USEPA, CARB, or other reputable certification and/or demonstration studies to the LAHD’s satisfaction.”

MM AQ-17 and MM AQ-18 require APMT and other terminal operators to periodically implement feasible emissions reduction technologies. The Project proposes to do just that by installing infrastructure for zero or near-zero emission cargo handling equipment, an emission reduction technology specifically called for by the Port’s own 2017 CAAP Update, California’s Sustainable Freight Action Plan, CARB, and other laws and policies.

In addition, MM AQ-16 requires a reduction in drayage truck emissions, and MM GHG-2 requires Port tenants to undertake efficiency improvement measures. The Project will reconfigure the drayage truck traffic pattern to increase efficiency in onsite operations. As a result of reconfiguring the traffic pattern, the number of drayage truck transit miles within Pier 400 could be reduced approximately 65 percent from about 25,500 to about 8,500 on a typical day.

The EIR further acknowledges that automated cargo handling equipment can reduce emissions: “As demonstrated though the CAAP Technology Advancement Program (TAP), use of automated cargo handling systems will result in lower emissions of criteria pollutants, DPM [diesel particulate matter], and GHGs compared to operations at conventional container terminals.” (EIR at 3.2-42-43.)

E. SCAQMD’s Air Quality Management Plan, Directives, and Guidance Require Emissions Reductions at the Port

The United States Environmental Protection Agency sets National Ambient Air Quality Standards for criteria pollutants, including NO_x, SO_x, and particulate matter. The federal Clean Air Act requires that states (or local regions) develop plans, known as “State Implementation

Plans” describing how the areas will attain the National Ambient Air Quality Standards. The SCAQMD periodically issues Air Quality Management Plans to address the National Ambient Air Quality Standards, and the SCAQMD most recently issued an Air Quality Management Plan in 2016. Once approved by the SCAQMD and CARB, an Air Quality Management Plan is submitted to EPA as part of the State Implementation Plan for the South Coast Air Basin.

Attaining the National Ambient Air Quality Standards for 2023 and beyond, including the 8-hour ozone and fine particulate matter standards, will require broad deployment of zero and near-zero emission technologies in the South Coast, according to the Sustainable Freight Action Plan. (Sustainable Freight Action Plan at 6.) Currently, freight equipment accounts for about half of the statewide diesel particulate matter emissions, and approximately 45 percent of the statewide NOx emissions. As such, the Sustainable Freight Action Plan declares, “Emission reductions from the freight transport system need to be part of the solution.” (*Id.*)

To address emissions reductions from the Port, SCAQMD’s 2016 Air Quality Management Plan Measure MOB-01 (Emission Reductions at Commercial Marine Ports) calls for a process to evaluate facility-based emission-reduction options for various freight-related operations, including indirect source rules. The SCAQMD has stated that if it comes to believe that adequate progress is not being made to reduce emissions under current standards and program, then the SCAQMD may undertake a rulemaking of its own. (SCAQMD, 2016 AQMP, Measure MOB-01.)

The SCAQMD also provided comments to the ports on the 2017 CAAP Update. (Letter of Wayne Nastri to Harbor Commissioners of Port of Long Beach and Port of Los Angeles, re Final Board Approved CAAP Letter (November 9, 2017).) With respect to cargo handling equipment, the SCAQMD urged measures to trigger the more rapid adoption of zero emission or near-zero emission cargo handling equipment, as well as the construction of infrastructure necessary for such cargo handling equipment, including specifically:

- Retiring all pre-Tier 4 diesel cargo handling equipment as part of the Port’s review of the terminals’ inventory and procurement plans in 2019 and 2020;
- Requiring replacement of the retired cargo handling equipment with zero emission units if feasible; and
- Immediately initiating the construction of the infrastructure necessary to support the transition to zero emission and near-zero emission cargo handling equipment. (*Id.* at 3.)

In addition, CARB identified the area surrounding the Port as one of the areas in the state with the highest cumulative burdens of exposure to air pollution in the state. (*See* CARB, Community Air Protection Program, 2018 Community Recommendations Staff Report (September 2018).) Under AB 617 (2017), a law intended to strengthen air quality monitoring and reduce air pollution in communities most exposed to air pollution impacts, the SCAQMD must now deploy air monitoring systems and oversee adoption of a community emissions reduction plan.

The Project will include infrastructure that is needed for the transition to zero emission or near-zero emission cargo handling equipment and reduce air pollution in the communities

surrounding the Port, in line with the SCAQMD’s direction under the Air Quality Management Plan, guidance on the 2017 CAAP Update, and mandate under AB 617.

F. The Project is Consistent with City of Los Angeles and Long Beach Targets for Reducing Emissions from Goods Movement

On June 12, 2017, Mayor Eric Garcetti of the City of Los Angeles and Mayor Robert Garcia of the City of Long Beach announced a joint declaration for creating a zero-emissions goods movement future – with ultimate goals of zero emissions for cargo handling equipment by 2030, and zero emissions for on-road drayage trucks serving the ports by 2035. In the declaration, Mayor Garcetti and Mayor Garcia made commitments to continue focusing on advancing clean technologies to reduce emissions and combat climate change.

The infrastructure to be installed as part of the Project is entirely consistent with, and is needed to meet the goals of, the joint declaration.

V. APM TERMINALS’ FACILITY LEASE REQUIRES COMPLIANCE WITH EMISSIONS REDUCTION LAWS

APMT’s lease requires that its operations comply with laws, including directives of the Port. Reducing air emissions from cargo handling equipment and drayage trucks is called for under the above-described environmental laws and policies intended to ensure clean air, prevent climate change, and protect public health, including the 2017 CAAP Update, California’s Sustainable Freight Action Plan, and CARB’s and the SCAQMD’s resolutions and directives addressing cargo handling equipment.

Further, in its initial approval of the Pier 400 Marine Terminal project, the Board certified an Environmental Impact Report that included a mitigation measure that encouraged the use of electric power to minimize adverse air quality impacts at the Port. APMT is obligated to periodically document its progress toward electric power to the Port Environmental Management Division. (Mitigation Monitoring and Reporting Program for Pier 400 Container Terminal and Transportation Corridor Project at 1-3 (October 1999).)

The Project will allow for the replacement of diesel-powered cargo handling equipment with electric and hybrid cargo handling equipment, reducing emissions of air toxics, criteria pollutants, and GHGs. The Project will also allow for a significant reduction in the distance traveled by drayage trucks while at the terminal, further reducing emissions. As such, the Project is consistent with numerous environmental laws and policies calling for such emissions reductions, and therefore allows APMT to comply with its lease obligations.

VI. THE LEVEL I PERMIT’S EFFECT ON LABOR IS NOT PART OF THE STANDARDS CONSIDERED UNDER THE PORT MASTER PLAN OR COASTAL ACT

A. Labor Relations are Not an Element of the Standards for a Permit Under the Port Master Plan or Coastal Act

Review of a Level I Coastal Development Permit requires an evaluation of a project's compliance with the Level I Coastal Development Permit requirements. Labor relations, which are the focus of the ILWU appeal, are not part of the standards to be considered in the Port Master Plan or Coastal Act. (See PMP Sections 6.4.3 and 6.7.3.) Nowhere in the Port Master Plan does the issue of labor relations rise to a standard to deny the issuance of a permit or grant an appeal of a permit.

Labor relations are properly addressed as part of the collective bargaining process between the Pacific Maritime Association (and its members, including APMT), and ILWU. They should not be addressed as part of the Port's administrative process for the Level I Permit.

B. Pier 400 Labor Relations are Addressed in Collective Bargaining Agreements

Instead of being addressed as part of the Level I Permit process, labor and management issues at Pier 400 are appropriately addressed in Collective Bargaining Agreements between ILWU representing longshore workers at Pier 400 and the Pacific Maritime Association, representing employers of those workers, including APMT.

It is clear, that the issue of automation was specifically addressed in the Collective Bargaining Agreements. The ILWU and PMA have bargained for decades on issues related to modernizing terminals, implementing technology and introducing automation. The Collective Bargaining Agreement, which was extended in 2017 until 2022, specifically gives APMT the right to automate Pier 400. Under the Collective Bargaining Agreement, ILWU is expressly prohibited from interfering with APMT's right to change methods of work and utilize labor-saving devices. The following two provisions of the Collective Bargaining Agreement clearly provide that under the Collective Bargaining Agreement automation is permitted:

Section 1.72 "It is recognized that the introduction of new technologies, including fully mechanized and robotic-operated marine terminals, necessarily displaces traditional longshore work and workers, including the operating, maintenance and repair, and associated cleaning of stevedore cargo handling equipment. The parties recognize robotics and other technologies will replace a certain number of equipment operators and other traditional longshore classifications. It is agreed that the jurisdiction of the ILWU shall apply to the maintenance and repair of all present and forthcoming stevedore cargo handling equipment in accordance with Sections 1.7 and 1.71 and shall constitute the functional equivalent of such traditional ILWU work. It is further recognized that since such robotics and other technologies replace a certain number of ILWU equipment operators and other traditional ILWU classifications, the pre-commission installation per each Employer's past practice (e.g., OCR, GPS, MODAT, and related equipment, etc., excluding operating system, servers, and terminal infrastructure, etc.), post-commission installation, reinstallation, removal, maintenance and repair, and associated cleaning of such new technologies perform and constitute the functional equivalent of such traditional ILWU jobs." (Emphasis added.)

Section 15 “There shall be no interference by the Union with the Employers’ right to operate efficiently and to change methods of work and to utilize labor-saving devices and to direct the work through employer representatives while explicitly observing the provisions and conditions of this Contract Document protecting the safety and welfare of the employees and avoiding speedup: “Speedup” refers to an onerous workload on the individual worker; it shall not be construed to refer to increased production resulting from more efficient utilization and organization of the work force, introduction of labor-saving devices, or removal of work restrictions.”

As the Collective Bargaining Agreement allowed for automation, the ILWU sought and received jurisdiction over maintenance and repair of any automated stevedore cargo handling equipment at the terminals. And, the ILWU and its members received enhanced benefits and protections, including increases in the Pay Guarantee Plan and a substantial pension increase paid by Pacific Maritime Association members into the ILWU Pension Fund.

Accordingly, while APMT understands ILWU’s concerns with respect to automation, the Level I Permit for the Project is not the appropriate forum to discuss the ILWU concerns and should not be used to unwind rights provided for in the Collective Bargaining Agreement that were properly and openly bargained for over many years.

C. It is an Abuse of Discretion for the Board to Consider Factors other than Compliance with the Port Master Plan and Coastal Act in Reviewing the Level I Permit

In evaluating the Project’s Level I Permit, the Board may only review the Level I Permit for “consistency of the application with the certified Plan and the Coastal Act.” (PMP Section 6.7.3.) This limited review authority is consistent with a January 31, 2019 Memorandum to the Board from the Port’s Director of Planning and Strategy that was approved by the Deputy Executive Director, which states that “[t]he grounds for appeal are limited to allegations that the Executive Director’s determination did not conform to the standards set forth in the certified Plan.” (January 31, 2019 Memorandum on Level I Coastal Development Permits, at p. 2.) Accordingly, the Board may only review whether the Project’s Level I Permit is consistent with the Port Master Plan and the Coastal Act. Collective bargaining issues are not part of the standards established by the Port Master Plan or Coastal Act.

VII. THE LEVEL I PERMIT IS APPROVED AND EFFECTIVE PURSUANT TO THE PERMIT STREAMLINING ACT AND THE PORT MASTER PLAN

The Port Master Plan specifically identifies that Board actions are subject to the Permit Streamlining Act. (PMP Section 6.16.) Under the Permit Streamlining Act, a complete application for a project is “deemed approved” after the applicable time limit for approval has expired and the “public notice required by law” has been given. (*See* Gov. Code, Sections 65957, 65956, subd. (b).) The Level I Permit has been “deemed approved” under the Permit Streamlining Act because (1) the applicable time limit for the Level I Permit approval has

expired and (2) the public notice required by law was given. (See Gov. Code, Sections 65957, 65956, subd. (b).)

Because the Port determined that the Project’s Level I Permit was exempt from CEQA, the Level I Permit was required to be approved or disapproved within 60 days from such determination. The Port determined that the Level I Permit was exempt from CEQA and signed a Notice of Exemption for the Project on November 19, 2018. Therefore, at the latest, pursuant to the Permit Streamlining Act, **the Project was required to be approved or disapproved by January 18, 2019, 60 days after the Notice of Exemption was signed.**

The public notice required by law was provided. The Port provided notice of the Level I Permit as part of the notice for the hearing on January 24, 2019, which was after the date required by the Permit Streamlining Act. Accordingly, the public notice required by law was provided when the Level I Permit was placed on the January 24, 2019 hearing. Therefore, under the Permit Streamlining Act the Level I Permit is deemed approved because the applicable time limit for approval of the Level I Permit has expired and the public notice required by law has been given.

Further, the Port Master Plan requires that Level I Coastal Development Permits be reported to the Board at the meeting immediately following the issuance of the Level I Coastal Development Permit by the Executive Director. (PMP Section 6.4.2.) The Executive Director issued an Executive Director Report approving the Project’s Level I Permit on January 8, 2019. Accordingly, pursuant to the Port Master Plan, the Project’s Level I Permit was required to be reported to the Board at the January 24, 2019 meeting. The Project’s Level I Permit was “pulled” from the January 24, 2019 Board meeting. The Project’s Level I Permit was not heard at the January 24, 2019, as the Port Master Plan requires.

The Port Master Plan states that if the Board does not take action to stay the issuance of a Level I Coastal Development Permit **at the Board meeting after the Level I Coastal Development Permit has been approved by the Executive Director, the permit shall become effective immediately after that Board meeting.** Accordingly, because the Board did not stay the issuance of the Project’s Level I Permit, the Level I Permit is effective. Because the Project’s Level I Permit is effective pursuant to the Port Master Plan, the appeal must be denied.

VIII. CONCLUSION

This Project is a minor infrastructure project that will allow the Pier 400 to modernize with environmentally progressive zero-emissions and near zero-emissions yard equipment and reduce drayage vehicle miles traveled and related emissions consistent with the 2017 Port Clean Air Action Plan Update and the Sustainable Freight Action Plan. As explained in detail above, the Project’s Level I Permit is entirely consistent with the Port Master Plan and the Coastal Act and, as a matter of law, is deemed approved under the Permit Streamlining Act and the Port Master Plan. Granting the appeal would be an abuse of the Board’s discretion and would set a troubling precedent for other Level I Coastal Development Permits and measures to reduce emissions at the Port. Therefore, we respectfully request that the Board of Harbor Commissioners deny the appeal.

Sincerely,



Peter W. Jabbour
Vice President & General Counsel
APM Terminals Pacific LLC

Encl.

cc: Eugene D. Seroka, Executive Director, Port of Los Angeles
Janna B. Sidley, General Counsel, Port of Los Angeles
James C. McKenna, President and CEO, Pacific Maritime Association
Erich P. Wise, Flynn, Delich & Wise

MEMORANDUM

To: APM Terminals

From: Mr. Joseph Hower, PE, DEE
 Dr. Varalakshmi Jayaram
 Amnon Bar-Ilan
 Ramboll US Corporation

Subject: **Technical Evaluation of the APM Terminals
 Landside Infrastructure Project**

EXECUTIVE SUMMARY

APM Terminals has proposed the Installation of Landside Infrastructure to Operate Battery-Electric Powered Equipment (“Project”, APP No. 181108-176; CDP No. 18-25) to modernize the APM Terminal at Pier 400¹. The Project is to replace the existing diesel-powered container handling equipment (CHE) with battery-powered electric CHE.

This memo provides a technical evaluation of the proposed Project for consistency with the Coastal Development Permit (CDP) requirements in the Port Master Plan and California Coastal Act, the California Environmental Quality Act (CEQA), and with local, regional, and state air quality (AQ) and greenhouse gas (GHG) reduction goals as stated in various plans, rules, and regulations. The findings of the technical evaluation are as follows.

- **Level I Coastal Development Permit (CDP) Status of the Project.** The Project does not require any major construction elements, and the limited construction elements required (including minor shallow trenching and backfill for electrical lines and paving for installation of electrical charging stations and other elements) are consistent with a Level I CDP.
- **Status of the Project as categorically exempt under the California Environmental Quality Act (CEQA).** The Project is categorically exempt from the requirements of CEQA, in accordance with the criteria of a Class 1(1), Class 1(3), Class 1(12), Class 1(15), Class 1(32), Class 3(5), Class 3(8), Class 4(12), and Class 11(6) Categorical Exemptions of the City of Los Angeles CEQA Guidelines.
- **Consistency with local, regional, and state AQ and GHG reduction goals as stated in various plans, rules, and regulations.**

Date March 15, 2019

Ramboll
 350 South Grand Avenue
 Suite 2800
 Los Angeles, CA 90071
 USA

T +1 213 943 6300
 F +1 213 943 6301
 www.ramboll.com

¹ The Port of Los Angeles Level I Coastal Development Permit Report dated February 14, 2019, addressed to the Honorable Members of the Board of Harbor Commissioners.

- **Port of Los Angeles (POLA) and Port of Long Beach (POLB) Clean Air Action Plan (CAAP).** The Project supports the Clean Air Action Plan by promoting clean vehicles, equipment technology, and fuels and freight efficiency.
- **The City of Los Angeles Sustainability Plans.** The Project supports the initiative of the City of Los Angeles to improve local AQ and reduce GHGs by replacing existing diesel-powered cargo/container handling equipment with battery-powered electric alternatives.
- **Port Master Plan Update Environmental Impact Report (PMPU EIR).** The Project as detailed in APP No. 181108-176, will be fully consistent with the Port’s Master Plan Update EIR and mitigation measures MM AQ-17 and MM AQ-18.
- **South Coast Air Quality Management District (SCAQMD) Air Quality Management Plan (AQMP).** The Project plans to replace diesel-powered CHE with battery-powered electric CHE. Additionally, the Project will reduce on-site vehicle travel through reconfiguration of the vehicle traffic patterns. These actions are consistent with the goals and measures outlined in the 2016 AQMP.
- **State Greenhouse Gas Goals and Regulations.** The Project will reduce GHGs by increasing port electrification and improving freight transportation efficiencies. The Project is consistent with Executive Order S-3-05, Assembly Bill 32, Executive Order B-30-15, Senate Bill 32, and Assembly Bill 197.
- **California Sustainable Freight Action Plan.** The Project includes the installation of electric charging stations, consistent with the guiding principle of the Sustainable Freight Action Plan (SFAP) to apply innovative and green technology, along with accompanying infrastructure.
- **California Air Resource Board (CARB) Cargo Handling Equipment Regulations.** Replacement of diesel-fueled CHE equipment, which includes rubber tired gantry cranes (RTGs), top-handlers, and yard tractors (or utility tractor rigs [UTRs]), with equivalent electric and hybrid equipment under the Project, enables the terminal to meet compliance requirements in CARB's regulation for CHE at Port and Intermodal Rail Yards (Title 13, Section 2479).
- **AB 617 Community Emissions Reduction Plan.** The Project includes the reduction of air toxic and criteria pollutant emissions, thereby reducing health risk in neighboring communities, consistent with the community emissions reduction plan that the SCAQMD is currently overseeing in communities surrounding the Port pursuant to AB 617 (2017).

Details on these conclusions are provided in the following sections of this memo.

INTRODUCTION

APM Terminals has proposed the installation of landside infrastructure to operate battery-electric powered equipment ("Project", APP No. 181108-176; CDP No. 18-25) to modernize the APM Terminal at Pier 400.² The Project will replace the existing diesel-powered container/cargo handling equipment (CHE) with battery-powered electric CHE. The scope of the Project includes:

- Installation of the charging station infrastructure required to support and effectively operate battery-powered equipment;
- Installation and erection of permanent scaffolding to support a vertical racking system for refrigerated containers, allowing a worker to plug and unplug stacked refrigerated containers;
- Installation and placement of traffic barriers and fencing to reconfigure the vehicle traffic pattern on Pier 400, enhancing the safety of drayage haulers that visit the facility and reducing idling time and the number of drayage truck transit miles within Pier 400;
- Antennas to enhance the existing Wi-Fi network; and
- Installation of related infrastructure to support operation of the equipment at Pier 400 as outlined in Application Number (APP No.) 181108-176.

The proposed Project will reduce emissions of criteria pollutants, toxic air pollutants (e.g., diesel particulate matter, DPM), and GHGs generated by the existing fleet of diesel-powered CHE and trucks, consistent with the goal to reduce harmful pollution from freight sources. Additionally, the reconfiguration of the vehicle traffic pattern on Pier 400 will reduce the diesel and other emissions generated by the drayage haulers that visit the facility. On an average day, these drayage haulers transit about 25,500 miles within Pier 400.³ The reconfigured traffic patterns will reduce the distance trucks must travel within the facility on an average day to approximately 8,500 miles, potentially reducing diesel emissions generated by these over-the-road trucks by 65%.⁴ This memo provides a technical evaluation for the Project that verifies:

- the Level I CDP status of the Project;
- the status of the Project as categorically exempt under CEQA; and,
- consistency with local, regional, and state goals and regulations, including:
 - Port of Los Angeles and Port of Long Beach Clean Air Action Plan (CAAP);
 - The City of Los Angeles Sustainability Plans;
 - Port Master Plan Update Environmental Impact Report;
 - SCAQMD Air Quality Management Plan;

² The Port of Los Angeles Level I Coastal Development Permit Report dated February 14, 2019, addressed to the Honorable Members of the Board of Harbor Commissioners.

³ Based on information obtained from Project applicant.

⁴ Ibid.

- State Greenhouse Gas Goals and Regulations;
- California Sustainable Freight Action Plan;
- CARB CHE Regulations; and
- AB 617 Community Emissions Reduction Plan.

Details on these evaluations are provided in the following sections of this memo.

LEVEL I COASTAL DEVELOPMENT PERMIT STATUS

The proposed Project is located at the Port of Los Angeles (POLA) and is therefore subject to the requirements of the POLA Port Master Plan.⁵ Under the Port Master Plan, projects may be exempt from a CDP, require a Level I CDP, or require a Level II CDP. Exempt projects include activities such as repair and maintenance. Level I CDPs are required for projects occurring within the Harbor District that are minor in nature and are determined to have no significant impacts on the Port or surrounding environment. Level II CDPs are required for projects occurring within the Harbor District that are determined to have a potential to create a significant impact on the Port or surrounding environment.

Projects that conform to all the following requirements are eligible for Level I CDPs:

- Minimal resources are involved;
- Only minimal change in land and/or water use, and in the density, or intensity of the use of land and water area may occur; and
- There are no significant adverse environmental impacts.

Examples in the Port Master Plan of projects that would qualify for Level I CDPs include, but are not limited to: minor grading; paving; lighting; fencing; installation of structures such as modular offices/buildings, storage buildings, restrooms facilities, floating docks, and guard houses; demolition of wharves, buildings, tanks, or exterior equipment; removal of pipelines; and major building renovations.

The Project fits precisely within the Port Master Plan’s description of Level I CDP projects. The Project is limited in scope and only requires minor shallow trenching and backfill for utilities (electrical/fiber) and pavement, with no need for soil stockpiling, import or export. Groundwater will not be encountered during installation of the Project equipment and, thus, no dewatering will be required.

The Project will require shallow trenching to extend POLA’s existing underground electrical conduits to supply power to the charging stations and to pour the concrete foundations to support the refrigerated container vertical racking system and electric charging stations. The poles for the proposed Wi-Fi antennas will be adjacent to existing light poles. There are currently approximately 240 light poles at Pier 400. The existing light poles are approximately 120 feet tall (with existing Wi-Fi equipment affixed to the light poles at about 80 feet). An additional 20 antennas are proposed to be installed on separate poles that will be about 80 feet tall with the Wi-Fi equipment affixed at approximately 60 feet. The shallow

⁵ Port of Los Angeles. 2018. Port Master Plan. September. Available at: https://kentico.portoflosangeles.org/getmedia/adf788d8-74e3-4fc3-b774-c6090264f8b9/port-master-plan-update-with-no-29_9-20-2018. Accessed: March 2019.

trenches and excavations for the utilities lines and poles will be backfilled and the surface restored with pavement to match the surrounding area.⁶

The Project also results in minimal to no change in the density or intensity of the use of land and water. Throughput capacity is a function of ship to shore cranes. The Project would not alter the dockside crane capacity, or throughput, at the terminal.

Accordingly, it is appropriate that the Project was categorized as a Level I Permit. It does not require any major construction elements, involves minimal resources, and little to no change in the land use. The limited construction elements required (including minor shallow trenching and backfill and paving) would not warrant a Level II CDP.

As described further below, the Project would not have adverse environmental impacts and would have beneficial environmental effects.

CEQA COMPLIANCE

The proposed Project as described in APP No. 181108-176 would involve minimal construction activity, including some shallow trenching and backfill and paving. The Project is consistent with the criteria for the following CEQA exemptions.⁷

- *Class 1. Existing Facilities. Class 1 consists of the operation, repair, maintenance, permitting, leasing, licensing, or minor alteration of existing public or private structures, facilities, mechanical equipment, or topographical features, involving negligible or no expansion of existing or former use. Examples of this exemption relevant to the Project include:*
 - *Class 1 (1): Interior or exterior alterations involving remodeling or minor construction where there (sic) be negligible or no expansion of use.*
 - *Class 1 (3): Operation, repair, maintenance or minor alteration of existing highways and streets, sidewalks, gutters, bicycle and pedestrian trails, storage areas, parking lots, aircraft parking areas, wharves, railroads, runways, taxiways, navigable waterways, bridle trails, service roads, fire lanes and golf-cart paths, except where the activity will involve removal of a scenic resource including but not limited to a stand of trees, a rock outcropping or an historic building.*
 - *Class 1 (12): Outdoor lighting and fencing for security and operations.*
 - *Class 1 (15): Installation of traffic signs, signals and pavement markings, including traffic channelization using paint and raised pavement markers.*
 - *Class 1 (32): Installation, maintenance or modification of mechanical equipment and public convenience devices and facilities which are accessory to the use of the existing structure or facilities and involve the negligible or no expansion of use.*
- *Class 3. New Construction of Small Structures. Class 3 consists of construction and location of limited numbers of new, small facilities or structures, installation of small new equipment and facilities in small structures; and the conversion of existing small structures from one use to another where only*

⁶ Based on information obtained from Project applicant.

⁷ City of Los Angeles Environmental Quality Act Guidelines (CF# 02-1507).

minor modifications are made in the exterior of the structure. The numbers of structures described in this section are the maximum allowable within a two-year period. Examples of this exemption to the Project include, but are not limited to:

- *Class 3 (5): water main, sewage, electrical, gas and other utility extensions of reasonable lengths to serve already approved construction.*
- *Class 3 (8): Additions to underground electric and water utility distribution system facilities such as cables, conduits, pipelines, manholes, vaults and appurtenances, including connections to existing overhead electrical utility distribution.*
- *Class 4. Minor Alterations to Land. Class 4 consists of minor public or private alterations to the condition of land, water and/or vegetation which do not involve removal of mature, scenic trees except for forestry and agricultural purposes. An example of this exemption relevant to the Project includes:*
 - *Class 4 (12): minor trenching or backfilling where the surface is restored.*
- *Class 11. Class 11 consists of construction or placement of minor structures accessory to (appurtenant to) existing commercial, industrial, or institutional facilities. An example of this exemption relevant to the Project includes:*
 - *Class 11 (6): Construction or placement of minor structures accessory to (appurtenant to) existing commercial, industrial or institutional facilities.*

As described above, the Project involves minor exterior alterations to the existing facility, including minor shallow trenching, backfill and paving, and the surface installation of equipment (such as electric charging stations) and traffic barriers. This minor exterior alteration is consistent with a Class 1(1) exemption because it is an exterior alteration that involves minor construction and negligible or no expansion of use and a Class 1(3) exemption as the minor alteration to an existing wharf.

The installation of the charging stations, scaffolding, small antenna poles, and conduit also are consistent with a Class 1(32) exemption as the installation or modification of mechanical equipment that is necessary to use the existing structures and facilities.

The fencing for the Project is consistent with a Class 1(12) exemption because it is fencing for security and operations, and the installation of traffic barriers is consistent with a Class 1(15) exemption because the Project would install raised pavement markers to reconfigure the vehicle traffic pattern on Pier 400.

The conduit and antenna poles that are proposed as part of the Project are also consistent with a Class 3(5) exemption as the extension of utilities to serve already approved construction. The conduit is also consistent with a Class 3(8) exemption as an addition to underground electrical conduit.

The minor trenching and backfilling for the installation of the utilities, the foundations for the charging stations and scaffolding, and the installation of the antenna poles also is consistent with a Class 4(12) exemption because it is minor trenching and backfilling and the surface will be restored.

The Project is also consistent with a Class 11(6) exemption because it would construct minor structures accessory to an existing industrial facility.

The development of the APM Terminals facility (i.e., Pier 400) was also evaluated in a prior Environmental Impact Report that was certified by the Board in October 1999 (SCH No. 98031135). The Project’s nominal scope is consistent with and covered by the project analyzed in the 1999 certified Environmental Impact Report for Pier 400’s development.

The endangered California least tern bird species occupies a protected nesting site adjacent to the southern boundary of the APM Terminal. The least tern is protected by both the Federal and State Endangered Species Acts and has historically nested in the Los Angeles Harbor area. Through an agreement with the U.S. Fish and Wildlife Service, California Department of Fish and Wildlife, and U.S. Army Corps of Engineers, the Port of Los Angeles maintains, monitors, and protects 15 acres of sand for the nesting of the least tern. Monitoring is conducted by licensed, experienced avian biologists, and managed by Port staff.

The Project’s minor trenching and pavement would occur completely within the APM Terminals site, well outside of the protected nesting site. The operation of the new equipment would not affect the nesting site or any offsite areas other than through the beneficial reduction in air emissions.

Rather than a significant adverse impact, the proposed Project would have beneficial effects on the environment. By changing diesel-powered equipment that are sources of criteria air pollutants and hazardous air pollutants, with electrified equipment that would have little to no tailpipe emissions, the proposed Project would reduce air quality impacts at the Port. By changing diesel-powered equipment that would be a source of GHGs with electrified equipment which would have lower GHG emissions, the Project would reduce GHG emissions at the Port. By reducing on-terminal drayage truck vehicle miles travelled the Project would further reduce air pollutants and GHG emissions.

Given the limited nature of the physical changes associated with the Project, no feature of the proposed Project would have a potential adverse impact on any environmental resource.

CONSISTENCY WITH LOCAL, REGIONAL, AND STATE AQ AND GHG REDUCTION GOALS

This section evaluates the consistency of the proposed Project with the local, regional, and state AQ and GHG reduction goals stated in various plans, rules, and regulations.

Port of Los Angeles and Port of Long Beach Clean Air Action Plan (CAAP)

In November 2017, the Ports of Long Beach and Los Angeles adopted a Clean Air Action Plan Update. The CAAP outlines goals, strategies, and guidance to achieve emissions reductions at the ports.⁸ Air quality targets set forth in the CAAP include:

- Reducing GHG emissions by 40% below 1990 levels by 2030 and 80% below 1990 levels by 2050;
- Reducing port-related emissions by 59% for oxides of nitrogen (NO_x), 93% for oxides of sulfur (SO_x) and 77% for DPM by 2023 relative to 2005 levels; and
- Reducing residential cancer risk from port-related DPM emissions by 85% in 2020 relative to 2005 levels.

⁸ San Pedro Bay Ports Clean Air Action Plan 2017 (CAAP). November 2017. Port of Long Beach and Port of Los Angeles. Available at: <http://www.cleanairactionplan.org/documents/final-2017-clean-air-action-plan-update.pdf/>. Accessed: March 2019.

Under the clean vehicles, equipment technology and fuels section, the CAAP states that the Ports must align their terminal equipment strategy with the CARB’s zero-emission CHE requirement of achieving up to 100% compliance with zero emission CHE by 2030.⁹ The CAAP specifically identifies RTGs, UTRs, and top handlers as the three pieces of CHE with the greatest contribution to emissions (86% of DPM, 88% NO_x and 91% of GHGs from CHE at the Port).¹⁰ The CAAP also notes that there is a need for energy infrastructure improvements including electrical recharging stations. The proposed Project is expected to result in decommissioning of a number of diesel-powered CHE, thereby eliminating GHG, NO_x, SO_x, and DPM emissions associated with these equipment. Additionally, the proposed Project will include charging station infrastructure to support the new battery-powered equipment that would replace the diesel-powered CHE. Both actions are consistent with the goals of the CAAP.

As part of its freight efficiency goals, the CAAP includes strategies that “improve traffic flow, and reduce truck turn times, vehicle miles traveled, and associated truck emissions”¹¹ and to otherwise “increase overall efficiency for cargo movement in the port complex”¹² by optimizing drayage truck trips. The proposed Project would reconfigure on-terminal drayage truck routes to improve traffic flow and lower vehicle miles travelled, as set forth in the CAAP port truck reservation system strategy.¹³

While the CAAP does not set specific goals for automation, it notes that certain automation measures may assist in achieving CAAP goals. Automation can increase efficiency, thereby reducing air emissions and accomplishing the goals of the CAAP. Automation may also be a necessary by-product of vehicle electrification. For instance, “The use of electric cargo-handling equipment on a mass scale was introduced with the opening of the Port of Long Beach Middle Harbor Terminal operated by Long Beach Container Terminal, using commercialized zero-emissions equipment such as automated guided vehicles and intermodal yard cranes.” Further, “The Ports have recently received grant funding to demonstrate several types of electric terminal equipment including yard tractors, top handlers, high tonnage forklifts, and rubber-tired gantry cranes. These demonstrations include various types of manual, automated, and inductive charging options.” The Project will include electric CHE and increase overall freight handling efficiency, thereby contributing towards the CAAP’s goals.

City of Los Angeles Sustainability Plans

The City of Los Angeles Sustainable City pLAN (“pLAN”) contains strategies to address current and future climate change impacts and to reduce air quality emissions. The pLAN sets aspirations for 14 target areas, among which “carbon and climate leadership,” and “mobility and transit” are applicable to Port activities. Specifically, among the pLAN strategies are 1) to convert local goods movement to zero emissions by supporting the development of zero emissions technologies through pilots and 2) supporting the implementation of the current Clean Air Action Plan at San Pedro Bay Ports.¹⁴

⁹ CAAP Section 1.2: Terminal Equipment, page 51.

¹⁰ CAAP Section 1.2: Terminal Equipment, page 53.

¹¹ CAAP Section 3.2: Port Truck Reservation System, page 78.

¹² CAAP Section 3.2: Port Truck Reservation System, page 79.

¹³ CAAP Section 3.2: Port Truck Reservation System, page 77.

¹⁴ City of Los Angeles. 2015. Sustainable city pLAN. April. Page 79. Available at: <https://www.dropbox.com/s/e768n31r3k379w7/the-plan.pdf?dl=0>. Accessed: March 2019.

On June 12, 2017, Mayor Eric Garcetti of the City of Los Angeles and Mayor Robert Garcia of the City of Long Beach announced a joint declaration for achieving goods movement with zero-emissions goods. The joint declaration set goals of zero emissions for CHE by 2030, and zero emissions for on-road drayage trucks serving the ports by 2035. In the declaration, Mayor Garcetti and Mayor Garcia made commitments to continue focusing on advancing clean technologies to reduce emissions and combat climate change.

The Project would support these initiatives by the City to improve local air quality and reduce GHGs by replacing diesel-powered CHE with battery-powered electric alternatives and implementing measures in the CAAP.

Port Master Plan Update and Environmental Impact Report

In August 2013, the Port of Los Angeles Board of Harbor Commissioners certified the Port's Master Plan Update Environmental Impact Report (PMPU EIR),¹⁵ updating the Port's previous master plan (Port Master Plan or PMP), which was approved in April 1980. The PMP designated Pier 400, the Project site, as being part of Planning Area 9, which allowed for general cargo, liquid bulk, dry bulk, commercial fishing, institutional, industrial, and other uses. The 2013 PMPU EIR re-designated planning areas throughout the Port, and the Project site now falls into Planning Area 3, which allows for container, liquid bulk, dry bulk, maritime support, and open space uses. Because the proposed Project does not include any plans to change the designated use of the site, the Project would be consistent with the allowable uses under the PMPU. The Project would not alter the dockside crane capacity, or throughput, at the terminal.

The Mitigation Monitoring and Reporting Program for the PMPU¹⁶ includes the following mitigation measures to reduce emissions from CHE at terminals:

- MM AQ-17 (Periodic Review of New Technology and Regulations) which requires tenants to periodically (at least once every 5 years) review potential technologies that may further reduce emissions and/or result in cost-savings benefits for the tenant; and
- MM AQ-18 (Substitution of New Technology), which states: "If any kind of technology becomes available and is shown to be as effective as or better in terms of emissions reduction performance than the existing measure, the technology could replace the existing measure pending approval by the LAHD".

The proposed Project complies with MM-AQ-17 and MM-AQ-18 by eliminating localized emissions from diesel fueled CHE that will be replaced with equivalent battery-powered CHE.

The Project is consistent with the requirements of the CHE mitigation measures in the Mitigation Monitoring and Reporting Program for the PMPU.

¹⁵ POLA. 2013. Final Program Environmental Impact Report. August. Available at: <https://kentic.portoflosangeles.org/getmedia/e5b0aea9-fbf7-4a6c-8093-86b6431634af/2-0-Program-Description>. Accessed: March 2019.

¹⁶ POLA. 2013. Port of Los Angeles Master Plan Update Mitigation Monitoring and Reporting Program. Available at: <https://kentic.portoflosangeles.org/getmedia/e75bbb31-de0b-430a-87ff-2de0b41cf322/PMPU-PEIR-MMRP>. Accessed: March 2019.

SCAQMD Air Quality Management Plan

The SCAQMD is responsible for developing the regional Air Quality Management Plan (AQMP) to outline the goals and controls to reduce district-wide emissions, primarily NO_x, PM, and toxic air contaminants. The AQMP provides a method for meeting the district's air quality needs and complying with the State Implementation Plan (SIP) and California Air Resources Board (CARB) control measures.

The most recent AQMP is the 2016 AQMP, which identified off-road mobile sources, including CHE, as one of the primary contributors to the district's air quality challenges.¹⁷ It also states that "Mobile sources such as trucks, locomotives, and cargo handling equipment have technological potential to achieve zero- and near-zero emission levels." Hence, the CARB's proposed SIP strategy for reduction in emissions from off-road equipment discussed in Chapter 4 of the AQMP focuses on "Further Deployment of Cleaner Technologies for Off-Road Equipment". The goal of this measure is to accelerate the use of near-zero and zero emission equipment to promote in-use efficiency gains through use of connected and autonomous vehicles, and worksite efficiencies.

The AQMP specifically proposed two source measures to address emissions from CHE at the Ports. These include:

- a facility-based mobile source control measures, MOB-01 - Emission Reductions at Commercial Marine Ports, which is intended to make actions under the CAAP an enforceable commitment through regulations and/or other means, and
- an off-road mobile source control measure, MOB-13- Off-Road Mobile Source Emission Reduction Credit (MSERC) Generation Program, which would accelerate the early deployment of near-zero and zero-emissions off-road equipment through generation of MSERC that could be used for purposes of recognizing emission reductions under MOB-01.

Because the proposed Project will replace diesel-powered CHE with zero and near-zero emissions battery-powered electric CHE, it is consistent with the goals and measures outlined in the 2016 AQMP. Additionally, the Project will reconfigure the vehicle traffic pattern on Pier 400, resulting in an approximately 65% reduction in diesel emissions from on-road drayage trucks within Pier 400. This will reduce emissions as required under MOB-01.

State Greenhouse Gas Goals and Regulations

The State of California has taken an aggressive approach to mitigate the State's impact on climate change through the adoption of policies and legislation centered on reducing greenhouse gas (GHG) emissions. Many of the resulting initiatives have touched on freight transportation and the State's ongoing strategy to increase port electrification and improve freight transportation efficiency. The discussion below summarizes the State's key GHG reduction goals and demonstrates that the Project is consistent with those goals.

¹⁷ SCAQMD. 2017. Final 2016 Air Quality Management Plan. March. Available at: <http://www.aqmd.gov/docs/default-source/clean-air-plans/air-quality-management-plans/2016-air-quality-management-plan/final-2016-aqmp/final2016aqmp.pdf?sfvrsn=15>. Accessed: March 2019.

Executive Order S-3-05

In 2005, the Governor of California issued Executive Order (EO) S-3-05, which identifies Statewide GHG emission reduction targets to achieve long-term climate stabilization as follows:

- Reduce GHG emissions to 1990 levels by 2020; and
- Reduce GHG emissions to 80 percent below 1990 levels by 2050.

In response to EO S-3-05, the California Environmental Protection Agency (CalEPA) created the Climate Action Team (CAT), which in March 2006 published the Climate Action Team Report (the "2006 CAT Report").¹⁸ The 2006 CAT Report identified a recommended list of strategies that the State could pursue to reduce GHG emissions. Amongst the listed strategies were two focused specifically on shipping technology and infrastructure, as well as strategies targeting the reduction of passenger and light-duty truck emissions, the reduction of idling times for diesel trucks, increased use of alternative fuels, increased recycling, and landfill methane capture.

Assembly Bill 32

California's major initiative for reducing GHG emissions is outlined in Assembly Bill 32 (AB 32), the "California Global Warming Solutions Act of 2006," signed into law in 2006. AB 32 codifies the Statewide goal of reducing GHG emissions to 1990 levels by 2020 (essentially a 15 percent reduction below 2005 emission levels; the same requirement as under EO S-3-05) and requires CARB to prepare a Scoping Plan that outlines the main State strategies for reducing GHGs to meet the 2020 deadline. In addition, AB 32 requires CARB to adopt regulations to require reporting and verification of the State's largest industrial emitters.

CARB approved the initial AB 32 Scoping Plan on December 11, 2008 and a 2020 Statewide GHG emission limit of 427 MMT of CO₂e was established.¹⁹ The Scoping Plan included measures to address GHG emission reduction strategies related to a variety of sectors, including freight transportation. At the time, these strategies were focused on requiring ship electrification at ports and seeking greater efficiency from heavy-duty engines. The Scoping Plan also acknowledged the reductions in GHG emissions that would be achieved through the clean air plans being implemented by California ports (see previous discussion of the CAAP).²⁰

In 2014, CARB adopted the *First Update to the Climate Change Scoping Plan: Building on the Framework* (2014 First Update). The stated purpose of the 2014 First Update was to "highlight [...] California's success to date in reducing its GHG emissions and lay [...] the foundation for establishing a broad framework for continued emission reductions beyond 2020, on the path to 80 percent below 1990 levels

¹⁸ California Environmental Protection Agency (CalEPA). 2006. Climate Action Team Report to Governor Schwarzenegger and the Legislature. March. Available at: http://www.climatechange.ca.gov/climate_action_team/reports/2006report/2006-04-03_FINAL_CAT_REPORT.PDF. Accessed: March 2019.

¹⁹ CARB. 2008. Climate Change Scoping Plan: A Framework for Change. December. Available at: https://www.arb.ca.gov/cc/scopingplan/document/adopted_scoping_plan.pdf. Accessed: March 2019.

²⁰ Id. at p. 52.

by 2050.”²¹ The First Update found that California was on track to meet the 2020 emissions reduction mandate established by AB 32, and noted that California could reduce emissions further by 2030 to levels squarely in line with those needed to stay on track to reduce emissions to 80 percent below 1990 levels by 2050 if the State realizes the expected benefits of existing policy goals.²² The First Update also highlighted the need for integrated policy planning for freight transportation and introduced the Sustainable Freight Initiative, “a broad, multi-decade effort to develop, fund, and implement the changes necessary to achieve a sustainable freight system.”²³

In November 2017, CARB published California’s 2017 Climate Change Scoping Plan (Second Update).²⁴ This update identified CARB’s strategy for achieving the state’s 2030 GHG target as established in Senate Bill (SB) 32 (discussed below). The strategy includes continuation of the Cap-and-Trade Program through 2030, implementation of the Sustainable Freight Action Plan (see section on Sustainable Freight Action Plan for details) to improve freight efficiency and transition to zero emission freight handling technologies, and incorporates a Mobile Source Strategy that includes strategies targeted to increase zero emission vehicle fleet penetration and a more stringent target for the Low Carbon Fuel Standard by 2030.²⁵

Executive Order B-30-15

EO B-30-15 established a Statewide mid-term GHG reduction target of 40 percent below 1990 levels by 2030. Targets set beyond 2020 provide market certainty to foster investment and growth in industries like clean energy.

Senate Bill 32 and Assembly Bill 197

Enacted in 2016, SB 32 (Pavley, 2016) codifies the 2030 emissions reduction goal of EO B-30-15 by requiring CARB to ensure that statewide GHG emissions are reduced to 40 percent below 1990 levels by 2030.

SB 32 was coupled with a companion bill, AB 197 (Garcia, 2016). Designed to improve the transparency of CARB’s regulatory and policy-oriented processes, AB 197 created the Joint Legislative Committee on Climate Change Policies, a committee with the responsibility to ascertain facts and make recommendations to the Legislature concerning statewide programs, policies, and investments related to climate change. AB 197 also requires CARB to make certain GHG emissions inventory data publicly available on its website; consider the social costs of GHG emissions when adopting rules and regulations designed to achieve GHG emission reductions; and, include specified information in all Scoping Plan updates for the emission reduction measures contained therein.

²¹ CARB. 2014. First Update to the Climate Change Scoping Plan: Building on the Framework. May. p. 4. Available at: https://www.arb.ca.gov/cc/scopingplan/2013_update/first_update_climate_change_scoping_plan.pdf. Accessed: March 2019.

²² Id. at p. 34.

²³ Id. at p. 51.

²⁴ CARB. 2017. California’s 2017 Climate Change Scoping Plan. November. Available at: https://www.arb.ca.gov/cc/scopingplan/scoping_plan_2017.pdf. Accessed: March 2019.

²⁵ Id. at p. 22.

Consistency of the Project

The State has established numerous initiatives to reduce GHG emissions and has identified the freight transportation sector as an area where additional reductions can be achieved. The State has focused on achieving these reductions through increased port electrification and improved freight transportation efficiency, and these strategies were specifically identified in the AB 32 Scoping Plan. The State also has identified the need for integrated policy planning for freight transportation and has set the stage for the Sustainable Freight Action Plan.

The Project would replace existing diesel-powered CHE with electric-powered CHE. The Project would also involve the installation and placement of traffic barriers and fencing, which would not only enhance the safety of drayage haulers, but also substantially reduce the amount of on-site vehicle miles travelled (VMT). These actions would result in substantial GHG reductions and are in-line with the freight transportation strategies presented by the State to date. Therefore, the Project is consistent with and furthers the State's GHG reduction goals.

California Sustainable Freight Action Plan

The California Sustainable Freight Action Plan (SFAP)²⁶ was developed in response to Governor Brown's Executive Order B-32-15,²⁷ to establish "clear targets to improve freight efficiency, transition to zero-emission technologies, and increase competitiveness of California's freight system." To achieve the objectives in the Governor's Executive Order, the SFAP states that "strategic partnerships and well-planned investments around deployment of new technologies and major infrastructure upgrades" will be required, and "near-term efforts must integrate new technologies that are commercially viable, help promising technologies become commercially viable through tools like purchase incentives and aggregated group purchasing, as well as provide supportive infrastructure upgrades." Furthermore, to ensure progress toward a sustainable freight system, the entities participating in the SFAP were ordered to initiate work on corridor-level freight pilot projects within the State's primary trade corridors that integrate advanced technologies, alternative fuels, freight and fuel infrastructure, and local economic development opportunities. This transition of California's freight transport system is essential to supporting the State's economic development in coming decades while reducing harmful pollution affecting many California communities. Modernizing California's freight transport system in a manner that improves safety and reduces pollution is essential to improve public health and meet environmental imperatives.

SFAP's long-term vision is to, "utilize a partnership of federal, State, Regional, local, community, and industry stakeholders to move freight in California on a modern, safe, integrated, and resilient system that continues to support California's economy, jobs, and healthy livable communities. Transporting freight reliably and efficiently by zero emission equipment everywhere feasible, and near-zero emission equipment powered by clean, low-carbon renewable fuels everywhere else."

²⁶ California Sustainable Freight Action Plan (July 2016). Available at: http://dot.ca.gov/hq/tpp/offices/ogm/cs_freight_action_plan/Documents/CSFAP_FINAL_07272016.pdf. Accessed: March 2019.

²⁷ Available at: <https://www.ca.gov/archive/gov39/2015/07/17/news19046/index.html>. Accessed: March 2019.

To achieve its long-term vision, the SFAP formulates several Guiding Principles and Targets, which are to be achieved through public, industry, and stakeholder collaboration to make progress toward the long-term vision. Key Guiding Principles and Targets applicable to the Project actions include the following:

- Support local and regional efforts to improve trade facilities and corridors that achieve regional environmental, public health, transportation, and economic objectives consistent with statewide policy goals.
- Reduce freight-related deaths and injuries.
- Reduce or eliminate health, safety, and quality of life impacts on communities that are disproportionately affected by operations at major freight corridors and facilities. This includes reducing toxic hot spots from freight sources and facilities, and ensuring continued net reductions in regional freight pollution.
- Invest strategically to accelerate the transition to zero and near-zero emission equipment powered by renewable energy sources, including supportive infrastructure.
- Apply innovative and green technology, along with accompanying infrastructure and applicable practices, to optimize the efficiency of the freight transportation system.
- System Efficiency Target: Improve freight system efficiency 25% by increasing the value of goods and services produced from the freight sector, relative to the amount of carbon that it produces by 2030.
- Transition to Zero Emission Technology Target: Deploy over 100,000 freight vehicles and equipment powered by renewable energy by 2030.

The SFAP includes multiple State agency Actions which will be used to meet the vision of the SFAP. Specifically, Action 4 is, "Accelerate use of clean vehicle and equipment technologies and fuels for freight through targeted introduction of zero and near-zero emission technologies, and continued development of renewable fuels." Measures within this action include expansion of zero emission technologies into off-road equipment and advancing development of autonomous systems, particularly if based on zero emission technologies.

The Project is consistent with the long-term vision of the SFAP through the following actions:

- The proposed Project includes the installation of traffic barriers and fencing that will simultaneously reduce on-terminal drayage truck vehicle miles travelled (VMT) and enhance the safety of drayage haulers that visit the facility. Drayage truck VMT reduction helps achieve the SFAP's System Efficiency Target. Further, enhancements in safety of drayage haulers is consistent with the SFAP Guiding Principle objective to reduce freight-related deaths and injuries.
- The proposed Project will include the replacement of diesel-powered CHE with battery-powered CHE and the installation of supporting infrastructure, specifically re-charging stations that supply electricity to the battery-powered equipment. Replacement of diesel-powered CHE with a battery-powered equivalent reduces DPM emissions from port operations; this action is consistent with the SFAP Guiding Principle to reduce health, safety, and quality of life impacts on communities. The deployment of battery-powered CHE helps achieve the SFAP's targets for System Efficiency and Transition to Zero Emission Technology. Finally, the construction of electric re-charging stations under the proposed

Project is consistent with SFAP Action 4 and SFPA Guiding Principles to invest in and apply innovative and green technology, along with accompanying infrastructure.

- The proposed Project will include the installation of Wi-Fi infrastructure necessary for guidance systems for automation facilitates the adoption of electric CHE and increase overall freight handling efficiency, thereby contributing towards the SFAP System Efficiency Target.

CARB CHE Regulations and Goals

California Air Resources Board (CARB) has established the Regulation for Mobile Cargo Handling Equipment at Ports and Intermodal Rail Yards (Title 13, Section 2479) to achieve reductions in emissions and protect public health near the Port. The regulation establishes best available control technology (BACT) standards for CHE operating at the Ports with the aim to reduce NO_x and DPM emissions. The regulation requires new CHE to be equipped with Tier 4 Final off-road diesel engines or the highest level available verified diesel emission control strategy, as applicable. In-use CHE is subject to a compliance schedule for fleet turnover to BACT. The CHE fleet may also choose to comply with the alternative emission control strategies (AECS) in section 2479 (h)(D) including:

- Equipment engine modifications,
- Exhaust treatment control,
- Engine repower,
- Equipment replacement,
- Use of alternative fuels,
- Hybrid technology, and
- Electric equipment.

Replacement of diesel-fueled CHE equipment (RTGs, top-handlers and UTRs) with equivalent electric equipment satisfies CARB's requirements for CHE at ports and intermodal rail yards. Electric CHE falls under the criteria of AECS required by the regulation. In addition, deploying electric CHE prepares the terminal to meet future more stringent requirements of CARB's CHE regulation that are currently being developed under Resolution 17-8 of the Proposed SIP Strategy, and which will require CHE to achieve up to 100% compliance with zero emission technology by 2030.²⁸

CARB published in November 2015, the Draft Technology Assessment: Mobile Cargo Handling Equipment in order to inform and support CARB planning and regulatory efforts.²⁹ CARB's Technology Assessment assessed a variety of alternative technologies with the potential to decrease emissions from mobile cargo handling equipment, including: hybrid (electric and hydraulic); all electric (battery and grid source); alternative fuels (hydrogen, compressed or liquefied natural gas); magnetic levitation; lower emission

²⁸ CARB. Resolution 17-8 of the Proposed SIP Strategy. 2018. Page 2. Available at: <https://www.arb.ca.gov/board/res/2017/https://www.arb.ca.gov/board/res/2017/addendum17-8.pdf>. Accessed: March 2019.

²⁹ CARB. Draft Technology Assessment: Mobile Cargo Handling Equipment. Available at: https://www.arb.ca.gov/msprog/tech/techreport/che_tech_report.pdf?_ga=2.164492344.601849137.1552405148-483290622.1543507065. Accessed: March 2019.

diesel engines (Tier 5); maintenance/reduced engine emissions deterioration; and automated container handling operations. The Draft Technology Assessment describes automation as being one of the most promising approaches for reducing air emissions at California ports: "Implementing automated electrified technology at California's ports and intermodal rail yards represents the most promising approach for reducing local criteria pollution from CHE to zero or near-zero levels. Staff recommends supporting the transition to automated electrified CHE at container terminals and intermodal rail yards by incentivizing the installation of terminal infrastructure, the development of reliable electrical supply infrastructure, and the purchase of automated equipment." In the view of CARB staff, the advent of technologically advanced cargo handling equipment and container tracking and movement management software has made the terminal efficiency benefits of terminal automation even greater. The study indicates that the most promising technologies for CHE emission reductions are automated electric equipment at container terminals and hybrid equipment at bulk terminals. Since the Project will implement battery-powered CHE to replace existing diesel-powered CHE, it is consistent with CARB's goal for CHE at the terminal.

Assembly Bill 617

AB 617, passed in July 2017, requires CARB to identify communities exposed to high levels of air emissions so that (1) "community air monitoring systems" can be deployed in those communities and (2) "community emissions reduction plans" can be implemented in order to reduce exposure to air pollution. In October 2018, CARB included communities immediately adjacent to the Port (Wilmington and West Long Beach) on the first slate of communities that are subject to monitoring and emissions reduction efforts under AB 617. AB 617 requires (1) deployment of an air monitoring system in Wilmington and West Long Beach by July 2019 and (2) adoption of a community emissions reduction program for Wilmington and West Long Beach by September 2019. The committee overseeing the formation of the community emissions reduction program has identified emissions from port operations as one of the highest priority issues to be addressed, and zero emission technology is one of the solutions that the committee has proposed. The proposed Project will reduce emissions from terminal operations, helping to meet the goals of AB 617 by reducing the exposure of neighboring communities to air toxics and criteria pollutants.



**ATTACHMENT A
RAMBOLL'S QUALIFICATIONS**

Ramboll is a leading engineering, design and consultancy company founded in Denmark in 1945. Ramboll employs more than 15,000 experts globally and has especially strong representation in the Nordics, UK, North America, Continental Europe, Middle East and Asia-Pacific. With 300 offices in 35 countries, Ramboll combines local experience with a global knowledgebase constantly striving to achieve inspiring and exacting solutions that make a genuine difference to our clients, the end-users, and society at large. Ramboll works across the following markets: Buildings, Transport, Planning & Urban Design, Water, Environment & Health, Energy and Management Consulting.

Over the past 30 years, our predecessor company ENVIRON has successfully pursued a core vision of applying the highest level of technical and strategic consulting expertise to our clients' most challenging environmental and human health issues. In 2015, ENVIRON joined forces with Ramboll, Northern Europe's leading international engineering, design and management consultancy. With this merger, we have maintained our science-first approach and continuously extended our capabilities and geographic reach, evolving into a truly global partnership. Ramboll is now able to provide an even higher level of service to our clients, addressing the most important issues facing our global community, including the environmental and health implications of urbanization, climate change and resource scarcity. Clients benefit from our unique ability to bring clarity to issues at the intersection of science, business and policy. On January 1, 2019, Ramboll acquired OBG, a leading US engineering and design consultancy with 900 experts within energy, water, environment and advanced manufacturing. OBG has been providing high quality services to clients for over 70 years. With the addition of OBG's capabilities, Ramboll will be able to deliver full-scale, integrated solutions from front-end consulting work to back-end execution.

Of particular relevance to the work Ramboll performed to evaluate the APM Terminals Landside Infrastructure Project is our capability to provide full professional CEQA/NEPA and Special Environmental Studies services with a focus Air Quality. Air Quality consulting is Ramboll's largest single environmental area of practice. Our wide array of public and private sector clients includes federal regulatory agencies and policy arms, and state and local governments throughout the US, as well as some of the nation's largest public and private companies, leading law firms, and industrial trade associations. Our air quality practice group is recognized as a leader in the areas of emissions and air quality modeling, control technology assessments, broad based air quality policy analyses, emissions standards assessment, regulatory compliance assurance, environmental and public health risk assessment, and risk management.

Additional Ramboll has provided CEQA/NEPA services to the Port of Los Angeles (POLA) and therefore has extended experience in evaluating projects such as the APM Terminal Landside Infrastructure Project. The following projects highlight our CEQA/NEPA experience with Port projects:

- Led a multi-disciplinary team to support the POLA in the development of the EIR for the Southern California International Gateway (SCIG) project, including the development of a NOP, full DEIR, Recirculated DEIR, and FEIR, and we continue to provide support to the Port as the project wends its way through legal appeals.
- Leading a multi-disciplinary team to support the Port in the development of the EIR/EIS for the Yang Ming Terminal Redevelopment project, including the development of the NOP, and DEIR/DEIS. Major work to date on this project includes:
 - Developing the NOP, public outreach materials and assisting the Port through the public comment process for the NOP;

- Developing a draft Project Description and working with Port staff, legal counsel, and U.S. Army Corps of Engineers to develop the project analysis protocol and scope; and
- Beginning the project technical analysis that will lead to the completion of the DEIR/DEIS and FEIR/FEIS.
- Assisted the POLA in special studies and support for the Port's general CEQA needs, including:
 - Developing updates and revisions to the POLA's dispersion modeling and health risk assessment protocols in conjunction with Port staff and other Port CEQA consultants;
 - Analysing past performance of a container terminal relative to the predictions of the FEIR for the terminal's development, investigating the status and feasibility of mitigation measures associated with the terminal, and assisting in identifying costs and feasibility of new mitigation measures;
 - Under a contract with the Joint Powers Authority for the Intermodal Container Transfer Facility (ICTF) consisting of the Ports of Los Angeles and Long Beach, Ramboll is currently leading a technical team in the development of the DEIR for the expansion and modernization of the ICTF, including technical oversight of all environmental resource areas, communication with the JPA and project applicant, and development of draft documentation for the DEIR;
 - Assisting the POLA in developing a Supplemental EIR (SEIR) for a container terminal under contract to the LA City Attorney's office. The work includes: analysis of past performance of the container terminal; feasibility analysis of mitigation measures; AQ/HRA, noise and transportation CEQA analysis for the SEIR; development of a draft SEIR for release to the public and final SEIR after public comments;
 - Assisting the POLA in developing an in-use testing programs for evaluating an all-electric drayage truck and several yard tractors, including interactions with technology providers and program participants, and regulatory review and support for the Port's ongoing feasibility testing of these electric trucks;
 - Developed a tool for the POLA to track and report vessel visit information, power demand and pollutant reductions associated with the China Shipping Alternative Maritime Power (AMP) shoreside power system;
 - Provided support to the POLA to conduct sensitive receptor analysis for the TraPac mitigation trust fund;
 - For the Port of Oakland, conducted a CEQA air quality analysis for the Oakland Army Base Redevelopment Project EIR, including analyzing emissions from construction and operation of the Project and conducting an air quality analysis and a health risk assessment in support of the EIR;
 - For the Port of San Francisco, conducted a detailed emissions, air quality, and health risk assessment for the 34th America's Cup Race (AC34) and the EIR for the associated development of the new James R. Herman Cruise Terminal on Pier 27; and
 - Led a technical team on the development a full EIR for the Chevron Richmond Refinery in California, including the refinery, storage systems, and crude oil tanker terminal with Ramboll working with a multi-disciplinary team to analyze a broad range of environmental resource areas and leading the detailed air quality analysis and health risk assessment for the EIR.



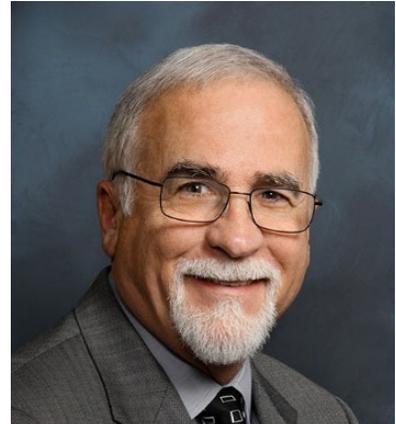
Ramboll has more than 27 years of experience in providing environmental services, including many similar, recent projects for major seaports. We have over eleven years of working experience for the POLA on a variety of environmental projects, including major CEQA/NEPA documents. The project team that prepared the evaluation of the APM Terminals Landside Infrastructure Project consists of key staff members from the Los Angeles, Irvine, and Novato offices who have considerable experience with Port Projects. Their resumes are presented in Attachment B.

**ATTACHMENT B
AUTHOR RESUMES**

JOSEPH HOWER

Principal

Joseph Hower is a Principal and Vice-President – Mechanical Engineering for Ramboll US Corporation. He has over 35 years of experience in air quality management, permitting including greenhouse gas (GHG) management, CEQA, regulatory compliance, litigation support, expert witness work, risk management and pollution control engineering. Specific projects have ranged from Title V permit evaluations to managing the installation and start-up of multi-million dollar air pollution control systems. Joe also leads Ramboll's work in the area of emissions trading. His service on the South Coast Air Quality Management District (SCAQMD) Advisory Council for nearly five years has provided him with an excellent understanding of regulatory processes. He uses this information to negotiate complex technical agreements and permits with agencies, assist facilities with compliance programs and provide technical expertise to litigation teams. Joe teaches air quality permitting and air pollution control courses at the University of California-Los Angeles. He also serves on the American Association of Port Authorities Environment Committee. Joe is a current Board Member and past chair of the West Coast Section of the Air & Waste Management Association, Chair of the FuturePorts Board, and a past member of the CleanTech Orange County Board of Directors. Joe is a Board Member of the Los Angeles County Business Federation and Co-Chair of the Biz Fed SCAQMD/CARB Coalition.



CONTACT INFORMATION

Joseph Hower

jhower@ramboll.com
+1 (213) 943-6319

Ramboll
350 S. Grand Ave.
Suite 2800
Los Angeles, CA 90071
United States of America

EDUCATION

1991-1995

MS, Mechanical Engineering

University of Southern California, Los Angeles, United States

1974-1978

BS, Mechanical Engineering

University of California, Irvine, United States

CERTIFICATIONS

Qualified Environmental Professional, Institute of Professional Environmental Practice, 1994-2017

Certified Permitting Professional, South Coast Air Quality Management District, 1993-2017

Diplomate of the American Academy of Environmental Engineers (DEE), a Board Certified Air Pollution Engineer, 1989-2015

Licensed Professional Engineer (Mechanical): California (M22116, 1983), Connecticut, Georgia, Nevada, New Hampshire, New Jersey, New York, North Carolina, Oregon, and Texas, 1983-2017

Unlimited Steam Engineer's License, Los Angeles, California (inactive), 1987-1992

PROJECTS**Alternative Marine Emissions Control System Emissions Evaluation and ARB Negotiations****Advanced Environmental Group, United States****Principal-in-Charge**

Joe assisted Ramboll Environ's client Advanced Control Technologies Inc. (ACTI) with its efforts to quantify the emissions reductions associated with its technology to control emissions from cargo vessels at berth. This involved source testing, continuous emissions monitoring systems, capture efficiency testing, and process monitoring. In addition, Joe worked with ACTI to obtain California Air Resources Board (CARB) approval of the technology for use under the CARB Shore Power regulation.

Served as project manager for the evaluation of the cost effectiveness of 16 measures to reduce fugitive emissions from petroleum coke operations in the Port of Long Beach, including trucking, storage, handling and ship loading. This work included estimating the emissions with and without the control measures, along with economic analysis, which included estimating capital and operating costs. The analysis showed a range of cost effectiveness values from hundreds of dollars per ton to hundreds of thousands of dollars per ton. The resulting report was cited frequently by SCAQMD when it adopted amendments to its petroleum coke emission control rule.

Port of Long Beach AMECS Demonstration

Served as Principal-in-Charge of a Port of Long Beach project to demonstrate the Advanced Maritime Emission Control System (AMECS), in order to test its long term viability to control emissions from bulk cargo vessels at berth.

Port of Long Beach Fallout Monitoring Program

Served as Principal-in-Charge for an eight-year program to monitor fallout from petroleum coke operations in the Ports of Long Beach and Los Angeles. The study showed that fallout decreased dramatically over the eight-year period.

PoLB Cold Ironing and Alternatives Cost Effectiveness Study**Principal-in-Charge**

Joe directed a cost effectiveness study of cold ironing (supplying shore side power to ships at berth) for the Port of Long Beach. This comprehensive study evaluated the shore side and ship side infrastructure needs, costs for the delivered power, and the emission reductions from cold ironing. In addition, the cost effectiveness of alternative emission control strategies such as the Advanced Maritime Emissions Control System (AMECS), emulsified fuel oil, selective catalytic reduction, and diesel particulate traps were evaluated. In addition, a detailed evaluation of the Alternative Marine Emissions Control System was performed, including cost effectiveness.

CERTIFICATIONS

Diplomate of the American Academy of Environmental Engineers (DEE), a Board-Certified Air Pollution Engineer, 1989-2018

Unlimited Steam Engineer's License, Los Angeles, California (inactive), 1987-1992

Licensed Professional Engineer (Mechanical): California (M22116, 1983), Connecticut, Georgia, Nevada, New Hampshire, New Jersey, New York, North Carolina, Oregon, Texas and Virginia, 1983-2018

Qualified Environmental Professional, Institute of Professional Environmental Practice, 1994-2018

Certified Permitting Professional, South Coast Air Quality Management District, 1993-2018

VARALAKSHMI JAYARAM

Managing Consultant

Varalakshmi Jayaram is a Managing Consultant in Ramboll's air quality practice with over ten years of experience in the field of air quality. She has expertise in developing emission inventories, evaluating control technologies, air permitting and compliance including CEQA, air dispersion modeling, and health risk assessments. Her clients span a broad range of industries including sea ports, airports, manufacturing, commercial and residential developments, and transportation corridor development.

EDUCATION

Ph.D. Chemical & Environmental Engineering, University of California, Riverside, California, United States

M.S. Mechanical Engineering, Ohio University, Athens, Ohio, United States

B.Tech. Chemical Engineering, Madras University, Chennai, India

EXPERIENCE HIGHLIGHTS

- Prepared air quality, greenhouse gas, and health risk assessments (CEQA) for several manufacturing, mixed-use development, and transportation projects. This involved developing construction and operational criteria air pollutant and greenhouse gas inventories, performing air dispersion modeling to estimate ambient air quality impacts, estimating health risk impacts, preparing the technical report, preparing the Air Quality and Greenhouse Gas sections of the Draft Environmental Impact Reports, and addressing responses to comments received from the public, local agencies, and government agencies.
- Provided regulatory and technical assistance to the Los Angeles Metropolitan Transportation Authority (LA Metro) Advanced Transit Vehicle Consortium (ATVC) to evaluate the lifecycle cost and cost-effectiveness of near-zero and zero emission transit bus technologies.
- Prepared an air quality and health risk analysis protocol for CEQA/NEPA analyses of proposed projects at the Port of Long Beach. Provided peer review services for the Pier B On-Dock Rail Support Facility Project's air quality, greenhouse gas, and health risk analyses in the draft CEQA document.
- Estimated energy requirements of off-road diesel drayage tractors operating on three different duty cycles (marine, yard, and rail), in the Port of Los Angeles. This data was used to inform the terminal operator and the Port about the potential



CONTACT INFORMATION

Varalakshmi Jayaram

vjayaram@ramboll.com

+1 (949) 7983689

Ramboll
18100 Von Karman Avenue
Suite 600
Irvine, CA 92612
United States of America

performance of an electric drayage truck that would be demonstrated on these duty cycles.

- Provided a broad range of technical support for an EPA-funded technology demonstration in the Port of Los Angeles including review of the exhaust capture system performance, developing a protocol for ship exhaust capture efficiency tests using tracer techniques & test, source test supervision, and a critical review & analysis of emission control performance.
- Created and implemented a protocol to measure activity based emission and fuel benefits of a hybrid tug. This involved logging activity data from four diesel engines and batteries, measuring in-use criteria pollutants from four engines, and presenting monthly progress on data analyses to a broad government-industry technical working group.
- Investigated meeting future emission standards by replacing diesel with biodiesel blends in commercial harbor-craft. Identified formation of ultrafine particles with biodiesel and quantified significant effects of ocean currents on real-time emissions from harbor-craft.
- Developed of criteria pollutant emission factors for biofuel and coal fired boilers from various sources such as U.S. EPA's Industrial Boiler MACT database, U.S. EPA's CeDRI database, and emission test reports obtained from record requests from various state/local agencies. These emission factors were used in to update the GREET model.
- Provided air quality services for several food-manufacturing facilities. This involved evaluating emissions from various stages in their process, developing control strategies, determining compliance with local, state and federal regulations, and preparing permit applications and annual emission reports.

PUBLICATIONS

2015

A Generalized Approach for Verifying the Emission Benefits of Off-Road Hybrid Mobile Sources

Emission Control Science and Technology

Authors: Jayaram, V., Khan, M.Y., Welch, W.A., Johnson, K., Miller, J.W., Cocker, D.R.

2014

Emissions Reductions from At-Berth Ocean-Going Vessels Using an Advanced Emissions Control System (AMECS)

Air & Waste Management Association 107th Annual Conference & Exhibition

Authors: Jayaram, V., England, G.C., Dalvi, H., Hower, J., Sharp, B.

2011

Effect of Emission Control Technologies on Marine Auxiliary Engines

Journal of the Air & Waste Management Association

Authors: Jayaram, V., Nigam, A., Welch, W.A., Miller, J.W., Coker, D.R.

2011

Real-Time Gaseous, PM and Ultrafine Particle Emissions from a Modern Marine Engine Operating on Biodiesel

Environmental Science & Technology

Authors: Jayaram, V., Agrawal, H., Welch, W.A., Miller, J.W., Coker, D.R.

2010

Evaluating Emission Benefits of a Hybrid Tug Boat, Final Report prepared for California Air Resources Board

California Air Resources Board

Authors: Jayaram, V., Khan, M.Y., Miller, J.W., Welch, W.A., Johnson, K., Cocker, D.R.

AMNON BAR-ILAN

Senior Managing Consultant

Dr. Amnon Bar-Ilan has more than 12 years of experience in emissions inventory development and technical analysis of emission-reduction strategies. Amnon's current projects at Ramboll include the development of emissions inventories, control technology feasibility studies for on-road, off-road, marine and locomotive sources; engine emissions testing support for a small engine manufacturer; developing testing protocols for evaluating the effects on emissions of using bio-diesel fuel in diesel electric generators; evaluating emissions reductions and cost-effectiveness of a broad range of on-road and off-road mobile source control measures for a multi-state region; and review and estimation of mobile source emission inventories. His work has focused on port and maritime operations, including emissions inventory development for major port and maritime sources, such as trucking, cargo-handling equipment, harborcraft, ocean-going vessels, and locomotives. He has worked extensively on emissions control technology evaluations for port sources, including feasibility studies on shore-side power systems, alternative marine emissions capture and treatment systems, alternative fuel technologies for maritime sources, retrofit control device assessments for port-related emissions sources, and assessment of hybrid technologies and other potential future technology options for ports. He has participated in project analyses under both the California Environmental Quality Act (CEQA) and NEPA to examine emissions, air quality and health risk impacts of clients' environmental issues.



CONTACT INFORMATION

Amnon Bar-Ilan

abarilan@ramboll.com

+1 (415) 8990732

Ramboll
7250 Redwood Boulevard
Suite 105
Novato, 94945

EDUCATION

PhD and MS, Mechanical Engineering

University of California,
Berkeley, CA

BA, *cum laude*, Physics

Harvard University

MEMBERSHIPS

Air and Waste
Management Association
(AWMA)

EXPERIENCE HIGHLIGHTS

- Developed the complete air quality analysis for the Environmental Impact Report for the Southern California International Gateway (SCIG), a new intermodal rail facility planned for the Port of Los Angeles. The analysis includes a complete air pollutant emissions inventory for the planned construction and operation of the facility, including criteria pollutants, toxic air contaminants, and GHGs from locomotives, drayage trucks, cargo-handling equipment, and numerous other sources. The analysis also includes the dispersion modeling of pollutants and subsequent health risk analysis for preparation of an Environmental Impact Report following the guidelines of the California Environmental Quality Act.
- Currently assisting the Port of Los Angeles and the U.S. Army Corps of Engineers in the development of an Environmental Impact Report/Environmental Impact Statement for the Yang Ming terminal development project. The analysis includes developing a complete air quality analysis of the proposed project, including emissions inventory, air quality dispersion

modeling and health risk assessment, and technical oversight of the complete EIR/EIS including other key resource areas such as aesthetic design, environmental noise and traffic (including marine transportation impacts). This project includes analysis and strategic planning under both the California Environmental Quality Act and the National Environmental Protection Act for over-water development elements.

- Currently assisting the Port of Los Angeles through a master services agreement for air quality consulting services. The work includes evaluation of alternative technologies for various marine sources, including harborcraft, ocean-going vessels, locomotives, and cargo-handling equipment. Recent work has included the evaluation of a bonnet emissions capture system for large vessels, a study of alternative propulsion technologies for tugs and other harborcraft, evaluation of electrification options for major terminal rubber-tired gantry (RTG) cranes, and alternative fuel options for shore-side power systems. Amnon is also a lead consultant for the Port of Los Angeles on air quality evaluations of the Port's novel Clean Truck Program. Work on the Clean Truck Program includes emissions tracking of the program benefits and milestones, tracking of regulations as they affect the program, and evaluation of alternative fuel technologies for trucks.
- Assisted the Port of San Francisco in the air quality analysis for the Environmental Impact Report for a new state-of-the-art cruise ship terminal. The analysis includes developing emissions inventories for shore-side operations, as well as cruise ship operations, evaluation of the shore-side power system for the proposed terminal, and development of a GHG emissions analysis for the proposed terminal, including renewable fuel options for the terminal and shore-side power for vessel visits.
- Assisted the Port of Oakland with the development of a "green" construction incentive program targeted at reducing emissions from major port construction projects -- conceptualized a potential program with input from Port of Oakland environmental and engineering staff, and developed the technical details of the program, including financial structure of the program.
- Analyzed potential emissions control measures for locomotives operating in the Los Angeles Basin for the Southern California Association of Governments. Emissions controls included fleet modernization, retrofit and operational emissions reduction strategies. The analysis consisted of estimating potential emissions reductions, cost and cost-effectiveness of each measure in the L.A. Basin. A series of white papers describing this analysis was developed.
- Developed a database tracking tool for quantifying the power consumption and associated emissions benefits of use of the Alternative Maritime Power (AMP) cold-ironing system at the China Shipping terminal at the Port of Los Angeles. Developed a strategy to quantify emissions benefits considering vessel-specific characteristics and activity data for individual vessel calls, and to quantify costs and cost-effectiveness of the AMP system considering the current financing arrangement for the system and utility and vessel activity data sets. Developed an MS Access-based tool to allow Port staff to input vessel data and generate emissions and cost information including automatic reporting functions.
- Assessed the feasibility of utilizing tug-assists to provide motive power for incoming container ships at the Port of LA including the potential emissions benefits, cost-effectiveness of this strategy, and technical and safety feasibility issues. The study also looked at the potential for powering tug-assists and tugs with hydrogen as a primary fuel, including a technical feasibility analysis of various hydrogen power options, costs and cost-effectiveness analyses and safety issues related to hydrogen use in marine vessels.
- Assessed control strategies for on-road and off-road diesel-powered mobile sources in the Great Lakes region of the US for the Lake Michigan Air Director's Consortium (LADCO). The work consisted of identifying control strategies for these sources, assessing the emissions reduction potential of these sources, the cost and cost-effectiveness of these sources and development of state-by-state and region-wide controls scenarios to predict emissions reduction potential and costs.
- Assessed and ranked control strategies for the Texas Emissions Reduction Program (TERP) for on-road, off-road, locomotive and commercial marine sources in Texas. Developed a ranking system to address the emissions reduction potential, cost, cost-effectiveness, technical feasibility and public acceptance criteria for an extensive list of potential control measures. Identified the most favorable control measures, and developed white papers to describe these measures in detail.