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

October 4, 2019

RE: Final Supplemental Environmental Impact Report (SEIR) for Berths 97-109 [China Shipping] Container Terminal Project (SCH No.: 2003061153)

Dear Board of Harbor Commissioners,

South Coast Air Quality Management District (South Coast AQMD) staff appreciates the opportunity to provide additional comments on the Final SEIR for the Berths 97-109 [China Shipping] Container Terminal project (project). South Coast AQMD staff previously submitted comments on the Draft SEIR[1] and the Recirculated Draft SEIR[2] put forward by the City of Los Angeles Harbor Department (LAHD).

South Coast AQMD staff has a long history of commenting on the project and has consistently expressed concerns in previous letters regarding the project's significant air quality impacts and the need for mitigation measures to reduce these impacts. In 2004, the project was allowed to proceed with construction because of an agreement to improve air quality and quality of life[3]. After an extensive public process, the LAHD put forward an EIR. Based on the 2008 EIR, the project would exceed the South Coast AQMD's CEQA air quality regional significance threshold for NOX by up to 135 times and the ambient air quality standard for NO2 by six times[4]. These exceedances would impact residents, school children, and other sensitive populations. Exposures to NO2 are associated with chronic respiratory diseases such as asthma as well as declines in pulmonary function, especially in children. Therefore, the LAHD included 52 mitigation measures, including 30 air quality measures in the 2008 EIR to reduce those impacts. The Board of Harbor Commissioners (Board) adopted the mitigation measures when the project was approved. Eleven years later, the LAHD is proposing to increase the throughput and remove or modify 10 of 52 mitigation measures, including six of which were directly targeted towards reducing air quality impacts. Based on the Final SEIR, the project will exceed the significance threshold for NOX by up to 159 times[5]. Additionally, in 2014, the project required

[1] South Coast AQMD. September 29, 2017. Accessed at: http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2017/dseir-chinashipping-092917.pdf.
[2] South Coast AQMD. November 30, 2018. Accessed at: http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2018/LAC181002-11.pdf.
[3] Port of Los Angeles. May 2003. *Agreement Reached to Open China Shipping Terminal*. Accessed at: https://www.portoflosangeles.org/press/rel_china_shipping_settlement.pdf.
[4] Recirculated Draft EIR. 2008. Page 3.3-88.
[5] Draft Recirculated SEIR. 2018. Page 3.1-4.

550,000 truck trips, 418 trains, and 163 vessel calls[6]. Since the project's throughput will increase by 56% in 2045[7], there will be more trucks and higher NOx emissions. Therefore, South Coast AQMD staff is concerned that despite the project's significant air quality impacts, the LAHD is allowing the project to increase its throughput while at the same time reverse previous commitments to mitigation, including zero and near-zero emission trucks and equipment, through CEQA at the project.

The decision to approve the project was the culmination of the Board's continuous commitment to balancing economic growth and job creation with community's needs for cleaner and healthier air – "a win-win for the Los Angeles economy and its environment.[8]" However, the tenant, China Shipping, refused to sign an amended lease to incorporate the Board-adopted mitigation measures, and has been allowed to continue operation without penalties for non-compliance with the 2008 EIR. South Coast AQMD staff urges the Board to hold the tenant accountable for the air quality commitments or for the LAHD to make up the shortfall.

The Final SEIR removes key mitigation measures that are needed to reduce the project's significant adverse air quality and health risk impacts for which the LAHD committed to in the 2008 EIR without providing adequate substitute measures or additional mitigation measures to reduce the more severe air quality impacts. South Coast AQMD staff is concerned about the increased air quality impacts and associated public health impacts and believes that the project should not be allowed to move forward for the following reasons. Please see Attachment A-1 for more information.

- The Final SEIR weakens the LAHD's commitment to mitigation and zero-emission technology implementation, and ultimately the protection of the environment. It sets a precedent for using CEQA to allow harm to the environment. An EIR is intended to serve not only to protect the environment but also to demonstrate to the public that it is being protected (CEQA Guidelines Section 15003(b)). CEQA was intended to be interpreted in such a manner as to afford the fullest possible protection to the environment within the reasonable scope of the statutory language (CEQA Guidelines Section 15003(f)).

- The Final SEIR does not bind the tenant to the mitigation measures and lease measures. Under CEQA, a mitigation measure must be required in, or incorporated into, the project (CEQA Guidelines Section 15091(a) and (d)). Mitigation measures must also be fully enforceable through permit conditions, agreements, or other measures (CEQA Guidelines Section 15126.4(a)(2)). The Board should have conditioned any project approval on compliance with the adopted mitigation measures. Instead, the LAHD has acknowledged that many of the 2008 EIR mitigation measures were not implemented or enforceable because the tenant did not agree to amend Permit No. 999 to incorporate the Board-adopted mitigation measures. (See Response to Comment SCAQMD-17). (See also

[6] *Ibid*. Page 3.3-18.

[7] Based on the Final SEIR, the project will increase the cargo throughput by 147,504 twenty-foot equivalent units (TEUs) from the 1,551,000 TEUs projected in the 2008 Final EIR to 1,698,504 TEUs estimated for years 2030 and 2036-2045.

[8] Port of Los Angeles. May 2003. *Agreement Reached to Open China Shipping Terminal*. Accessed at: https://www.portoflosangeles.org/press/rel_china_shipping_settlement.pdf.

Response to Comment NRDC-28). "The only way to obligate the tenant to implement the measures is through provisions of a lease amendment." (See Response to Comment SCAQMD-9). When the Board considers certification of the Final SEIR on October 8, 2019, the public does not know and there is no assurance that the tenant will enter into a binding and enforceable agreement with LAHD to implement the Final SEIR, nor whether the LAHD has the authority to render the identified mitigation measures enforceable. This is an important reason for not allowing the Final SEIR to move forward because the LAHD is going to rely on the tenant to meet its legal obligation to mitigate significant air quality impacts under CEQA after the Final SEIR is certified. (See Response to Comment SCAQMD-9). Therefore, the mitigation measures violate CEQA's requirement for enforceability.

- In Response to Comment SCAQMD-9, the LAHD stated that the only way to obligate the tenant to implement the mitigation measures is through provisions of a lease amendment, and that the lease amendment process is a separate action, requiring the Board's approval, subject to a negotiation process and LAHD's leasing policy. (See also Response to Comment CFASE-9). "Any action by LAHD to enforce mitigation measures (past or future), or other lease provisions, would be a separate proceeding outside the scope of this EIR process." [See Supplemental Mitigation Monitoring and Reporting Program (MMRP) Overview]. (See also Response to Comment SCAQMD-2). Since the lease amendment process is the only legal mechanism for the LAHD to enforce the Board-adopted mitigation measures and the Supplemental MMRP, the lease amendment should be part of the project for the Board to consider at the same time as certification of the Final SEIR. By including the lease amendment as part of the project approval, the public is assured that the mitigation measures are enforceable and will be implemented.

- In Master Response 5 and Response to Comment CFASE-9, the LAHD responded that "currently, LAHD's leasing policy does not contain any provisions for penalties or fees associated with non-compliance with mitigation measures or environmental requirements." If the tenant does not agree to amend the lease to incorporate the mitigation measures, the LAHD does not have other mechanisms to obligate the tenant to agree to lease amendments. When the tenant does not implement the Board-adopted mitigation measures, the LAHD should implement them since the LAHD is the named responsible party in the Supplemental MMRP. One mechanism for the LAHD to implement the mitigation measures could be through a mitigation fee program to incentivize and accelerate turnover of trucks and cargo handling equipment to be zero emissions and make that program available to all tenants at the Port of Los Angeles (Port), including China Shipping. The mitigation fee program would be separate from and in addition to the greenhouse gas (GHG) credit fund (lease measure GHG-1) since the GHG credit fund is to fund GHG-reducing projects and programs or the purchase of GHG emission reduction credits, while the mitigation fee program would focus on criteria pollutants such as NOX, PM10, and PM2.5. One way to calculate the amount of mitigation fee would be to use the project's emissions in pounds per day multiplied by the dollar amount per pound from the Carl Moyer Program, which provides a range from

$30,000 to $100,000 per ton of NOX emissions[9]. For example, the project's maximum peak daily NOX emissions of 4,920 pounds per day in 2023[10], which is equivalent to 898 tons/year, is multiplied by $30,000 and $100,000. This results in a range of $26.9 million to $89.8 million in mitigation fees, which could be reinvested into incentivizing zero-emission truck and equipment technologies for the China Shipping terminal to reduce emissions.

- The LAHD's failure to implement all the mitigation measures committed to in the 2008 EIR allowed the project to emit an additional 772 lbs/day of NOX in 2012, 1,203 lbs/day of NOX in 2014, and 1,360 lbs/day of NOX in 2018[11]. These foregone emission reductions will continue to increase into the future for the next 20 years, should the Final SEIR be allowed to move forward. The 2016 Air Quality Management Plan (AQMP) identified marine ports for emission reductions, and South Coast AQMD has been working diligently with LAHD staff to identify and render enforceable the CAAP emission reduction measures. This project is a step back and delays the LAHD's overall abilities towards achieving the 2017 Clean Air Action Plan and potentially impede the South Coast AQMD's ability to attain state and federal air quality standards.

- The project will result in a maximum individual cancer risk of 25.4 in a million, which is 2.5 times greater than the South Coast AQMD's CEQA significance threshold of 10 in a million[12]. Additionally, the South Coast AQMD's Multiple Air Toxics Exposure Study (MATES IV), completed in May 2015, concluded that the largest contributor to cancer risk from air pollution is diesel particulate matter emissions, and that the areas around the Port of Los Angeles and the Port of Long Beach is significantly impacted with some of the highest risks from air pollution in the region with a maximum simulated cancer risk of 1,057 in a million[13]. When the health impacts from the project are added to those existing impacts, the community will face an even greater exposure to air pollution and bear a disproportionate burden of increasing health risks. Therefore, mitigation measures are needed to reduce the significant health risk impacts on the community.

- The project is located in an area heavily impacted by air pollution and poses important environmental justice issues. The Wilmington, Carson, West Long Beach community was identified as an AB 617 community, which requires the South Coast AQMD to work with community and other stakeholders to identify and address community concerns in disadvantaged communities suffering from disproportionate air pollution impacts generated from sources, such as marine ports, heavy-duty diesel trucks, oil drilling and production facilities. Through the AB 617 program, the community and South Coast

[9] South Coast AQMD. Carl Moyer Program Guidelines. Appendix C, *Calculation Methodology*. Page C-2. Accessed at: https://ww3.arb.ca.gov/msprog/moyer/guidelines/2017gl/2017_gl_appendix_c.pdf.
[10] Final SEIR. 2019. Chapter 3, *Modifications to the Recirculated DSEIR.* Page 3-16.
[11] Recirculated Draft EIR. 2018. Pages 3.1-60 and 61.
[12] Recirculated Draft SEIR. 2018. Page 3.1-69.
[13] South Coast AQMD. May 2015. *Multiple Air Toxics Exposure Study in the South Coast Air Basin*. Accessed at: http://www.aqmd.gov/docs/default-source/air-quality/air-toxic-studies/mates-iv/mates-iv-final-draft-report-4-1-15.pdf.

AQMD staff have developed a Community Emissions Reduction Plan (CERP)[14] that identifies air quality priorities and actions to reduce air pollution in the community. A decision to move forward on the Final SEIR without a strong commitment to zero-emission trucks and cargo handling equipment will hinder the CERP implementation, and the community will face an even greater exposure to air pollution and bear a disproportionate burden of increasing health risks.

The project's emissions exceeded the CEQA significance thresholds for NOx, CO, VOC, PM10, and PM2.5 in the 2008 EIR. This project is proposing an increase in cargo throughput, which will result in greater emissions in the future. Instead of adding to or strengthening the existing mitigation measures, the LAHD is allowing the project to remove and weaken the mitigation measures committed to in the 2008 EIR. Therefore, the LAHD must do more to mitigate the air quality and health risks impacts from the project. Specifically, the LAHD should keep to the mitigation measure commitments made in the 2008 EIR, including zero and near-zero emission trucks and cargo handling equipment, and adopt a new phase-in schedule to pursue integration of zero-emission technologies into Port-related goods movement to be consistent with the CAAP emission reduction measures. Please see Attachment B-1 for a list of companies and resources that the LAHD should contact to accelerate implementation of zero emission technologies for the China Shipping terminal.

In conclusion, the Final SEIR is inadequate in reducing emissions and does not meet the requirements of CEQA because the mitigation measures are insufficient, and in any event, are not included in enforceable requirements applicable to the tenant, China Shipping. South Coast AQMD staff recommend that you delay approval of this project and consider additional measures, including those suggested in our previous comment letters, to mitigate the significant air quality and health risk impacts.

We appreciate your consideration of these comments and look forward to continuing to work together to reduce air pollution. Please feel free to call me at (909) 396-3176 if you have questions or wish to discuss our comments.

Sincerely,

Jillian Wong

Jillian Wong, Ph.D.
Planning and Rules Manager
Planning, Rule Development & Area Sources

cc: Mr. Eugene D. Seroka, the City of Los Angeles Harbor Department
Mr. Christopher Cannon, the City of Los Angeles Harbor Department

[14]The Wilmington, Carson, West Long Beach Community Emissions Reduction Plan is available at: http://www.aqmd.gov/docs/default-source/Agendas/Governing-Board/2019/2019-sep6-025c.pdf.

ATTACHMENT A-1
Additional South Coast AQMD Staff's Comments on the Final SEIR for Berths 97-109 [China Shipping] Container Terminal Project

The following includes South Coast AQMD staff's specific comments on the Final SEIR for the Berths 97-109 [China Shipping] Container Terminal Project.

The Responses to Comments Were Incomplete and Non-Responsive

Re: Responses on Economic Infeasibility Based on Equipment Remaining Useful Life

Responses to Comments SCAQMD-15, 16, 18, 19, 20, and 21 on the equipment's remaining useful life were inconclusive and non-responsive. The LAHD stated that replacing equipment with significant remaining useful life will be expensive and economically infeasible. The Recirculated Draft SEIR stated that the 2017 equipment list was used as the basis for developing future year 2018-2045 cargo handling equipment (CHE) emissions[15]. However, this list was not included in the 2017 Draft SEIR, the 2018 Recirculated Draft SEIR, or the Final SEIR for South Coast AQMD staff or the public to determine how many years of remaining useful life, in terms of actual numbers of years, a range of years, or an averaged number of years, are left on the equipment. The California Air Resources Board (CARB) stated in 2014 that the equipment useful life is seven years for yard trucks, 11 to 12 years for container handling equipment, and 20 years for bulk handling equipment and forklifts[16]. From this, some CHE may have shorter useful lives that may be economically feasible to turn over well before 2045. However, without the 2017 equipment list showing how many years of useful life each equipment has, the LAHD did not include substantial evidence to support the claim of economic infeasibility based on equipment useful life.

Re: Responses on the Consistency Analysis with the 2016 AQMP

In the November 30, 2018 comment letter, South Coast AQMD staff recommended the consistency of the project with the AQMP be fully analyzed in the air quality section since the project is a setback compared to the previous air quality commitments (See Comment SCAQMD-28). The LAHD's response to South Coast AQMD staff's comment is that the forecasted throughput of this project is included in the Port-wide growth projections provided to South California Association of Government (SCAG) for development of the AQMP, and that the project complies with the South Coast AQMD mobile source rules to ensure no obstruction of the AQMP implementation. Therefore, the project would be considered consistent with the AQMP and not interfere with attainment goals. In the response to South Coast AQMD staff's comment-28, the LAHD also noted that the AQMP is not based upon mitigation commitments from specific projects analyzed under CEQA. Therefore, the LAHD found the consistency analysis with the 2016 AQMP in the Recirculated Draft SEIR was adequate.

[15] Recirculated Draft SEIR. 2018. Page 3.1-32.
[16]CARB. September 9, 2014. *Cargo Handling Equipment Technology Assessment*. Accessed at: https://ww3.arb.ca.gov/msprog/tech/presentation/cargohandling.pdf.

The consistency analysis in the Recirculated Draft SEIR was inadequate. The LAHD discussed the project's cargo forecasts for development of the AQMP, listed the AQMPs, listed mobile sources control measures related to marine ports in the 2016 AQMP, and listed emission reduction measures in the 2017 CAAP Update[17]. Based on this list, the LAHD concluded that the project is consistent with the CAAP and the 2016 AQMP. A mere list of air quality plans and emission control measures is not an analysis. The CAAP and the 2016 AQMP are region- and area-wide air quality plans for a large geographic area in which the project is located. While including the project's cargo forecasts in the Port-wide emission projections for inclusion in the 2016 AQMP is one mechanism to ensure that the project will not conflict with or obstruct implementation of the 2016 AQMP, the LAHD did not identify and analyze which emission control measures in the CAAP or the 2016 AQMP the tenant will be responsible for implementing in order to contribute the project's fair share of emission reductions to meet the emission reduction goals and policies in the plan. Therefore, the consistency analysis in the Recirculated Draft SEIR was conclusory and lacks substantial evidence.

The consistency analysis should be both quantitative and qualitative. The quantitative consistency analysis should take into account the fact that the project will result in significant and unavoidable air quality impacts from CO, NOx, and VOC and that the project's ambient concentrations would also be significant and unavoidable for federal and state NO2 emissions and 24-hour and annual PM10 emissions[18]. Further information is needed to substantiate how a project whose emissions alone cause violations of a national ambient air quality standard can be consistent with the South Coast AQMD air quality plan. The qualitative consistency analysis should focus on the 2016 AQMP health-protecting goals and policy direction, trend, and trajectory to determine if the project is in line and stays in step with them. As such, the consistency analysis in the Recirculated Draft SEIR, using cargo growth forecasts and a list of emission control measures as the bases to support that the project is consistent with the 2016 AQMP, was not adequate.

Responses to Comments SCAQMD-4, 7 and 28 merely repeat the consistency analysis in the Recirculated Draft SEIR and are therefore conclusory and non-responsive.

It is important to recognize that the 2016 AQMP provides a Basin-wide, regional perspective on air quality and the challenges facing the Basin. While the 2016 AQMP is not required to and does not include a compilation of all of the projects evaluated under the CEQA or include a list of adopted project-level mitigation measures, it includes policies, requirements, and control strategies for emissions that are needed for the South Coast AQMD to meet federal standards to bring the Basin into attainment in a timely manner, as well as goals for reducing air toxics. Thus, the 2016 AQMP provides the regional context for the project, especially considering the Basin is designated non-attainment for current and former federal and state ozone standards, as well as the current PM2.5 standards. Since the project will result in significant and unavoidable air quality impacts from NOx and NO2, it will hinder the South Coast AQMD's ability to meet the federal ozone standard and potentially the PM2.5 standards as NOx is a precursor of both. Any exceedance of NO2 standard at a site of a sensitive receptor also results in significant adverse

[17] Recirculated Draft SEIR. 2018. Page 3.1-74.
[18] Recirculated Draft SEIR. 2018. Pages ES-22 and 3.1-4.

impacts. Therefore, the project's consistency analysis with the 2016 AQMP should be quantitative (of project incremental emissions) and qualitative (of policy consideration).

South Coast AQMD staff is concerned that the Final SEIR removes lease measure AQ-23 for requiring periodic throughput reviews because this measure provides a check-in on the cargo growth that is needed to evaluate increases in the project's emissions and consistency with the 2016 AQMP, both quantitatively and qualitatively. Additionally, mitigation measures must be an essential nexus (i.e. connection) between them and a legitimate government interest, and be roughly proportional to the impacts of the project. (CEQA Guidelines Section 15162.4 (a)(4)). In order to know what new technologies and how frequently the tenant will be required to implement the identified technologies, the LAHD will need to know the project's air quality impacts to determine the project's fair share of contribution. Periodic reviews of throughout tracking help evaluate the project's air quality impacts, and determine the proportional share of mitigation fees that the tenant is responsible for contributing into the mitigation fee program. Therefore, lease measure AQ-23 is a necessary mechanism to ensure that lease measures AQ-1, AQ-3, and AQ-22 will meet applicable constitutional requirements for nexus and proportionality.

The LAHD Improperly Limits Its Own Legal Authority

In Response to Comment SCAQMD-9, the LAHD stated that all of the measures require implementation by the CS Terminal's tenant, and the only way to obligate the tenant to implement the measures is through provisions of a lease amendment. This response completely ignores the Port's market participant authority, which it has so vigorously defended in the courts. In its brief in opposition to petition for certiorari to the U.S. Supreme Court in *American Trucking Associations v. City of Los Angeles*, Case Number 11-798, the LAHD argued at page 12: "the essence of the market participant doctrine concerns whether a state is acting in a proprietary fashion as an owner of property or is engaged in regulation. As [the Supreme] Court stated in Boston Harbor: 'When a State owns and manages property…it must interact with private participants in the marketplace. In so doing, the State is not subject to pre-emption…because preemption doctrines apply only to state *regulation.*'" (*Emphasis in original*.) Therefore, if the LAHD believes it is preempted from requiring a particular feasible mitigation under CEQA, it should consider whether in its capacity as a landlord, it can require certain emission reduction measures acting as a market participant.

The LAHD Uses the Wrong Legal Test for Determining Feasibility

In Master Response 2 and Responses to Comments SCAQMD-3, 4, 8, 17, 23, 28, and 29, the LAHD applied the wrong legal test in determining feasibility by determining feasibility based on the current technologies and operating practices. The legal test is not whether the mitigation measure is feasible today; it is whether it is feasible in a reasonable period of time. CEQA Guidelines Section 15364. As this project has 20 years remaining on its lease (until year 2045), a reasonable period of time would include a period of several years at least. Even if the LAHD were correct in asserting that zero-emission trucks could not be deployed now, they certainly could be deployed within a reasonable time.

There are currently several research and demonstration programs being conducted by the Port of Los Angeles, South Coast AQMD, U.S. Department of Energy, California Energy Commission, and CARB to develop dedicated zero-emission truck and cargo handling equipment

technologies. As discussed in South Coast AQMD staff's comments in Attachment A of the September 29, 2017 letter and in Attachment B of the November 30, 2018, demonstrations are expected to be completed within the next several years and lay the foundation for commercialized products. South Coast AQMD staff believes that the first generation of zero-emission trucks will be available within the next five years, well within the required timeframe (before year 2045). These are the expert opinions of the South Coast AQMD's Technology Advancement Office staff, which constitutes substantial evidence that zero emission technologies can be commercialized in time for use for near-term deployments. (CEQA Guidelines Section 15384). Attachment B-1 includes a list of companies and resources that have zero-emission technologies available. This is supplemental information to Attachment B of South Coast AQMD staff's November 30, 2018 comment letter on the Draft Recirculated SEIR for the project.

The LAHD's feasibility assessments are improperly based on the current already on-sale technologies and ignore the fact that there is ample time to complete the demonstrations required during the period when the project is fully operational under Permit No. 999. The San Pedro Bay Ports' presentation at the July 24, 2019 Ports MOU Working Group Meeting #2 directly contradicts Master Response 2 and Responses to Comments SCAQMD-3, 4, 8, 17, 23, 28, and 29, which stated that the 2018 Feasibility Study for CHE[19] by Tetra Tech/GNA showed that the CHE was not progressed enough to be considered commercially available and was not expected to be ready for operational development for the China Shipping project. However, at the July 24, 2019 Ports MOU Working Group Meeting #2, the Ports stated that the CHE Feasibility Assessment was based on a snapshot in time between 2018 and 2021 and did not account for future technological advancement. The Ports also stated that "battery electric RTGs, battery-electric and near-zero-emissions yard tractors may be feasible soon[20]." It is important to note that at the same meeting, the Ports stated that the Truck Feasibility Study[21] was also completed based on a snapshot in time between 2018 and 2021 and that "near-zero natural gas trucks and battery-electric trucks could be feasible soon[22]." Therefore, the LAHD's responses in Master Response 2 and to Comments SCAQMD-3, 4, 8, 17, 23, 28, and 29 improperly required that the project be capable of successful implementation today, rather than "within a reasonable period of time", which is the proper legal test.

[19] San Pedro Bay Ports. September 20, 2019. *Cargo-Handling Equipment Assessment*. Accessed at: http://www.cleanairactionplan.org/tag/feasibility-assessment/.
[20] San Pedro Bay Ports. July 24, 2019. *Update on CAAP Implementation MOU Working Group Meeting #3.* Accessed at: http://www.aqmd.gov/docs/default-source/clean-air-plans/air-quality-management-plans/facility-based-mobile-source-measures/ports-presentation-mou-wg2-7-24-19.pdf.
[21] San Pedro Bay Ports. September 20, 2019. *Clean Trucks Assessment*. Accessed at: http://www.cleanairactionplan.org/tag/feasibility-assessment/.
[22] *Ibid*.

ATTACHMENT B-1
A List of Companies and Resources as
Supplemental Information on Zero Emission Technologies to Attachment B of South Coast AQMD staff's November 30, 2018 Comment Letter

Equipment Type	Company Name	Contact Information
Battery electric repower of rubber tiered gantry (RTG) cranes	Cavotec	Cavotec USA, Cypress 5665 Corporate Avenue Cypress, CA 90630 (714) 947-005
Hybrid electric repower of RTG cranes	Mi-Jack Products	Aaron Newton, Vice President, Technology Sales and Marketing, anewton@mi-jack.com (317) 478-0996 Dan Zakula, Vice President, Technology, dzakula@mi-jack.com (708) 225-2306
Battery electric top handlers	Taylor Machine Works, Inc.	Taylor Machine Works, Inc.: https://www.taylorbigredforklifts.com/ Authorized Dealers in California: Cal-Lift, Inc 13027 Crossroads Parkway South City of Industry, CA 91746 (800) 322-5438 cal-lift.com 2026 West Valley Boulevard Colton, CA 92324 (800) 322-5438 Battery electric top handlers were launched on October 3, 2019. News release is available at: https://www.dcvelocity.com/articles/20191003-port-of-l-a--debuts-battery-electric-top-handlers-for-cargo-loading/
Battery electric top handlers	BYD	George Miller, Senior Sales Manager - National Fleets. Electric Trucks BYD MOTORS LLC | Build Your Dreams® 1800 S Figueroa St. Los Angeles, CA 90015 (213)748.3980 x58856 george.miller@byd.com
Battery electric forklifts	Wiggins Lift Co. Inc.	(805) 485-7821 info@wigginslift.com
Battery electric forklifts	Thor	Austin Benzinger, Director, Business Development and Government Affairs @ Thor (818) 316-1890

Additional examples of equipment in implementation at the greater San Pedro Bay Ports including the following:

RTG Cranes

- Port of Long Beach (POLB) START project will deploy Cavotec battery electric repowers of ZPMC RTG cranes at SSA Marine Pier J involving removal of on-board diesel engines with grid-connected electric conversion system and AC/AC battery package for disconnection from grid and block changing during normal operations.

- POLB RTG project will convert 6 ZPMC RTG cranes at SSA Marine Pier A to hybrid-electric-diesel RTG cranes with AC motors as retrofit replacements of existing high-power gensets manufactured by Mi-Jack. The gensets would be capable of operating about 50% of the RTG duty cycle.

Top Handlers

- POLB C-PORT project just deployed Taylor/BYD battery electric top handlers at Long Beach Container Terminal and SSA Marine at Pier E and Pier J, respectively.

- POLB START project will deploy Taylor/BYD battery electric top handlers at SSA Marine Pier J and Port of Oakland.

Forklifts

- POLB START project will deploy Wiggins and Wiggins/Thor 8,000 pound and 36,000 pound battery electric forklifts at SSA Marine and Port of Stockton.

Hybrid and Zero-Emission Truck and Bus Voucher Incentive Project (HVIP)

The LAHD should consider state incentive programs to incentivize the purchase of zero-emission technologies for the China Shipping terminal. For example, in partnership with CALSTART, a national nonprofit organization that works with the public and private sectors to advance and drive the transportation industry towards cleaner technology, CARB created the HVIP in 2009. The HVIP was created to reduce price barriers, enabling fleets to adopt cleaner, heavy-duty commercial vehicles. The HVIP provides point-of-sale discounts to vehicle purchasers by working directly with truck and bus dealers to apply the voucher incentive at the time of purchase. HVIP vouchers make zero-emission and Low NOx buses and trucks as affordable as their traditional fossil-fueled counterparts at point of sale and reduce prices for medium- and heavy-duty hybrid vehicles. For more information on the HVIP, please see: https://www.californiahvip.org/.

Clean Off-Road Equipment Voucher Incentive Program (CORE)

On August 5, 2019, CARB announced that CALSTART will be administering a $40 million Clean Off-Road Equipment Voucher Incentive Program (CORE). CORE is intended to

encourage California fleets to purchase or lease currently commercialized zero-emission off-road freight equipment, benefiting the citizens of California by providing immediate air pollution and greenhouse gas emission reductions, especially in disadvantaged communities within close proximity to the project. CORE will feature a streamlined voucher process for buyers to receive funding that will offset the higher costs of clean, zero emission technology, ranging from $180,000 to $500,000. All equipment in CORE must be zero emissions (battery or hydrogen). A list of CORE eligible equipment for use at marine ports and manufacturer information are provided as follows. For more information on CORE, please see: http://californiacore.org/.

Equipment Type	Company Name	Contact Information
Electric RTG cranes	ANUPAM-MHI	http://www.anupamgroup.com/ Electric Overhead Travel Cranes: http://www.anupamgroup.com/en/eot-cranes.aspx
Electric cable reel RTG cranes Electric busbar RTG cranes	Konecranes	https://www.konecranes.com/ For spare parts, please contact (800) 727-8774 or parts@konecranes.com Listed Companies in Southern California: Hoist Equipment in Santa Fe Springs, California 10310 Pioneer Boulevard, Suite 2 Santa Fe Springs, CA 90670 (562) 903-1371 Hoist Service in San Bernardino, California 1460 South Carlos Avenue Ontario, CA 91761 (909) 930-0108
Zero emission RTG cranes	E-One2	http://www.e-one.com/ Information on authorized dealers in United States is available at: http://www.e-one.com/us-canada-dealer-search/
Forklifts (greater than 8,001 pounds lift capability)	BYD: 15,000 pounds lift XL Lifts, Inc.: 20,000 – 36,000 or greater pounds	See above for BYD contact information. XL Lifts, Inc. 4572 Telephone Road, #908 Ventura, CA 93003 (805) 889-8487 info@xlliftsinc.com
Container handling equipment	Taylor Machine Works, Inc. BYD	See above for Taylor Machine Works, Inc. contact information. See above for BYD contact information.
Shore power cable system	Not available at this time	Not available at this time