



Gavin Newsom, Governor
Jared Blumenfeld, CalEPA Secretary
Mary D. Nichols, Chair

February 3, 2020

Members of the Los Angeles City Council
Office of the City Clerk
200 North Spring Street
City Hall - Room 360
Los Angeles, California 90012

Governor's Office of Planning & Research

FEB 14 2020

STATE CLEARINGHOUSE

Dear Members of the Los Angeles City Council:

The California Air Resources Board (CARB) submits this appeal letter on the Berths 97-109 (China Shipping) Container Terminal (Terminal) Project (Revised Project) Final Supplemental Environmental Impact Report (FSEIR), State Clearinghouse No. 2003061153. The Revised Project proposes modifying 10 of the 52 mitigation measures that were approved in 2008 by the Los Angeles Harbor Commission (LAHC). Of the 10 mitigation measures modified, six were specific to reducing the Project's impact on local air quality and public health. The Revised Project is located within the City of Los Angeles (City), California, which is the lead agency for California Environmental Quality Act (CEQA) purposes. Pursuant to CEQA, the Los Angeles City Council (City Council) is bound to consider an appeal challenging the certification of a Final Environmental Impact Report (FEIR) by a nonelected decision-making body, like the LAHC (Public Resources Code, Section 21151(c)).

The environmental impacts of the China Shipping Terminal Project were evaluated in the Environmental Impact Report/Environmental Impact Statement released in 2008 (2008 EIR/EIS).¹ The 2008 EIR/EIS concluded that the China Shipping Terminal Project would result in a significant and unavoidable impact to air quality and public health under CEQA. The 2008 EIR/EIS included six mitigation measures that were focused on reducing the Terminal's operational air pollution emissions. Since 2008, China Shipping continued to operate while failing to fully implement any of the six-approved mitigation measures established in the 2008 EIR/EIS.

Given the history of the Revised Project and the current state of the FSEIR, CARB is concerned about the adverse health impacts that will result should the City allow the approval of the Revised Project to stand. CARB believes it violates the requirements of CEQA to relax, and in some cases remove, mitigation measures that Los Angeles Harbor District (LAHD) and China Shipping already committed to in 2008. CARB

¹ Los Angeles Harbor District, 2008. Draft Environmental Impact Statement/Environmental Impact Report for Berth 97-109 (China Shipping) Container Terminal Project. April 30, 2008. Accessible at: <https://www.portoflosangeles.org/environment/environmental-documents>.

submitted comments on the Draft Supplemental Environmental Impact Report (DSEIR) released in 2017. Those comments highlighted concerns regarding the Revised Project's proposed suite of mitigation measures that are projected to be less effective in reducing harmful emissions from the operation of the China Shipping Terminal.² CARB supports the comments and concerns voiced by South Coast Air Quality Management District (SCAQMD) on the Recirculated DSEIR released in 2018 for the FSEIR before the LAHC's October 8, 2019, Board Hearing, which focuses on the Revised Project's significant air quality impacts and the need for more robust mitigation measures to reduce these impacts.^{3,4}

I. The Revised Project Would Expose Disadvantaged Communities to Elevated Air Pollution

Through its authority under Health and Safety Code, section 39711, the California Environmental Protection Agency (CalEPA) is charged with the duty to identify disadvantaged communities. CalEPA bases its identification of these communities on geographic, socioeconomic, public health, and environmental hazard criteria (Health and Safety Code, section 39711, subsection (a)). In this capacity, CalEPA currently defines a disadvantaged community, from an environmental hazard and socioeconomic standpoint, as a community that scores within the top 25 percent of the census tracts, as analyzed by the California Communities Environmental Health Screening Tool Version 3.0 (CalEnviroScreen). CalEnviroScreen uses a screening methodology to help identify California communities currently disproportionately burdened by multiple sources of pollution. The census tract containing the Revised Project is within the top 1 percent for Pollution Burden,⁵ and is therefore considered a disadvantaged community. CARB urges the City Council to ensure that the Revised Project does not adversely impact neighboring disadvantaged communities.

The State of California has placed additional emphasis on protecting local communities from the harmful effects of air pollution through the passage of Assembly Bill 617 (AB 617) (Garcia, Chapter 136, Statutes of 2017). AB 617 is a significant piece of air quality legislation that highlights the need for further emissions reductions in communities with high exposure burdens, like those in which the Project is located. Diesel particulate matter (diesel PM) emissions generated during the construction and

² California Air Resources Board (CARB), 2017. CARB commented on the China Shipping Container Terminal (Terminal) for Berths 97-109 Draft Supplemental Environmental Impact Report. September 29, 2017. Accessible at: <https://ww3.arb.ca.gov/toxics/ttdceqalist/chinashipping.pdf>.

³ South Coast Air Quality Management District (SCAQMD), 2018. LAC181002-11 RDSEIR Berths 97-109 China Shipping Container Terminal Project. November 30, 2018. Accessible at: <http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2018/LAC181002-11.pdf?sfvrsn=8>.

⁴ South Coast Air Quality Management District (SCAQMD), 2019. LAC190905-02 FSEIR Berths 97-109 (China Shipping) Container Terminal Project_20191004. October 4, 2019. Accessible at: <http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2019/october/LAC190905-02.pdf?sfvrsn=8>.

⁵ Pollution Burden represents the potential exposures to pollutants and the adverse environmental conditions caused by pollution.

operation of the Revised Project would negatively impact communities surrounding the port, which is already disproportionately impacted by air pollution from existing port facilities and vehicular traffic along Interstate 110 (I-110) and Interstate 710 (I-710). Specifically, the Revised Project falls within the boundaries of the Wilmington, Carson, West Long Beach community,⁶ which is one of the statewide communities chosen for inclusion in the first year of the Community Air Protection Program.

CARB selected the Wilmington, Carson, West Long Beach community for both community air monitoring and the development of an emissions reduction program due to its high cumulative exposure burden, the presence of a significant number of sensitive receptors (children, elderly, and individuals with pre-existing conditions), and the socioeconomic challenges experienced by its residents. The sensitive receptors in the community include 83 schools, 132 licensed daycare facilities, and 15 hospitals. The community has high rates of poverty and unemployment, and in some portions of the community, there are schools in close proximity to air pollution sources.⁷ SCAQMD has prepared and approved an emissions reduction plan for the community⁸ and CARB will consider it for approval at its March 16, 2020, public meeting in Los Angeles. Given the severity of air pollution impacts on the nearby communities and a near-final emissions reduction plan for that community, CEQA requires that LAHD's consideration of the Revised Project is consistent with SCAQMD's approved emissions reduction plan (14 CCR section 15125(d)). If LAHD's approval of the Revised Project is inconsistent with this plan, then LAHD must disclose the inconsistency and any associated impacts from the inconsistency, and adopt all feasible mitigation measures to mitigate such inconsistencies.

II. The FSEIR Fails to Implement All Feasible Mitigation Measures While Relaxing or Eliminating Emission Reduction Mitigation Measures Already Committed to by China Shipping and LAHD

After concluding that the Revised Project would expose nearby residences to air pollutant emissions that would result in a significant and unavoidable impact, China Shipping and LAHD did not recommend any additional mitigation measures but instead relaxed versions of the mitigation measures that were previously committed to in the 2008 EIR/EIS. China Shipping and LAHD rationalized that there are no other mitigation measures, currently available or feasible to implement, to reduce the

⁶ SCAQMD, 2019. Wilmington, Carson, West Long Beach Community Boundary Map. Accessed at: <https://scaqmd-online.maps.arcgis.com/apps/View/index.html?appid=534f48ca127c430abb1a5f4f6e86cf00&extent=-118.5536,33.6686,-117.8945,33.9359>. Accessed on January 3, 2020.

⁷ CARB, 2018. 2018 Community Recommendations Staff Report. Accessed at: https://ww2.arb.ca.gov/sites/default/files/2018-09/2018_community_recommendations_staff_report_revised_september_11.pdf. Accessed on January 3, 2020.

⁸ AB 617 – Year 1 Communities. Accessed at: <http://www.aqmd.gov/nav/about/initiatives/community-efforts/environmental-justice/ab617-134/wilm>. Accessed on January 3, 2020.

Revised Project's air pollutant emissions. CARB disagrees with this assertion as many of the mitigation measures approved in 2008 that were dismissed by LAHD are, in fact, feasible to implement. Even where impacts will remain significant and unavoidable after mitigation, CEQA requires that all feasible mitigation measures be incorporated to lessen unavoidable impacts. (California Public Resources Code § 21081; 14 CCR § 15126.2(c).) To meet this requirement of CEQA and lessen the Revised Project's impact to air quality and public health, CARB urges the City Council to require China Shipping and LAHD to either strengthen the mitigation measures already approved in the 2008 EIR/EIS or include additional mitigation measures to reduce the Revised Project's impact to air quality and public health. CARB believes the following changes to the FSEIR would have to be made in order to meet the requirements of CEQA:

- a) Mitigation Measure (MM) AQ-10, as revised in the FSEIR, requires that 95 percent of all vessels calling at the Terminal participate in the expanded Vessel Speed Reduction Program (VSRP) (12 knots at 40 nautical miles). Given the 99 percent VSRP participation rate achieved by vessels visiting the Terminal in 2009, 2011, 2013, and 2014, it is technically feasible to meet the 100 percent VSRP participation as required in MM AQ-10 as approved in the 2008 EIR/EIS.
- b) MM AQ-15 requires the replacement of all liquefied petroleum gas (LPG) powered yard tractors be replaced with alternative fuel units that have nitrogen oxide (NO_x) emission rates equal to or less than 0.02 grams per brake horsepower-hour. In addition to this, MM AQ-15 requires all LPG-powered yard tractors meet the Tier 4 final off-road engine emission rates for all other criteria pollutants. China Shipping proposed replacing all 2007 or older yard tractors one year after the effective date of a new lease amendment and 2011 or older tractors no later than five years after the effective date of a new lease amendment. Electric yard tractor technology has been successfully demonstrated and is currently in use at the Port of Los Angeles.⁹

Rather than replacing existing yard tractors with alternative fuel units, MM AQ-15 should be revised to require that all gas and diesel-powered yard trucks operating at the Terminal be replaced with electric-powered yard trucks immediately after the effective date of a new lease amendment between China Shipping and LAHD.

- c) MM AQ-17 requires that forklifts, top picks, and rubber-tired gantry (RTG) cranes be replaced with units that meet or exceed Tier 4 final off-road emissions standards between one-to-three years after the effective date of a

⁹ CARB's Technology Assessment: Mobile Cargo Handling Equipment provides information on current and projected development of CHE technologies. This assessment can be found at:
https://ww3.arb.ca.gov/msprog/tech/techreport/che_tech_report.pdf.

new lease amendment. Broadly, these are the requirements for newly-purchased equipment under CARB's existing Commercial Harbor Craft Regulation. Electric forklifts, which are five-ton or less, and electrified RTG cranes are currently commercially available and are technically feasible for China Shipping to implement. MM AQ-17 should be revised to require all cargo handling equipment (CHE) be replaced with electric versions no later than one year after the effective date of a new lease amendment between China Shipping and LAHD.

- d) Under the 2008 EIR/EIS, MM AQ-20 required that 70 percent of all drayage trucks calling at the Terminal be liquefied natural gas (LNG) fueled by 2017 and 100 percent, thereafter. This requirement has not been met, nor is MM AQ-20 included in the FSEIR. The LAHD claims that no feasible substitute or modified mitigation measures have been identified to replace MM AQ-20. The Recirculated DSEIR and FSEIR state that some reductions in drayage emissions would be achieved through the implementation of the port-wide Clean Trucks Program that is part of the 2017 Clean Air Action Plan (2017 CAAP) and Lease Measure (LM) AQ-2 (priority access for zero/near-zero emission trucks). The replacement of an approved mitigation measure (i.e., MM AQ-20) that has the potential to reduce operational air pollutant emissions with a non-binding measure that would have little or no effect on the Revised Project's air pollutant emissions is unacceptable. Given the substantially high air pollution generated by the Revised Project and the proximity to disadvantaged communities, LAHD should not remove mitigation measures that reduce public exposure to air pollution.
- e) LM AQ-3 requires a one-year zero-emission demonstration project with at least 10 units of zero-emission CHE. LM AQ-3 also requires China Shipping to provide LAHD with progress reports in 2020 and 2025, which detail the feasibility assessments of potential zero-emission CHE. Based on China Shipping's and LAHD's record of non-compliance, as demonstrated with the delinquent one-year electric tractor pilot program required under the MM AQ-17 as approved in 2008, CARB is concerned that the demonstration project under LM AQ-3 may not be fully implemented. To incentivize China Shipping to implement zero-emission technologies, China Shipping should be required to pay into a fund managed by SCAQMD if the demonstration project shows all proposed zero-emission technologies are found to be infeasible. The fund would then be used to help finance other zero-emission pilot programs. Any zero-emission technologies developed through pilot programs financed through the fund should be implemented by China Shipping within one year.

III. Conclusion

CARB is concerned about the Revised Project's potential public health impacts, especially those impacts on disadvantaged communities adjacent to the Terminal, and the overall relaxation, and in some cases removal, of mitigation measures that the LAHD and China Shipping already committed to in 2008. For this reason, the FSEIR potentially does not provide all feasible mitigation measures to reduce the Revised Project's operational air pollution emissions. Even where impacts will remain significant and unavoidable after mitigation, CEQA requires that all feasible mitigation measures be incorporated (see California Public Resources Code § 21081; 14 CCR § 15126.2(b)). Based on the items discussed above, CARB does not believe China Shipping and LAHD have met this CEQA requirement. CARB asks that the City Council overrule and reject the LAHC's October 8, 2019, certification of the FSEIR and implement the changes requested by CARB and SCAQMD in a Recirculated DSEIR.

CARB appreciates the opportunity to comment on the FSEIR for the Revised Project and can provide assistance on zero-emission technologies and emission reduction strategies, as needed. If you have questions, please contact Richard Boyd, Chief, Risk Reduction Branch at (916) 322-8285 or via email at richard.boyd@arb.ca.gov.

Sincerely,



Richard W. Corey
Executive Officer

Attachment

cc: See next page.

Members of the Los Angeles City Council
February 3, 2020
Page 7

cc: State Clearinghouse
P.O. Box 3044
Sacramento, California 95812

Wayne Nasti
Executive Officer
South Coast Air Quality Management District
21865 Copley Drive
Diamond Bar, California 91765

Morgan Capilla
NEPA Reviewer
U.S. Environmental Protection Agency
Air Division, Region 9
75 Hawthorne Street
San Francisco, California 94105

Richard Boyd, Chief
Risk Reduction Branch
Transportation and Toxics Division

ATTACHMENT

September 29, 2017

Mr. Gene Seroka
Executive Director
Port of Los Angeles
425 South Palos Verdes Street
San Pedro, California 90731

Dear Mr. Seroka:

Thank you for providing the California Air Resources Board (CARB or Board) staff the opportunity to comment on the Draft Supplemental Environmental Impact Report (DSEIR) for the City of Los Angeles Harbor Department (Port) China Shipping Container Terminal (Terminal) for Berths 97-109 (Revised Project). The DSEIR evaluates the continued operation of the Terminal under modified mitigation measures, collectively referred to as the Revised Project. These changes encompass modifications to previously-approved mitigation measures that were analyzed in the 2008 Environmental Impact Statement/Environmental Impact Report Terminal Expansion Project (2008 Approved Project).

The mitigated DSEIR concludes that the Revised Project would result in significant and unavoidable air quality and health impacts, as well as cumulative impacts, to nearby communities. We believe the Port can and must do more to lessen these impacts.

CARB recognizes that the Port of Los Angeles has been a worldwide leader in reducing harmful emissions from maritime operations and your continued commitment to this effort. However, given the air quality and health impacts from the Revised Project, we strongly urge you to further accelerate the use of zero and near-zero emission technologies at the Terminal to more fully mitigate potential harm to the surrounding community. The Attachment describes a combination of approaches to accomplish this.

We acknowledge the ambitious targets that the Port set forth as part of the 2008 Approved Project mitigation measures. Those measures for the Terminal included full (100 percent) use of: shore-based electrical power for vessels, Vessel Speed Reduction, liquefied natural gas (LNG) fueled heavy trucks by 2018, and liquefied petroleum gas (LPG) yard trucks, as well as progressively cleaner terminal equipment. The Port, terminal operator, and ocean carrier fully or partially implemented a number of the measures, but could not complete all of the 2008 Approved Project mitigation measures associated with air quality. As a regulator that often sets bold standards based on anticipated technology development, and then adjusts the specifics over time, we understand the need to modify the strategies for mitigation.

Mr. Gene Seroka
September 29, 2017
Page 2

However, the Revised Project proposes a suite of mitigation measures that are projected to be less effective overall than the original commitments to reduce harmful emissions from operations at the Terminal. The DSEIR also projects an increase in container volumes by the outyear of 2045. With higher activity and less effective mitigation, the Revised Project would increase the air pollution burden on nearby disadvantaged communities.

The State of California has recently placed additional emphasis on protecting local communities from the harmful effects of air pollution through the passage of Assembly Bill (AB) 617 (Garcia, Chapter 136, Statutes of 2017). AB 617 is the most significant piece of air quality legislation in decades and highlights the need for further reductions in communities with high exposure burdens. This legislation requires even greater focus on the cleanest technologies (and zero-emission where available) in the most impacted areas of the State, including communities near the Port of Los Angeles.

CARB staff recommends that the Port strengthen the proposed mitigation measures by including more zero and near-zero emission technology requirements. We also recommend that the Port make whole the original commitment for emission reductions that were to be achieved through the 2008 Approved Project's mitigation measures, albeit through a different mix of strategies. We believe this outcome is technically feasible.

Please include CARB on your State Clearinghouse list of selected State agencies that will receive the Final Environmental Impact Report as part of the comment period.

We appreciate the opportunity to comment on the DSEIR, and CARB staff stand ready to consult, if requested. If you have any questions, please call me at (916) 445-4383 or have your staff contact Richard Boyd, Chief, Risk Reduction Branch, at (916) 322-8285 or via email at Richard.Boyd@arb.ca.gov.

Sincerely,



Richard W. Corey
Executive Officer

Attachment

cc: Continued next page.

Mr. Gene Seroka
September 29, 2017
Page 3

cc: (continued)

Elizabeth Adams
Acting Director
Air Division, Region 9
U.S. Environmental Protection Agency
75 Hawthorne Street
San Francisco, California 94105

Wayne Nasti
Executive Officer
South Coast Air Quality Management District
21865 Copley Drive
Diamond Bar, California 91765-4182

Christopher Cannon, Director
City of Los Angeles Harbor Department
Environmental Management Division
P.O. Box 151
San Pedro, California 90731

State Clearinghouse
P.O. Box 3044
Sacramento, California 95812-3044

Richard Boyd, Chief
Risk Reduction Branch
Transportation and Toxics Division

ATTACHMENT

California Air Resources Board Staff Comments on Draft Supplemental Environmental Impact Report for China Shipping Container Terminal

Background

In March 2001, the City of Los Angeles Harbor Department (Port) issued a permit to construct the Berth 97-109 Container Terminal (Terminal) and entered into a lease with the China Shipping Line Company to occupy the Terminal. As part of the lease, West Basin Container Terminal LLC, a subsidiary of China Shipping, owns and operates the equipment used onsite. Cargo containers at the Terminal are moved off terminal by both rail and truck. In the 2008 Approved Project, container throughput estimates were projected to be 1,164,000 twenty-foot equivalent units (TEUs) in 2015 and 1,551,000 in 2045. However, actual throughput in 2014 (baseline for the DSEIR), was 1,088,639 TEUs and projected to be 1,698,504 TEUs by 2045. The 2008 Approved Project included an evaluation of the environmental impacts of the construction and operation of the Terminal at Berths 97-109. Construction of the 2008 Approved Project was completed in 2013.

Results of the DSEIR Analysis

The Draft Supplemental Environmental Impact Report (DSEIR) analyzes the estimated increase in throughput over the 2008 projected assumptions and modifications to eleven of the 2008 mitigation measures not yet completed because of technological, economical, and operational constraints. The DSEIR analyzes the environmental impacts of these modified mitigation measures under the assumption that the modifications would be implemented in 2018 and continue until the lease ends in 2045. The mitigation measures proposed under the Revised Project were part of the larger suite of measures identified in the 2008 Approved Project to address operational air quality and health impacts.

The 2008 Approved Project determined that these impacts would remain significant and unavoidable, even with mitigation. Similarly, air quality impacts from operations of the mitigated Revised Project would exceed thresholds for toxic air contaminants and criteria pollutants. Furthermore, results of the health risk assessment indicate the Revised Project will exceed the South Coast Air Quality Management District's (SCAQMD) cancer risk threshold of 10 chances in a million, as did the 2008 Approved Project.

The mitigated DSEIR concludes that the Revised Project results in significant and unavoidable air quality and health impacts as well as cumulative impacts to nearby communities. Nevertheless, even where impacts will remain significant and

unavoidable after mitigation, CEQA requires that all feasible¹ mitigation measures be incorporated. (See Cal. Pub. Resources Code § 21081; 14 CCR § 15126.2(b).) Furthermore, the 2010 Clean Air Action Plan (CAAP) includes Project Specific Standard language that requires proposed projects that exceed the applicable and appropriate CEQA significance thresholds for criteria pollutants to implement the maximum available controls and feasible mitigations for any emission increases. Port staff has clarified that the Draft Final 2017 CAAP continues those requirements, and the Revised Project should be held to those standards.

General Recommendations

CARB staff finds that the mitigation measures proposed in the DSEIR do not adequately minimize or eliminate the increases that directly affect nearby disadvantaged communities. The Port should aggressively deploy the lowest emission technologies possible. This deployment should include those technologies that are “capable of being accomplished in a successful manner within a reasonable period of time” (Public Resources Code §21061.1; California Code of Regulations, title 14, section 15364), such as zero and near-zero emission technologies that are expected to be commercially available early in the life of the project. With these technologies, CARB staff believes that the Revised Project’s air quality and health impacts can feasibly be further mitigated. To that end, CARB staff recommends that the Final SEIR include the additional mitigation measures and recommendations as outlined below.

Mitigation Measures

- 1) Mitigation Measure (MM) AQ-9 requires that all vessels calling at the Terminal must use alternative marine power (AMP) while hoteling at the Terminal at a 95 percent compliance rate by January 1, 2018. CARB believes Berths 97-109 have sufficient AMP to meet a 100 percent use rate for vessels equipped with shore power capabilities, allowing for exceptions that meet CARB’s At-Berth Regulation.² Therefore, the Port should revise MM AQ-9 accordingly. In March 2017, the Board directed staff to expand the At-Berth Regulation to achieve up to 100 percent compliance by 2030. In anticipation of these amendments, the Port should expand MM AQ-9 to include a requirement that all vessels using the Terminal be AMP-ready or that the terminal operator provide for alternative capture and control systems for all ships that are unable to use shore-based electricity, by 2020. Furthermore, the Port should utilize mechanisms to incentivize or encourage China Shipping to bring the cleanest ships to the Terminal.

¹For the purposes of CEQA, “feasible” means capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors. (California Code of Regulations, title 14, section 15364.)

²Airborne Toxic Control Measure for Auxiliary Diesel Engines Operated on Ocean-Going Vessels At-Berth in a California Port, Title 17, California Code of Regulations, section 93118.3.

- 2) MM AQ-10 requires that 95 percent of all vessels calling at the Terminal participate in the expanded Vessel Speed Reduction Program (VSRP) (12 knots at 40 nautical miles) beginning January 1, 2018, or to implement an alternative plan approved by the Port. Given the 99 percent VSRP participation rate achieved at the Terminal in 2014, the Port should require that vessels calling at the Terminal continue to meet the higher rate of participation.
- 3) MM-AQ-15 requires that the terminal operator replace existing LPG yard tractors with new alternative-fuel equipment that achieves emission levels equal to or more stringent than the Tier 4 off-road engine standard. Yard tractors with zero-emission technology have been successfully demonstrated at ports, including the Port of Los Angeles, and are available and in-use at ports today. The Port should revise this measure to require that all yard trucks operating at the Terminal be replaced with zero-emission technologies by 2023. CARB's *Technology Assessment: Mobile Cargo Handling Equipment* provides information on current and projected development of CHE technologies. This assessment can be found at https://www.arb.ca.gov/msprog/tech/techreport/che_tech_report.pdf.
- 4) MM-AQ-17 requires that forklifts, top picks, and rubber-tired gantry (RTG) cranes be replaced with units that meet or exceed Tier 4 final off-road emission standards by 2019 and 2023 target dates. Broadly, these are the requirements for newly purchased equipment under CARB's existing CHE Regulation. Zero-emission electric forklifts that are five-ton or less, and electrified RTG cranes are commercially available now and therefore, the Port should require this equipment be replaced with zero emission versions between 2019 and 2023. Once heavier zero-emission forklifts are demonstrated and commercially available, all retired forklifts should be replaced with the zero-emission equipment. Once zero-emission top-picks are demonstrated and commercially available, all retired top picks should be replaced with the zero-emission equipment.
- 5) Under the 2008 Approved Project, MM-AQ 20 requires that 70 percent of all drayage trucks calling at the Terminal be LNG-fueled by 2017 and 100 percent, thereafter. This requirement has not been met nor is MM-AQ 20 included under the Revised Project, citing that "there is no feasible measure for reducing drayage trucks emissions by quantifiable amounts". CARB believes further reductions can be achieved by requiring that heavy-duty trucks entering the Terminal meet CARB's optional low-NO_x standard of 0.02 grams per brake horsepower-hour or better by 2020. Trucks achieving this emissions performance are expected to become available in 2018.

Furthermore, given that nearly 100 drayage truck demonstration projects will be online by the end of 2018, with results from these projects expected to be available by 2019-2020, it is anticipated that zero-emission drayage trucks could begin deployment by 2023 or earlier in limited-range applications. Therefore, the Port should require that heavy-duty trucks calling at the Terminal and traveling within 100 miles of the terminal use zero and near-zero emission technology beginning in

2020. CARB's Technology and Fuels Assessments provide information on the current and projected development of mobile source technologies and fuels. These assessments can be found at <http://www.arb.ca.gov/msprog/tech/tech.htm>.

- 6) To reduce emissions from the increased activity of commercial harbor craft (CHC) expected at the Terminal, the Port should add a mitigation measure to achieve reductions from CHC, such as tugboats or tows, servicing the Terminal by requiring the use of the cleanest available CHC (LPG/LNG, biodiesel, electric hybrid), as well as limiting the idling time of CHC servicing the terminal. The *Technology Assessment: Commercial Harbor Craft*, prepared by SCAQMD, provides information on current and projected development of CHC technology. This assessment can be found at https://www.arb.ca.gov/msprog/tech/techreport/draft_chc_technology_assessment.pdf.
- 7) Under the 2008 Approved Project, Lease Measure (LM) 22 requires tenants to review the feasibility of emission reduction technologies and report findings to the Port during lease amendments or facility modifications and implement the new technology within seven years of the effective lease agreement. We expect the Port to use the additional yearly check-in requirement effectively. When the terminal operator seeks the required concurrence of the Port that any proposed purchases of new equipment represent the cleanest available technology, the Port should identify the zero-emission technology being demonstrated and require its use within two years of commercial availability. The Port should revise the mitigation measure to reflect this intention and include it in the Revised Project.
- 8) As a result of the Revised Project, direct intermodal containers to and from the Terminal would increase by 296,794 TEUs over the 2014 baseline condition to become 560,506 TEUs by 2045 with 77 percent of the TEUs handled by the on-dock intermodal yard facility. According to the DSEIR, neither the switching locomotives, owned by PHL, nor the line-hauls servicing the intermodal yard facility, owned by Union Pacific and BNSF, are under the control of the Port or China Shipping and, therefore, the Port has not proposed further mitigation to address these impacts.

CARB staff disagrees with this approach. The Port should include a mitigation measure and identify specific mechanisms to accelerate the number of Tier 4 locomotives servicing the intermodal yard facility. To monitor this acceleration, LAHD should track the distribution of engine tiers used in determining the locomotive emissions for the baseline year (2014), the opening year (2018), and each year thereafter, and publicly report these data annually.