

SAN PEDRO BAY PORTS

CLEAN AIR ACTION PLAN

Clean Air Action Plan Implementation Progress Report Fourth Quarter 2020

ACCOMPLISHMENTS

GENERAL

- The Ports held their tenth CAAP Implementation Advisory Working Group meeting on October 14, 2020 via webinar.

COVID-19 IMPACTS

- The Ports continued to experience extremely high cargo throughput in Q4 2020. These high volumes are partially due to vessel visits designed to make up for previously cancelled voyages earlier in 2020, in addition to an uptick in e-commerce as people continue to work from home. The Ports continue to monitor the situation very closely.
- Due to the California Stay-At-Home order, future meetings will continue to take place via webinar.
- A large portion of the staff at both Ports are still telecommuting and will continue to do so through at least the beginning of 2021. At this time, it is unclear when staff will return to the office. Both Ports' staffs are experiencing furloughs.
- COVID-19 impacts to the Ports technology demonstrations are addressed below under Early Demonstrations and Deployments within the Trucks and Terminal Equipment headings.
- The Ports are starting to see the return of cruise vessels that left US waters during the onset of the pandemic lockdowns. These vessels are repositioning to get the necessary safety and CDC certifications to resume passenger sailings at a future date. Vessels may dock at the San Pedro Bay Ports for resupply. Notably, not all cruise vessels at anchorage within the San Pedro Bay will visit either port.

TRUCKS

- **Clean Truck Fund (CTF) Rate.** Implementation of the rate remains temporarily on hold while the Ports' Executive and business teams evaluate the impacts and uncertainties stemming from COVID-19. Staff continue to refine the implementation proposal and plan to solicit stakeholder input prior to presenting the implementation proposal and the tariff to the respective Boards of Harbor Commissioners later in 2021.
- **Rate Collection Mechanism.** In anticipation of the CTF Rate, the Ports released a Request for Proposals (RFP) in 2019, which included minimum requirements for how to collect a rate from Beneficial Cargo Owners. The Ports have tentatively selected a contractor and are negotiating the contract for services. The Ports plan to bring separate contracts to their respective Boards for consideration in the coming months.

- ***Comprehensive Long Term Strategy for ZE Trucks***
At the March 9, 2020 joint board meeting, Port staff were directed to develop a comprehensive long term strategy plan on how the Ports would meet the CAAP goal for 100% ZE trucks entering and exiting the ports by 2035. Initial work on the plan began in April 2020, with each Port providing an update to their individual Boards in July of 2020 on the approach and progress to date. The Ports are preparing a draft of the long-term strategy to be released to the public for comment.
- ***Large-Scale Zero Emission Truck Deployment Pilot Project.*** The California Air Resources Board (CARB) and the California Energy Commission (CEC) have released a a unique joint funding opportunity for a large-scale ZE truck deployment within the state. The Ports are coordinating with the South Coast Air Quality Management District (AQMD) and other regional partners on the development of a project proposal for this solicitation. AQMD will be the lead applicant, and will submit the application by February 2, 2021.
- ***Early Deployment and Demonstrations.*** The Ports continue to manage several grant-funded demonstrations of ZE trucks, including over 20 hydrogen fuel-cell or battery electric trucks as part of supply-chain pilots. The Ports have also committed to supporting regional demonstrations. This includes the deployment of near-zero natural gas drayage trucks though a CEC grant secured by AQMD that is expected to fund up to 140 low NOx trucks. AQMD has begun contracting with trucking companies to deploy the low NOx trucks; approximately 30 near-zero emission trucks have been registered and deployed thus far with Port funds. There are approximately 29 ZE electric trucks registered in the Ports' PDTR with access to both Ports. COVID-19 continues to have an impact on the future estimated delivery times of both the low NOx trucks and ZE trucks.
- ***Advanced Clean Trucks/Fleets Regulation.*** As part of the Advanced Clean Trucks (ACT) Regulation that CARB passed in June 2020, they continue to move ahead with establishing the requirements for large entities and fleets. On December 9, 2020, CARB held a drayage workshop meeting for the Advanced Clean Fleets Regulation, proposing a 2023 requirement for any new trucks entering the state drayage registry to be ZE. Port's staff continue to monitor.
- ***City of Los Angeles ZE Truck Financing Request For Information.*** Port of Los Angeles released a request for information from private financing companies to provide potential pathways to financing the turnover to a ZE drayage fleet at the Ports. RFI responses are due on January 15, 2021.

TERMINAL EQUIPMENT

- ***Early Deployment and Demonstrations.*** The Ports continue to manage several grant funded demonstration projects, including ultra-low NOx and electric yard tractors, electric top handlers, and electric rubber-tired gantry cranes, as well as innovative approaches to charging infrastructure including micro-grid controls with distributed generation and battery storage.
- At the Port of Los Angeles (POLA), as part of the Green Omni Terminal project, 2 BYD battery-electric yard tractors, and the ShoreKat treatment system, which scrubs emissions from vessels at berth, continue to be operated. Two TransPower/Kalmar Battery Electric Yard Tractors and 3 TransPower battery-electric heavy-duty forklifts are being evaluated by third party engineers to comply with OSHA requirements at Pasha. They will be put in service when this evaluation is complete. At Everport 2 battery-electric Taylor top handlers and 5 BYD battery-electric yard tractors are in use. Additionally, Everport continues to

operate 20 Capacity ultra-low NOx renewable natural gas yard tractors. The grant demonstration period for these 20 yard tractors is complete.

- At the Port of Long Beach (POLB), a total of 11 pieces of ZE cargo handling equipment (CHE) are currently in testing and demonstration. All of the 11 pieces of CHE are supported by commissioned ZE infrastructure. Under the C-PORT project, the demonstration at SSA, Pier J of two Taylor top handlers concluded at the end of 2020 upon meeting the data collection requirements. The Kalmar yard tractor and Taylor top handler in demonstration at LBCT were not operated during the fourth quarter of 2020 due to a need for electrical fixes and other upgrades. These equipment are anticipated to be put back into service in the next quarter.

Under the Zero-Emission Equipment Transition Project, a total of 6 BYD yard tractors and 1 BYD yard tractor adapted for the Cavotec Smart-Plug System (SPS) have been placed into revenue service at ITS. The first eRTG crane was placed into service at SSA, Pier J in November 2020. A total of two LNG plug-in hybrid electric trucks have been placed into revenue service at TTSL.

- The Ports have documented various impacts and delays to terminal equipment technology demonstrations as a result of COVID-19. These impacts continue to include manufacturing businesses and facilities operating at reduced capacity, travel restrictions, and limited access to terminals for equipment testing and data collection. Lastly, some technology developers and Original Equipment Manufacturers (OEMs) are working reduced hours due to mandatory furloughs. Port staff will continue to monitor impacts related to COVID-19.

SHIPS

- **Vessel Speed Reduction Enhancements.** 96% of vessels visiting the Ports in Q4 2020 slowed down to 12 knots within 20 nautical miles of Point Fermin, and 92% of vessels slowed within 40 nautical miles.
- **Ship Incentive Programs.** The Ports continue to collaborate with other West Coast ports, as well as our local air district on ways to enhance participation in our clean ship incentive programs. POLB is working on a revision of their Green Ship Incentive Program, collaborating with ocean carriers and other stakeholders.
- **At Berth Regulation.** CARB's Board approved the latest update to the At Berth Regulation at their Board meeting on August 27, 2020. The Ports are performing outreach to affected terminals and shipping operators about the updates and to coordinate on development of Terminal/Port Plans.
- **Emission Capture and Control Technology Demonstration for Tankers.** In September 2020, CARB released a \$10 million solicitation to demonstrate technologies capable of capturing emissions from oil tanker vessels at berth. In response, STAX Engineering in partnership with AQMD developed a proposal and submitted it to the Ports Technology Advancement Program (TAP) for match funding in October 2020. The TAP Advisory Committee and the Ports made the recommendation to fund this project pending successful award from the CARB under their solicitation and approval from the Ports' respective Boards of Harbor Commissioners. AQMD was awarded the full \$10M in grant funds in December 2020 and the Ports will request approval to provide match funding from their respective Boards in Q2 2021.

HARBOR CRAFT

- **Commercial Harbor Craft Regulation.** Staff for both Ports are actively working with CARB on the development of this regulation.

OTHER

Technology Advancement Program (TAP). Since the TAP Request for Information (RFI) was released in January 2020, the Ports have received a total of five concept papers. Of the five received, Ports' staff have invited four applicants to submit a full proposal. A total of three proposals have been submitted so far, two of which were recommended for funding and one is still under consideration.

Two separate ocean-going vessel projects with Pasha Hawaii were approved by the Port of Los Angeles Board of Harbor Commissioner's on December 3, 2020. These vessel projects were also approved by the Port of Long Beach Board of Harbor Commissioners on February 24, 2020. One project involves repowering the engine of one C9 class vessel from a steam turbine engine to a dual-fuel engine capable of using either LNG or diesel. The second project involves building two new vessels that will also be LNG/diesel dual-fuel engine capable.

The Ports made the recommendation to fund another vessel project with SCAQMD to develop, test and demonstrate a low pressure, selective catalytic reduction (SCR) retrofit on both main and auxiliary engines. The system is expected to achieve a 75% reduction in NOx when installed on vessels transiting within 200 nautical miles of the port, which includes the vessel speed reduction zone. The project is pending the Ports' respective Board of Harbor Commissioners approvals.

The Ports continue to engage and support interested stakeholders. This includes holding TAP bi-weekly meetings between the two Ports, leading the TAP Advisory Committee meetings every 8 weeks with agency partners, responding to general inquiries, participating on numerous panel discussions to provide updates on technology demonstrations, as well as providing support on projects outside of TAP to support technology advancement.

PLANNED ACTIONS NEXT QUARTER

- Continue development of the structure for the incentive program to be funded by the CTF Rate.
- Continue negotiating the joint contract for collecting the CTF Rate.
- Continue development of the Comprehensive Long-Term Strategy Plan for ZE Trucks.
- Continue coordination with AQMD on a Large-Scale Zero Emission Truck Deployment project.
- Continue working with CARB on updating the CHC Regulation.
- Continue outreach to the industry regarding the new At Berth Regulation and the development of Port/Terminal Plans.
- Seek approvals from the Ports' respective Boards of Harbor Commissioners to provide match funding for the AQMD project which will demonstrate a capture and control system for oil tankers.
- Seek approvals from the Ports' respective Boards of Harbor Commissioners to demonstrate a low pressure, SCR retrofit technology for vessels in partnership with AQMD.
- Port of Long Beach staff will continue to engage stakeholders on the proposed modifications to the Green Ship Incentive Program.

Send any questions or comments to the CAAP email at: caap@cleanairactionplan.org