

SAN PEDRO BAY PORTS

CLEAN AIR ACTION PLAN

Clean Air Action Plan Implementation Progress Report Third 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 experienced some of the highest volumes ever in Q3 2020. These volumes are partially due to vessel visits designed to make up for previously cancelled voyages earlier this year, in addition to an uptick in e-commerce as people continue to work from home. Overall, cargo volumes for the entire year are projected to be lower in 2020 compared to 2019. The Ports are monitoring the situation very closely.
- Due to the California Stay-At-Home order, future meetings will likely continue to take place via webinar.
- A large portion of the staff at both Ports are now telecommuting and will continue to do so through 2020. 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.

TRUCKS

- **Drayage Truck Registry Update.** As of October 1, 2018, all new trucks entering the Port Drayage Truck Registry (PDTR) must meet 2014 model year or better. By the end of Q3 2020, there were approximately 4,400 model year 2014 or newer trucks registered in the PDTR.
- **Clean Truck Fund (CTF) Rate.** Since the Port of Los Angeles (POLA) and the Port of Long Beach (POLB) Boards of Harbor Commissioners (Boards) approved a CTF Rate of \$10 per Twenty-Foot Equivalent Unit (TEU) at a joint board hearing last March, Port staff have been working on the development of the structure for the incentive program to be funded by the CTF Rate. Port staff has held regular meetings with the South Coast Air Quality Management District (AQMD) and California Air Resources Board (CARB) to discuss the potential incentive program structure and requirements. Additional stakeholder outreach will be scheduled in the coming months. In addition, the Ports have been coordinating with the Agencies to hold a Truck Manufacturer Summit to bring together leaders from CARB, AQMD, the San Pedro Bay Ports and zero-emission truck (ZE) Original Equipment Manufacturers (OEMs) to identify the actions needed to build and transition to a market for zero emissions heavy-duty trucks. The Summit, which is also an

opportunity to obtain commitments from stakeholders for coordinated action, is expected to occur later this year. Outcomes of the Summit will be reported out.

- **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 9th 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 on the approach and progress to date. The Ports anticipate releasing a draft of the long-term strategy for public comment next quarter.
- **Large-Scale Zero Emission Truck Deployment Pilot Project.** CARB and the California Energy Commission (CEC) have proposed a unique funding opportunity for a large-scale ZE truck deployment within the state. The Ports have been, and will continue coordinating with AQMD and other regional partners on the development of a project proposal for this solicitation. The joint CARB and CEC solicitation was initially set to be released in Q3 2020; however, it was postponed, and is now expected in Q4 2020.
- **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 through 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 20 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.
- **Low NOx Heavy-Duty Omnibus Regulation.** CARB approved the Low NOx Heavy-Duty Omnibus Regulation on August 27, 2020. This regulation sets lower NOx and PM emission standards on existing regulatory cycles as well as a new NOx standard on a new low load certification cycle. Specifically, NOx standards for the manufacturing of heavy duty trucks in California will be reduced from 0.20 grams per brake horsepower hour (g/bhp-hr) to 0.05 g/bhp-hr from 2024 to 2026, and to 0.020 g/bhp-hr in 2027. CARB adoption of these new low NOx standards was one of the prerequisites for the Ports to move forward with the CTF Rate.

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 and demonstrations of supporting electrical infrastructure, including micro-grid controls with distributed generation and battery storage.
- At 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, as part of 2 grant projects, 2 battery-electric Taylor top handlers and 5 BYD battery-electric yard tractors are in use. They have required mechanical repairs, but overall are working well. Additionally, Everport continues to demonstrate 20 Capacity ultra-low NOx renewable natural gas yard tractors.

- At the Port of Long Beach, 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 demonstration, one Kalmar yard tractor (1 at LBCT) and 3 Taylor top handlers (2 at SSA, Pier J and 1 at LBCT), all battery-electric, continue to operate in revenue service. For the top handlers at Pier J, the OEM (Taylor) has provided minor adjustments to allow the top handlers to operate at 12 hours of use per full charge; however, a minimum of 18 hours per charge is required to cover two shifts.

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 begun revenue service at ITS. For the eRTG demonstration at SSA, Pier J, the guidance system is currently being tested on the first eRTG crane to ensure correct alignment.

- The Ports have documented various impacts and delays to terminal equipment technology demonstrations as a result of COVID-19. These impacts 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 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.** 97% of vessels visiting the Ports in Q3 2020 slowed down to 12 knots within 20 nautical miles of Point Fermin, and 93% 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.
- **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 will reach out to affected terminals and shipping operators about the updates and to coordinate on Terminal/Port Plans.
- **Emission Capture and Control Technology Demonstration for Tankers.** CARB has released a \$10 million solicitation for the demonstration of technologies capable of capturing emissions from oil tanker vessels at berth. AQMD has developed a proposal, which the Ports are coordinating on through the Technology Advancement Program (TAP).

HARBOR CRAFT

- **Commercial Harbor Craft Regulation.** On September 30, 2020, CARB held a public workshop on their latest draft of the Commercial Harbor Craft (CHC) regulation. Staff for both Ports are actively working with CARB on the development of this regulation.

OTHER

2019 Emissions Inventories. Both Ports completed their respective Emissions inventories in Q3 2020 demonstrating significant emissions reduction:

<https://cleanairactionplan.org/results/emission-reductions/>

Air Quality Monitoring Program. Both Ports have completed their respective annual air quality monitoring data summaries. The reports for the Port of Los Angeles and the Port of Long Beach can be viewed at:

<https://monitoring.cleanairactionplan.org/reports/>

Technology Advancement Program (TAP). In January 2020 the TAP updated its program guidelines to include a new Request for Information (RFI) process. To date, the TAP has received a total of five concept papers. Of the total received, Ports staff have invited four applicants to submit a full proposal. A total of three proposals have been submitted so far, which the Ports are currently reviewing.

Two separate ocean-going vessel projects with Pasha Hawaii were approved by the Port of Long Beach Board Board of Harbor Commissioners (BHC) in Q1 2020. These projects will be considered by the Port of Los Angeles BHC in Q4 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.

In the meantime, the Ports continue to provide on-going engagement and support with 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 preparing the Long-Term Comprehensive Strategy Plan for ZE Trucks.
- Continue coordination with the Agencies on a Truck Manufacturer Summit.
- POLA will seek BHC approval of the new Pasha Hawaii TAP ocean-going vessel projects.
- Continue coordination with AQMD on a Large-Scale Zero Emission Truck Deployment project and AQMD's emission capture and control technology project for oil tankers.
- 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.

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