San Pedro Bay Ports 10/14/20 Clean Air Action Plan Update

and

Year 2019 Emissions Inventory

San Pedro Bay Ports 10/14/20 Clean Air Action Plan Update Key Points

- Year 2020 container traffic will result in decreases of roughly 12% at POLA and 10% decrease at POLB.
- Approximately \$152 million in grants is available for Demonstration projects of Near Zero and Zero Emission equipment.
- Five of 10 planned Kenworth/Toyota ZE trucks will be in demonstration by year end with a hydrogen fueling station in Ontario operational and one in Long Beach early 2021.
- Year 2019 Emissions Inventory was released.

San Pedro Bay Ports 10/14/20 Clean Air Action Plan Update Key Points – Clean Truck Program

- Total of 20 ZE trucks are currently operating.
- California Air Resources Board released the Near ZE standard for 2023; the Ports will allow new entrants to their Truck Registry only for 2023 Compliant trucks.
- The CARB also announced that 40% of all new OEM trucks must be ZE by 2035.
- California governor issued Executive Order requiring that all Drayage trucks must be ZE by 2035.

San Pedro Bay Ports 10/14/20 Clean Air Action Plan Update Key Points – Clean Truck Program

- Private Financing Forum was conducted 9/29/20 with plans for:
 - 50 to 100 Truck Demonstration Project;
 - Public funding participants include CARB, SCAQMD, and California Energy Commission;
 - Matching cost-share of 50% will be expected.

San Pedro Bay Ports 10/14/20 Clean Air Action Plan Update Year 2019 Emissions Inventory - Introduction

- Year 2019 is the 15th annual EI.
- Year 2005 is considered the baseline.
- Quantities are based on actual activity.
- Completed by Starcrest Consulting with participation by both Ports, USEPA, CARB, and SCAQMD.

San Pedro Bay Ports 10/14/20 Clean Air Action Plan Update Year 2019 Emissions Inventory – Trends

- Emissions from both Ports combined of each of the criteria pollutants are down between two and five percent from 2018.
- Only increase in emissions for either Port was POLB increase of 2.1% for CO, compared to LA with 6.1% decrease. Top CO contributor at POLB was Cargo Handling Equipment.
- Top contributor to greenhouse gas, CO2e, at both ports is trucks with ships next closest: at POLA trucks are 43%, ships are 22% and cargo handling equipment is 20%; at POLB trucks are 38% and ships are 36%.

San Pedro Bay Ports 10/14/20 Clean Air Action Plan Update Year 2019 Emissions Inventory – Ships

- Ships remain the top contributor by large margin of Particulate Matter (PM10), smaller Particulate Matter (PM2.5), and Diesel Particulate Matter (DPM). Harborcraft and trains each emit roughly half the ships' contribution.
- Ships are also the top port contribution to Sulfur Oxides, Hydrocarbons and Nitrogen Oxides.
- About half the PM10, PM2.5, and DPM ship emissions result from Auxiliary Engines at berth/anchor while over half the SOx emissions are from Auxiliary Boilers.

San Pedro Bay Ports 10/14/20 Clean Air Action Plan Update Year 2019 Emissions Inventory – Ships

- Long Beach ship emissions are all significantly greater at between
 1.3 and 2.0 times POLA ship emissions.
- Long Beach Tankers contribute between 1/3 and 1/2 of all criteria pollutants from ships, with Containerships at roughly 1/3 or less, while at POLA, over 1/2 is from Containerships with less than 1/3 from Tankers.
- Los Angeles reports ships' Shore Power usage at 42% (44% in 2018) and POLB reports 49% (39% in 2018).