

APRIL 2017

## Port of Boston environmental record

### Background:

- 2016 marked another record year for the Port of Boston's Paul W. Conley Container Terminal. Total volume was up 5% with more than 248,300 containers moved in and out of Conley Terminal. Exports are up 11.7%, outpacing ports on the East, West and Gulf coasts.
- This year, Conley Terminal will serve 12 of the world's top 15 shipping lines, and it remains the only full-service container terminal in New England.
- With its 7,000 jobs, the Port of Boston is the City's 6<sup>th</sup> largest employer and contributes \$4.6 billion annually to the Massachusetts economy. More than 1,600 New England businesses depend on the Port of Boston to connect their products to the world.

### Environmental efforts

- Massport has made a concerted effort to balance the business needs of Conley Container Terminal with environmental stewardship.
- In 2003, Conley Terminal was the first container terminal in the United States to develop a comprehensive Environmental Management System (EMS), which has been certified (ISO 14001) annually since 2003.
- In 2015, Conley Terminal received a national Breathe Easy Leadership Award for reducing harmful diesel emissions beyond what is required by law.

### Ship emissions

**Sulfur emissions are down:** Sulfur content of vessels calling Conley Terminal have dropped from 15,000ppm to 1,000ppm since 2010.

**Nitrogen Oxide (NOx) emissions declining:** New ships built since 2015 meet strict emissions limits which will reduce NOx by 80% for future ship calls at Conley Terminal.

**Clean Technologies:** Nearly 1/3 of cruise ships calling the Port of Boston are using clean technologies ranging from exhaust scrubbers, selective catalytic reduction and diesel particulate filters. These technologies reduce PM, SOx, and NOx and improve local air quality.

**Less Time at the terminal:** Ship stay time at Conley Terminal was reduced by more than 500 hours

in 2015 as a result of productivity improvements. In addition, Boston Harbor dredging will result in ships staying at berth for shorter periods because ships will not have to wait for high tide to leave port.

### **Terminal emissions**

**Clean cranes:** All ship to shore cranes at Conley Terminal are electric, not diesel.

**Clean Rubber Tire Gantry Cranes.** Massport is using EPA funding to retrofit five diesel-powered rubber tire gantry cranes (RTG) used to load and unload trucks and reposition containers within the yard at Conley Terminal. The retrofitted cranes will conserve fuel and reduce noise and emissions. In 2017, the Conley RTG fleet will also be upgraded with new idle reduction technology. By reducing the power produced when the equipment is at rest, noise will be lowered, fuel consumption will be reduced by 28% and emissions significantly reduced.

**Sulfur emissions are down:** Since 2004, all equipment at Conley Terminal has run on Ultra Low Sulfur diesel, 6 years ahead of the EPA mandate. Diesel oxidation catalyst filters were installed on all diesel yard equipment in 2003, which resulted in significant reductions of HC, CO and PM emissions.

**Clean tractors:** All new tractors purchased by Massport will have EPA Tier 4 certified diesel engines.

**Clean forklifts:** All forklifts at Flynn Cruiseport Boston at the Black Falcon Cruise Terminal run on either propane gas or electricity instead of diesel.

### **Truck emissions**

**Clean diesel:** We replaced 60 old freight trucks with newer, cleaner diesel trucks at a cost of \$3 million funded by Massport, truck owners, and the U.S. Environmental Protection Agency (EPA). As a result, nitrogen oxides, particulate matter, hydrocarbons, and carbon monoxide have all been significantly reduced. With the help of an additional EPA DERA Grant, Massport is also replacing another 26 trucks that will generate significantly more environmental benefits.

**Truck idling is down:** Truck emissions are directly related to the amount of time a truck spends on terminal. Turn times have been cut by over 40% in the last ten years, taking over 41,000 hours of truck idling out of the South Boston community

**Fewer truck trips:** Through better use of technology, and close coordination with port stakeholders, Massport has been able to avoid 21,000 truck trips per year into South Boston.

**Thomas Butler Dedicated Freight Corridor and Memorial Park:** Massport has invested \$75 million to build a dedicated freight corridor that will take all the trucks off of East First Street and to construct a new park and noise buffer.

## **Lighting**

**LED lighting** will replace Conley Terminal's existing yard lighting in 2017

**Power consumption is down:** 750 light fixtures have been replaced on South Boston streets and facilities in the last two years, reducing power consumption by 72%.

## **Green Space**

**Parks:** Massport owns and operates the South Boston Maritime Park, East First Street Dog Park, and the Butler Memorial Park (opening 2017).

## **North Atlantic Right Whale Program**

**Massport partners with the National Oceanic and Atmospheric Administration (NOAA)** National Marine Fisheries Service and the U.S. Coast Guard to protect the North Atlantic Right Whale, one of the most endangered species in the world.

Efforts undertaken over the past 15 years include:

- Creating a Whale Alert software mobile app that delivers real-time data regarding Right Whale locations and reminders regarding speed limits and vessel reporting requirements
- Educating mariners about North Atlantic Right Whale behavior
- Developing and establishing recommended vessel routes