PORT of vancouver | Vancouver Fraser Port Authority

Container Drayage Program and the Rolling Truck Age Program

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Canada

The Northwest Ports Clean Air Strategy

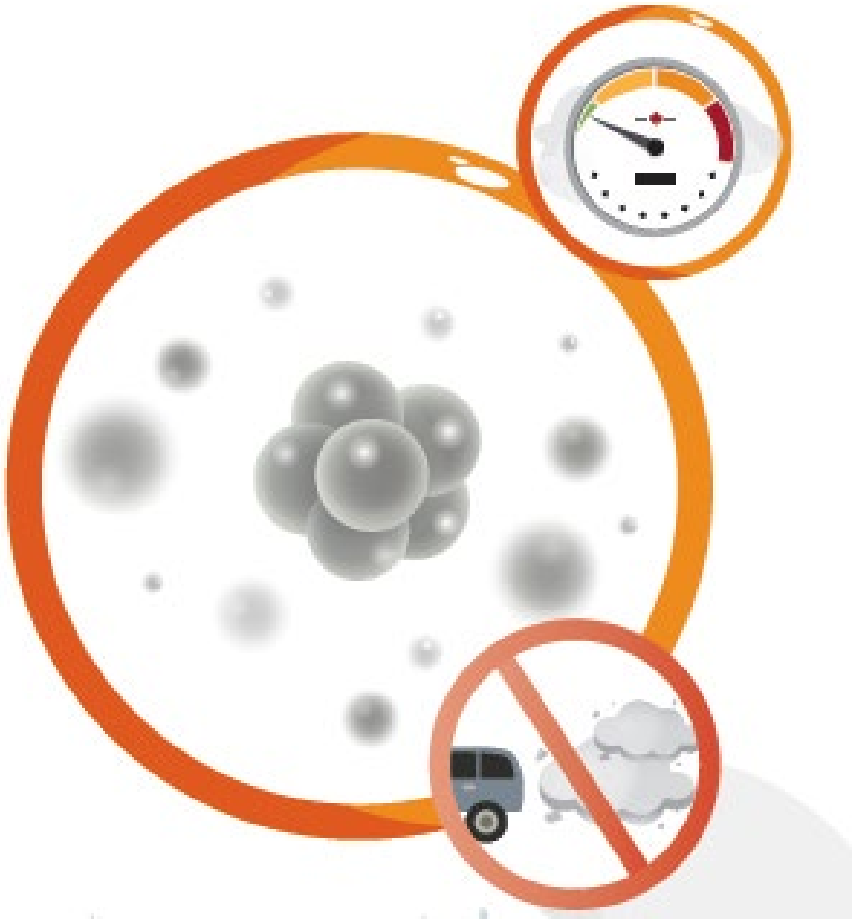
The Vancouver Fraser Port Authority has several initiatives focused on fulfilling the strategy's vision of phasing out all port-related emissions by 2050:

Rolling truck age program
Implementing a rolling maximum truck engine age through the Truck Licensing System

EcoAction
Incentivizing the use of lower emission fuels and technologies by ships

Non-road diesel emissions program
Encouraging the phase-out of older, higher emitting diesel equipment

Shore power
Enabling ships to connect to the electrical grid while docked



The Rolling Truck Age Program

- Developed in consultation with the drayage community since 2015
- Designed to help improve air quality and support cleaner, healthier communities within the Port of Vancouver
- Complements the port authority's existing truck engine emissions standards and other supply chain environmental programs.
- Supports the Northwest Ports Clean Air Strategy, a partnership of the Vancouver Fraser Port Authority, and the ports of Seattle and Tacoma

The Rolling Truck Age Program: Benefits

- The program will have significant benefits to our community partners and stakeholders:
  - Improve the **environmental performance** of the TLS drayage fleet within your communities and those around port operations.
  - **Enhance safety of driver and public vehicular traffic** through improved truck design and technology, including enhanced driver views, sensors, warning signals, etc., and greater operating reliability
  - Encourage re-investment in equipment which may, in turn, create **industry stability and accountability** of our drayage community

Reducing container truck emissions

90%

Truck engines built in 2007 onwards produce 90% less particulate matter, a known human carcinogen, than older engines

20X

Truck engines built in 2010 onwards also produce 20 times less nitrogen oxides, a key component of smog, than older engines

Truck engines built in 2014 onwards are subject to more stringent federal greenhouse gas emission limits, aligned with the US *Environmental Protection Act* regulations

Environmental benefits of the rolling truck age program

As of July 1, 2023, when 2009 and older trucks have been removed from the fleet, the program would result in the following annual reductions:

- 15,000 tonnes of greenhouse gases (CO2e) = 3,000 passenger vehicles
- 575 tonnes of nitrous oxides (NOx) = 80,000 passenger vehicles
- 37 tonnes of particulate matter 2.5 (PM2.5), a known carcinogen = 200,000 passenger vehicles

Emissions limits for heavy duty diesel vehicles

Truck engines no longer permitted (>12 years)

Graph legend

Limits on air pollutant and greenhouse gas emissions vary by truck engine age. This graph illustrates the regulated limits for emissions of nitrogen oxides, particulate matter, and greenhouse gases.*

All values are displayed in engine emission limit (g/bhp-hr) grams per brake horsepower-hour.

- Carbon dioxide emissions
- Nitrogen oxides (NOx)
  Affects air quality
- Particulate matter (PM)
  Affects air quality and climate change

*Limits on greenhouse gas emissions for heavy duty diesel vehicles are not depicted as they were not implemented until 2014.

**Federal government emission limits for NOx between 2004-2009 also included NMHC (non-methane hydrocarbons)

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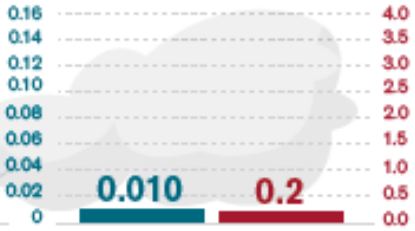
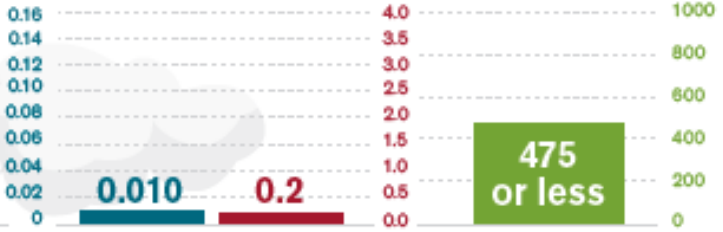
Truck engines permitted (2010 to current)

Engine certified
2010-2013

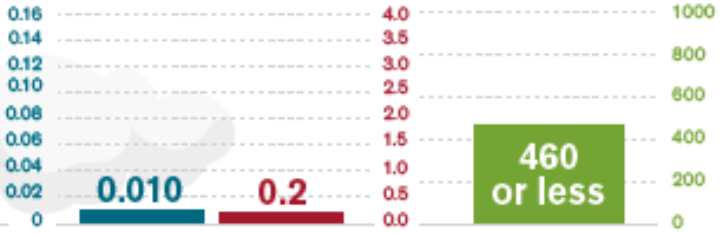
Truck Exception Application (TEA) required for engines over 10 years old.



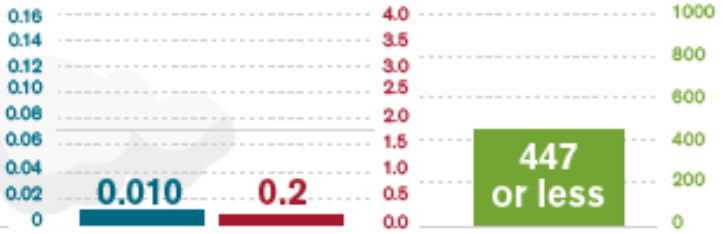
Engine certified
2014-2016



Engine certified
2017 and newer



Engine certified
2021 and newer



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Timeline – Drayage sector engagement and communication

2012
First engagement with drayage sector

2013
The port authority sought feedback on the features of the program

2015
The program was announced with a scheduled implementation date of January 2022

August 2021
Implementation date was amended to February 2022

January 14, 2022
The port authority sent a letter of deferral for no less than 90 days for industry engagement

February 7-25, 2022
Comment period regarding issues, interests and suggestions

April 11-29, 2022
Comment period regarding revised implementation plan

June 15, 2022
Announced new implementation dates, September 15, 2022 to February 1, 2023 Implementation date

September 3, 2022
In discussion with Transport Canada, final deferral date to April 3, 2023

Thank you