# DIESEL EMISSIONS REDUCTION ORDINANCE (DERO)

*Fiscal Year 2021 Report*

## ABOUT DERO

On June 3, 2015, Mayor Martin J. Walsh signed “An Ordinance to Protect Air Quality throughout the City of Boston by Reducing Fuel Emissions," to help reduce harmful emissions from diesel vehicles and idling. The ordinance required that all pre-2007 vehicles owned or leased by the City or used by its contractors to have been retrofitted with more effective emission-reduction equipment.

Since 2007, the U.S. Environmental Protection Agency (EPA) has considerably lowered the amount of pollution permissible from new diesel vehicles and equipment. However, because of their durability, many pre-2007 diesel vehicles remained in use at the time of the ordinance’s passage. For this reason, federal, state, and local governments have established programs to encourage the installation of retrofit air pollution control equipment on diesel vehicles and other diesel engines.

To read the full text of DERO, see City of Boston Municipal Code Section 7-2.3.

## CITY VEHICLES

DERO instructs that all on-road vehicles, non-road vehicles, and diesel equipment owned, leased, or operated by the City of Boston shall meet EPA emissions standards for new vehicles in effect in 2007 or have been retrofitted to remove at least 20 percent to particulates from the exhaust stream. There are exceptions for emergency vehicles, snow removal equipment, and equipment rarely used.

### *City of Boston Fleet*

The Central Fleet Management team completed retrofits of diesel vehicles in the Public Works Department fleet that did not meet EPA emissions standards. Retrofits entail installation of Diesel Oxidation Catalysts (DOCs), which are capable of eliminating particulate matter by 20-50 percent. There are 352 diesel vehicles in the City of Boston fleet, of which 270 meet EPA emissions standards for new vehicles in effect in 2007 or later. Of the 82 pre-2007 diesel vehicles:

- 16 Central Fleet vehicles have received DOCs;
- 13 vehicles that are owned by other departments and serviced by Central Fleet have been inspected and targeted for replacement, including five vehicles to be replaced in Fiscal Year (FY) 2021 and 2 front loaders with no available aftermarket DOCs;
- 3 vehicles that are owned by other departments but are not serviced by Central Fleet have not been retrofit;
- 4 vehicles that are owned by quasi-City agencies have not been retrofitted (note: DERO does not cover quasi-City agency fleets);

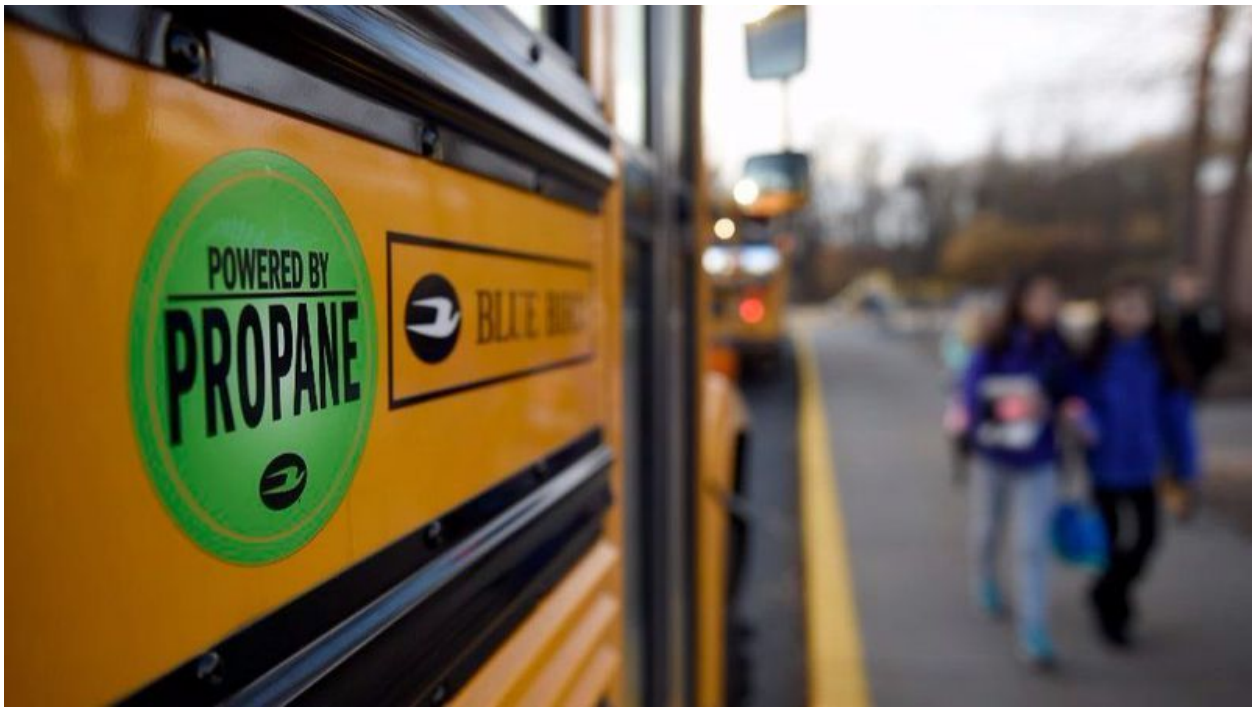
- 44 vehicles are exempt, including 26 vehicles used solely for snow removal and 18 vehicles in operation for fewer than 100 hours a year.

An additional four pre-2007 diesel vehicles have been phased out of the fleet entirely. As of December 2020, 330 City of Boston diesel vehicles are in compliance.

### *Boston Public Schools Fleet*

Since FY16, Boston Public Schools (BPS) has engaged in a long-term strategy to replace diesel-powered school buses with buses that run on liquid propane. As of December 2020, BPS has transitioned 57 percent of the school bus fleet, replacing 407 diesel buses with propane buses. Replacements include all diesel buses with 2004 and 2007 emissions, as well as 55 buses with 2010 emissions.

Propane bus technology offers lower air pollution rates than diesel, reliable start-up in cold weather, and fuel savings. In 2019, BPS purchased 75 Type "A" school buses with ultra-low NOx emissions, reinforcing the air quality benefits of the replacement program. New buses are equipped with BEITA (Boston Exceeded Idle Time Abatement) devices, in order to reduce unnecessary school bus idling.




*Over half of Boston's school buses run on propane. Photo: John Woike, Hartford Courant.*

## FUEL PURCHASE

DERO instructs that all on-road vehicles, non-road vehicles and diesel equipment owned, leased or operated by the City of Boston shall be powered by ultra-low-sulfur diesel fuel.

The City of Boston has implemented fiscal year (FY) contracts with fuel providers for Ultra Low Sulfur Diesel, per the DERO mandate. The City does not maintain contracts with any fuel providers for non-ultra-low-sulfur diesel fuel. The City also has contracts for biodiesel B5, B10 and B20, where the biofuel content ranges from 5% to 20% of a biofuel-diesel fuel blend.

## CITY CONSTRUCTION CONTRACT REQUIREMENTS

All contracts entered into by the City of Boston for construction projects and other projects and services having a total estimated cost in excess of $2 million must sign a Certificate of Compliance with "Diesel Emissions Reductions Ordinance" (see form in Appendix 1).

In FY 2021, the City is assessing and updating the contracting and auditing processes to ensure full compliance with DERO. The Public Works Department reviews the certificate with contractors at pre-construction meetings.

## IDLING

The City of Boston is deploying signage to raise awareness of the Massachusetts anti-idling law. Signs will be installed at Boston Public School drop-off areas as needed and additional locations based on idling complaints submitted to the City of Boston Air Pollution Control Commission.

*This report was prepared by Katherine Eshel, with staff contributions from the Environment Department, Public Works Department, and Boston Public Schools.*

## Appendix 1: Certificate of Compliance with "Diesel Emissions Reductions" Ordinance

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**Certificate of Compliance with "Diesel Emissions Reductions" Ordinance**

On June 1, 2015, the Mayor of the City of Boston approved a Diesel Emissions Reductions Ordinance (Section 7-2.3 of the City Code). The purpose of this ordinance is to minimize the public health risks associated with exposure to diesel particulate emissions by establishing requirements relating to the use of ultra-low sulfur diesel fuel and diesel emissions control technology by non-road and on-road diesel vehicles used in City projects and services, and by City owned, leased or operated diesel vehicles.

Pursuant to Section 7-2.3 of the City Code, all contracts entered into by the City of Boston for construction projects and other projects and services having a total estimated cost in excess of $2,000,000 (adjusted annually to reflect changes in the Consumer Price Index) shall require that on-road vehicles, non-road vehicles, and diesel equipment used to fulfill the contract or any subcontracts be powered by ultra-low sulfur diesel fuel. The vehicles and equipment must also meet certain EPA emissions standards or have verified or certified retrofit technology that removes a significant percentage of particulates from the exhaust stream. A copy of Section 7-2.3 is attached to this form for your reference.

Prior to beginning work on this contract, the undersigned vendor agrees to provide the City of Boston with a list identifying all diesel vehicles and diesel equipment used to fulfill the contract or any subcontracts, and demonstrating that such vehicles and equipment are in compliance with the emissions standards set forth in Section 7-2.3. The list shall be in a form provided by the City of Boston. Such list shall be signed by the vendor under the pains and penalties of perjury, certifying that the information it contains is truthful and accurate. The vendor shall immediately provide an updated list to the City of Boston, certified and signed in a like manner, if any additional vehicles or equipment will be used at a later date.

The undersigned vendor agrees to provide documentation, upon reasonable request, to the City of Boston related to compliance with Section 7-2.3. The undersigned vendor also agrees to cooperate with the City of Boston and allow access to the project site to allow inspection of all vehicles and equipment covered by this ordinance.

The undersigned vendor understands that failure to comply with the requirements of Section 7-2.3, at any time during the course of the contract, shall allow the City of Boston to pursue any and all available remedies allowed under the contract to immediately halt non-compliance including, where appropriate, termination of the contract.

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Signature of the Vendor Date