HOUSE DOCKET, NO. 3065 FILED ON: 1/21/2011

HOUSE . . . . . No. 2749

The Commonwealth of Massachusetts

PRESENTED BY:

Cheryl A. Coakley-Rivera

To the Honorable Senate and House of Representatives of the Commonwealth of Massachusetts in General Court assembled:

The undersigned legislators and/or citizens respectfully petition for the adoption of the accompanying bill:

An Act relative to the reduction of particulate emissions from diesel engines.

PETITION OF:

NAME:	DISTRICT/ADDRESS:	DATE ADDED:
Cheryl A. Coakley-Rivera	*10th Hampden*	*1/21/2011*
Gale D. Candaras		*2/4/2011*

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By Ms. Coakley-Rivera of Springfield, a petition (accompanied by bill, House, No. 2749) of Cheryl A. Coakley-Rivera and Gale D. Candaras relative to the reduction of particulate emissions from Diesel engines. Environment, Natural Resources and Agriculture.

[SIMILAR MATTER FILED IN PREVIOUS SESSION
SEE HOUSE, NO. *3440* OF 2009-2010.]

The Commonwealth of Massachusetts

In the Year Two Thousand Eleven

An Act relative to the reduction of particulate emissions from diesel engines.

Be it enacted by the Senate and House of Representatives in General Court assembled, and by the authority of the same, as follows:

30 of General Laws is hereby amended by adding, after Section 39S, the following new sections:—

Section 39T. Short title. This act shall be known as the "Diesel Emissions Reduction Act of 2009."

Section 39U. Legislative findings and purpose. The Legislature hereby finds and declares that:

The purpose of this act is to minimize the public health risks from exposure to diesel particulate emissions as expeditiously as practicable

Diesel exhaust particle pollution poses a clear and present health risk to the people of the Commonwealth. Diesel exhaust is a likely human carcinogen, and a prime contributor to airborne fine particle pollution that is linked to premature death and other serious cardiovascular and pulmonary problems such as heart attacks, abnormal heart rhythms, atherosclerosis, stroke, asthma attacks, permanent respiratory damage and retardation of lung growth in children.

The health impacts from diesel emissions especially affect children, the elderly and people with weakened immune systems.

Particularly high concentrations of diesel emissions often are found in densely populated, urban areas, disproportionately impacting ethnic minorities and people of lower economic status.

Diesel exhaust also contains black carbon emissions, which contribute to global climate change.

Practical, cost-effective measures to substantially reduce diesel particulate emissions are available today, and can be applied to many existing diesel engines. The same technology that limits diesel pollution from new diesel engines can be retrofitted onto existing engines or applied in new replacement engines to reduce diesel emissions by 85% or better.

Section 39V. Definitions.

"Best available retrofit technology" means technology, verified by the United States Environmental Protection Agency or California Air Resources Board (CARB) for achieving reductions in particulate matter emissions at the highest classification level for diesel emission control strategies that is applicable to the particular engine and application. Such technology shall not result in a net increase in nitrogen oxides.

"CARB" means the California Air Resources Board.

"Certified engine configuration" means a new, rebuilt, or remanufactured engine configuration—

that has been certified or verified by USEPA or CARB;

that meets or is rebuilt or remanufactured to a more stringent set of engine emissions standards, as determined by DEP; and

in the case of a certified engine configuration involving the replacement of an existing engine or vehicle, an engine configuration that replaced an engine that was removed from the vehicle and returned to the supplier for remanufacturing to a more stringent set of engine emissions standards or for scrappage.

"CMAQ" means the federal Congestion Mitigation and Air Quality Improvement Program reauthorized by Congress in 2005 by Sections 1101, 1103 and 1808 of the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA–LU) (Pub. L. 109–59, Aug. 10, 2005).

"Contractor" means any person that enters into a public works contract with a public agency, or any person that enters into an agreement with such person or entity, to perform work or provide labor or services related to such public works contract.

"Defective" means a condition in which an emission control system or component is malfunctioning due to age, wear, mal-maintenance or design defects.

"DEP" means the Massachusetts Department of Environmental Protection.

"DERA" means the Diesel Emission Reduction Act, enacted by Congress as sections 791—797 of the Energy Policy Act of 2005 (Pub. L. 109–58, Aug. 8, 2005).

"Fleet" means one or more diesel vehicles or mobile or stationary diesel engines owned, controlled or operated by the same person (and by any person that controls, is controlled by, or has common control with such same person).

"Heavy-heavy duty diesel vehicle" means a motor vehicle with a gross vehicle weight rating of at least 33,000 pounds that is powered by a diesel engine.

"Incremental cost" means the cost of a contractor's actions to comply with the requirements of section 106(a)(4)(B) and (5)(B) of this act, less the baseline cost that would otherwise be incurred by the applicant or contractor in the normal course of business. Incremental costs may include added lease or fuel costs as well as capital costs.

"Level 1 Control" means a Verified Diesel Emission Control Device that achieves a particulate matter (PM) emission reduction of 25% or more from uncontrolled engine emission levels.

"Level 2 Control" means a Verified Diesel Emission Control Device that achieves a particulate matter (PM) emission reduction of 50% or more from uncontrolled engine emission levels.

"Level 3 Control" means a Verified Diesel Emission Control Device that achieves a particulate matter (PM) emission reduction of 85% or more from uncontrolled engine emission levels, or that reduces emissions to less than or equal to 0.01 grams of PM per brake horsepower-hour. Level 3 Control includes repowering or replacing the existing diesel engine with an engine

meeting USEPA's 2007 Heavy-duty Highway Diesel Standards, or in the case of a nonroad engine, an engine meeting the USEPA's Tier 4 Nonroad Diesel Standards; Level 3 Control also includes new diesel engines meeting said USEPA emissions standards.

"Motor vehicle" means any self-propelled vehicle designed for transporting persons or property on a street or highway, including an on-road diesel vehicle.

"Nonroad engine" means an internal combustion engine (including the fuel system) that is used in a regulated nonroad vehicle.

"PM2.5" means particulate matter that is 2.5 micrometers or smaller in size.

"Primarily engaged in interstate commerce" means, with respect to a Regulated Highway Diesel Vehicle, a vehicle that is not registered in the Commonwealth, is engaged in interstate commerce, and during its life (or if longer than 3 years, the most recent 3 calendar years) has operated for more than 50% of its travel miles outside of the Commonwealth, in accordance with regulations promulgated by DEP pursuant to this act.

"Public agency" means a commonwealth, city, county, administration, department, division, bureau, board or commission, or a corporation, institution or agency of government, the expenses of which are paid in whole or in part from the public treasury.

"Public works contract" means a contract with a public agency for a construction program or project involving the construction, demolition, restoration, rehabilitation, repair, renovation, or abatement of any building, structure, tunnel, excavation, roadway, park or bridge; a contract with a public agency regarding the preparation for any construction program or project involving the construction, demolition, restoration, rehabilitation, repair, renovation, or

abatement of any building, structure, tunnel, excavation, roadway, park or bridge; or a contract with a public agency for any final work involved in the completion of any construction program or project involving the construction, demolition, restoration, rehabilitation, repair, renovation, or abatement of any building, structure, tunnel, excavation, roadway, park or bridge.

"Regulated Highway Diesel Vehicle" means any of the following heavy-heavy duty diesel vehicles having a model year 1994 through 2006 and operating within the Commonwealth and not primarily engaged in interstate commerce, all as may be further defined in an inclusive manner in regulations promulgated by DEP pursuant to this act:

commercial and transit buses;

waste haulers;

highway and other maintenance, construction and other trucks owned by or operated on behalf of public agencies, including but not limited to dump trucks, graders and snow plows;

freight and cargo delivery trucks with central fleet maintenance or fueling locations within the State; and

such other 1994-2006 model year heavy-heavy-duty highway diesel vehicles not primarily engaged in interstate commerce as DEP may designate by regulation.

"Regulated Nonroad Vehicle" means a vehicle or equipment operating within the Commonwealth that is powered by a nonroad engine, seventy-five horsepower and greater, and that is a crawler, tractor, dozer, backhoe, or skid-steer loader, all as may be further defined in an inclusive manner in regulations promulgated by DEP pursuant to this act.

"Retrofit" means to equip a diesel motor vehicle or nonroad vehicle with new particulate emissions-reducing parts or technology verified by USEPA or CARB after manufacture of the original engine.

"RMV" means the Massachusetts Registry of Motor Vehicles.

"Ultra low sulfur diesel fuel" means diesel fuel that has a sulfur content of no more than fifteen parts per million.

"USEPA" means the United States Environmental Protection Agency.

"USEPA's 2007 Heavy-duty Highway Diesel Standards" means those regulations promulgated by USEPA and published in the Federal Register at 66 Fed. Reg. 5002 on January 18, 2001.

"USEPA's Tier 4 Nonroad Diesel Standards" means those regulations promulgated by USEPA and published in the Federal Register at 69 Fed. Reg. 38958 on June 29, 2004.

"Verified diesel emission control device" means:

an emission control device or strategy that has been verified to achieve a specified diesel PM reduction by USEPA or CARB; or

replacement or repowering with an engine that is certified to specific PM emissions performance by USEPA or CARB.

Section 39W. DEP Regulations.

Within one year of the effective date of this act, DEP shall, after written notice and public hearing, promulgate regulations implementing the provisions of this act.

Section 39X. Reduction of on-road diesel emissions.

Level 3 Controls required. Except as provided in subsections (b), (c) and (d), on and after January 1, 2013, no fleet owner or operator shall operate any Regulated Highway Diesel Vehicle in the Commonwealth unless that vehicle has installed Level 3 controls and unless such controls are properly maintained and functioning.

(b) Existing controls. Any Regulated Highway Diesel Vehicle that has operational

Level 1 Control installed prior to the effective date of this act shall have an additional two years to meet the requirements of subsection (a), and any Regulated Highway Diesel Vehicle that has operational Level 2 Control installed prior to the effective date of this act shall have an additional four years to meet the requirements of subsection (a).

Small fleets. Any owner or operator of a fleet or fleets (including for the purpose of this subsection any fleet or fleets owned or operated by related persons) consisting in the aggregate of five or fewer Regulated Highway Diesel Vehicles, shall have an additional two years to comply with the requirements of subsections (a), (b) and (d)(1).

Exemptions.

Level 2 Controls. Subsection (a) shall not apply to any Regulated Highway Diesel Vehicle if DEP makes a written finding that no Verified diesel emissions control device with Level 3 Controls exists for such vehicle, in which case such fleet owner or operator shall install Level 2 Controls that are available and appropriate for such vehicle as determined by DEP.

Low-use Vehicles. Subsections (a), (b), and (d)(1) shall not apply to any Regulated Highway Diesel Vehicle whose propulsion engine was operated in the Commonwealth for fewer

than 1,000 miles and less than 100 hours during the preceding calendar year, as confirmed by engine operation data from a properly functioning odometer and non-resettable hour meter.

Emergency Vehicles. Subsections (a), (b), (d)(1) shall not apply to any vehicles that are specially equipped and operated for emergency response by a state authority, offices of emergency management, sheriff's office, police department or fire department.

(e) Penalties.

(1) Any owner or operator of a Regulated Highway Diesel Vehicle that is found by DEP to be in noncompliance with this section shall be liable to pay a civil penalty in an amount assessed by DEP not to exceed $5,000 per violation, with each day of noncompliance of each vehicle constituting a separate violation, and may have the registration of said vehicle revoked by RMV, all in accordance with regulations promulgated by DEP, and, as appropriate, RMV.

(2) Monies collected in penalties will be distributed 50% to the Diesel Emissions Reduction Fund, 25% to DEP as the enforcing agency, and 25% to the ticketing agency, i.e. state or local police.

(f) Sticker Display. Each regulated highway diesel vehicle subject to the provisions of this section shall display a compliance sticker clearly and conspicuously indicating its installed level of emissions control

(g) All emissions control technology shall be operated, maintained and serviced as recommended by the manufacturer.

(h) Ultra low sulfur diesel highway fuel required. After the effective date of this act, no person shall sell, deliver or distribute diesel fuel for diesel motor vehicles within the State

other than ultra-low sulfur diesel fuel, and no person shall operate a diesel motor vehicle within the State using diesel fuel other than ultra low sulfur diesel fuel.

Section 39Y. Public Works Contracts Environmental Performance Specifications.

On and after six months following effective date of this act, any solicitation for a public works contract, and any contract entered into as a result of such solicitation, shall include the following specifications that all contractors shall comply with in the performance of such contract:

Ultra low sulfur diesel fuel or an ultra low sulfur diesel blend with a sulfur content of 15 ppm or less shall be used in all diesel nonroad vehicles and heavy duty diesel vehicles;

All Regulated Nonroad Vehicles on site for more than three days during the project shall install and operate:

a minimum of Level 1 Controls no later than January 1, 2011; and,

Level 3 Controls no later than January 1, 2013;

All heavy-heavy duty diesel vehicles on site for more than three days during the project shall install and operate Level 3 Controls no later than January 1, 2011;

Each Regulated Nonroad Vehicle and heavy-heavy duty diesel vehicle on site shall display a compliance sticker clearly and conspicuously indicating its installed level of emissions control; and

All emissions control technology shall be operated, maintained and serviced as recommended by the manufacturer.

(1) Any public works contract shall provide full or partial reimbursement from the public works project funds for incremental costs incurred by eligible contractors that are necessary to bring Regulated Nonroad Vehicle and heavy-heavy duty diesel vehicles used on that specific project into compliance with the requirements of subsections (2)(A), and (B) and (3) for that specific project; provided, however, that no reimbursement shall be payable for costs incurred after 18 months following the applicable compliance date. Each relevant agency shall establish annually, on January 1st, the reimbursement percentage to be applied to all of its public works contracts for each calendar year beginning in 2010 through 2014. Eligible contractors shall apply for such reimbursement providing such information as the public agency shall require. Only one reimbursement shall be provided for each Regulated Nonroad Vehicle or heavy-heavy duty diesel vehicle; expenditures shall not be eligible for reimbursement to the extent they were incurred to bring such vehicle into compliance with a different provision of this act or any other federal or state law or regulation, or if such expenditures have been previously reimbursed using funds from any other public works contract or any other public agency, and each application for reimbursement shall include appropriate contractor certifications concerning these prohibitions.

(2) The costs of compliance with subsection (a) that are reimbursed by the public agency under subsection (b)(1) shall not be included in the project bid or considered by the public agency in evaluating bids.

The public agency entering into a public works contract may elect to provide reimbursement for retrofits of project Regulated Nonroad Vehicle and heavy-heavy duty diesel vehicles authorized under subsection (b) in the form of rebates in amounts established by DEP for particular types of vehicles; provided that DEP has established by regulation applicable policies, procedures and safeguards for such rebates.

Any public works contract shall provide for enforcement of the contract provisions required by subsection (a) and penalties for noncompliance of such provisions.

Subsections (a)(2) and (3) shall not apply to a Regulated Nonroad Vehicle or heavy-heavy duty diesel vehicle where the involved public agency makes a written finding, which is approved, in writing, by DEP, that no Verified diesel emissions control device with Level 3 Controls exists for such vehicle, in which case the vehicle may operate on the project site only if it has been retrofit with Level 2 Controls that are available and appropriate for such vehicle as determined by DEP; provided that if the involved public agency makes a written finding, which is approved, in writing, by DEP, that no Verified diesel emissions control device with Level 2 Controls exists for such vehicle, said vehicle may operate on site once it has been retrofit with such Level 1 Controls that are available and appropriate for such vehicle as determined by DEP. All findings made pursuant to this subsection and information relating thereto shall be publicly available, and DEP shall post them on its website.

Section 39Z. Diesel Emissions Reduction Funding Program

Fund. The Diesel Emissions Reduction Fund (the "Fund") is hereby established as an account in the state treasury.

The fund shall be administered by the state treasurer for the benefit of the Diesel Emissions Reduction Funding Program (the "Program") established under this section.

Interest earned on the fund shall be credited to the Fund.

The Fund consists of: (1) the contributions, fees, and surcharges under: (A) subsections 5-7 and 9; and (B) penalties and fees deposited in the Fund pursuant with this act.

Monies in the Fund may be used only to implement the Program, provided that a maximum of two per cent of the money in the Fund may be used for administrative costs incurred by the DEP and the state treasurer. Monies allocated to an eligible project but not expended in any fiscal year may be carried over to succeeding fiscal years.

A surcharge is hereby imposed on the retail sale, lease, or rental of new nonroad diesel vehicles in an amount equal to one per cent of the sales price or the lease or rental amount.

A surcharge is hereby imposed on every retail sale, lease or rental of every heavy duty diesel vehicle that is of a model year of 1998 or earlier and that is sold or leased in this state. The amount of the surcharge is 2.5% of the total consideration.

In addition to the registration fees charged under section 33 of Chapter 90, a surcharge is hereby imposed on the registration of a heavy duty diesel vehicle under that section in an amount equal to ten percent of the total fees due for registration of such vehicle there under. Said surcharges shall be remitted to the state treasurer for deposit in the Fund.

The bonding authority is hereby authorized to issue up to $10,000,000 annually before 2018 in bonds to be used solely to fund revolving loans to eligible diesel emission reduction projects as described in this section.

The Fund shall also consist of designated monies received by the State under DERA, CMAQ, environmental penalties assessed by the director, supplemental environmental project funds, and any other sources of revenue that may hereafter so be designated.

(10)The state treasurer shall adopt any procedures needed for the collection,

administration and enforcement of the surcharge authorized by this subsection, and shall deposit all surcharges to the credit of the Fund.

Establishment and Administration of the Program. DEP, in consultation with the state treasurer, shall establish by regulations promulgated pursuant to this act the Massachusetts Diesel Emissions Reduction Funding Program in accordance with this act.

DEP shall administer the Program and shall provide grants and low-cost revolving loans from the Fund, on a competitive basis, to eligible projects to achieve significant reductions of diesel particulate emissions and/or reduced exposure to diesel particulate matter.

In administering the Program and in accordance with the requirements of this act, DEP shall:

manage Program funds and oversee the Program;

produce guidelines, protocols, and criteria for eligible projects;

develop methodologies for evaluating project benefits and cost-effectiveness;

develop procedures for monitoring whether the emissions reductions projected for projects awarded grants under this chapter are actually achieved;

prepare reports regarding the progress and effectiveness of the Program; and

take all appropriate and necessary actions so that emissions reductions achieved through the Program may be credited by USEPA to the appropriate emissions reduction objectives in the state implementation plan.

Applications.

To receive a grant or loan under the Program, the applicant shall submit to DEP an application at a time, in a manner, and including such information DEP may require.

An application under this subsection shall include--

a description of the air quality of the area in which the project fleets will operate;

a description of the project proposed by the applicant, including--

any certified engine configuration or verified technology proposed to be used or funded in the project; and

the means by which the project will achieve a significant reduction in diesel emissions;

an evaluation of the quantifiable and unquantifiable benefits of the emissions reductions of the proposed project;

an estimate of the cost of the proposed project;

a description of the age and expected lifetime control of the equipment to be used or funded in the proposed project;

a description of the diesel fuel available in the areas to be served by the proposed project, including the sulfur content of the fuel;

provisions for the monitoring and verification of the project; and

such other information as may be required by DEP.

Eligibility.

A proposed project must meet the requirements of this section to be eligible for a grant or loan under the Program.

DEP may consider for funding the following types of projects --

Installation of a retrofit technology, including any incremental costs of a repowered or new diesel engine, that significantly reduces particulate emissions through development and implementation of a certified engine configuration or a verified diesel emission control device for (i) a bus; (ii) a medium-duty truck or a heavy-duty truck; (iii) a commercial marine engine; (iv) a locomotive; or (v) a nonroad diesel engine or vehicle used in construction, handling of cargo, including at a port or airport, agriculture, mining, or energy production; or

programs or projects to reduce long-duration idling using verified technology involving a vehicle or equipment described in subsection (A).

In providing a grant or loan under the Program, and subject to the provisions of subsection (c), DEP shall give priority to otherwise eligible projects that, as determined by DEP--

maximize public health benefits;

are the most cost-effective;

serve areas (i) with the highest population density;(ii) that are poor air quality areas, including areas identified by DEP as in nonattainment or maintenance of national ambient air quality standards for a criteria pollutant, Federal Class I areas; or areas with toxic air pollutant concerns; (iii) that receive a disproportionate quantity of air pollution from a diesel fleets,

including truckstops, ports, rail yards, terminals, and distribution centers; or (iv) that use a community-based multistakeholder collaborative process to reduce toxic emissions;

include a certified engine configuration or verified technology that has a long expected useful life;

will maximize the useful life of any certified engine configuration or verified technology used or funded by the project; and,

conserve diesel fuel

For a proposed project to be eligible for Program funding, other than a project involving a marine vessel or engine, not less than 75 percent of vehicle miles traveled or hours of operation projected for the five years immediately following the award of a grant must be projected to take place in this state. For a proposed project involving a marine vessel or engine, the vessel or engine must be operated in the intercoastal waterways or bays adjacent to this state for a sufficient amount of time over the lifetime of the project, as determined by DEP, to meet the cost-effectiveness requirements of subsection (e).

Each proposed project must meet the cost-effectiveness requirements of subsection (e).

A proposed project based on the use of a certified engine configuration or verified technology must document, in a manner acceptable to DEP, a reduction in particulate emissions of at least 50 percent compared with the baseline emissions adopted by DEP for the relevant engine year and application. After study of available emissions reduction technologies, after public notice and comment, DEP may revise the minimum percentage reduction in particulate emissions required by this subsection to improve the ability of the program to achieve its goals.

If a baseline emissions standard does not exist for on-road or non-road diesels in a particular category DEP, for purposes of this section, shall establish an appropriate baseline emissions level for comparison purposes.

DEP may approve payments to offset the incremental cost, over the expected lifetime of the vehicle, of the use of qualifying fuel in a on-road or non-road diesel vehicle if the proposed project as a whole, including the incremental fuel cost, meets the requirements of this subchapter. DEP shall develop an appropriate method for converting incremental fuel costs over the lifetime of the non-road diesel into an initial cost for purposes of determining cost-effectiveness as required by subsection (e).

Cost-effectiveness

For purposes of this section, "cost-effectiveness" means the total dollar amount divided by the total number of tons of particulate matter reduction attributable to that expenditure. In calculating cost-effectiveness, one-time grants of money at the beginning of a project shall be annualized using a time value of public funds or discount rate determined for each project by DEP, taking into account the interest rate on bonds, interest earned by state funds, and other factors DEP considers appropriate.

DEP shall establish reasonable methodologies for evaluating project cost-effectiveness consistent with subsection (e)(1) and with accepted methods.

Except as provided by subsection (e)(7), DEP may not award a grant for a proposed project the cost-effectiveness of which, calculated in accordance with subsections (e)(1) and (2) and criteria developed thereunder, exceeds $135,000 per ton of PM10 emissions. This

subsection does not restrict DEP authority under other law to require emissions reductions with a cost-effectiveness that exceeds $135,000 per ton.

DEP may not award a grant that, net of taxes, provides an amount that exceeds the incremental cost of the proposed project.

DEP shall adopt guidelines for capitalizing incremental lease costs so those costs may be offset by a grant under this section.

In determining the amount of a grant under this section, DEP shall reduce the incremental cost of a proposed new purchase, lease, retrofit, repower, or add-on equipment project by the value of any existing financial incentive that directly reduces the cost of the proposed project, including tax credits or deductions, other grants, or any other public financial assistance.

Adjustment of cost-effectiveness. Based upon a study of available emissions reduction technologies and costs and after public notice and comment, DEP may change the values of the maximum grant award criteria established in subsection (e)(3) to account for inflation or to improve the ability of the program to achieve its goals.

Section 39AA. Miscellaneous.

Reporting. Persons subject to this act, including owners and operators of Regulated Highway Diesel Vehicles and Regulated Nonroad Vehicles, shall provide such information, reporting and monitoring as DEP may require by regulations promulgated pursuant to this act for the purpose of implementing the provisions of this act.

Equitable Relief Authorized. In addition to other remedies provided in this act, DEP may seek injunctive relief in any court of competent jurisdiction to enforce any provision of this act.

Severability. If any clause, sentence, paragraph, section or provision of this act shall be adjudged by any court of competent jurisdiction to be invalid, such judgment shall not affect, impair or invalidate the remainder of this act, but shall be confined in its operation to the clause, sentence, paragraph, section or provision of this act directly involved in the controversy in which the judgment shall have been rendered.

Effective Date. This act shall take effect immediately upon enactment.