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STATE OF RHODE ISLAND

IN GENERAL ASSEMBLY

JANUARY SESSION, A.D. 2008

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A N A C T

RELATING TO MOTOR AND OTHER VEHICLES - DIESEL EMISSIONS REDUCTION
ACT

Introduced By: Senators Moura, Bates, Sosnowski, Maselli, and Miller

Date Introduced: February 26, 2008

Referred To: Senate Environment & Agriculture

It is enacted by the General Assembly as follows:

1 SECTION 1. Sections 31-47.3-2 and 31-47.3-3 of the General Laws in Chapter 31-47.3
2 entitled "The Diesel Emissions Reduction Act" are hereby amended to read as follows:

3 **31-47.3-2. Definitions.** – When used in this chapter:

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

9 (2) "Heavy duty vehicle" or "vehicle" means any on-road or nonroad vehicle powered by
10 diesel fuel and having a gross vehicle weight of greater than fourteen thousand (14,000) pounds.

11 (3) "Director" refers to the director of the department of environmental management
12 (DEM).

13 (4) "Level 1 control" means a verified diesel emission control device that achieves a
14 particulate matter (PM) reduction of twenty-five percent (25%) or more compared to uncontrolled
15 engine emissions levels.

16 (5) "Level 2 control" means a verified diesel emission control device that achieves a
17 particulate matter (PM) emission reduction of fifty percent (50%) or more compared to
18 uncontrolled engine emission levels.

1 (6) "Level 3 control" means a verified diesel emission control device that achieves a
2 particulate matter (PM) emission reduction of eighty-five percent (85%) or more compared to
3 uncontrolled engine emission levels, or that reduces emissions to less than or equal to one one-
4 hundredth (0.01) grams of (PM) per brake horsepower-hour. Level 3 control includes repowering
5 or replacing the existing diesel engine with an engine meeting US EPA's 2007 Heavy-duty
6 Highway Diesel Standards, or in the case of a nonroad engine, an engine meeting the US EPA's
7 Tier 4 Nonroad Diesel Standards.

8 (7) "Closed crankcase ventilation system (CCV)" means a system that separates oil and
9 other contaminant from the blow-by gases and routes the blow-by gases into a diesel engine's
10 intake system downstream of air filter.

11 (8) "Full-sized school bus" means a school bus, as defined in (Rhode Island general law)
12 section (31-1-3), which is a type 1 diesel school bus, including spare buses operated by or under
13 contract to a school district, but not including emergency contingency vehicles or low usage
14 vehicles.

15 (9) "Model year 2007 emission standards" means engine standards promulgated by the
16 federal Environmental Protection Agency in 40 CFR Parts 69, 80 and 86.

17 (10) "Verified emissions control device" means a device that has been verified by the
18 federal Environmental Protection Agency or the California Air Resources Board to reduce
19 particulate matter emissions by a given amount.

20 [\(11\) "Ultra low sulfur diesel fuel" means diesel fuel having sulfur content of fifteen](#)
21 [thousandths percent \(.0015%\) of sulfur or less, as defined by the U.S. Environmental Protection](#)
22 [Agency at 40 CFR section 80.520.](#)

23 **31-47.3-3. Reducing emissions from school buses.** - (a) Purpose. - To reduce health
24 risks from diesel particulate matter (DPM) to Rhode Island school children by significantly
25 reducing tailpipe emissions from school buses, and preventing engine emissions from entering the
26 passenger cabin of the buses.

27 (b) Requirements for Rhode Island school buses:

28 (i) By September 1, 2010, no full-size school bus with an engine model year 1993 or
29 older may be used to transport school children in Rhode Island; and,

30 (ii) Providing there is sufficient federal or state monies, by September 1, 2010, all full-
31 sized school buses transporting children in Rhode Island must be retrofitted with a closed
32 crankcase ventilation system and either: (A) be equipped with a level 1, level 2, or level 3 device
33 verified by the US Environmental Protection Agency or the California Air Resources Board; or
34 (B) be equipped with an engine of model year 2007 or newer; or (C) achieve the same or higher

1 diesel PM reductions through the use of an alternative fuel such as compressed natural gas
2 verified by CARB/EPA to reduce DPM emissions at a level equivalent to or higher than
3 subsection (B) above.

4 (c) Financial assistance to defray costs of pollution reductions called for in (b)(ii):

5 (i) DEM shall work with the Rhode Island department of transportation or other
6 authorized transit agencies to maximize the allocation of federal congestion mitigation and air
7 quality (CMAQ) money for Rhode Island for diesel emissions reductions in federal FY 2008 and
8 thereafter until the retrofit goals in this act are met. The (CMAQ) program is jointly administered
9 by the federal highway administration (FHWA) and the federal transit administration (FTA), and
10 was reauthorized by congress in 2005 under the safe, accountable, flexible, and efficient
11 transportation equity act: A legacy for users (SAFETEA-LU). The (SAFETEA-LU) requires
12 states and MPOs to give priority in distributing CMAQ funds to diesel engine retrofits, and other
13 cost-effective emission reduction and congestion mitigation activities that benefit air quality.

14 (ii) Drawing upon any available federal or state monies, the director shall establish and
15 implement a system of providing incentives consistent with this section to municipalities,
16 vendors, or school bus owners for the purchase and installation of any CARB/EPA-verified
17 emission control retrofit device together with the purchase and installation of closed crankcase
18 ventilation system (CCV) retrofit device. In 2007, the per-unit incentive shall not exceed one
19 thousand two hundred fifty dollars (\$1,250) for a level 1 device plus a CCV, or two thousand five
20 hundred dollars (\$2,500) for a level 2 device plus a CCV, or for model years 2003-2006 five
21 thousand dollars (\$5,000) for a level 3 device plus a CCV. Incentive levels may be reevaluated
22 annually, with the goal of maintaining competition in the market for retrofit devices. To the
23 extent practicable, in kind services will also be utilized to offset some of the costs. Incentive
24 recipients must also certify that newly purchased or retrofitted buses with a level 3 technology
25 will operate in the state of Rhode Island for a minimum of four (4) years.

26 (d) Priority community provision:

27 (i) When penalty funds, state SEP funds, federal funds, or funds from other state or non-
28 state sources become available, these should first be allocated toward further offsetting costs of
29 achieving "best available" emissions control in "priority communities";

30 (ii) The "best available" standard is attained by all new buses (MY2007 and newer) and
31 by diesel buses model year 2003 to 2006, inclusive that has been retrofitted with level 3-verified
32 diesel particulate filters and closed crankcase ventilation systems, by diesel buses model year
33 1994 to 2002, inclusive that has been retrofitted with at least level 2-verified diesel particulate
34 filters and closed crankcase ventilation systems or could be achieved with a natural gas bus that

1 achieves the same or better standards of cleanliness as a 2007 diesel bus standard; and

2 (iii) "Priority communities" (to be identified by the Rhode Island DEM) are Rhode
3 Island communities that have high levels of ambient air pollution and high incidence of childhood
4 respiratory impacts.

5 To achieve the pressing public health and environmental goals of this act, DEM shall
6 identify opportunities to achieve maximize PM reductions from diesel powered heavy duty
7 vehicle or equipment that is owned by, operated by, or on behalf of, or leased by, or operating
8 under a contract to a state agency or state or regional public authority (except vehicles that are
9 specifically equipped for emergency response) and diesel powered waste collection and recycling
10 vehicles that are owned, leased, or contracted to perform the removal or transfer or municipal,
11 commercial or residential waste, or recycling services. No later than January 1, 2008, DEM shall
12 present a report to the general assembly, governor, house committee on environment and natural
13 resources, and the senate committee on environment and agriculture on such opportunities to
14 maximum PM reductions from the aforementioned fleets including legislative changes, regulatory
15 changes, funding sources, contract requirements, procurement requirements, and other
16 mechanisms that will bring about maximum PM reductions from these two priority fleets. This
17 report shall explore funding sources beyond CMAQ, including but not limited to Diesel
18 Reductions Emissions Reduction Act (DERA) funds under the Federal Energy Act.

19 ~~Severability. If any clause, sentence, paragraph, section or part of this act shall be~~
20 ~~adjudged by any court of competent jurisdiction to be invalid and after exhaustion of all further~~
21 ~~judicial review, the judgment shall not affect, impair or invalidate the remainder thereof, but shall~~
22 ~~be confined in its operation to the clause, sentence, paragraph, section or part of this act directly~~
23 ~~involved in the controversy in which the judgment shall have been rendered.~~

24 SECTION 2. Chapter 31-47.3 of the General Laws entitled "The Diesel Emissions
25 Reduction Act" is hereby amended by adding thereto the following sections:

26 **31-47.3-1.1. Purpose.** -- This act shall be known and may be cited as "The Diesel
27 Emissions reduction Act of 2008." The general purposes of this act are to:

28 (1) Minimize human exposure to and health risks from diesel pollution between the years
29 2008 and 2015;

30 (2) reduce health costs, missed school days, lost worker productivity and premature
31 mortality linked to exposure to diesel particulate matter (PM), nitrogen oxides (NOx) and other
32 diesel pollutants;

33 (3) achieve maximum feasible diesel particulate matter emissions reductions and
34 diminished human exposure that is additional to the impact of federal diesel emission rules which

1 focus mostly on new engines;

2 (4) advance the state's climate protection goals and climate action plan by reducing the
3 amount of black carbon pollution emitted by diesels; and

4 (5) achieve health benefits for Rhode Island without requiring appropriations from the
5 general fund by ensuring state contracting and leasing takes advantage of retrofits that are
6 occurring in the marketplace.

7 **31-47.3-4. Use of ultra low sulfur diesel and emission control technology in new state**
8 **contracts. --**

9 (1) By January 1, 2009 all diesel powered heavy duty vehicles that are owned by,
10 operated by or on behalf of, or leased by or operating under contract to a state agency or state or
11 regional public authority shall be powered by ultra low sulfur diesel fuel.

12 (2) All diesel powered heavy duty vehicles and construction equipment purchased or
13 otherwise acquired or leased after January 1, 2009 by a state agency or state or regional public
14 authority shall utilize particulate matter (PM) emissions control technology based on the
15 following requirements:

16 (a) all diesel onroad vehicles must be powered by model year 1994 or later engines, and
17 such engines model years between and including 1994-2006 must be equipped with Level 3
18 emission control technology;

19 (b) all diesel nonroad vehicles must be equipped with engines model year 1994 or newer.
20 Engines 75 hp and greater must be equipped with emission control technology verified by US
21 EPA or the California Air Resources Board (CARB) for use with nonroad engines to reduce
22 particulate matter emissions by a minimum of twenty percent (20%); and

23 (c) The director will evaluate the level of control technology for off road diesel vehicles,
24 taking into consideration advances in technology, cost to fleet owners, potential pollution
25 reductions, and other relevant factors. Based on the results of this evaluation, by January 1, 2011
26 the director is hereby authorized to require a higher level of control technology through
27 regulations or procurement policies for off road vehicles.

28 (d) The effective date for this provision for fleets with fifteen (15) or fewer heavy duty on
29 road diesel vehicles is January 1, 2010.

30 (e) The emission control technology requirements of this subsection 2 (a)-(d) herein shall
31 not apply to:

32 (i) any vehicle purchased prior to January 1, 2009, or subject to a lease or public works
33 contract entered into, extended, or renewed prior to January 1, 2009;

34 (ii) vehicles that are specially equipped for emergency response by a state authority,

1 office of emergency management, sheriff's office, police department or fire department, as well as
2 timber harvesting equipment such as harvesters, wood chippers, log skidders, and other
3 processing equipment used exclusively off highway for timber harvesting and logging purposes,
4 and farm equipment;

5 (e) Upon written finding by the director that control technology for reducing the
6 emissions of pollutants as required by subsection 2 is not available for an individual vehicle or
7 class of vehicles having a model year 1994 or later engine, the director may grant a waiver, in
8 writing, providing reasons therefore, and requiring the highest level of control that is available.

9 (3) On or before January 1, 2010 and every year thereafter, the director shall report to the
10 governor and legislature on the use of ultra low sulfur diesel fuel and the use of the retrofit
11 technology as required under this section. The information in this report shall include, but not be
12 limited to, for each state agency and public authority covered by this section:

13 (a) the total number of diesel fuel-powered motor vehicles and construction equipment
14 operated by, leased by or contracted by such agency and authority and the number of such
15 vehicles and equipment that were powered by ultra low sulfur diesel fuel and employing retrofit
16 technology as required under this section including a breakdown by motor vehicle model, engine
17 year and the type of technology used for each vehicle.

18 (b) the number of such motor vehicles that are equipped with an engine certified to the
19 applicable 2007 United States environment protection agency standard for particulate matter as
20 set forth in section 86.007-11 of title 40 of the code of federal regulations or to any subsequent
21 US EPA standard for particulate matter that is at least as stringent; and

22 (c) all waivers, findings, and renewals of such findings, which, for each waiver, shall
23 include, but not be limited to, the quantity of diesel fuel needed to power diesel fuel-powered
24 leased, contracted, or operated by such agency and authority; specific information concerning the
25 availability of ultra low sulfur diesel fuel.

26 (4) The department shall, to the extent practicable, coordinate with regions that have
27 proposed or adopted heavy duty emission inspection programs to promote regional consistency in
28 such programs.

29 **31-47.3-5. Use of diesel retrofit devices for newly contracted waste haulers. --**

30 (a) By January 1, 2009 any diesel powered waste collection and recycling vehicle with
31 engine model years between and including 1994-2006 that is newly purchased, acquired, leased,
32 or contracted to perform the removal or transfer of municipal waste, including residential or
33 commercial waste, or recycling services shall utilize Level 3 control retrofit technology for
34 reducing the emission of pollutants.

1 (b) By January 1, 2009 it is prohibited to purchase, acquire, lease, or contract for the
2 operation of any diesel powered waste collection and recycling vehicle with engine model years
3 1993 and earlier to perform the removal or transfer of municipal waste, including residential or
4 commercial waste, or recycling.

5 (c) Upon written finding by the director that Level 3 control technology as required by
6 subdivision (a) of this section is not available for an individual vehicle or class of vehicles having
7 model year 1994 or later, the director may grant a waiver, in writing, providing reasons therefore
8 and requiring the highest level of emission control that is available.

9 (d) On or before January 1, 2010 and every year thereafter, the director shall report to the
10 governor and legislature on the use of Level 3 control retrofit technology on waste collection and
11 recycling vehicles required under this section. The information contained in this report shall
12 include, but not be limited to:

13 (i) the total number of diesel fuel-powered waste collection and recycling vehicles
14 covered by this section and the number of such diesel vehicles that were powered by ultra low
15 sulfur diesel fuel;

16 (ii) the total number of diesel fuel-powered waste collection and recycling vehicles
17 subject to this section between and including model years 1994-2006 and the number of such
18 vehicles between and including model years 1994-2006 that utilized Level 3 control retrofit
19 technology, including a breakdown by motor vehicle model, engine year and the type of
20 technology used for each vehicle;

21 (iii) the number of diesel waste collection and recycling vehicles that are equipped with
22 an engine certified to the applicable 2007 US EPA standard for particulate matter as set forth in
23 section 86.007-11 of title 40 of the code of federal regulations or to any subsequent US EPA
24 standard for particulate matter that is at least as stringent; and

25 (iv) all waivers, findings, and renewals of such findings, which, for each waiver, shall
26 include, but not be limited to, the quantity of diesel fuel needed to power diesel fuel-powered
27 motor vehicles operated by such agency and authority; specific information concerning the
28 availability of ultra low sulfur diesel fuel.

29 **31-47.3-6. Federal funding.** -- Provided that all full-sized school buses, as defined in
30 Rhode Island general law section 31-47.3-2, transporting children in Rhode Island have been
31 retrofit with diesel emission control devices as specified in section 31-47.3-3, any additional
32 federal or state monies, including, but not limited to, federal CMAQ, federal DERA and any
33 federal or state settlement monies shall be used to retrofit heavy duty vehicles or construction
34 equipment engine year 1994 and later that are owned by, operated by or on behalf of, or leased by

1 or operating under contract to a state agency or state or regional public authority with Level 3
2 control technology, as specified in section 3 of this chapter, and diesel powered waste collection
3 and recycling vehicles engine year 1994 and later owned and operated by municipalities with
4 Level 3 control technology, as specified in section 4 of this act. Heavy duty vehicles and waste
5 haulers with pre-1994 model year engines and already owned or contracted by the state or
6 municipalities may be equipped with best available retrofit technology as defined by section 31-
7 47-3.2 to have achieved CARB or EPA verification. To the extent such funding is available it
8 shall be used to retrofit all such vehicles, equipment, and waste collection and recycling vehicles
9 as specified above, by September 1, 2010. To the extent only a portion of such equipment and
10 vehicles can be retrofit with such monies retrofits shall first be completed in priority communities
11 with high levels of ambient air pollution and high incidence of health impacts as determined by
12 the director pursuant to section 31-47.3.3, and such retrofits shall continue until the earlier of
13 September 1, 2015 or until all such retrofits are completed.

14 **31-47.3-7. Severability. --** If any clause, sentence, paragraph, section or part of this act
15 shall be adjudged by any court of competent jurisdiction to be invalid and after exhaustion of all
16 further judicial review, the judgment shall not affect, impair or invalidate the remainder thereof,
17 but shall be confined in its operation to the clause, sentence, paragraph, section or part of this act
18 directly involved in the controversy in which the judgment shall have been rendered.

19 SECTION 3. This act shall take effect upon passage.

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EXPLANATION
BY THE LEGISLATIVE COUNCIL
OF
A N A C T
RELATING TO MOTOR AND OTHER VEHICLES - DIESEL EMISSIONS REDUCTION
ACT

- 1 This act would expand the diesel emissions reduction act in several regards, including the
- 2 requirement that new state contracts and newly contracted waste haulers incorporate new
- 3 technologies and use ultra low sulfur diesel fuel.
- 4 This act would take effect upon passage.

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