

**DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF AIR QUALITY**

DOCUMENT NUMBER: 270-0810-007

TITLE: Policy on Clean Alternative Fuel Conversion Systems

EFFECTIVE DATE: December 3, 2011

AUTHORITY: Act of January 8, 1960, P.L. (1959) 2119, No. 787, as amended, known as The Air Pollution Control Act (35 P.S. § 4001 *et seq.*)

POLICY: This policy clarifies the Department's position that the Pennsylvania Clean Vehicles Program allows new passenger cars and light-duty trucks to be converted to operate on clean alternative fuels under certification from either the California Air Resources Board (CARB) or the U.S. Environmental Protection Agency (EPA). A clean alternative fuel conversion manufacturer, when meeting CARB certification standards for alternative fuel retrofits, should meet CARB certification requirements.¹ A clean alternative fuel conversion manufacturer, when meeting EPA certification standards for alternative fuel retrofits, should meet all of EPA's certification requirements.² The vehicles may be designed to use fuels in either a dedicated or dual-fuel configuration.

PURPOSE: This policy provides guidance to clean alternative fuel conversion system manufacturers, installers and potential purchasers of conversion systems regarding the repair and warranties of emission control components on new passenger cars and light-duty trucks retrofitted with clean alternative fuel conversion systems. This policy also provides guidance to any person who sells, offers for sale, imports, delivers, purchases, leases, offers for lease, rents, acquires, receives, titles, or registers a new passenger car or light-duty truck subject to the requirements in the Pennsylvania Clean Vehicles Program and which is retrofitted with a conversion system. This policy is intended to encourage more alternatively fueled vehicles to populate the light-duty vehicle fleet.

¹ Title 13 CCR §§ 2030—2032 (relating to approval of systems designed to convert motor vehicles to use fuels other than the original certification fuel or to convert motor vehicles for emission reduction credit or to convert hybrid electric vehicles to off-vehicle charge capable hybrid electric vehicles)

² 40 CFR Part 85 (control of air pollution from mobile sources), Subpart F (relating to exemption of clean alternative fuel conversions from tampering prohibition).

APPLICABILITY: The guidance applies to any person who sells, offers for sale, imports, delivers, purchases, leases, offers for lease, rents, acquires, receives, titles, or registers new passenger cars or light-duty trucks subject to the requirements in the Pennsylvania Clean Vehicles Program.

DISCLAIMER: The policies and procedures outlined in this guidance document are intended to supplement and clarify existing requirements. Nothing in the policies or procedures will affect regulatory requirements. The policies and procedures herein are not an adjudication or a regulation. There is no intent on the part of DEP to give these rules that weight or deference. This document establishes the framework within which DEP will exercise its administrative discretion in the future. DEP reserves the discretion to deviate from this policy statement if circumstances warrant.

PAGE LENGTH: 6

DEFINITIONS: *CARB—California Air Resources Board* – As defined in 25 Pa. Code § 121.1, relating to definitions, the board established and empowered to regulate sources of air pollution in California, including motor vehicles, under California Health & Safety Code Section 39003.

CARB Executive Order—For purposes of this policy, a document issued by CARB certifying that a specified engine family, model year vehicle or clean alternative fuel conversion has met applicable Title 13 CCR³ requirements for certification and sale in California.

Certificate of conformity—For purposes of this policy, a document issued by the EPA Administrator that recognizes that the manufacturer of a clean alternative fuel conversion has met the requirements of 40 CFR Part 85, Subpart F (relating to exemption of clean alternative fuel conversions from tampering prohibition).

Clean alternative fuel conversion (conversion system) —As defined by 40 CFR 85.502 (relating to definitions), any alteration of a motor vehicle/engine, its fueling system, or the integration of these systems, that allows the vehicle/engine to operate on a fuel or power source different from the fuel or power source for which the vehicle/engine was originally certified; and that is designed, constructed, and applied consistent with good engineering judgment and in accordance with all applicable regulations. A clean

³ The reference to “13 CCR” in this definition is to volume 13 of the California Code of Regulations.

alternative fuel conversion also means the components, design, and instructions to perform this alteration.

Clean alternative fuel conversion system manufacturer (manufacturer)—For purposes of this policy, a person who receives either an EPA Certificate of Conformity or a CARB Executive Order that certifies that the clean alternative fuel conversion satisfies the applicable emission standards or regulation.

Dedicated vehicle/engine—As defined in 40 CFR 85.502, any vehicle/engine engineered and designed to be operated using a single fuel.

Dual-fuel vehicle/engine—As defined by 40 CFR 85.502, any vehicle/engine engineered and designed to be operated on two or more different fuels, but not on a mixture of the fuels.

LDT—Light-duty truck—For purposes of this policy, a light-duty truck is a motor vehicle rated at 8,500 pounds gross vehicle weight or less which is designed primarily for purposes of transportation of property or is a derivative of such a vehicle, or is available with special features enabling off-street or off-highway operation and use.

MIL—Malfunction Indicator Light—As defined in 67 Pa. Code § 177.3,⁴ a dashboard light illuminated when a vehicle's onboard computer detects conditions likely to result in emissions exceeding standards by 1 1/2 times or greater. The MIL may display “Check Engine,” “Service Engine Soon,” or other similar message, or a symbol or picture representing an automobile engine.

New motor vehicle or new light-duty vehicle—As defined in 25 Pa. Code § 121.1, a motor vehicle for which the equitable or legal title has never been transferred to the ultimate purchaser. For purposes of the Pennsylvania Clean Vehicles Program and the Pennsylvania Heavy-Duty Diesel Emissions Control Program, the equitable or legal title to a motor vehicle with an odometer reading of 7,500 miles or more will be considered to be transferred to the ultimate purchaser. If the equitable or legal title to a motor vehicle with an odometer reading is less than 7,500 miles, the vehicle will not be considered to be transferred to the ultimate purchaser.

⁴ The reference for this definition, 67 Pa. Code § 177.3 (relating to definitions), is part of volume 67 of the Pennsylvania Code (relating to transportation), Chapter 177 (relating to enhanced emission inspection program).

OBD—Onboard Diagnostics—As defined by 67 Pa. Code § 177.3,⁵ a system of vehicle component and condition monitors controlled by a central, onboard computer designed and programmed, among other things, to signal the motorist when conditions exist which could lead to (or which has already produced) a component or system failure.

Passenger car—As defined in 25 Pa. Code § 121.1, a motor vehicle designed primarily for transportation of persons and having a design capacity of 12 persons or less.

Pennsylvania Clean Vehicles Program—The requirements in 25 Pa. Code Chapter 126, Subchapter D.

Person—As defined in the Pennsylvania Air Pollution Control Act, 35 P.S. § 4003), any individual, public or private corporation for profit or not for profit, association, partnership, firm, trust, estate, department, board, bureau or agency of the Commonwealth or the Federal Government, political subdivision, municipality, district, authority or any other legal entity whatsoever which is recognized by law as the subject of rights and duties.

Retrofit—As defined in 40 CFR 610.11(a)(5), the addition of a new item, modification or removal of an existing item of equipment beyond that of regular maintenance, on an automobile after its initial manufacture.

TECHNICAL GUIDANCE:

A. BACKGROUND

The Pennsylvania Clean Vehicles Program requires that all new vehicles sold, leased, offered for sale or lease, imported, delivered, purchased, rented, acquired, received, titled or registered in the Commonwealth, starting with model year 2008 vehicles, have received a CARB Executive Order, also known as CARB certification. The Pennsylvania Clean Vehicles Program is silent on conversion systems and does not adopt the California regulations that require a CARB Executive Order to be issued for clean alternative fuel conversion systems, 13 CCR §§ 2030—2032. Given this flexibility, the Department believes that both CARB-certified and EPA-certified conversion systems can be used in Pennsylvania.

⁵ Ibid., p. 2.

CARB-certified conversion systems are not available for many vehicle models. It would benefit air quality if more vehicle models in the Commonwealth were able to use natural gas and other alternative fuels. The Department is issuing this technical guidance to encourage the use of natural gas and other alternative fuels as a transportation fuel. Natural gas has inherent clean burning properties that can translate into lower emissions of pollutants. The Department also believes that greater use of natural gas conversion systems will hasten natural gas infrastructure development. In turn, this could lead to greater production of vehicles equipped by original equipment manufacturers to use natural gas and, therefore, not need conversion. The Department concludes that both certifications are acceptable under the Pennsylvania Clean Vehicles Program but is aware of a concern that, at the end of the useful life, a CARB-certified vehicle operating with an EPA-certified conversion system might emit more pollutants than it should.

The Department recommends that vehicle owners considering a conversion system investigate warranty implications in advance. Warranty liability for certain failed components in a converted vehicle or engine may transfer from the original equipment manufacturer to the conversion manufacturer. Generally, the conversion system manufacturer is liable for problems that occur as a result of conversion, while the original equipment manufacturer retains responsibility for the performance of any covered parts or systems that retain their original function following conversion and are unaffected by the conversion. Vehicle owners should be aware that liability in a given conversion situation may not be clear, creating potential for confusion and even for dispute over which manufacturer is responsible for repair. For more information on vehicle conversion systems, see EPA's website at <http://www.epa.gov/otaq/consumer/fuels/altfuels/altfuels.htm>.

Upon finalization of this technical guidance document, the Department will change informational documents developed for the general public regarding the Pennsylvania Clean Vehicles Program. For instance, private titling agents ensure that a vehicle is certified to the emission standards of CARB by checking the vehicle emission control information label before sending the titling paperwork to the Department of Transportation. The Department will update its Frequently Asked Questions document found at <http://www.dep.state.pa.us/dep/deputate/airwaste/aq/cars/cleanvehicles.htm>, to inform titling agents to look for a new type of label on vehicles converted to use an alternative fuel.

B. PROOF OF CERTIFICATION

- 1) It is the Department's position that the Pennsylvania Clean Vehicles Program allows new passenger cars and light-duty trucks to be equipped with either CARB- or EPA-certified conversion systems for operation on alternative fuels in either a dedicated or dual-fuel configuration.
- 2) If an EPA-certified conversion system is installed, it must be a conversion system for which the manufacturer received a Certificate of Conformity from EPA under 40 CFR

Part 85, Subpart F, Exemption of Clean Alternative Fuel Conversions From Tampering Prohibition. In addition, it is the Department's position that the Pennsylvania Clean Vehicles Program allows a conversion system that has met EPA's intermediate age program demonstration and notification requirements, but has not received a certificate of conformity, to be installed on vehicles in the intermediate age category that are still subject to the PCV Program and are being converted to operate on an alternative fuel. EPA defines the intermediate age category as consisting of vehicles whose model year is less than or equal to the current calendar year, minus two, and which are still within their regulatory useful life.

- 3) The conversion system installer must apply the requisite Vehicle Emission Control Information (VECI) label next to or near the original VECI label under the vehicle's hood. The label must include the specific information required by CARB when the conversion system is certified by CARB⁶ or by EPA when the conversion system is certified by EPA⁷.

C. WARRANTY AND REPAIR

- 1) The conversion system manufacturer or installer should fully advise the vehicle owner or purchaser of the warranty of the emissions control system components that will apply as a result of installing the conversion system. The Department encourages owners and purchasers to obtain a warranty at least as protective as that required by the Pennsylvania Clean Vehicles Program. Consumers should be aware that liability after a conversion might not otherwise be clear, creating potential for confusion and dispute over which manufacturer, if either, is responsible for repair.
- 2) The Department believes that the conversion system manufacturer or installer should make any necessary repairs, at its expense, if operation of the conversion system results in the OBD Malfunction Indicator Light (MIL) illuminating or any functions of the OBD system become disabled. Again, it is the responsibility of the consumer to ensure that the proper warranty is provided.

⁶ Title 13 CCR §§ 2030—2032 (relating to approval of systems designed to convert motor vehicles to use fuels other than the original certification fuel or to convert motor vehicles for emission reduction credit or to convert hybrid electric vehicles to off-vehicle charge capable hybrid electric vehicles)

⁷ The reference for this requirement is 40 CFR 85.530 (related to vehicle/engine labels and packaging labels) is part of 40 CFR Part 85 (control of air pollution from mobile sources), Subpart F (relating to exemption of clean alternative fuel conversions from tampering prohibition).