State of California
AIR RESOURCES BOARD

Resolution 11-38

November 17, 2011

Agenda Item No.: 11-9-2

WHEREAS, sections 39600 and 39601 of the Health and Safety Code authorize the Air Resources Board (ARB or the Board) to adopt standards, rules and regulations, and to do such acts as may be necessary for the proper execution of the powers and duties granted to and imposed upon the Board by law;

WHEREAS, section 43100 of the Health and Safety Code authorizes the Board to certify new motor vehicle engines pursuant to Article 1, Chapter 2, Part 5 of Division 26 of the Health and Safety Code;

WHEREAS, section 43101 of the Health and Safety Code authorizes the Board to adopt and implement emission standards for new motor vehicles or motor vehicle engines that the Board finds to be necessary and technologically feasible to carry out the purposes of Division 26 of the Health and Safety Code;

WHEREAS, section 43102 of the Health and Safety Code states that no new motor vehicle or new motor vehicle engine shall be certified by the Board unless the vehicle or engine meets the emission standards adopted by the Board pursuant to section 43101 of the Health and Safety Code under test procedures adopted by the Board pursuant to section 43104 of the Health and Safety Code;

WHEREAS, section 43104 of the Health and Safety Code authorizes the Board to adopt, by regulation, test procedures and any other procedures necessary to determine whether new motor vehicles or new motor vehicle engines are in compliance with emissions standards established pursuant to section 43101;

WHEREAS, California Vehicle Code section 580 defines a "specially constructed vehicle" (SPCNS) as a vehicle built for private use, not for resale, and not constructed by a licensed manufacturer or remanufacturer. An SPCNS may be built from (1) a kit; (2) new or used parts, or a combination of new and used parts; or (3) a vehicle reported for dismantling, as required by Vehicle Code Section 5500 or 11520, which when reconstructed does not resemble the original make of the vehicle dismantled. SPCNSs do not include vehicles that have been repaired or restored to their original design by replacing parts;

WHEREAS, SPCNSs are an integral part of California's car culture, and the hobbyists who build SPCNSs often consider the cars they build art forms;

WHEREAS, because many hobbyists building SPCNSs desire to replicate older vehicles, they may use uncontrolled engines from old vehicles or new uncontrolled crate

engines in their SPCNSs; such SPCNSs are therefore often considered uncontrolled vehicles, or vehicles manufactured before emission control regulations took effect;

WHEREAS, SPCNSs present unique issues regarding emissions certification, because light-duty vehicle emission certification is based on the entire vehicle's emissions, including evaporative emissions, not just the vehicle's engine emissions;

WHEREAS, light-duty vehicle certification is completed through durability and emissions testing of a certification vehicle, which requires manufacturers to test certification vehicles that are equipped with specific engines, transmissions, and emission control systems to demonstrate that their vehicles meet applicable certification requirements, including not emitting above specified levels of exhaust and evaporative emissions for the vehicle's useful life; these vehicles must also comply with on-board diagnostic systems and anti-tampering requirements;

WHEREAS, unlike production light-duty vehicles that are equipped with known configurations of engine, transmission, and emission control systems, SPCNSs may be unique creations that are equipped with differing engine, transmission and emission control systems;

WHEREAS, in 2009 General Motors approached ARB with a complete new engine package based on its California certified engine family in the 2010 Camaro, called the emissions compliant hot rod (E-ROD) engine, which ARB has approved for sale through ARB's aftermarket parts exemption process;

WHEREAS, hobbyists building new SPCNSs cannot use engine packages certified by ARB's aftermarket parts exemption process because such exemptions have only been issued for 1995 and older vehicles;

WHEREAS, an owner of a new certified light-duty vehicle must register the vehicle with the Department of Motor Vehicles (DMV) in order to drive it legally on the road in California;

WHEREAS, SPCNSs are generally difficult to register through California's typical new vehicle registration process because they lack a model year and vehicle identification number (VIN), both of which are essential for tracking the vehicle throughout its life and emissions compliance;

WHEREAS, California's Smog Check program requires most 1976 and newer model year vehicles to pass an emissions control inspection prior to original registration, transfer of ownership, and every second annual renewal;

WHEREAS, new SPCNSs are required to pass Smog Check inspections on initial registration, and are held to the same Smog Check cut-points as current production vehicles, but Health and Safety Code section 44017.4 (enacted by Senate Bill 100 in 2001), provides that the first 500 owners of SPCNSs each year can choose, for purposes of the BAR inspection, whether the inspection will be based on the model year of the engine, or on the vehicle model year. If the inspection is based on the engine

model-year, the referee shall require "only those emission control systems that are applicable to the established engine model-year and that the engine reasonably accommodates in its present form." If the inspection is based on the vehicle model year, the referee shall require "only those emission control systems that are applicable to the established model-year and that the vehicle reasonably accommodates in its present form." The referee must assign a 1960 model-year to an engine in an SPCNS that does not sufficiently resemble a previously manufactured engine or vehicle;

WHEREAS, all subsequent SPCNSs beyond the 500 allowed by SB 100, are assigned the same model year as the calendar year in which the registration application is submitted, and are required to comply with the emission requirements for the year of registration and are subject to future Smog Check inspections every two years;

WHEREAS, whether or not a specific SPCNS qualifies for registration under SB 100, a BAR referee must conduct a visual inspection to ascertain whether the SPCNS is equipped with the required emission control system;

WHEREAS, staff is therefore proposing the adoption of a regulation and incorporated certification procedures for new light-duty engines for use in SPCNSs that would allow manufacturers the option to certify engine packages that would, when placed into an SPCNS, would meet new vehicle emission standards and enable the vehicle to meet Smog Check requirements;

WHEREAS, the proposed regulation and certification procedures would require certified engine packages to meet current Low Emission Vehicle (LEV II) exhaust and evaporative standards, and would require manufacturers to demonstrate emissions compliance on a worst-case vehicle or use carry-over data from a previously certified vehicle;

WHEREAS, under this proposal a certified engine package would be required to include an engine and controller, including software and calibration to ensure the certified engine package remains as low-emitting as possible, exhaust and evaporative emission components such as intake and exhaust manifolds, a catalytic converter, an evaporative canister, and detailed instructions for the proper installation of the package;

WHEREAS, under this proposal hobbyists would not be required to have an installer install their engines, but if a hobbyist chooses that route, the installer would be required to warrant the engine's proper installation and maintain written and photographic records on each vehicle;

WHEREAS, the proposed procedures also establish modified on-board diagnostic system (OBD) requirements for certified engine packages;

WHEREAS, the proposed procedures also include warranty and recall provisions for the engine and emission control systems that are similar to those for new light-duty vehicles;

WHEREAS, ARB staff prepared a staff report entitled "Initial Statement of Reasons (ISOR) for Rulemaking, Proposed Regulation and Certification Procedures for Light-Duty Engine Packages for use in Light-Duty Specially Constructed Vehicles for 2012 and Subsequent Model Years," (ISOR) which presents the rationale for the proposed regulation and associated certification procedures;

WHEREAS, the ISOR and proposed regulatory language were made available to the public for at least 45 days prior to the public hearing to consider the proposed regulation;

WHEREAS, the California Environmental Quality Act (CEQA), and Board regulations at California Code of Regulations, title 17, section 60006 require that no project that may have significant adverse environmental impacts be adopted as originally proposed if feasible alternatives or mitigation measures are available to reduce or eliminate such impacts;

WHEREAS, the Board has considered the impact of the proposed regulatory action on the economy of the State and the potential for adverse economic impacts on California business enterprises and individuals;

WHEREAS, a public hearing and other administrative proceedings have been held in accordance with the provisions of Chapter 3.5 (commencing with section 11340), Part 1, Division 3, Title 2 of the Government Code; and

WHEREAS, in consideration of the information in the public record, including the ISOR, written comments, and testimony provided at the hearing, the Board finds that:

The proposed regulation and certification procedures were developed in an open public process, in consultation with affected parties through numerous public workshops, individual meetings, and other outreach efforts;

The reporting requirements applicable to businesses in the proposed regulations are necessary for the health, safety, and welfare of the people of the State;

The hobbyists that build SPCNSs use uncontrolled engines derived from existing vehicles or new uncontrolled crate engines in their vehicles;

The United States Environmental Protection Agency (U.S. EPA) does not have regulations applicable to new motor vehicle engines used in SPCNSs;

SPCNSs emit approximately 30 times the HC and 38 times the NOx as new vehicles meeting the LEV II standard for each mile they drive, and even considering that SPCNSs drive less than typical new vehicles, a typical SPCNS emits 1.3 to 3.4 times the amount of NOx and HC emissions per year as an average new model year 2010 passenger car;

Adopting an optional certification path for new engine packages for use in light-duty SPCNSs will result in emission benefits, as compared to existing SPCNS practices;

Requiring a manufacturer of a new light-duty engine package for a light-duty SPCNS to demonstrate compliance with applicable emissions standards with the engine installed in "worst case" vehicle (i.e., a vehicle weighted, equipped, and calibrated with respect to emission deterioration over the vehicle's useful life, that produces the greatest stress on the emission related components or with respect to certification testing, and has the greatest probability of exceeding any of the applicable emission standards) is necessary because of the unique and specialized nature of such vehicles;

The proposed regulatory action does not mandate any actions by engine manufacturers or hobbyists, but instead establishes an optional means for manufacturers to obtain California certification of new light-duty engine packages for light-duty SPCNSs, and provides an option for hobbyists to purchase and install such certified engine packages in SPCNSs;

Engine manufacturers will incur additional costs from the proposed regulatory action only if they choose to use the optional certification path, and hobbyists would similarly incur costs only if they choose to purchase and install certified engine packages;

The economic and fiscal impacts of the proposed regulation and incorporated certification procedures have been analyzed as required by California law, and the conclusions and supporting documentation for this analysis are set forth in the ISOR, as supplemented by staff's presentation at the hearing of this item; and

No reasonable alternative considered, or that has otherwise been identified and brought to the attention of ARB, would be more effective at carrying out the purpose for which the amendments are proposed, or would be as effective and less burdensome to affected private persons and businesses than the proposed amendments.

WHEREAS, pursuant to the requirements of the California Environmental Quality Act (CEQA) and the Board's regulations under its certified regulatory program, the Board further finds that:

ARB staff has prepared an environmental analysis for the proposed regulatory action, which is contained in Chapter V of the ISOR;

Staff's environmental analysis determined that the proposed regulatory action would not have a significant adverse effect on the environment and that it may provide air emissions benefits as compared to current practices, to the extent that hobbyists purchase and install new light-duty certified engine packages in light-duty specially constructed vehicles instead of using uncontrolled engines;

Staff's environmental analysis also determined that the proposed regulatory action

does not require or result in any new development or require modifications to buildings or other structures, affect operations at existing facilities, or cause any new land use designation and is therefore not expected to result in any adverse impacts that would result from development including aesthetics, air quality, agricultural and forestry resources, biological resources, cultural resources, geology and soils, greenhouse gases, land use planning, mineral resources, population and housing, public services, recreation, or traffic and transportation; and

The Executive Officer is the decision maker for the purposes of title 17, California Code of Regulations, section 60007, and no final decision will be made until comments on the environmental analysis are fully considered and addressed by the decision maker.

NOW, THEREFORE, BE IT RESOLVED that the Board hereby approves for adoption the proposed regulation, as set forth in Attachment A hereto, the incorporated "California Certification Procedures For Light-Duty Engine Packages For Use In Light-Duty Specially Constructed Vehicles For 2012 And Subsequent Model Years," as set forth in Attachment B hereto, along with the modifications set forth in Attachment C hereto;

NOW, THEREFORE, BE IT RESOLVED that the Board directs the Executive Officer to take the following actions:

Evaluate all comments received during the public comment periods, including comments raising significant environmental issues, and prepare and approve written responses as required by Government Code section 11346.9, Public Resource Code section 21080.5(d)(2)(D), and title 17, California Code of Regulations. section 60007;

Determine whether there are feasible alternatives or mitigation measures that could be implemented to reduce or eliminate any potential adverse environmental impacts;

Make findings as required by Public Resources Code § 21081 if the proposed amendments would result in one or more significant adverse environmental impacts; and

Determine if additional modifications to the proposed regulation and incorporated certification procedures, as set forth in Attachments A and B, along with the modifications set forth in Attachment C hereto, are appropriate, along with any additional conforming modifications that are necessary to ensure that all feasible mitigation measures or feasible alternatives that would substantially reduce any significant adverse environmental impacts have been incorporated into the final action, or return the proposed regulation and incorporated certification procedure and findings to the Board for further consideration before taking final action, if he determines that this is warranted.

BE IT FURTHER RESOLVED that if the Executive Officer determines that additional modifications are appropriate as specified above, the Board directs the Executive Officer to make the modified regulatory language available for public comment for a

period of 15 days prior to taking final action to adopt the regulation and certification proceeding, provided that the Executive Officer shall consider such written comments as may be submitted during this period, shall make such modifications as may be appropriate in light of the comments received, and shall present the regulation to the Board for further consideration if he determines that this is warranted;

BE IT FURTHER RESOLVED that the Board hereby finds that separate California emission standards and test procedures are necessary to meet compelling and extraordinary conditions;

BE IT FURTHER RESOLVED that the Board hereby determines that the regulatory action approved herein will not cause California motor vehicle emission standards, in the aggregate, to be less protective of public health and welfare than applicable federal standards, will not cause the California requirements to be inconsistent with section 202(a) of the federal Clean Air Act, and raises no new issues affecting previous waiver determinations of the Administrator of the Environmental Protection Agency pursuant to section 209(b) of the Clean Air Act; and

BE IT FURTHER RESOLVED that to the extent it is necessary, the Executive Officer shall, upon adoption, forward the regulation and incorporated certification procedures to the U.S. EPA with a request for a waiver or confirmation that the regulation is within the scope of an existing waiver of federal preemption pursuant to section 209(b) of the federal Clean Air Act, as appropriate.

I hereby certify that the above is a true and correct copy of Resolution 11-38, as adopted by the Air Resources Board.

Mary Alice Morency, Clerk of the Board

FILED
SEP 27 2012
Resources Agency of California

Resolution 11-38

November 17, 2011

Identification of Attachments to the Resolution

Attachment A:	Proposed sections 2210, 2211, 2212, 2213, 2214, 2215, 2216, 2217, and 2218 of title 13, California Code of Regulations, as set forth in Attachment A to the Staff Report: Initial Statement of Reasons, released September 28, 2011.
Attachment B:	Proposed "California Certification Procedures For Light-Duty Engine Packages For Use In Light-Duty Specially Constructed Vehicles For 2012 And Subsequent Model Years" as set forth in Attachment B to the Staff Report: Initial Statement of Reasons released September 28, 2011.
Attachment C:	Staff's Suggested Modifications to the Original Proposed Regulation and Certification Procedures

ATTACHMENT C
TO RESOLUTION 11-38

NOTICE OF PUBLIC HEARING TO CONSIDER CALIFORNIA CERTIFICATION PROCEDURES FOR LIGHT-DUTY ENGINE PACKAGES FOR USE IN LIGHT-DUTY SPECIALLY CONSTRUCTED VEHICLES FOR 2012 AND SUBSEQUENT MODEL YEARS

Staff's Suggested Modifications to the Original Proposal

TO BE PRESENTED AT THE NOVEMBER 17, 2011 HEARING
OF THE AIR RESOURCES BOARD

Shown below are the staff's suggested modifications to the originally proposed amendments to the regulatory text set forth in Appendices A and B to the Staff Report: Initial Statement of Reasons, which was released September 28, 2011. Only those portions containing the suggested modifications are included. All proposed modifications will be made available to the public for a fifteen-day comment period prior to final adoption.

Requirements for 2015 and Subsequent Model Year Light-Duty Certified Engine Packages for Specially Constructed Vehicles

Staff proposes modifying the proposed regulation and associated certification procedure to incorporate emissions standards and related requirements that will be proposed in a future rulemaking action promulgating new low emission vehicle "LEV 3" standards applicable to light-duty vehicles.

Note: Staff's suggested modifications are shown in underline to indicate proposed additions and ~~strikeout~~ to indicate proposed deletions.

Section 2211. Definitions.

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(a)(18) "Warranty station" means a facility authorized by the manufacturer, or a repair facility agreed upon by both the manufacturer and the ultimate purchaser, to service the warranted engine. Warranty stations must be registered as Automotive Repair Dealers under California Business and Professions Code, section 9880 through section 9889.68.

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Section 2212. Emission Standards, Test Procedures, Package Requirements, and Reporting Requirements for Engine Packages for Specially Constructed Vehicles.

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(c)(3) "Highway NOx Standard." A manufacturer must also demonstrate compliance with Section 1961(a)(6), title 13, CCR.

Model Year	Standard	Durability (miles)	NOX (g/mi)	Notes
2012 - subsequent	LEV II LEV	120,000	~~0.07~~ 0.09	A

~~Notes:~~

~~The exhaust emission standard for NOX applicable at the full durability mileage under the HFET test is at 1.33 times the NOX standard at the full durability mileage under the FTP test.~~

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(d)(4) "Supplemental Federal Test Procedure Off-Cycle Emission Standards." A manufacturer must also demonstrate compliance with 1961(a)(7), title 13 CCR, which references 13 CCR 1960.1(r). The maximum Supplemental Federal Test Procedure (SFTP) exhaust emissions at 4,000 miles or the mileage specified per 13 CCR 1960.1(r) are shown in 13 CCR 1960.1(r) and summarized below. All footnotes in 13 CCR 1960.1(r) apply.

Vehicle	Loaded Vehicle	US06	US06	SC03 + NMHC	SC03
Type	Weight (lbs.)	NMHC+NOx (g/mi)	CO (g/mi)	NOx (g/mi)	CO (g/mi)
PC	All	0.14	8.0	0.20	2.7
LDT	0-3750	0.14	8.0	0.20	2.7
LDT	3751-5750	0.25	10.5	0.27	3.5
MDV	3751-5750	0.40	10.5	0.31	3.5
MDV	5751-8500	~~0.40~~0.60	~~10.5~~11.8	~~0.31~~0.44	~~3.5~~4.0

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Section 2214. Defects Warranty Requirements for Certified Engine Packages for Use in Specially Constructed Vehicles.

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(h)(2)(A) If the warranty station identifies that the inspection failure was caused by the failure or malfunction of a "high-priced" part defined in subsection (c), then the manufacturer shall be liable for expenses involved in detecting and correcting the part failure or malfunction, unless the warranty station demonstrates that the part failure or malfunction was caused by abuse, neglect, improper installation, or improper maintenance as specified in subsection (i).

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(i) Exclusions.

The repair or replacement of any warranted part otherwise eligible for warranty coverage under subsections (d) and (h) shall be excluded from such warranty coverage if the manufacturer demonstrates that the engine has been abused, neglected, improperly installed, or improperly maintained, and that such abuse, neglect, or improper maintenance was the direct cause of the need for the repair or replacement of the part.

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Section 2215. Performance Warranty Requirements for Certified Engine Packages for Use in Specially Constructed Vehicles.

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(d)(1) An emission performance warranty claim may be denied if the manufacturer demonstrates that the failure of the inspection was directly caused by abuse, neglect, improper installation, or improper maintenance as reflected by a failure to maintain or use the vehicle or certified engine package in accordance with the written instructions.