Comment 1 for Specially Constructed Vehicles (Kit Cars) (spcn11) - 45 Day.

This comment was posted then deleted because it was unrelated to the Board item or it was a duplicate.

Comment 2 for Specially Constructed Vehicles (Kit Cars) (spcn11) - 45 Day.

First Name: Sara
Last Name: Rudy
Email Address: srudy@ford.com
Affiliation: Ford Motor Company

Subject: Ford Comments on Specially Constructed Vehicles Proposal
Comment:

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Please find attached Ford Motor Company comments on California
Certification Procedures for Light-Duty Engine Packages for Use in
Light-Duty Specially Constructed Vehicles for 2012 and Subsequent
Model Years.
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Attachment: www.arb.ca.gov/lists/spcn11/3-ford_comments_2011_11_11.pdf

Original File Name: Ford comments 2011_11_11.pdf

Date and Time Comment Was Submitted: 2011-11-11 09:37:07

No Duplicates.

There are no comments posted to Specially Constructed Vehicles (Kit Cars) (spcn11) that were presented during the Board Hearing at this time.

Comment 1 for Specially Constructed Vehicles (Kit Cars) (spcn11) - 15-1.

First Name: Jim
Last Name: McFarland
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Affiliation: SEMA

Subject: Engine Packages for Light-Duty Specially Constructed Vehicles
Comment:

The Specialty Equipment Market Association (SEMA) is pleased to provide comments relative to a newly amended proposal to evaluate and certify new engine packages intended for use in specially constructed vehicles (SCV). It is important for the California Air Resources Board (ARB) to understand SEMA's role in this issue for the past four-plus years. To that end, this document provides a brief history of our involvement, along with information dealing with the registration of current and future-built specially constructed vehicles in California, particularly as it concerns emissions-related requirements for these vehicles and the certification of new engine packages for use in SCVs.

As you are aware, SEMA is a trade association headquartered in Diamond Bar, California and made up of more than 6,500 mostly small businesses in California and around the country that manufacture, rebuild, distribute and retail parts and accessories for motor vehicles. The products manufactured by our member companies include functional, restoration, performance and styling enhancement products for use on passenger cars, trucks and special interest vehicles of the type that would be affected by any regulation governing the certification of new engine packages.

Background

"Specially Constructed Vehicle" (SCV) is the Department of Motor Vehicles' term for what car enthusiasts know to be street rods, hot rods, muscle cars and all varieties of hobbyist vehicles, including replicas and kits. These are vehicles constructed by individuals, not vehicle manufacturers, for personal use and not for resale. These vehicles epitomize American's passion for automobiles.

The California Attorney General's office estimated that there are approximately 70,000 improperly titled vehicles of this type in the state. To correct their titles, avoid prosecution and dramatically reduce emissions, legislation was enacted to implement an amnesty program which encouraged specially constructed vehicle owners to re-register their vehicles and pay the appropriate fees. In many instances, existing vehicles were constructed to resemble vehicles built before emissions control devices were required. The legislation contemplated that alternative and reasonably achievable emissions requirements were necessary for this class of vehicles, if an amnesty program was to succeed.

Inasmuch as these vehicles are rarely driven, only for short distances, for hobby-related purposes and not typically for general transportation, their actual impact on air quality is negligible,

especially with the installation of more advanced emissions controls. Through its Green Rod project, which was designed specifically to create reasonable emissions requirements for amnesty vehicles, SEMA developed an aftermarket retrofit kit capable of bringing even 1960-era vehicles up to 2003 Federal emissions standards (with the exception of missing HC levels by a slight margin). More importantly, the kit also enabled the Green Rod to meet 2010 California I&M (smog-check) standards. As a result, retrofitting these vehicles reduces emissions by an average of 95% for the measured pollutants.

Issues Facing Specially Constructed Vehicle Owners in California

The growth of the automotive hobby has also fueled a market for all levels of restoration components, from aftermarket body, frame and drivetrain replacements to complete vintage reproductions, usually known as “kit cars.” There has been continued uncertainty with respect to how these cars should be titled and registered. This trend has led to a number of these vehicles being improperly titled and registered.

One major reason owners of these vehicles may have been reluctant to declare the true value of their cars and pay the taxes due under an amnesty program is that the vehicles would then, under California Motor Vehicle Code 4750.1(a), need to meet the emissions requirements for initial registration of the vehicle.

These classic cars were originally designed to meet emissions of a much earlier era (if at all) and cannot reach the standards as currently defined. The same problem applies to vehicles constructed more recently to replicate these classic cars. For example, recently-constructed vintage reproductions are typically built to the specification of the original vehicles for the purpose of originality and emissions testing. Consequently, though all of the vehicle owners are able to correct their titles, they would forfeit the use of the vehicles because of an inability to meet the stringent current year emissions requirements in order to be registered.

SEMA, as representative of the automotive specialty aftermarket and various hobbyist groups and individual car enthusiasts through its SEMA Action Network, recognized the need for a solution and worked with the Attorney General’s office as well as the Air Resources Board (ARB), Bureau of Automotive Repair (BAR), California Highway Patrol (CHP) and Department of Motor Vehicles (DMV). As previously constructed, it is clear these vehicles cannot meet current model year smog check emissions requirements. However, by using emissions-reduction technologies and parts designed and manufactured in the specialty parts industry, a solution was developed. Through the “GreenRod” project, a kit of retrofit parts was functionally selected that enabled these vehicles to meet 2003 Tier 1 Federal standards and current year I/M standards. Duplicates of the Green Rod kit, modified forms of otherwise unregulated SCV engines, can be configured in a variety of engine brands and displacements. This approach is only intended for voluntary use by vehicle owners seeking amnesty from prosecution to meet smog check emissions standards during the registration process. SEMA provided a measure of technical support to SCV owners who chose to take the Green Rod kit approach.

Steps Taken Toward Establishing an Amnesty Program

SEMA spearheaded the creation and passage of the California legislation that established a one-year amnesty program for currently existing specially constructed vehicles. It was the intent of this legislation to provide the following:

• A way for current SCV owners to obtain valid title and registration and to allow re-registration to carry no risk of prosecution,
• Emissions standards for these vehicles that are reasonable and attainable, and
• A method by which existing SCVs can achieve the reasonable and attainable emissions standards adopted by the CARB (via the retrofit kit program).

Assembly Bill 2461 (2010) and Assembly Bill 619 (2008) provided the necessary provisions in law to create the amnesty program, which began on July 1, 2011 and ended on June 30, 2012.

Registering Current and Future Specially Constructed Vehicles

While the retrofit kit project was directed to previously-built SCVs, there was concern about meeting emissions requirements for future-built vehicles. SEMA reached out to the Original Equipment Manufacturers (OEMs) for a solution. Initially, General Motors (GM) entered the program by offering an LS-based engine package from an already certified vehicle, the 2010 Chevrolet Camaro. This package includes not only the engine but all related emissions controls, including OEM electronic control unit (ECU), catalytic converters and electronic harness. Evaporative emission control consists of a vacuum port that allows the identification of a “sealed” fuel system. This engine package currently carries an ARB Executive Order (E.O.) and represents an example of an emissions-controlled engine from a previously certified vehicle.

An Option to Emissions Testing Specially Constructed Vehicles

California Senate Bill 100 (2001) allows for the first 500 specially constructed vehicles for which registration is sought (each year), to be inspected for the purposes of determining the engine model-year used in the vehicle or the vehicle model-year, and the emission control system application. Under the law, the owner has the option to choose whether the inspection is based on the engine model-year used in the vehicle or the vehicle model-year, and the emission control system application. In determining the vehicle model-year, the referee compares the vehicle to vehicles of the era that the vehicle most closely resembles. The referee then only requires those emission control systems that are applicable to the established model-year and that the vehicle reasonably accommodates in its present form. These special exemptions can be obtained at any California DMV.

As an alternative, although still being considered and concluded by ARB staff, it will be possible to use an OEM engine as an emissions certified engine not from a certified vehicle. This approach includes stand-alone (crate) engines, complete with all required emissions equipment, certified in a vehicle representative of the specially-constructed vehicle category in which it will be installed and used. SEMA suggests that these engines be required to meet California’s new vehicle emission standards, using the Federal Test Procedure (FTP) for the model year in which the SCV is registered.

Previously, two representative SCVs equipped with an engine from a

certified vehicle easily met current smog test standards, as measured in a BAR referee station. Given these results, future-built SCVs will have the ability to meet BAR smog check emissions standards, even though those standards may periodically be revised downward, as is current practice.

For smog check purposes, the standards to which future-built SCVs are tested will be those for the model year (calendar year) at the time of vehicle registration and testing. These standards would not be applicable to vehicles to which a Certificate of Sequence number has been issued, as provided for in S.B. 100 (2001).

Engine Certification for Specially Constructed Vehicles

SEMA has been and will continue to be a strong supporter of the provisions provided for in S.B. 100. SEMA also understands the necessity for having acceptable alternatives in place that enable future additional SCV registrations in California. Given the fact future BAR smog test emissions levels might not be attainable with the previously-discussed retrofit kit, SEMA believes OEM engines from otherwise certified vehicles would be a viable option. It appears this approach is acceptable to ARB, based on the E.O. it issued for the GM LS engine from a production 2010 Chevrolet Camaro.

Our understanding is that GM also wants to provide engines for SCVs not taken from a certified vehicle configuration. This appears to include engines presently populating their line of “crate” engines, not otherwise emissions certified. While this would expand GM’s offerings for SCVs beyond the 2010 Camaro engine, it will require potentially a separate emissions certification program.

In comparing the emissions performance of engines from a certified vehicle with engines not from a certified vehicle, SEMA believes the latter will involve a much more complex and costly certification process. CARB is currently concluding a process by which stand-alone engines may be certified that is more difficult and costly than approving engines from certified vehicles, largely because of potential problems matching a range of SCVs to comparable OEM vehicles. Enabling use of an engine from a any previously certified vehicle bypasses this problem. While SEMA does not oppose the possibility of certifying engines for purposes of the SCV program, we believe that the most expedient way to move this program forward would be to first allow engines from certified vehicles. Based on CARB’s currently-proposed method of engine certification, allowing engines from certified vehicles is clearly a more cost-effective approach that still addresses the issue of reduced emissions from SCV packages.

SEMA believes that using engines from any certified current model year vehicle would provide options to the builders/owners of SCVs that offer the potential for meeting emissions requirements on a more affordable and effective basis. In addition, it would also allow for a wider variety of engine brands, something that the current engine approval process excludes.

SEMA has encouraged other OEMs to participate in this program, hoping to make other brands of engines available to owners of future-built SCVs. These invitations have been extended so that future SVC owners will have a choice of engine brands that can enable matching engine brands with SCV brands; e.g., a Ford engine in a Ford branded vehicle, a Chevrolet engine in a Chevrolet

branded vehicle, etc. Even though some SCV owners will not have a preference, we're confident that most will.

Under the recently proposed amendments to this program, CARB has elected to create an engine certification program aligned more with how the OEM certifies engines rather than what is economically feasible for small company engine builders. Specifically, such requirements as mandating emissions levels not to exceed LEVII and LEVIII for SCVs built both now and in the future [Attachment 2, 15-Day Modifications, Section 2212(c)(1)(A)] will prevent existing engine builders from providing powertrain packages that do not include OEM components and systems geared to meeting these standards. That fact alone suggests the benefit of using previously certified OEM engines in future SCVs, not just certified crate engines of the type for which GM has recently obtained CARB compliance.

It must also be emphasized, as SEMA believes and has pointed out on numerous occasions, SCVs are driven minimally when compared daily drivers, often less than 1000 miles/year. Their contribution to the emissions inventory is negligible at best. A requirement for near-term SCV builds (2012 – 2014) to meet LEVII emissions levels seems unnecessarily strict for vehicles that are operated so infrequently.

Further, SEMA believes that the imposition on future-built SCVs of evaporative emissions standards applicable to certified engines will require OBD systems and related components neither practical or (in some cases) possible with these vehicles. This problem has already arisen with current SCV evaporative control systems, as pointed out during completion of the amnesty retrofit kit program. Since GM refused to include specifically-sized fuel tanks in their E-rod package, evaporative control systems were reduced to meeting OBDI requirements, the limit for these type vehicles. SEMA recommends that a sealed fuel system (OBDI) be acceptable for future-built SCVs, as was previously approved by CARB in the aforementioned amnesty program (GreenRod project).

SEMA also believes that CARB’s decision to include durability testing for worst case SCVs strengthens SEMA’s argument that this unnecessary burden should not apply to limited-use vehicles and provides yet another financial burden on small company engine builders. In fact, while it may not be in the spirit of the current engine certification language, the net effect of this overall certification process will likely prevent many of these businesses from participating in the program at all, thus enabling the OEM to enjoy a monopoly in providing approved SCV engines and raising costs to the vehicle owner.

Requirements for OBD measurement of air-fuel imbalance, enabling cold-start emissions reductions, and providing comprehensive component monitoring (Section 2212(5) (g) (5, 6, &7) is further evidence the new certification requirements are geared to OEM practice and technologies. It appears likely that the amended regulations run parallel with new OEM engine and vehicle certifications and appear more aggressive in areas that include engines and engine component warranties, warranty periods, owner responsibilities and how future SCVs will be evaluated in the California smog-check program.

As pointed out earlier in these comments, two SCVs were fitted with what became CARB E.O. compliant engines from the GM E-rod line.

Both vehicles passed their respective smog-check tests at BAR referee stations and were witnessed by numerous BAR referees. The measured emissions were sufficiently low to suggest these SCVs would have passed not only current smog-check requirements but could be projected to do so for years to come. Again, these engines were certified in an OEM vehicle and represent the category that SEMA has suggested should be permitted for use in current and future SCVs.

Again, SEMA believes that what CARB is currently proposing, because it is a distinct departure from their “Initial Statement of Reasons” document released October 4, 2011, closely parallels the requirements set forth for OEM engine certification. Without a doubt, these requirements are economically prohibitive for SCV engine builders of the type represented by SEMA. As amended by CARB staff and currently formatted (Amendment 2, 15-Day Modifications), the certification procedure essentially forecloses an opportunity for these small businesses to provide certified SCV engines.

SEMA suggests that one alternative to building complete, emissions-compliant engines would be to allow the current CARB E.O. program to apply to the installation of emissions-certified parts on certified OEM engines. SEMA believes there is nothing in the current regulations that would prevent products carrying a CARB E.O. from being used on these engines. These types of parts, when E.O. certified on an engine in a vehicle already CARB-certified by the OEM, should be acceptable for use on the same certified engine for use in SCVs. This is the current E.O. process by which performance parts are certified for use in late-model vehicles. At worst, this would at least allow small business engine builders some level of participation in the SCV engine market, short of providing certified engines on their own.

In conclusion, SEMA believes that the program now proposed by CARB (Amendment 2, 15-Day Modifications) is a clear departure from what was proposed by CARB staff in October 2011(CARB Staff Report: Initial Statement of Reasons) and promoted through several workshops. We believe that this program would be best served by returning to the provisions provided for in the October 2011 document. To that end, we stand ready to assist CARB staff in any way that benefits the goals of all parties involved.

Thank you for your consideration. Please feel free to contact me at 901/377-1210 or by e-mail at jmcfar1@aol.com if I can be of additional assistance.

Sincerely,

Jim McFarland
SEMA Technical Consultant

Attachment:

Original File Name:

Date and Time Comment Was Submitted: 2012-08-31 12:51:13

No Duplicates.