U.S. GOVERNMENT REGULATION of SPECIALTY AUTO PARTS



A GUIDE TO COMPLIANCE

SEMA GARAGE

HELPING THE AFTERMARKET SPEED PRODUCTS TO MARKET

The SEMA Garage in Diamond Bar, California (www.semagarage.com) is available to help manufacturers develop automotive parts and accessories from start to finish. Through this facility, SEMA can assist product manufacturers during the process of developing marketable, emissionscompliant products and ready them for store shelves. This includes actual emissions testing, assistance in the analysis of test data, preparation of certification applications and other laboratory and marketing services. In addition to the emissions lab, the state-of-the-art garage contains an installation center, photo cove and training center.

All of the services available through the SEMA Garage are intended to help the aftermarket bring products to the market faster and more economically than ever before. Manufacturers are able to gain access to new vehicle models from automakers and have final products available for sale when the vehicle is available to the public.

GARAGE

FOUR KEY COMPONENTS

- Installation Center: Includes two vehicle lifts, a portable coordinate measuring machine (CMM), a 3D printer, digital race car scales and more. In collaboration with automakers, new model vehicles are often available to help manufacturers develop up-to-date products and have them ready for sale as the new models come to market.
- **Dyno and Emissions Lab:** Executive Order (E.O.) aftermarket-part testing lab. Manufacturers are able to obtain testing services at an affordable cost.
- **Photo Studio:** Includes two coves, including one large enough to fit a full-size vehicle and complete with a 30x10-ft. adjustable light box. The studio includes an abundance of lighting equipment, strobes and umbrellas.
- **Training Facility:** Ideal for sales meetings or training demonstrations, the room includes a high-tech video monitor with Internet access and more.



WHAT SEMA MEMBERS NEED TO KNOW

SEMA members manufacture, distribute and retail parts and accessories for use on passenger cars, trucks, recreational and special interest collector vehicles of all kinds. These products include performance, functional, restoration and styling enhancement equipment of various design and performance specifications. However, many of these parts are required to meet a variety of state and federal laws and regulations. Complying with these requirements is no easy task, but can be made easier with a simple understanding of which parts are regulated, who regulates and how manufacturers can innovate new products for automobiles within the bounds of the law. SEMA gives you the tools to navigate the compliance maze while offering solutions to minimize both cost and time.

OVERVIEW

At the federal level, automobiles and auto parts are regulated by two agencies, the National Highway Traffic Safety Administration (NHTSA) and the U.S. Environmental Protection Agency (EPA). NHTSA oversees vehicle safety issues. Vehicle emissions are regulated by the EPA. States and local jurisdictions are permitted to establish their own safety laws and regulations as long as they do not conflict with a federal standard. The California Air Resources Board (CARB) has the authority to establish tougher vehicle emissions standards, which other states may then adopt. NHTSA NHTSA

NHTSA issues Federal Motor Vehicle Safety Standards (FMVSS) that establish minimum safety performance requirements for new cars and parts. There are only a handful of equipment safety standards. They cover items such as tires, lighting, brake hoses and glazing. The other safety standards set performance requirements for the entire vehicle. They are divided into three broad categories: crash avoidance (e.g., tire pressure monitoring systems, electronic stability control), crashworthiness (e.g., front, side and rear impact standards) and post-crash (e.g., fuel spillage and flammability).

It's important to note that the FMVSS only establish performance requirements, not design mandates. For example, headlights must comply with certain photometric specifications, such as requirements on the amount, color and intensity of light to be produced, but their designs are not restricted to a specific shape like round or square.

While most specialty auto parts are not directly covered by a safety standard, they are still subject to NHTSA oversight. First, equipment manufacturers, distributors and commercial installers cannot market or install a product that would knowingly take a vehicle out-of-compliance with a federal safety standard. This is called the "make inoperative" prohibition. For example, it would be illegal to market colored bulbs that, when installed, would not allow the

IN THE KNOW...

Does NHTSA regulate off-road vehicles?

NHTSA regulates "motor vehicles" that are manufactured primarily for use on public streets, roads and highways. While vehicles that are primarily manufactured for off-road use such as ATVs and dirt bikes are not "motor vehicles" subject to NHTSA oversight, they may be subject to the jurisdiction of the Consumer Product Safety Commission or a state agency.

Is "DOT-approved" a legal term?

No, NHTSA has no authority to "approve" or "disapprove" vehicle equipment. The equipment is selfcertified. Sometimes the term is confused with the DOT symbol, which is required to be placed by the manufacturer on certain items of equipment such as headlamps. This is simply an affirmative statement by the manufacturer that the equipment complies with an applicable NHTSA rule. required lamps to meet the color and performance requirements of the federal lighting standard. Second, a manufacturer must notify NHTSA when it has determined that the auto part has a safety-related defect. NHTSA will then work with the manufacturer on an appropriate remedy such as customer notification and recall. NHTSA also has the authority to conduct its own safety investigations, and may impose civil fines for failure to comply with its safety standards and other rules.

If covered by a safety standard, the manufacturer selfcertifies that the equipment complies with the regulations. Certification is automatically presumed by NHTSA when the product is offered for sale. NHTSA is an agency within the Department of Transportation (DOT). NHTSA itself does not certify the products, although a few standards require that the "DOT" acronym be marked on the equipment as an affirmative declaration that the product meets the standard. A few safety standards require that other information also be marked on the equipment such as manufacturer identification, date of manufacture, and size or construction characteristics.

A manufacturer or installer must have a reasonable basis for concluding that a specialty auto part will meet a safety standard or not trigger the make inoperative prohibition when installed. A reasonable basis could be formed through an engineering analysis, computer simulation and/or actual testing. Submission of documentation to NHTSA is not required, although all documentation should be kept by the manufacturer and installer for future reference. Companies that manufacture or import any equipment covered by an FMVSS are required to register with NHTSA. The company is then placed in NHTSA's manufacturer database, which is categorized by product type. There are separate registration requirements for manufacturers of tires, retreaded tires, brake hoses and glazing, since NHTSA also assigns manufacturer identification numbers to be used on these items.

Imported equipment is also subject to NHTSA standards and oversight. Foreign manufacturers, assemblers and importers are required to designate a permanent resident of the U.S. as the manufacturer's agent for service of process, notices, orders and decisions. This rule applies to all types of imported equipment, regardless of whether it is covered by the FMVSS. This guarantees that someone in the U.S. is accountable if there is a problem with a vehicle or item of equipment.

STATE & LOCAL JURISDICTIONS

States and local jurisdictions are free to enact equipment regulations that are identical to NHTSA standards or, in the absence of a federal rule, establish their own laws and regulations. Frequent examples of separate state or local standards are laws covering auxiliary lighting equipment such as fog lamps, sound levels for exhaust and stereo systems, bumper/frame height restrictions and windowtinting transmittance parameters. It is the responsibility of the manufacturer to be aware of federal, state and local laws and regulations in order to meet all legal requirements.

How is lighting equipment regulated by the federal and state government?

The FMVSS establishes performance requirements for basic lighting equipment (e.g., headlamps, tail lamps, side reflectors, etc.). NHTSA will also ban certain supplemental lighting equipment that may distract or confuse other drivers, such as lights mounted on hubcaps or wheel rims. A state may regulate equipment not covered by FMVSS, with many states enacting laws pertaining to "auxiliary lamps" like fog lamps, light bars and decorative LED lights.

How does NHTSA regulate wheels?

There are two NHTSA standards that reference wheels ("rims"). FMVSS No. 110 (for vehicles weighing less than 10,000 lbs.) and FMVSS No. 120 (for vehicles above 10,000 lbs.). The rules focus on making sure vehicles have the proper size tire and wheel combination. They do not establish performance requirements, although FMVSS No. 120 does include marking requirements. Wheel performance and marking requirements have been established through voluntary industry standards issued by the Society of Automotive Engineers (SAE) and other international standardsetting organizations. Industry standards generally form the basis for demonstrating product safety and quality before courts, regulators, retailers, consumers and others.



EPA/CARB

Emissions-related aftermarket parts are regulated by the EPA, CARB and various other state-level air quality agencies. California established its own clean air law before the federal Clean Air Act (CAA) was enacted into law, and has authority to put in place more stringent vehicle emissions standards. Other states may adopt those stricter standards.

Parts and components affecting the emissions of a motor vehicle are subject to anti-tampering laws and require testing and certification to demonstrate that they do not unacceptably increase emissions. Air filters, camshafts, exhaust headers, fuel filters, intake/exhaust components, transmissions and turbochargers are examples of parts regulated by the EPA and CARB. It is illegal to knowingly manufacture, sell or install a part or component that would negatively affect emissions performance. It is also illegal to knowingly remove or render inoperative any device already installed for emissions compliance.

In 1974, the EPA issued "Memorandum 1A" to clarify enforcement of the CAA's prohibitions. Simply put, aftermarket emissions-related equipment is self-certified by the manufacturer as being compliant with the CAA and the manufacturer must have a "reasonable basis" to conclude the equipment will not take the vehicle out of compliance. Although no test data is required to be submitted to the EPA, the agency has the right to investigate a company's methods for forming a reasonable basis. Under Memorandum 1A, testing the product to the Federal Test Procedure (FTP), including useful life durability testing, is deemed by the EPA to be a reasonable basis.

While the EPA relies upon self-certification, CARB requires the submission and approval of test data to prove that emissions-related aftermarket equipment sold into the state is compliant. Once reviewed and approved, CARB will assign an "Executive Order" (E.O.) number to the tested product, which the manufacturer should then mark on the product, its packaging and marketing materials. The EPA recognizes an E.O. from CARB as a reasonable basis for concluding the part does not take a vehicle out of compliance under Memorandum 1A. Parts awarded an E.O. by CARB for legal sale and use in California are generally considered legal for sale and use in the other 49 states.

To receive an E.O., a manufacturer must provide CARB with a description of the part to be sold or installed and the vehicles for which it is produced. If CARB requires testing, it will list the vehicle(s) on which the part must be tested by make, model, year and possible engine family. Vehicles are grouped into engine families or test groups for exhaust emissions, and evaporative families for evaporative emissions. Within each family, the vehicles share similar designs and are expected to have similar emission characteristics. An E.O. is issued to certify equipment for an engine family in combination with one or more evaporative families. The E.O. is valid for equipment produced during the specified model year. Equipment produced for future model year vehicles require another E.O. Thousands of emission-related products made by SEMA member manufacturers have been granted E.O. numbers.

SEMA's "Black Book" (www.sema.org/blackbook) walks through the basic steps for obtaining an E.O. and includes tips on how to simplify the process. Since the E.O. tests do not include EPA in-use durability tests, it is the preferred method for demonstrating compliance for both the EPA and CARB. Note that some companies use a "49-state legal" disclaimer for a product that does not have an E.O. The EPA considers such a disclaimer to be invalid unless the product has satisfied the EPA's FTP and durability testing requirements.

How does NHTSA regulate tires?

NHTSA has established safety standards for all types of tires, from retreads to truck tires. FMVSS No. 139 covers all new radial tires for use on passenger cars, trucks, buses and trailers with a GVWR of 10,000 lbs. or less. FMVSS No. 109 applies to bias ply tires and several other special tire categories. Both standards have labeling requirements.

How do foreign countries regulate specialty auto parts?

Just as products imported into the U.S. are subject to American law, products exported to a foreign country are subject to that country's laws. SEMA works with foreign governments to make sure those laws and regulations are "aftermarketfriendly" and do not impose any unreasonable restrictions.

What are "Letters of Interpretation"?

While the law is intended to be unambiguous, there are times when it is unclear how a law or regulation applies to a particular circumstance. In this instance, NHTSA can issue a "letter of interpretation" in response to a request for guidance from a company or individual. The letters are very useful for the industry's understanding of how a law will be applied, represent the agency's opinion and are advisory in nature. NHTSA's database of interpretation letters is located at http://isearch.nhtsa.gov/.

RESOURCES

ADDITIONAL DETAILED INFORMATION IS AVAILABLE AT:

- SEMA: www.sema.org/ federal-regulationaftermarket-parts (includes links to NHTSA, EPA and CARB)
- SEMA Garage: www.semagarage.com
- SEMA Black Book: www.sema.org/ blackbook
- SEMA Vehicle Technology: www.semagarage.com/

services/vehicletechnology

(includes FMVSS No. 126 electronic stability control compliance program)

 NHTSA Safety Standards: www.nhtsa.gov/

Vehicle+Safety (case sensitive)

- NHTSA Guide for Manufacturers: http://icsw.nhtsa.gov/ cars/rules/maninfo/ newManf.pdf
- NHTSA Letters of Interpretation: http://isearch.nhtsa.gov/
- EPA: www.epa.gov/otaq
- CARB E.O. program: www.arb.ca.gov/ msprog/aftermkt/ devices/amquery.php
- **SAE:** www.sae.org

This document is a simplified description of the requirements for manufacturers of motor vehicles and motor vehicle equipment as of the date it was published. Additional information is maintained on the SEMA website (www.sema.org). Manufacturers should always consult the applicable statutes and regulations for a current and more detailed description of requirements.

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