

Angeles, Leroy (NHTSA) <leroy.angeles@dot.gov>

Aug 20, 2020,
11:40 AM

to me, OVSCPUBLIC

Dear [REDACTED],

Thank you for your e-mail that was forwarded to me. By way of background, NHTSA has the statutory authority to issue Federal Motor Vehicle Safety Standards (FMVSS) applicable to new motor vehicles and items of motor vehicle equipment, including vehicles and equipment (tires, rims, brakes, motorcycle helmets, etc.). The law establishes a self-certification process in which the vehicle and equipment manufacturers themselves certify that all of their products are in compliance with all applicable FMVSSs, which establish minimum criteria that the product must meet. NHTSA enforces the standards by randomly selecting and purchasing equipment from the marketplace and testing to the requirements of the standard at independent test labs.

LED headlamps for use in motor vehicles (passenger cars, multipurpose passenger vehicles, trucks, buses, trailers (except pole trailers and trailer converter dollies), and motorcycles) need to comply with the requirements set forth in FMVSS No. 108.

As for LED replaceable light sources for use in motor vehicles, FMVSS No. 108 requires, in part, that each replaceable light source be designed to conform to certain dimensional and electrical specifications. Thus, in order to use a replaceable light source in a replaceable bulb headlamp, a manufacturer must first have submitted certain information with respect to it (and its ballast if required), or it may use a light source (and ballast if required) if its specifications are already filed in Part 564. As of the date of this response, there are no LED replaceable light sources filed in Part 564.

HID/LED conversion kits do not meet the requirements of FMVSS No. 108 and therefore cannot be lawfully imported into the United States or sold in the United States. See 49 U.S.C § 30112 (a)(1). As the law requires that any motor vehicle replaceable light source offered for sale in the United States comply with the requirements of FMVSS No. 108, it is illegal to manufacture, sell, offer for sale, import or introduce into interstate commerce any HID/LED kit that contains a replaceable light source whose base was modified or manufactured to be interchangeable with any regulated headlamp replaceable light source that incorporates a different light source design.

As for studies conducted by DOT or NHTSA, I am not aware of any studies conducted concerning the effects of LED lighting on the human eye. FMVSS No. 108 includes photometric requirements that manufacturers must meet and the standard does not limit the type of lighting technology used. You may view the standard in full here: https://www.ecfr.gov/cgi-bin/text-idx?node=se49.6.571_1108

Please understand that the above information is informal guidance not binding on NHTSA. If you wish to receive a formal interpretation from the agency, you will need to request one in writing from our Office of Chief Counsel at:

Office of Chief Counsel (NCC-110)
National Highway Traffic Safety Administration
1200 New Jersey Avenue, SE
Room W41-326
Washington, DC 20590

You may also submit your request by fax at (202) 366-3820.

If you want to talk to someone at NHTSA about what a request for interpretation should include, you can call the Office of the Chief Counsel at (202) 366-2992. Please email or call me if you have any additional questions.

I hope this helps.

Regards,
Leroy Angeles
Safety Compliance Engineer
Office of Vehicle Safety Compliance – Equipment Division
National Highway Traffic Safety Administration
Department of Transportation
Phone: 202-366-5304