LIGHTING TECHNOLOGY



PHOTOMETRIC TESTING

NHTSA Interpretations 2002-FMVSS 108 Related

Date	Docket#		
3/7/02	11791	Approved automatic hazard warning lamp system in the aftermath of a vehicle crash- perhaps wired to the airbag deployment systems. The envisioned system would automatically activate emergency warning lamp if an accident occurred. This would not impact lighting – only lighting usage.	
3/7/02	11792	LED 1157 Conversion Bulbs, LED 3157 Conversion Bulbs, and such in lamps not designed for them will probably cause the lamp to fail FMVSS 108 requirements. This is a weak response. DOT knows that all incandescent stop and turn signal lamps fail when using these "LED bulbs".	
3/7/02	11795	Mounting of conspicuity sheeting on tanker trucks higher than 74" if it is necessary to assure that the sheeting is vertical is acceptable.	
3/8/02	11805	Limited approval of the use of LED message signs intended for the rear of large trucks. Message indicates "Wide Turn" and is activated by the turn signal switch. Deemed not interference lighting. This ruling contrary to previous decisions in which message boards are considered to impair.	
3/8/02	11810	Clear lens taillamps that do not have a red reflex reflector do not meet FMVSS 108.	
4/5/02	12070	Backup lamps that exceed 300 Cd above h-h do not meet FMVSS 108 requirements.	
4/10/02	12085	A headlamp on a vehicle with VO aim/Horizontal VHAD that is redesigned with the horizontal adjustment removed should have the headlamp part number changed to assure that redesigned headlamp will not be used as a replacement part for the original design. The concern is having different aiming methods between the two headlamps on the vehicle. This is a minor concern since both lamps would still be VOA headlamps.	
4/11/02	12096	Defines "flash" as "a cycle of activating and deactivation of a lamp". Notes any supplemental lighting that flashes, modulates or varies lens area illumination would be deemed flashing regardless of the frequency/period and may be considered an impairment when used.	
4/12/02	12099	Stop lamps must comply with FMVSS 108 which references J586 photometry or figure 10 photometry (if CHMSL).	

See Following Pages for Additional Rulings

NHTSA Interpretations 2002-FMVSS 108 Related (Cont.)

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Neon accessory lighting would not automatically be deemed an impairment (S5.1.3) if it does not mask the turn signal or stop lamps. In most cases, such as under car light, it would be the jurisdiction of state laws.
 1) Noted that SAE referenced documents are version specific and not the current version. 2) Motorcycle headlamps that have 1 housing with multiple cavities is a single headlamp that must comply with S7.9.6.2(a). Regardless of the number of lenses over each of its separate reflector cavities. The housing makes it 1 lamp. 3) Motorcycle turn signals must be at least 4 inches from headlamps- edge to edge.
54 Stop lamps should activate and remain activated whenever any measurable brake torque exists.
A manufacturer must exercise "reasonable care" in ensuring that all production lamps comply and certify such compliance. This means that manufacturers must perform initial compliance testing and maintain Q.C. test program.
9 Replied to a police request regarding permissibility of auxiliary lighting. Auxiliary lighting are permitted as long as the lights do not impair the effectiveness of any other required lights (S.5.1.3). Example of impairment might be too bright, unauthorized flashing, non-standard color, etc.
1 Motorcycle single headlamp with 2 sources on vertical centerline in which the upper source has 2 filaments/lower source has 1 filament. Reiterated that the upper beam cannot be above the lower beam. Manufacturer must always combine sources & cavities in such a way that the low beam has as its component a filament from the highest source in the lamp.
Replied to a police request regarding permissibility of non-standard color auxiliary lighting. NHTSA ruled that non-standard colors are prohibited because the colors could cause momentary confusion in other drivers. This ruling extends to windshield washer fluid lamps.
Permits the use of school bus safety message boards. This ruling is school district specific and should not be interpreted to mean the use by the general public of electronic message boards is permitted.
5 Prohibited the use of turn signal activated rear mounted trailer lamps that project white light downward toward the road surface in the adjacent lane, perpendicular to the longitudinal axis of the vehicle. Ruled that the light would impair.
45 All sources of a motorcycle single headlamp system must be located on the vertical centerline or on a horizontal line with all sources the same height. In order for sources to be disposed about the centerline and at different heights it must be a multiple headlamp system.

See Following Page for Additional Rulings

NHTSA Interpretations 2002-FMVSS 108 Related (Cont.)

Date	Docket#	
8/19/02	13181	 If a vehicle or trailer is capable of being used both on and off-road then it must be certified as complying with FMVSS 108. Especially if the probability of on-road use is high. There are no "DOT Approval" letters. Manufacturer must certify and label as such Vehicle importers may need Registered Importers and Designated Agents. Component manufacturers are not covered in this ruling.
9/26/02	13456	Motorcycle helmet lights connected to the motorcycle lighting system is permissible if lighting system does not cause the motorcycle lighting to fall out of compliance. However, there are FMVSS 218 Helmet requirements that must be met.
10/22/02	13643	A 5 lamp cluster is not legal for ID lamps.
11/15/02	13852	Message turn signal bars with text would constitute on impairment of the rear turn signals.
11/15/02	13853	Permits the use of non-uniform flashers for hazard and turn signal. Requires that the flash ratio for <u>any</u> 3 consecutive flashes be 60-120fpm for normally open and 90-120fpm for normally closed flashers. Percent on-time requirement always applicable.
11/21/02	13900	HID Conversion kits for headlamps designed to use halogen replaceable bulbs are illegal.
12/6/02	14050	A motorcycle helmet mounted flashing LED array activated by the brake lamp would cause an impairment to the required motorcycle stop lamp. Conflict with DMS#13456?
12/11/02	14053	Required headlamp lens markings must be molded and not laser etched.
12/6/02	14054	The use of switches to disable required lighting on undercover police vehicles for the purpose of making them look civilian is acceptable for third party installation. The Third party cannot be a public vehicle repair shop.

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