

March 12, 2022

BY EMAIL

Markus Price NHTSA Office of Crash Avoidance Standards markus.price@dot.gov

Re: NHTSA's Technology Addiction

Dear Markus Price,

NHTSA leadership has been in the news the past few weeks:

- 1) Releasing NHTSA data showing major increases in traffic fatalities.
- 2) Approving Adaptive Driving Beam technology.
- 3) Approving vehicles without steering wheels or brake pedals.

NHTSA leadership has lost sight of its Congressionally mandated goal of protecting humans. NHTSA is addicted to technology, thinking that more and more technology will save lives, while the data clearly shows the trend of loss of life going in the other direction.

We see US DOT Secretary Pete Buttigieg and NHTSA Deputy Director Steven Cliff publicly announcing their intention to make changes and save lives, all the while continuing to feed their technology addiction. Until Secretary Buttigieg and Deputy Director Cliff acknowledge their addiction to technology, we will continue to see more and more injury and death. Therefore, we are asking NHTSA staff for an intervention.

The NHTSA Whistleblower program made its first ever award in November 2021. The award was for \$24 million to a whistleblower who provided crucial information about Hyundai and Kia's defective engines. This type of whistleblower blower award is also available to you and others in the auto industry who can provide the information to the NHTSA Whistleblower that LEDs are surface sources of light, that FMVSS-108 is only applicable to point sources, and that the vehicle manufacturers have falsely self-certified their surface source LED headlights as compliant with FMVSS-108.

You can also notify the NHTSA Whistleblower program that ADB systems will not solve the LED headlight problem because the ADB system relies on unapproved surface source LEDs. Also, ADB systems do not work on hills, while turning into parking lots, or dozens of other real-world situations. The peak luminance of LED chips now exceeds 100,000,000 nits, while human comfort level is only 300 nits of uniform luminance. NHTSA's addiction to technology ignores the sensitivity of the human eye.

There are now two types of electromagnetic light in this world: point sources and surface sources. You can notify the NHTSA Whistleblower that NHTSA leadership has failed to train staff in understanding the difference between point source and surface source light.

Point Source – Examples: the sun, a candle, incandescent, tungsten/halogen, High-Pressure Sodium. The light from a point source is uniform. Government standards are written for point sources of light. FMVSS-108 applies to point sources.

Surface Source - Examples: LED, laser. The light from a surface source is non-uniform. While there are government regulations for lasers, there are no regulations for LEDs. NHTSA has no regulations for using surface source LEDs in vehicle headlights and thus all LED headlights are non-compliant and illegal.



Figure 1 - LED Headlight

NHTSA has no regulations for peak radiance from LED light to protect human eyes. NHTSA has no regulations on spectral power distribution to limit the amount of dangerous blue wavelength light. NHTSA has no regulations for the peak luminance or flash rate of LED flashing lights to protect those with epilepsy. NHTSA has no regulations at all for surface source LED light. NHTSA has not assisted the US Access Board develop guidelines to protect those with light sensitivity disabilities. Why is this? NHTSA has become addicted to technology and has abandoned their duty to humans.

LEDs are a surface source light that is non-uniform, toxic, dangerous, discriminatory, and has never been approved by NHTSA. By using LED lights, the auto manufacturers are in violation of the federal Motor Vehicle Safety Act of 1966 and the auto manufacturers are guilty of falsely claiming that surface source LED headlights comply with FMVSS-108. We urge you and your colleagues to blow the whistle.

Sincerely,

Mark Baker

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cc: US House Oversight Committee, US Access Board, NHTSA Whistleblower

