Transportation Safety Equipment Institute

May 6, 2026

Derek D. Barrs
Administrator
Federal Motor Carrier Safety Administration
1200 New Jersey Avenue, SE
Washington, DC 20590

Re: Grote Industries, LLC - Petition for Exemption, Rear-End Collision Warning (RCW) system; Docket No. FMCSA-2026-0100; Fed. Reg. Vol. 91, № 26, February 9, 2026 and Fed. Reg. Vol. 91, № 42, March 4, 2026

Dear Administrator Barrs:

The Transportation Safety Equipment Institute (TSEI) submits these comments to the Federal Motor Carrier Safety Administration (FMCSA) in response to the Agency's request for comment on the application for exemption submitted by Grote Industries, LLC (Grote), seeking limited relief from the steady-burning requirement of 49 CFR § 393.25(e) to allow the use of non-steady-burning auxiliary lamps in combination with Grote's Rear-End Collision Warning (RCW) system.

For over fifty-five (55) years, TSEI has advocated for the safety and standardization of vehicular safety equipment. The organization was formed prior to the promulgation of the first Federal Motor Vehicle Safety Standards (FMVSS) in 1967. Our members include numerous Tier-1 manufacturers of lamps, mirrors, warning devices, and reflective materials. TSEI supports the development of advanced performance standards and regulations that enhance safety outcomes while maintaining regulatory clarity, consistency, and enforceability.

Rear-end collisions remain among the most frequent and dangerous incidents involving commercial vehicles, typically caused by inattention, poor visibility, or delayed reaction. Technologies that provide earlier visual cues to following drivers are a meaningful countermeasure. TSEI supports Grote's exemption request related to its Rear-End Collision Warning (RCW) system and believes it represents a natural and incremental extension of prior FMCSA exemptions that have already demonstrated meaningful safety benefits in real-world commercial operations.

Grote's rear-collision radar system activates pulsating/strobing red or amber lighting when an approaching vehicle presents elevated risk — drawing attention only when conditions warrant, without replacing existing brake or signal functions. This targeted communication is particularly valuable in low visibility, heavy traffic, or distracted-driving situations. FMCSA has previously granted multiple exemptions allowing the use of brake-activated pulsating auxiliary lamps on

commercial vehicles—including exemptions granted to Groendyke Transport, National Tank Truck Carriers (NTTC), Waste Management, Inc., and Grote itself. These exemptions share several common characteristics:

- The lamps are auxiliary and do not replace or impact the operation or effectiveness of any FMCSR-required lighting per § 393;
- Required stop lamps remain steady-burning and fully compliant and effective;
- The auxiliary lamps are limited in number, color, type/operation, and location to preserve driver comprehension and avoid signal confusion; and
- FMCSA has consistently found that such exemptions are likely to achieve a level of safety equivalent to, or greater than, compliance with § 393.25(e).

The Grote RCW system mirrors these prior exemptions in all material respects. The auxiliary lamps proposed under this application are consistent with previously approved configurations in terms of lamp color (red and/or amber), lamp type/operation, quantity, and placement. As with prior exemptions, these lamps are expressly supplemental to required lighting and do not alter, impair, or replace any required brake, tail, or signal lamps.

Importantly, the Grote RCW system does not introduce a new signaling concept; rather, it builds directly upon the safety benefits already established under prior FMCSA exemptions. Previously approved exemptions for pulsating auxiliary lamp systems demonstrated improved conspicuity and reduced rear-end collision risk by drawing the attention of following drivers after brake application. As is evidenced by comments already submitted to this docket by Amazon, Prime Inc., Landoll Company LLC, and others, and by comments submitted for the prior pulsating lamp exemptions, there is wide support across the industry, including from many fleets and OEMs, for Grote's exemption specifically and for other new technologies that are aimed at reducing rear end collisions. As explained in its supportive comments, Amazon has successfully reduced the occurrence of rear end collisions through the installation of the pulsating/flashing auxiliary lamps allowed through the existing exemptions on more than 66,000 trailers in its fleet, it clearly indicate its belief that Grote's RCW system will allow for further reduction in the occurrence of these collisions.

The RCW system advances this same safety objective by incorporating radar-based detection to identify closing vehicles and activate the auxiliary warning lamps earlier than brake-pedal activation alone would allow. By triggering the auxiliary warning lamps based on radar driven time-to-collision calculations rather than solely on brake application, the RCW system provides following drivers with additional reaction time, while still conveying a clear, familiar warning message consistent with earlier exemptions. In this respect, the RCW system functions as an enhanced rear signaling system that preserves the signaling logic already validated by FMCSA, while improving its timeliness and effectiveness. TSEI believes this progression, from brake-based activation to threat-based activation, represents a measured, safety-driven evolution, not a departure from established practice.

TSEI further emphasizes that Grote's RCW proposal maintains the integrity of established lighting schemes, a concern that has been central to both FMCSA and NHTSA lighting policy.

- The auxiliary RCW lamps are not required lamps and do not alter the meaning or operation of required stop lamps.
- Activation is limited to conditions presenting an elevated rear-end collision risk.

- The use of color, flash characteristics, and lamp placement remains consistent with prior FMCSA exemption approvals, supporting driver recognition and minimizing the risk of desensitization or confusion.

As with previous exemptions, these features ensure that the RCW system increases rear conspicuity without undermining the effectiveness of other warning or signaling devices, including those used on emergency, service, and other elevated-risk vehicles.

TSEI supports the granting of Grote's exemption request. The RCW system represents a logical extension of multiple prior FMCSA exemptions that have already demonstrated improved safety outcomes. By activating auxiliary warning lamps earlier, using radar-based threat detection rather than brake-pedal input alone, the system enhances the very benefits that FMCSA previously found persuasive: namely, increased visibility, improved driver response, and reduced rear-end collision risk.

As fleets continue adopting advanced safety systems, adaptive lighting solutions like this align with the broader mission of preventing injuries and saving lives. Innovations that leverage technology to improve situational awareness and reduce preventable crashes deserve serious consideration from a public safety standpoint. Accordingly, TSEI believes that granting this exemption is likely to achieve a level of safety equal to or greater than that provided under the existing regulation and is consistent with FMCSA precedent, research, and policy objectives. TSEI appreciates the opportunity to comment on Grote's exemption for its Rear-End Collision Warning system and respectfully recommends that FMCSA approves this exemption. Please contact me (PaulMenig@tsei.org) if you have questions or would like to discuss these issues further.

Sincerely,

Paul Menig
Executive Director
Transportation Safety Equipment Institute