

Safety Advisory: Possession or Use of Battery-Powered Portable Electronic Smoking Devices Around, On or While Operating a Commercial Motor Vehicle (CMV).

The Federal Motor Carrier Safety Administration (FMCSA) is issuing this safety advisory to provide notice and information to owners and operators of CMVs concerning incidents that have occurred relating to the possession and use of battery-powered portable electronic smoking devices (e.g., e-cigarettes, e-cigs, e-cigars, e-pipes, e-hookahs, personal vaporizers, electronic nicotine delivery systems (ENDS)) and the transportation safety risks associated with the use of these devices.

Background:

According to an October 2014 report from the U.S. Fire Administration, battery-powered portable electronic smoking devices were first patented in 2003 and have been available for sale in the United States since 2007¹. These devices have been rapidly growing in popularity as the number and selection of products expand. The devices contain a liquid, an atomizer or heating element, and a battery. When the device is operated, the heating element vaporizes the liquid which is inhaled by the user in the same manner as traditional smoking methods.

Incidents:

The use of battery-powered portable electronic smoking devices has resulted in incidents including explosions, serious personal injuries, and fires. The explosions regularly involved the ejection of a burning battery case or other components from the device which subsequently ignited nearby flammable or combustible materials. The U.S. Fire Administration estimates there have been 25 incidents between 2009 and August 2014. However, news sources place the number of explosions at over 150². There have also been media reports relating to the use of these devices such as a May 1, 2016, report posted on News-Pressnow.com³. A number of these incidents have occurred while the device was being charged, while others have occurred during use or while carrying the device on one's person.

¹ U.S. Department of Homeland Security, Federal Emergency Management Agency, U.S. Fire Administration. (2014). Electronic Cigarette Fires and Explosions. Retrieved from https://usfa.fema.gov/downloads/pdf/publications/electronic_cigarettes.pdf.

² Daily Hornet. (2016, May 17). E-Cigarette Explosion Injuries on the Rise. Retrieved from <https://dailyhornet.com/2016/e-cigarette-explosion-injuries-on-the-rise-warning-graphic>.

³ News-Pressnow.com. (2016, May 1) Local Man Injured by Electronic Cigarette Battery Explosion. Retrieved from http://www.newspressnow.com/news/local_news/article_f60d5ddc-5f4e-5253-8eb0-84504e546ac2.html.

As a result of incidents related to checked baggage, the Federal Aviation Administration (FAA) issued Safety Alert for Operators (SAFO) 15003, citing fires in cargo holds of passenger aircraft due to the heating element of these devices being accidentally activated or left on⁴. These incidents and risks prompted the Pipeline and Hazardous Materials Safety Administration (PHMSA) to publish a final rule on May 19, 2016 (Docket HM-262; 81 FR 31529) prohibiting passengers and crewmembers from carrying battery-powered portable electronic smoking devices in checked baggage and from charging the devices and their batteries on board an aircraft.

While no similar action has been taken to address the risks associated with checked items in the baggage compartment of motorcoaches or the charging of these devices by motorcoach passengers, these incidents highlight the potential safety risks to persons and property from the possession, storage, charging and use of these devices in the highway transportation environment.

Advice:

The Federal Hazardous Materials Regulations (HMR) and Federal Motor Carrier Safety Regulations (FMCSR) do not specifically address the potential safety risks posed by battery-powered portable electronic smoking devices. However, motor carriers and drivers should be cognizant of the risks associated with these devices and exercise good judgment and appropriate discretion in their possession, storage, charging or use on, around or while operating a CMV, and adhere to the smoking prohibitions on, near or when loading and unloading a motor vehicle transporting hazardous materials in accordance with 49 CFR 177.834(c) and 397.13.

For more information, concerning this Safety Advisory, please contact Vincent Babich, Transportation Specialist, Hazardous Materials Division, FMCSA, at (202)366-4871, or by email at vincent.babich@dot.gov.

⁴ Federal Aviation Administration, Safety Alert for Operators (SAFO) 15003. (22 January 2015). Fire Risk of Electronic Cigarettes (E-Cigarettes) in Checked Baggage. Retrieved from http://www.faa.gov/other_visit/aviation_industry/airline_operators/airline_safety/safo/all_safos/media/2015/SAFO15003.pdf.