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Liability Issues for Manufacturers of Personal Electric Vehicles

MOTOR VEHICLES

PRODUCT LIABILITY

The design, performance and capabilities of personal electric vehicles raise a number of potential concerns in the context of government product safety enforcement and product liability, attorney Paul M. Laurenza says. To minimize these risks, manufacturers and importers should carefully review and factor safety considerations into the design, manufacture, testing, advertising and marketing, and shipping of their products, he says.

By Paul M. Laurenza

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In late 2015, sales of hoverboards soared. Although issues relating to lithium ion batteries resulted in numerous hoverboard recalls in 2016, the market for personal electric vehicle products (sometimes called “e-vehicles” or “e-rideables”) has not abated. For example, companies selling only hoverboards in 2015 or 2016 now offer an increasing array of other personal transportation products, including electric skateboards, scooters, and bicycles. Some of these products, such as hoverboards, are primarily recreational. Others, including some newer electric skateboard products with increased power and speed capabilities, combine recreational aspects with personal commuting. The wireless functionality and “smart” interconnectivity of these products with personal communication devices clearly has enhanced the marketing appeal of these products, as evidenced by displays at the recent Consumer Electronics Show.

As the consumer market for these e-vehicles continues to expand, however, all entities involved in the marketing and distribution of these products - manufacturers, distributors, and retailers - need to be aware of the regulatory and liability issues they may face. Unlike motor vehicles, which are subject to federal motor vehicle safety standards, e-vehicles with few exceptions generally fall outside the scope of federal vehicle-related safety standards. They are, however, fully subject to federal enforcement, including recalls, if they present safety hazards, as well as product liability exposure. Manufacturers of e-vehicles thus must be acutely conscious of safety factors in the design and manufacture of the products, including applicable mandatory and relevant voluntary standards, as well as the potential legal exposure that may arise from how the products are advertised and marketed. In addition, if the product is powered by lithium or lithium ion batteries, as is common, hazardous materials requirements of the U.S. Department of Transportation may present additional challenges.

Applicable Federal Safety Standards

The only federal vehicle-related safety standard applicable specifically to personal motorized transportation products that are

not classified by the National Highway Traffic Safety Administration (NHTSA) as “motor vehicles” is the Consumer Product Safety Commission (CPSC) bicycle safety standard, 16 CFR Part 1512. This mandatory standard applies to two- and three-wheeled electric vehicles, but only if they fall within defined criteria. Specifically, they must be equipped with fully operable pedals, have an electric motor generating less than 750 watts, and be capable of a maximum speed of less than 20 mph when operated solely by electric power on a flat surface. If the electric vehicle meets all of these definitional criteria, it must then meet the various equipment, instruction, and labeling requirements set out in the standard. Notably, however, none of these requirements pertains specifically to the electronic components of bicycles (e.g., batteries, motors).

Many electric bicycles exceed the 20-mph maximum speed limit in the CPSC bicycle standard and thus fall outside the CPSC standard. The question then arises whether these electric bicycles may be considered to be “motor vehicles” subject to NHTSA regulation, including the Federal Motor Vehicle Safety Standards, 49 CFR Part 571. This question has been presented to NHTSA for interpretation on various occasions. While the regulatory analysis of this issue will always depend on the specific product involved, several factors emerge as key to the analysis. The most significant is the maximum speed of the bicycle. Although there is no defining line, to the extent that a vehicle is capable of achieving sustained speeds on motor power alone (i.e., not pedal-assisted) that would allow it to function in traffic (e.g., speeds in the approximate upper-20 mph or above range), the more likely NHTSA may consider it to be a motorcycle. If the vehicle also is equipped with the types of equipment normally associated with a motor vehicle (e.g., lights, turn signals, brake lights), and if the bicycle is advertised and promoted (in print, visually, etc.) as capable of operating like an on-road motorcycle, the more likely it could be considered to be a motor vehicle for NHTSA regulatory purposes.

Most of the electric bicycles in the market that fall outside the CPSC bicycle standard likely do not meet the criteria for classification as a motor vehicle. They would fall, therefore, into the broad category of products not subject to any federal vehicle-related safety standard, along with the many other types of products (e.g., hoverboards, electric skateboards, electric mini-scooters) that also are outside the scope of any such standard. As discussed below, though, these products are all subject to federal agency enforcement actions if they present an injury hazard to consumers.

Voluntary Standards

Voluntary standards establish no legally binding requirements, but their potential role in both product safety and product liability can be significant. For example, amidst the concern regarding hoverboard fires in late 2015 and early 2016, Underwriters Laboratories (UL) issued a standard, UL 2272, for electric system performance for self-balancing scooters, which included hoverboards. The CPSC Office of Compliance and Field Operations then asserted that hoverboards that did not meet all of the many component standards within UL 2272 could be regarded as defective and subject to recall and seizure by U.S. Customs upon importation. Although the CPSC staff's attempt to apply a new voluntary standard as a de facto determinant of safety-defectiveness, including for products already in the market, raised extremely troubling legal questions, manufacturers should understand the potential importance government agencies and product liability plaintiffs may place on voluntary standards as an evidentiary measure of a product's safety, especially if the voluntary standard is long-standing and widely followed in the subject industry.

A number of voluntary standards may come into play with e- vehicles, depending on the particular product. In addition to UL 2272, which in late 2016 was expanded to cover a wider range of electric personal mobility devices, voluntary standards exist with respect to lithium ion batteries used in vehicles, resistance of components to environmental exposure (dust, water, etc.), and mechanical aspects of performance. In their design and production, therefore, manufacturers of e-vehicles should consult the various standards organizations to determine which voluntary standards apply to their products and the costs and benefits of adherence to such standards for their specific products.

CPSC enforcement

Section 15(b) of the Consumer Product Safety Act requires manufacturers, distributors, or retailers to report “immediately” (i.e., within 24 hours) to the CPSC if they obtain information that “reasonably supports the conclusion” that a product they sell: (1) fails to comply with an applicable CPSC safety rule; (2) contains a defect that could create a substantial product hazard; or (3) creates an unreasonable risk of death or serious injury to the public.

Although not defined by statute, the CPSC interprets “defect” broadly to include defects in design, composition, construction, or finishing, as well as inadequacies in product packaging, warnings, and instructions. Whether a defect involves a potential “substantial product hazard” depends on the pattern of defect, the number of defective products in commerce, and the nature and severity of the risk. Generally, the CPSC considers injuries to be “serious” if they involve hospitalization (for example, emergency room medical treatment), fractures, lacerations requiring stitches, concussions, injuries to the eye, ear or internal organs requiring medical treatment, or if the injury necessitates absence from work or school for more than one day.

Civil penalties up to a maximum of $15 million potentially apply to failure to comply with the reporting requirements of section 15(b). The CPSC has asserted in penalty proceedings that because the section 15(b) reporting obligation is triggered by a defect that “could create” a substantial product hazard, a product need not actually create such a hazard to require reporting.

Section 15(b) reports are often followed by voluntary recalls undertaken by the manufacturer in conjunction with the CPSC. The reporting and recall requirements, however, are legally separate. Reporting itself does not trigger a recall obligation, nor does the company's agreement to undertake a recall relieve it from liability to the CPSC for any failure to have timely reported the problem.

The corrective action component of a voluntary recall may entail repair of the product, replacement with a like or equivalent product, or refund of the purchase price. In practice, the CPSC will allow the manufacturer considerable flexibility with respect to the form of the proposed remedy, but the CPSC must approve whatever notification and remedy plan the company proposes. Numerous voluntary recalls in recent years have involved bicycles (including electric bicycles), hoverboards, skateboards, and various other non-motor vehicle riding products.

USDOT/CEC issues

For products powered by lithium or lithium ion batteries, the hazardous materials regulations of the U.S. Department of Transportation's Pipeline and Hazardous Materials Safety Administration (PHMSA) may present additional concerns. Manufacturers who ship these products generally are aware of the lithium ion labeling and packaging requirements that apply to such shipments. Manufacturers may be unaware, however, that if they recall products because of damaged or defective lithium ion batteries - a common reason for many voluntary recalls in recent years - shipments of such products will require special permits issued by PHMSA.

Application requirements for special permits are detailed, and PHMSA typically will request additional information based on the initial application. Even when emergency issuance is requested, which typically will be necessary in recall situations, issuance of the special permit may take weeks. When issued, the special permit will impose detailed labeling and packaging requirements for any shipments of the lithium ion batteries or the product containing the batteries. The manufacturer must meet these requirements and will also need to coordinate closely with its transportation carrier, which may have its own procedures to handle such shipments, so that the PHMSA special permit requirements can be met by both the manufacturer and carrier. The manufacturer should not assume that its carrier's published policy with respect to compliance with PHMSA regulations is necessarily consistent with those requirements.

Since many e-vehicles and other battery-powered consumer products are sold with battery charging devices or systems, manufacturers and importers of e-vehicles also need to be aware of California's Appliance Efficiency Regulation. Adopted and enforced by the California Energy Commission (CEC), the regulation covers a broad range of electrical products, including different types of battery chargers for consumer products. The regulation makes it illegal to sell or offer for sale in California any product covered by the regulation unless the product meets applicable energy efficiency standards, is entered in the CEC Appliance Efficiency Database, and is properly labeled. Violations carry a civil penalty of up to $2,500 per violation.

Product liability

Many product safety investigations, as well as many recalls, are initiated as a result of consumer claims or incidents involving the product. Therefore, every product manufacturer needs to coordinate its approach to preventive product safety with a parallel and compatible approach to product liability prevention. This entails not only considering product safety in product design, manufacture, and quality control, but also due diligence in advertising and marketing the product.

The most important starting point here is the user manual. Objective performance claims should be accurate and substantiated through testing or other evidence. Equally important, the limitations of the product, if they involve safety, should be carefully laid out. Risky behaviors (e.g., riding on unsuitable terrain) should be appropriately warned against. All warning and caution statements should follow standard content and formatting for such messages.

From a product safety and liability perspective, the user manual should serve as a reference point for all other product literature. The company's marketers will understandably tout the performance attributes of the product, and in this context some degree of subjective “puffing” is reasonable and would be expected. The mistake too many manufacturers make, however, is failing to cross-check marketing claims against the user manual. Thus, it is all too common to see marketing claims promoting a use of the product that is expressly warned against in the user's manual. This contradiction causes unnecessary confusion, undercuts the safety message in the user manual, and may undermine a warning defense by the manufacturer in a government enforcement investigation or a product liability suit.

Conclusion

Continuing expansion of the personal electric vehicle product market opens up exciting possibilities for recreation and personal transportation. At the same time, however, the design and performance attributes and capabilities of these products, as well as their electrical componentry and power sources, raise a number of potential concerns in the context of government product safety enforcement and product liability. To minimize the liability risks associated with possible government enforcement and product liability claims, manufacturers and importers of these products should carefully review and factor safety considerations into the design, manufacture, testing, advertising and marketing, and shipping of their products.