Hoverboard Risk Management

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In 2013, Shane Chen produced the idea that hoverboards would actually be a reality for the modern day world. Since then, developers from China and the United States have taken this idea and run with it. The hoverboards became a cultural uproar in 2015. Shortly after these hoverboards became available to the public, a large number of fires and explosions in homes were reported to the Consumer Product Safety Commission (CPSC). CPSC then opened investigations into the failures of hoverboards, finding that there were extreme faults in the lithium batteries and electrical cables. After concern was displayed, the CPSC discovered that the entire hoverboard is not certified by Underwriters Laboratories (UL), but only the lithiumion batteries and the charging plug. Still, all parts included in the inside of the hoverboard are not covered. Some risks include the faulty wiring on the inside, or even the design as a whole. UL has confirmed that there are actually no UL-certified hoverboards at this time. Due to the large amount of questions raised, insurers are making their policyowners aware that hoverboards are not covered in the HO-3 policy if loss may occur under the current policy language.

Since the beginning stages of the hoverboard there have been many faulty replicas developed. Because hoverboards are made from many parts sourced from Chinese manufacturers, it is nearly impossible for these models to have regular quality and safety checks. Many knock-off hoverboards are sold cheaply to the public, resulting in low quality products and parts that eventually lead to failure and could result in loss. On the other side, it is not only the knock-off hoverboards that are the problem. The CPSC examined the product failure in all hoverboards. The lithium-ion batteries used in these devices are very flammable if a short circuit occurs. This in itself, has been the proximate cause of explosions. Another suspected cause of these hoverboard fires and explosions is the cut-off switch. The cut-off switch prevents the device from over-charging. Products have been shipped with faulty cut-off switches and in some cases, did not have a cut-off switch at all. As a result of these defective product developments, there has been many guidelines put in place to insure safety.

The largest widespread repercussion of these exploding hoverboards has been the ban of the device on college campuses as well as other public areas. The Huffington Post states, "At least 20 universities have banned or restricted hoverboards on their campuses in recent weeks, saying the two-wheeled, motorized scooters are unsafe. Beyond the risk of falls and collisions, colleges are citing warnings from federal authorities that some of the self-balancing gadgets have caught on fire" (University of Arizona, 2016). Not only have they been banned in the public eye, but also it is forbidden to store or charge them in residence halls on these campuses as well.

The National Fire Protection Association (NFPA) recently issued fire safety warnings for hoverboards. NFPA stated that some hoverboard fires involved a lithium-ion battery or charger and warn of the following signs of a problem: leaking fluids, excessive heat, odor, sparking, and smoke (Binkley, 2016). Obviously, these problems have carried themselves into the homes of many people here in the US. The U.S. Consumer Product Safety Commission reported that it's now investigating 28 fires in 19 states tied to the motorized scooters. Fire officials have blamed the boards for fires that damaged homes. The federal commission also said there have been serious injuries caused by falls. The important question to ask is, "Will these losses be covered?" And the answer is: No, hoverboards are not covered on your homeowners policy. Some people may see a hoverboard as personal property, but hoverboards are actually considered a "motor vehicle" in the policy. Coverage C Personal Property in the HO-3 it declares that self-propelled vehicles or the hoverboard would only be covered if they were: 1) used to service the premises or, 2) designed to assist the handicapped. The main takeaway is that recreational self-propelled vehicles are not covered on any homeowners policy. Another concern that may arise is the personal liability aspect of a hoverboard. Under Section II Exclusions for Motor Vehicle Liability the HO-3 declares that Coverages E and F do not if the device is taken off the premises. If a person lends their hoverboard to another person and someone gets injured, the owner is not covered if a suit for medical damages or bodily injury is brought against them. Basically, if having a hoverboard is a must, you must retain the loss yourself.

Using risk control and absorbing your own loss with this device is your only option. Because there are no safety standards in place to protect consumers, all hoverboards will currently be purchased at the consumer's own risk. But, there are many risk control techniques to put in place to reduce your frequency of a loss or the severity if a loss may occur. Because the cut-off switch may be faulty, it is very important to place the hoverboard in a cool dry area, as well as be sure to let the device cool before plugging it up to a charger. Also, use good risk management to insure that the company you are buying the device from is a known manufacturer, not a knockoff product.

Overall, hoverboards have a history of high loss concerning frequency and severity. Since August 2015, the agency has received 29 reports of emergency-room injuries related to the hoverboards, and is investigating at least 10 fires in 9 states (CPSC, 2016). The device is not coverable in the admitted market and not covered under the personal property section of the homeowners policy as well as the liability section. The best technique in this case would be risk avoidance. Due to all factors involved, good risk management would be to refrain from the purchase or use of a hoverboard under all circumstances.

## References

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