United States
Consumer Product Safety Commission
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September 6, 2024

Mr. Alex Berger
Specialty Vehicle Institute of America (SVIA)
2 Jenner, Suite 150
Irvine, CA 92618

Subject: CPSC Staff[1] Recommendations for Future Performance Requirements for the ANSI/SVIA 1, American National Standard for Four-Wheeled All-Terrain Vehicles (ATVs)

Dear Mr. Berger:

CPSC staff appreciates your leadership and the SVIA 1 canvass members for updating the ANSI/SVIA 1-2023 standard, which now includes hot surface and fuel system requirements. With these requirements, new ATVs sold in 2025 will have features that will mitigate the risk of contact burns and fire hazards associated with hot surfaces and fuel systems.

While those added requirements are significant, CPSC staff believes there are other hazards associated with ATVs that should also be addressed. The CPSC Report of Deaths and Injuries Involving Off-Highway Vehicles estimated an annual average of over 500 ATV related deaths and 62,000 ATV related emergency department treated injuries per year.[2] ATVs overturning or rolling over is the primary hazard that accounts for approximately 38 percent of the deaths. Collision is the other primary hazard that accounts for approximately 37 percent of the deaths. Some fatality reports describe scenarios involving both rollovers and collisions. Numerous fatality reports describe scenarios where the victim is pinned by the ATV.

On June 18, 2024, CPSC staff sent you via email 52 redacted in-depth investigation (IDI) reports in which the vehicle involved was clearly an ATV and the fatality involved a victim

[1] This letter was prepared by the CPSC staff. It has not been reviewed or approved by, and may not represent the views of, the Commission.

[2] CPSC 2023 Report of Deaths and Injuries Involving Off-Highway Vehicles with More than Two Wheels May 2024; Website Link: 2023 Report of Deaths and Injuries Involving Off-Highway Vehicles with More than Two Wheels | CPSC.gov.

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pinned by the ATV, due to rollover, pitch over, or collision. These 52 recent reports represent a sampling of the thousands of death reports from decades of IDI, Consumer Product Safey Risk Management System (CPSRMS), and National Electronic Injury Surveillance System (NEISS) reports.

Over the past four years, CPSC has contracted with SEA Ltd. (SEA) to explore possibilities to reduce the risk of low energy rollovers of ATVs, and when rollovers do occur, methods to protect the ATV riders from being pinned by the overturned vehicle. Under the following contracts, CPSC published SEA reports and provided you with links to those reports:

Stability control reports related to reducing the risk of low energy rollover on ATVs:

- Development of tests to evaluate anti-lock brake system (ABS) technology on ATV stability (https://www.cpsc.gov/s3fs-public/SEAReporttoCPSCEvaluationofAntilockBrakeSystemABSonATVStability.pdf?VersionId=7RfLb2qv7hFv20zqVKcAPXiLFcVMXirz)
- Development of proof-of-concepts for stability control on ATVs (https://www.cpsc.gov/content/Development-of-Proof-of-Concept-POC-Electronic-Stability-Control-ESC-System-for-ATV-Stability)
- Development of Enhanced Proof-of-Concept (POC) Electronic Stability Control (ESC) System for ATV Stability (https://www.cpsc.gov/content/Development-of-Enhanced-Proof-of-Concept-POC-Electronic-Stability-Control-ESC-System-for-ATV-Stability)

Occupant protection reports related to rider protection when rollovers occur:

- Development of ATV rollover tests and rollover sled device (https://www.cpsc.gov/content/ATV-Rollover-Tests-and-Verification-of-a-Physical-Rollover-Simulator)
- Rollover Tests of ATVs Outfitted with Occupant Protection Devices (OPDs) (https://www.cpsc.gov/content/Rollover-Tests-of-ATVs-Outfitted-with-Occupant-Protection-Devices-OPDs)
- Development of proof-of-concept OPDs on ATVs (https://www.cpsc.gov/content/CPSC-Staff-Statement-on-SEA-Ltd-Report-Rollover-Tests-of-ATVs-Outfitted-with-Proof-of-Concept-Occupant-Protection-Devices-OPDs)

Based on the work that generated the reports on ATV stability, CPSC staff assesses an ESC / instability mitigation system (IMS) on ATVs has the potential to avert low energy rollovers that occur when ATVs are making a turn on level ground. Based on the testing and development that generated the reports on occupant protection devices (OPDs), CPSC staff assesses that OPDs have the potential to increase a victim's chances of survival in a rollover incident. During the April 1, 2022[3] meeting at the SEA facility, SEA staff provided a presentation showing rollover tests conducted on their rollover simulator sled test rig. These tests showed some

[3] CPSC Staff and SVIA/OPEI/ROHVA Meeting on Test Methods to Evaluate Debris Penetration of Recreational Off-highway Vehicles (ROVs) and Test Methods to Evaluate OPDs on ATVs Meeting Log: https://www.cpsc.gov/s3fs-public/2022-04-01%20%20Meeting%20Log%20OHV%20Debris.pdf?VersionId=_Xejx97h69otaqVNR2wpLKrw_hPOtkdI

OPD designs are capable of preventing the full weight of an ATV from crushing the victim in situations where the ATV can pin the victim to the ground. In low-speed situations, the OPD may also help prevent the ATV from overturning onto the victim.

In addition to considering stability and OPD requirements, CPSC staff reiterates our request[4] that SVIA adopt BS:EN 16990 (*British Standard for Light motorized vehicles for the transportation of persons and goods and related facilities and not subject to type-approval for on-road use - Side by Side Vehicles - Safety requirements and test methods*) 2020 edition, Section 5.3 (Electrical Hazards – General) or evaluate the principles of that standard to develop performance requirements to reduce the risk of fire and burn hazards associated with ATV electrical components.

CPSC staff requests a meeting with the SVIA 1 canvass members to discuss the issues raised in this letter. CPSC staff will be happy to host a meeting at the National Product Test and Evaluation Center (NPTEC) in Rockville, Maryland, if it would be helpful. If you have any questions or comments, please feel free to contact me.

Sincerely,

HAN LIM Digitally signed by HAN LIM
Date: 2024.09.06 09:05:59 -04'00'

Han Lim,
Program Manager, Mechanical Hazards
Division of Mechanical and Combustion Engineering
Directorate for Engineering Sciences

cc: Jacqueline Campbell, CPSC Voluntary Standards Coordinator

[4] CPSC Staff requested SVIA examine electrical component fire hazard requirements from BS:EN 16990 in a Voluntary Standards letter dated October 5, 2022: https://www.cpsc.gov/s3fs-public/VSLetterSVIA1CommentsOct52022FINAL.pdf?VersionId=ndUy2r1_yBSYT5g93yzdkc9yXL0KATaN