U.S. CONSUMER PRODUCT SAFETY COMMISSION
4330 EAST WEST HIGHWAY
BETHESDA, MD 20814

Caroleene Paul
Mechanical Engineer
Division of Mechanical Engineering
Directorate for Engineering Sciences

Tel: 301-987-2225
Fax: 301-504-0533
Email: cpaul@cpsc.gov

October 14, 2015

Mr. Erik Pritchard
General Counsel
Recreational Off-Highway Vehicle Association
2 Jenner Street, Suite 150
Irvine, CA 92618-3806

Mr. Greg Knott
Vice President, Regulatory Affairs
Outdoor Power Equipment Institute
341 South Patrick Street
Alexandria, VA 22314

Dear Mr. Pritchard and Mr. Knott:

U.S. Consumer Product Safety Commission ("CPSC") staff[1] is encouraged by the progress made by the Recreational Off-Highway Vehicle Association ("ROHVA") and Outdoor Power Equipment Institute ("OPEI") in developing extensive revisions to your respective voluntary standards in recent months. This progress is evidenced by the pre-canvass draft of ANSI/OPEI B71.9-201X, *American National Standard for Multipurpose Off-Highway Utility Vehicles* ("pre-canvass draft"), the cooperative technical exchange at the ANSI/OPEI public voluntary standards meeting held at CPSC on July 8, 2015,[2] and the ANSI/ROHVA public voluntary standards meeting held at CPSC on October 5, 2015. Staff believes that the performance requirements in the pre-canvass draft together with the proposed performance requirements discussed in the public voluntary standards meetings are improving the existing voluntary standards in the areas of occupant protection, lateral stability, and handling. These new and revised performance requirements include a requirement for seat-belt speed limiters, a proposed test method for using the yaw rate ratio to identify divergent instability in vehicles, the plan for a hang tag to enable

[1] The comments in this letter are those of the CPSC staff and have not been reviewed or approved by, and may not necessarily reflect the views of, the Commission.

[2] Meeting log dated July 8, 2015. Retrieved at: http://www.cpsc.gov//Global/Regulations-Laws-and-Standards/Voluntary-Standards/ROHVA/070715CPSClettertoOPEIcommenttoprecanvassdraft%20ANSIOPEIB719201X.pdf.

consumers to make comparisons about tilt angle stability, and increasing the requirement for tilt angle.

At the public ROHVA meeting on October 5, 2015, staff was encouraged by the proposal from Polaris for ROHVA and OPEI to set a performance requirement for the yaw rate ratio no greater than 4.5, with the ratio calculated separately for the clockwise and counterclockwise turn direction, using the slope calculation method previously presented by staff.[3] Staff continues to agree that the proposed yaw rate test method can be used to distinguish between vehicles that display divergent instability and those that do not. Staff was further encouraged that justification for this proposal was based on evidence Polaris presented showing that this ratio would force vehicles at the margin of showing divergent behavior to change in order to consistently meet the requirement. Staff urges ROHVA and OPEI to ballot their respective proposals that incorporate all of these improvements.

Staff encourages both OPEI and ROHVA to include a hang tag in their proposals, as was indicated in the pre-canvass draft. Staff believes that ROHVA and OPEI should specify a requirement in the standard for the presence of a hang tag at the point of sale with stability information (e.g. that model vehicle's tilt table angle at two-wheel lift) to inform the consumer of that model's stability information at point of sale. Staff recognizes that the exact design of the hang tag has not yet been determined, and also recognizes the design of an effective hang tag can be complicated. Therefore staff recommends that the requirements for a hang tag that includes the vehicle's tilt table angle at two-wheel lift be included in the standard, and that the exact design of a hang tag not be prescribed in the standard but rather developed during the period between approval of the revised standard and the implementation date.

Staff encourages OPEI and ROHVA to quickly ballot the proposed revisions to ANSI/OPEI B71.9-2012 and ANSI/ROHVA 1-2014, respectively, including all of the elements in the pre-canvass draft, with minor improvements and clarifications to produce performance requirements that staff can evaluate in terms of adequately addressing lateral stability, vehicle handling, and occupant protection. In particular, the following refinements to the pre-canvass draft are recommended:

- Staff recommends alignment of all performance requirements in both the OPEI and ROHVA voluntary standards.
- The requirements for the seat belt speed-limiting system from the OPEI pre-canvass draft should remain included.
- The seat-belt system requirements should clarify that the intention of Section 5.1.3.1(3) from the pre-canvass draft is not to exclude a requirement for seat belts with emergency locking retractors ("ELRs"), but to allow manufacturers the flexibility to choose a locking angle that is appropriate for ROVs, as discussed in the July 8 meeting.
- The side retention requirement should specify a test procedure and performance requirement for a shoulder barrier, as specified in the ANSI/ROHVA 1-2014 procedure.

[3] CPSC staff letter with test data and comments to OPEI, http://www.cpsc.gov/Global/Regulations-Laws-and-Standards/Voluntary-Standards/ROHVA/082115CPSClettertoOPEIsuggestedlinefitmethodandlatestyawratedata.pdf

- The requirement for tilt table angle to be no less than 33 degrees as proposed in the pre-canvass draft.
- The hang tag requirement should include the requirements from the pre-canvass draft, section 5.18.2, subsections b, e, and f. As mentioned, staff recognizes that specific hang tag design and formatting questions remain which staff believes could be addressed after the ballot, so long as the performance requirements above are included. Specific design and formatting could be developed during the implementation period and staff is willing to actively participate in that effort.
- Vehicle handling requirements should specify the most accurate method to measure yaw rate slopes, and the yaw rate ratio R value should be supported with sound rationale. The yaw rate test method should include the speed normalizing proposed in staff's letter dated August 21, 2015. The performance requirement should require an R value no greater than 4.5, and should apply individually to each of clockwise and counterclockwise turns, not just the average of the two.

CPSC staff looks forward to continuing to work with both OPEI and ROHVA as you continue to develop and ballot revisions to your respective standards. If you have any questions or comments, please feel free to contact me.

Sincerely,

Caroleene Paul

cc: Colin Church, CPSC Voluntary Standards Coordinator