

CPSC PUBLIC RECORD  
2/14/11  
WITH PORTIONS REMOVED: \_\_\_\_\_

**LOG OF MEETING  
DIRECTORATE FOR ENGINEERING SCIENCES**

SUBJECT: Recreational Off-Highway Vehicles (ROVs) – Meeting requested by the Outdoor Power Equipment Institute (OPEI) to discuss progress on the development of draft standard ANSI/OPEI B71.9 - 200X.

DATE OF MEETING: November 2, 2010

PLACE OF MEETING: U.S. Consumer Product Safety Commission, Bethesda, MD

LOG ENTRY SOURCE: Caroleene Paul, ESME *CP*

COMMISSION ATTENDEES: See attached attendance list

NON-COMMISSION ATTENDEES: See attached attendance list

SUMMARY OF MEETING:

Representatives of the Outdoor Power Equipment Institute (OPEI) ANSI B71.9 Committee met with CPSC staff to discuss changes that OPEI is planning to make to its Multi-Purpose Off-Highway Utility Vehicles draft standard, ANSI/OPEI B71.9-201X.

CPSC staff opened the meeting by setting the following ground rules:

- OPEI requested this meeting with CPSC staff so although the meeting is public, discussions are limited to OPEI representatives and CPSC staff/representatives.
- The opinions or views expressed by CPSC staff have not been reviewed or approved by the Commission and may not reflect the views of the Commission.
- The discussions during the meeting will be treated as comments to the ongoing rulemaking and will become part of the public record.

OPEI representatives presented an overview of the proposed changes to their draft standard since March 2010 (see attached presentation). The changes include: addition of dynamic stability test, addition of occupant side retention requirement, addition of occupant restraint reminder requirement, addition of static stability coefficient (Kst) requirement, addition of occupant load configuration to tilt table test, increase in tilt table angle requirement, and additions to required warning messages.

*Dynamic Stability Test*

The proposed dynamic test is a J-Turn type test on pavement with the vehicle loaded to simulate a driver and passenger. OPEI representatives proposed to specify the following:

- outriggers with minimum effect on vehicle dynamics
- 20 mph trigger speed
- drop throttle method to reach trigger speed
- 180 deg hand wheel steer input at 500-600 deg/sec
- pass/fail criteria of no two wheel lift above 2 inches during the maneuver

OPEI representatives discussed the testing and rationale that lead to the specified criteria for the dynamic test. CPSC staff asked OPEI to explain why/how dynamic J-Turn tests provide information about the vehicle's steering gradient. OPEI representatives replied that vehicles with high oversteer would experience a high lateral acceleration gain that would result in earlier tipover of the vehicle; thus, the pass/fail criteria for the J-Turn test will not allow vehicles with severe oversteer to pass.

### *Occupant Protection*

The proposed requirements for occupant protection focus on occupant side retention, minimum 3-point seat belts for all occupant seating locations, seat belt reminders, and helmet recommendation. Side retention devices include doors, nets, hip/torso/shoulder bars, and/or other physical barriers or design features. The seat belt reminder proposal specifies that a continuous or flashing warning (to fasten seat belts) be displayed when the vehicle is turned on.

CPSC staff questioned and commented on the following:

- Nets – CPSC staff asked how often consumers actually use nets. If the netting becomes a nuisance, especially during frequent ingress and egress, consumers will remove the netting entirely.
- Definition of “retain” – CPSC staff questioned how OPEI defines “retain” in terms of occupant protection requirements. OPEI responded that the definition has not been finalized.
- CPSC staff encouraged OPEI to pursue passive restraint designs such as shoulder bars.
- Seat Belt Reminders – CPSC staff questioned if the seat belt reminders would go off once an occupant fastens the seat belts. OPEI responded that the proposal allows but does not require that level of sophistication. The seat belt reminder can be designed to simply remain on for a certain amount of time after the vehicle is started regardless of whether or not the occupant has fastened the seat belt. OPEI discussed at length the difficulties with seat belt latch sensors.
- CPSC staff asked if OPEI's proposals, especially the seat belt reminder, were really the best that could be done. Seat belt use is critical for occupant safety during a rollover event and the incident data consistently show that seat belts are not being worn. Addressing this issue may be difficult, but it also provides the most return on safety.

### *Static Stability Testing*

OPEI representatives proposed to make the following changes to the draft voluntary standard's stability requirement section:

- Add a lateral stability coefficient (Kst) requirement of at least 1.0 for an unoccupied vehicle
- Increase the **lateral** tilt table angle requirements from 20 deg to 24 deg in the gross vehicle load configuration (vehicle with full occupants and cargo load).
- Increase the **longitudinal** tilt table angle requirement from 25 deg to 28 deg in the gross vehicle load configuration.
- Add a **lateral** tilt table angle requirement of 30 deg in a vehicle configured with two occupants.

CPSC staff commented that it's preferable to use a Kst for a vehicle with two occupants as there are no incidents with an unoccupied vehicle. OPEI representatives responded that it is too difficult to measure the center of gravity of a vehicle with two test dummies.

#### *Schedule*

OPEI representatives reviewed the schedule to finalize the draft standard, to send it out for 2<sup>nd</sup> canvass, and to continue to review the available incident data. CPSC staff suggested that OPEI continue with their schedule and not wait for any action from CPSC.

MEETING ATTENDANCE RECORD  
 ROHVA / CPSC Staff – December 9, 2009

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