

Public Submissions
Amendment to Standard for
All-Terrain Vehicles

CPSC Docket No: CPSC-2011-0047

Comments due by: October 11, 2011

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Docket: CPSC-2011-0047
Amendment to Standard for All-Terrain Vehicles

Comment On: CPSC-2011-0047-0001
Amendment to Standard for All-Terrain Vehicles

Document: CPSC-2011-0047-0002
Comment from Sue DeLoretto-Rabe

Submitter Information

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Submitter's Representative: Sue DeLoretto-Rabe
Organization: Concerned Families for ATV Safety

General Comment

See attached file(s)

Attachments

CPSCATVCommentLetterPetitionFormat.doc.oct2011

October 5, 2011

Office of the Secretary
U.S. Consumer Product Safety Commission
Washington, DC 20207

Regarding: NPR for ATVs

Dear Secretary Stevenson:

We, the undersigned, write concerning the U.S. Consumer Product Safety Commission's (CPSC) issuance of a Notice of Proposed Rulemaking (NPR) concerning all-terrain vehicles (ATV's). Based upon the growing and horrifying statistics on injuries and deaths it is clear that the system in place is not effectively protecting people, especially children under 16 years old. The increasing death and injury statistics demand that the CPSC take strong action and make demonstrable changes to the current manner in which ATVs are regulated for health and safety to protect the public. We feel the new standard is not helpful nor effective in protecting consumers, especially children. We also feel the outcome of this rulemaking doesn't reflect the views of the medical groups, injury prevention groups, consumer groups or families of victims killed from ATV crashes.

While ATV regulation and usage is complex, we propose several rather straightforward steps that we believe will significantly reduce the serious risks of injury and death from ATVs. In no particular order, we respectfully offer the following recommendations:

1. To the fullest extent of the CPSC's legal jurisdiction, the sale or rental of adult-sized ATVs to anyone under 16 should be prohibited. This should be effective towards **ALL** ATV dealers, manufacturers, and rental agencies operating in the U.S.
2. In connection with the purchase or rental of an ATV, it should be mandatory that any prospective buyer or renter be advised **IN ADVANCE** of the death and injury statistics regarding ATV's, including and especially as it relates to children under the age of 16. The ATV laws for that state should also be included. Such disclosure should be done both orally and in writing, and it should be done in a very straightforward and conspicuous manner. Compliance will be critical to the success of this recommendation and so it should be mandatory that a formal signature **always** be secured from the purchaser or renter on a document containing such disclosures and that document should be maintained by the dealer or rental agency for compliance testing. Furthermore, there should be very stiff consequences and penalties imposed on any entity that fails to comply with the mandatory disclosure requirement.
3. Concerning the marketing of ATVs, a national and regionally-targeted public awareness campaign should be undertaken that promotes safe and responsible ATV operation and such campaign should advise of the prohibition of children under age 16 riding adult-sized ATV's. In addition, it should be made mandatory that all print, broadcast and internet-based sales and marketing materials **for manufacturers, dealers, rental agencies and trade associations** include disclosures of the extreme safety risks from ATV operation, including the most recent death and injury statistics and especially noting those involving children under the age of 16. The material should overtly and responsibly advocate safe ATV operation and moreover, all related ad copy for such should be very conspicuous, clearly written, and the font size and bolding should be comparable to all the other language included in the ad copy. State laws for ATV usage needs to be included and discussed in detail.
4. While CPSC is considering a broad range of options in this NPR, we urge CPSC not to take any action that would permit children to operate any ATV that is larger than 90 cc's. Creating new more dangerous models for children without fixing the problems with existing models only will add to the death and injuries. Any effort to place children on a vehicle that is larger, heavier or faster than what is currently defined as an "adult-sized" ATV would most certainly be a step backwards that would only serve to put our children at an even greater risk of death and injury. Therefore we are against the introduction of the Y-12+ models.

The ATV manufactures have continually gotten away with ignoring there are serious flaws to the design of ATV's. With more than half of ATV fatalities associated with rollovers it is very apparent something needs to change. Instead they infuse doubt among legislators, who consider regulation that would potentially cost the industry millions of dollars in research and development to find a solution. Such doubt has been shown to be effective in delaying the inevitable legislation that mandates safety or restricts harmful products.

The present voluntary system is failing. People are being seriously injured and killed at an average of nearly **12,000 per month**. A disproportionate number of these victims are young children. Children who not only lack the strength and coordination to physically operate these machines in a safe manner but who also lack the maturity and judgment to operate these vehicles with the appropriate amount of restraint.

A large, unaware and unsuspecting public needs the federal agency with authority over ATVs -- the CPSC -- to step up and take a leadership role in protecting them. The fact that over a hundred thousand deaths and injuries occur every year demands it. The CPSC must take strong, meaningful, and demonstrable actions to stem the epidemic of ATV deaths and injuries. The CPSC must implement steps that are compulsory, not voluntary, and steps that, as appropriate, are required of ATV manufacturers, dealers, rental agencies and trade associations.

Thank you for the opportunity to comment and provide suggestions regarding this important matter.

Respectfully,

Sue DeLoretto-Rabe
Carolyn Anderson

CoFounders of Concerned Families for ATV Safety
www.atvsafetynet.org

PUBLIC SUBMISSION

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Amendment to Standard for All-Terrain Vehicles

Comment On: CPSC-2011-0047-0001
Amendment to Standard for All-Terrain Vehicles

Document: CPSC-2011-0047-0003
Comment from Paul Vitrano

Submitter Information

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Submitter's Representative: Paul C. Vitrano
Organization: Specialty Vehicle Institute of America

General Comment

See attached file(s)

Attachments

SVIA Comments - CPSC-2011-0047



Paul C. Vitrano
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October 7, 2011

Office of the Secretary
U.S. Consumer Product Safety Commission
Room 502
4330 East-West Highway
Bethesda, MD 20814

RE: Docket No. CPSC-2011-0047: Amendment to Standard for All-Terrain Vehicles; Notice of Proposed Rulemaking (76 F.R. 44289 (July 25, 2011))

Dear Madam/Sir:

These comments are submitted on behalf of the Specialty Vehicle Institute of America (SVIA) in response to the Notice of Proposed Rulemaking regarding Amendment to Standard for All-Terrain Vehicles issued by the U.S. Consumer Product Safety Commission (CPSC).

- i. Whether the proposed revisions to ANSI/SVIA 1-2007 by ANSI/SVIA 1-2010 are likely to enhance the clarity of the ANSI standard

Comments: ANSI/SVIA 1-2007 added new requirements for labels, owner's manuals, hangtags and a compliance certification label to the standard. Subsequent to publication of ANSI/SVIA 1-2007, SVIA received requests to interpret sections of new content relating to tire markings and labels.

ANSI/SVIA 1-2010 includes clarifying language based upon the requests for interpretation, as follows:

Section 4.19.1(3)(b) – Clarifies that date code of manufacture need appear on one tire sidewall only.

Section 4.23.1 – Clarifies that minimum label size measurements shall be taken from the outer edge of the outermost line, border, or the label panel edge.

Sections 4.23.4.1 and 4.23.5.1 – Clarify that the General Warning Label shall be affixed to the right front fender if the left front fender is not an appropriate location for a particular vehicle.

Figures 5 and 7 – Clarify tire pressure recommendations to remove tolerances and thus to be consistent with Federal Motor Vehicle Safety Standards requirements for highway vehicles and labeling requirements for other vehicles.

Section 4.23.5.3 – Clarifies that, if the locations specified are not appropriate for a particular vehicle, the Passenger Warning Label shall be affixed in another location so it may be easily read by a potential passenger.

In the event the mandatory standard was not amended to incorporate all of the revisions in ANSI/SVIA 1-2010, there would be different mandatory and voluntary standards, each with its own compliance certification requirement. This potentially would lead to confusion in the marketplace for consumers, ATV manufacturers and distributors and third-party assessment bodies, as noted by the Commission in the Notice.

- iii. The effect of not eliminating from the scope of the standard the expiration of the definition and requirements for the Y-12+ ATV age category on July 28, 2011, specifically, but not limited to:
 - a. The relationship of the need for continued production of Y-12+ ATV age category and the Consumer Product Safety Improvement Act's (CPSIA) lead content requirements on ATVs intended primarily for youth including the effect of the two stays of enforcement issued by the Commission on the availability of Y-6+ and Y-10+ models (May 1, 2009 – 74 FR 22154 and Feb. 1, 2011 – 76 FR 5565)

Comments: At the time ANSI/SVIA 1-2010 was adopted, the CPSIA's lead content provisions were effectively banning youth model ATVs primarily intended for youth age 12 and under, i.e. Y-6+ and Y-10+ models. While the Stays of Enforcement issued by the Commission permitted dealers to sell through inventory and allowed some manufacturers and distributors to continue to produce Y-6+ and Y-10+ models, the Stays provided incomplete relief and were time-limited resulting in several manufacturers and distributors withdrawing from the market. SVIA became seriously concerned that, due to the effective ban on Y-6+ and Y-10+ models and the expiration of the Y-12+ category, many children age 12 to 15 would have no alternative but to ride adult size vehicles. SVIA believed that it was imperative that the Y-12+ category be maintained to prevent this situation from occurring.

The recent enactment of H.R. 2715 has ended the effective ban on Y-6+ and Y-10+ ATVs by excluding them from the CPSIA's lead content requirements. The need to maintain the Y-12+ category continues, however. First, ANSI/SVIA 1-2007's creation of the Y-10+ category occurred approximately one year before the CPSIA

was enacted and effectively eliminated the category. As a result, SVIA members either stopped producing or never started producing Y-10+ models. There currently are only two Y-10+ models (from one manufacturer) being produced by SVIA members. (See Comments to Request iii(b) below.) Second, although Y-10+ ATVs are now excluded from the CPSIA's lead content requirements, they remain subject to the CPSIA's third-party testing and certification requirements, unlike Y-12+ models.¹ Despite diligent efforts by SVIA and its members to facilitate accreditation of third-party assessment bodies, including the drafting of an ATV test manual (under review by CPSC staff), there currently is only one lab accredited to conduct ATV testing. While CPSC has stayed enforcement of the third-party testing and certification requirement until November 27, 2011, there is no assurance that this stay will be extended until there is adequate third-party testing capacity.

In these circumstances, there is still substantial uncertainty as to the number of new Y-6+ and Y-10+ models that will be available. As a result, SVIA believes there is a continuing risk that that many children age 12 to 15 will have no alternative but to ride adult size ATVs if the Y-12+ category is not maintained in the mandatory standard.²

- b. The number of Y-6+ and Y-10+ models in the marketplace prior to August 2008 and the number available in 2011

¹ Since early 2009, SVIA has maintained, and CPSC staff has represented, that Y-12+ ATVs are not "children's products" under the CPSIA and thus not subject to either CPSIA's lead content requirements or its third-party testing and certification requirements. Recently, the only third-party assessment body that is currently accredited to test youth ATVs for compliance with the ATV standard urged an expansive interpretation of "children's products" to encompass Y-12+ models within the third-party testing and certification requirements. In response, SVIA sent a letter to CPSC staff explaining why Y-12+ ATVs are not "children's products." See Letter from Paul C. Vitrano to Justin Jirgl, dated September 8, 2011 (attached as Exhibit A). CPSC staff has not responded to the letter.

² Curiously, in the subject Notice, the Commission states: "The standard did not require manufacturers to stop making Y-12+ ATVs[.]" Section 232(a)(2)(A) of the CPSIA, however, mandates that each "all-terrain vehicle [distributed in the United States] complies with each applicable provision of the standard." Without a Y-12+ definition and vehicle requirements in the standard, it would be impossible to produce Y-12+ ATVs that were compliant with the standard.

Comments: The number of current model year ATV models sold by SVIA members' dealers as of the specified dates was as follows:

	<u>Y-6+</u>	<u>Y-10+</u>	<u>Y-12+</u>
July 2008	9	0	11
August 2011	3	2	6

- c. Whether this revision is likely to result in children younger than 12 years old riding Y-12+ ATVs

Comments: SVIA does not believe that maintaining the Y-12+ category is likely to result in children younger than 12 years old riding Y-12+ ATVs. Y-12+ model ATVs all bear a label clearly warning both riders and the parents or legal guardian that operation of the vehicle by children under the age of 12 increases the risk of severe injury or death, that adult supervision is required for children under age 16, and that children under age 12 should never be permitted to operate the ATV. In addition, under their Action Plans, ATV manufacturers and distributors are required to contractually bind their dealers to adhere to this age recommendation when offering Y-12+ ATVs for sale, and to monitor dealer compliance with the company's age recommendations through undercover inspections.

- d. The safety of six to nine year old children when using a Y-12+ ATV

Comments: SVIA is not aware of any data or research regarding the safety of six to nine year old riders when operating a Y-12+ ATV. SVIA and its members strongly recommend that parents strictly follow ATV age recommendations, and federal law obligates manufacturers and distributors to contractually bind their dealers to adhere to them when offering ATVs for sale.

- e. Whether this revision implicitly approves the use of a Y-12+ ATV when a Y-6+ ATV or Y-10+ ATV is not available.

Comments: Revision of the standard to allow continued production of Y-12+ ATVs in no way implicitly approves the use of such vehicles by children under 12 when a Y-6+ or Y-10+ ATV is not available. See Comments to Request iii(c) above.

- f. Whether there are any state laws prohibiting the use of a Y-12+ ATV by children younger than 12 including the effects on ATV-related injuries or deaths in those states that have new or updated mandated minimum age requirements for ATV operation since the adoption of ANSI/SVIA 1-2007

Comments: In 2011, South Carolina enacted a landmark ATV safety law – based on SVIA's Model State Legislation – that, among other things, prohibits a parent or

legal guardian from allowing a rider under age 16 to operate an ATV in violation of the Age Restriction Warning Label on the vehicle. In 2005, North Carolina enacted ATV legislation that, among other things, prohibits a parent or legal guardian from allowing a rider under age 12 to operate an ATV with an engine size of 70cc or larger. At the time, Y-12+ ATVs were required to have an engine size of 70cc to 90cc. SVIA is not aware of any data or research regarding the effects of the minimum age requirements on ATV-related injuries or deaths in North Carolina. The South Carolina law only has been in effect for three months.

SVIA's Model State Legislation prohibits any person from operating an ATV bearing a Certification Label conforming to the ANSI/SVIA standard in violation of the Age Recommendation Warning Label affixed by the manufacturer. SVIA continues to actively urge state legislatures to adopt ATV safety legislation base on SVIA's model.

- g. Whether rejecting this revision is likely to result in an increase of the availability of Y-6+ and Y-10+ model ATVs

Comments: SVIA is not aware of any data or other information that would allow it or any other person or entity to answer this question on a market wide basis.

- h. Whether rejecting this revision is likely to result in children younger than 12 years old riding adult model ATVs

Comments: SVIA is not aware of any data or other information that would allow it or any other person or entity to answer this question. However, SVIA is concerned that elimination of the Y-12+ category, particularly in light of the small number of Y-10+ models currently available, could leave some children between 12 and 15 no alternative but to ride larger and faster adult size ATVs.

- i. The comparative safety of Y-12+ and adult model ATVs when used by children younger than 12 years old

Comments: Youth riders are at risk when operating adult ATVs because those vehicles are larger and faster than appropriately sized ATVs intended for young riders. Although Y-12+ ATVs may be larger in size and/or weight than Y-10+ ATVs, since 2007, Y-10+ and Y-12+ models have had the same maximum speed limitations and capabilities, which were determined, from a human factors perspective, to be appropriate for youth age 10 and older. In this respect alone, Y-12+ ATVs may present fewer risks for riders age 10 and 11 than adult size ATVs.

- v. The ANSI/SVIA 1-2010 limitation of the testing standard for passenger handholds by specifying that the force applied must be upward
 - a. Not adding a downward testing component during this revision

Comments: In the experience of the members of SVIA's Technical Advisory Panel, the primary direction of force applied to ATV handholds is in the upward direction. For this reason, SVIA specified that the performance test apply the required force in an upward direction. SVIA did not receive any comments during the ANSI balloting process that suggested the force also be applied in a downward direction during performance testing.

b. Adding a downward testing component during this revision

Comments: SVIA recommends against adding a downward testing component during this revision of the mandatory standard by CPSC for two reasons. First, SVIA is unaware of any reports of an ATV handhold failing under downward force, and thus the addition of a downward testing component would not address any identified risk of injury. Second, adding a downward testing component during this revision will make the mandatory and the voluntary standards different, potentially leading to confusion in the marketplace for consumers, ATV manufacturers and distributors and third-party assessment bodies, as noted by the Commission in the Notice.

Subsequent to publication of ANSI/SVIA 1-2010, SVIA learned that the CPSC staff believes there should be a downward testing component to the passenger handhold testing standard. As noted, in the experience of the members of SVIA's Technical Advisory Panel, the primary direction of force applied to ATV handholds is in the upward direction. In addition, SVIA is unaware of any reports of an ATV handhold failing under downward force, and thus the addition of a downward testing component would not address any identified risk of injury. Notwithstanding, in response to CPSC staff, SVIA has committed to adding a downward testing component to the passenger handhold testing standard during the next revision of the ANSI/SVIA voluntary standard.

Respectfully submitted,



Paul C. Vitrano

EXHIBIT A



Paul C. Vitrano
Executive Vice President
& General Counsel
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September 8, 2011

Justin Jirgl
Compliance Officer
U.S. Consumer Product Safety Commission
4330 East West Highway
Bethesda, MD 20814

Re: Category Y-12+ ATVs Outside Definition of “Children’s Product”

Dear Mr. Jirgl:

As a follow up to our recent communications on this subject, I am writing on behalf of the Specialty Vehicle Institute of America (SVIA) and its members to reiterate our position, communicated since early 2009, that Y-12+ ATVs are outside the scope of the definition of “children’s product” under the Consumer Product Safety Improvement Act (CPSIA). As a result, Y-12+ ATVs are not subject to third-party testing for compliance with the mandatory ATV standard. This issue has recently been raised by a third party lab that has an economic self-interest in urging an expansive interpretation of “children’s products” requiring testing.

Since early 2009, CPSC has publicly agreed and represented that Y-12+ ATVs are not “children’s products” and thus are not subject to any provisions in the CPSIA applicable to “children’s products.” For example, in an interview with *Dealernews*, a leading powersports industry trade publication, CPSC spokesman, Scott Wolfson said:

It’s time for everyone to be aware that those models for youths 12 to 15 are not deemed to be children’s products. Those that are the old Y12 or any new version of a model [for 12- to 15-year-olds] do not have to come off showroom floors [because of they have lead content in excess of the new limits] and can be sold appropriately to young riders.

“CPSC Approves Sale of Units for 12- to 15-year-olds,” *Dealernews*, February 17, 2009 (available at <http://dealernewsblog.com/2009/02/17/cpsc-approves-sale-of-units-for-youths-12-15/>). This statement was widely reported in the powersports trade and enthusiast press (see attached Google search results). Similar statements were made contemporaneously by other CPSC representatives to industry members and others.

And, in the same time period, industry representatives communicated with CPSC compliance staff on this issue and provided copies of labels, hang tags, and website notices advising consumers that Y-12+ models are not “children’s products” subject to the CPSIA’s lead content restrictions.

SVIA members, dealers, and consumers throughout the country have reasonably relied on CPSC’s stated position for over two years. Since the CPSIA’s lead content limits took effect, CPSC has not indicated any different view about the proper classification of these vehicles or objected to their marketing and sale as Y-12+ – rather than “children’s” – products. There is no reason for CPSC to reverse course now; and, in all events, the agency would be estopped from doing so given this record.

Indeed, CPSC’s longstanding position that Y-12+ ATVs are not “children’s products” is fully supported by the relevant law and CPSC’s interpretation of it. The CPSIA defines “children’s product” as a product “*primarily* designed and intended for children 12 years of age or younger” (emphasis added). Similarly, in its “Interpretation of ‘Children’s Product,’” 16 C.F.R. Part 1200, 75 F.R. 63067 (Oct. 14, 2010), CPSC defined a “general use product” as a product “that is not designed or intended primarily for use by children 12 years old or younger.” In so doing, CPSC explained:

Some products may be designed or intended for use by consumers of all ages, including children 12 years old or younger, but are intended mainly for consumers older than 12 years of age. Examples of general use products may include products with which a child would not likely interact, or *products with which consumers older than 12 would be as likely, or more likely to interact.*

Id. at 63078. Under this definition, Y-12+ ATVs clearly are “general use products.”

The ANSI/SVIA standard, which is a mandatory standard regulated by the CPSC, provides that Y-12+ ATVs are *exclusively* designed and intended for youth riders 12 years of age and *older*. See ANSI/SVIA 1-2007 at 6; ANSI/SVIA 1-2010 at 6. Fundamentally, as CPSC’s “Interpretation of ‘Children’s Products’” implicitly acknowledges, a product cannot at the same time be “primarily designed and intended for children age 12 years old and younger” and exclusively designed and intended for children age 12 years old and older. Given the discrete age range for Y-12+ ATVs, thirteen year olds, fourteen year olds and fifteen year olds are “as likely or more likely” to interact with Y-12+ ATVs than twelve year olds. As a result, Y-12+ ATVs are “general use” products and not “children’s products” under CPSC’s “Interpretation of ‘Children’s Products.’”

Moreover, as you know, until the recently-enacted amendment to the CPSIA, youth model ATVs that fell within the definition of “children’s product” – Y-6+ and Y-10+ models – were effectively banned because metal parts contain lead content in excess of the CPSIA limits. This effective ban coupled with the expiration of the Y-12+ category meant that youth model ATVs would have ceased to exist by the end of 2011, creating a compelling safety risk that youth age 12 and older would resort to riding adult-size ATVs. As a result, in order to ensure that appropriately-sized ATVs would be available for youth age 12-15, in 2010, SVIA re-opened maintenance on the ANSI/SVIA standard

for the express purpose of maintaining the Y-12+ category. In so doing, SVIA explained:

The revision maintains the provisions regarding Category Y-12+ ATVs which otherwise would have expired on July 28, 2011. Since Y-12+ ATVs are exclusively intended for use by youth age 12 and older, they are not “children’s products” as defined by the Consumer Product Safety Improvement Act. For a variety of reasons, including the expense associated with purchasing an additional non-adult model ATV as well as the limited number of Transition models currently available in the market, Y-12+ ATVs frequently are operated by youth age 13, 14 and 15.

ANSI/SVIA 1-2010 at 42. Following publication of ANSI/SVIA 1-2010, SVIA repeatedly urged CPSC to adopt it as the mandatory standard for the primary purpose of ensuring Y-12+ youth models would continue to be available. See, e.g., E-mail from Paul Vitrano to Elizabeth Leland, dated March 22, 2011 (“At a minimum, SVIA strongly believes that maintenance of the Y-12+ category beyond its current expiration date of July 2011 is a critical ‘safety related’ change. This is especially true while Y-6+ and Y-10+ models are effectively unavailable due to the CPSIA lead content restrictions.”).

As you know, CPSC recently issued a Notice of Proposed Rulemaking to adopt ANSI/SVIA 1-2010 as the mandatory ATV standard.

See <http://www.cpsc.gov/businfo/frnotices/fr11/atvamendNPR.pdf>. In so doing, CPSC specifically acknowledged that SVIA maintained the Y-12+ category because Y-6+ and Y-10+ ATVs, as “children’s products,” were unavailable due to the CPSIA lead content provisions.

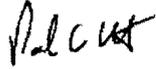
... SVIA has indicated that it eliminated this provision from the scope section in the 2010 revision of the standard because it intends to continue to allow the Y-12+ category due to the impact of the CPSIA lead content requirements on the production and sale of Y-6+ and Y-10+ category ATVs.

76 F.R. at 44291. This acknowledgement is again consistent with CPSC’s longstanding recognition that Y-12+ models are not “children’s products” and thus are not subject to the lead content restrictions. For the same reason, the Y-12+ models are not subject to the third party testing requirements either.

For the foregoing reasons, Y-12+ ATVs are not “children’s products” as defined by the CPSIA and as interpreted by CPSC and, as a result, not required to be third-party tested for compliance with the mandatory ATV standard.

Please contact me if you wish to discuss this matter or need additional information.

Respectfully submitted,

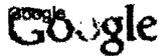
A handwritten signature in black ink, appearing to read "Paul C. Vitrano". The signature is written in a cursive style with a large initial "P" and a stylized "V".

Paul C. Vitrano

cc: Cheryl Falvey, Esq.

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 Feb 15, 2009 - CPSC Approves Sale of Units for 12- to 15-year-olds: ATV & UTV, Dirtbikes ... those models for youths 12 to 15 are not deemed to be children's products under the law," ... Wolfson said dealers should "keep in touch with CPSC. ...

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 Feb 17, 2009 - ... that those models for youths 12 to 15 are not deemed to be children's products under the law," said Scott Wolfson, a CPSC spokesman. ...

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 Feb 17, 2009 - ... aware that those models for youths 12-15 are not deemed to be children's products under the law," said Scott Wolfson, a CPSC spokesman. ...

[who has heard of this lately? no more kids bikes in US?](#)
 ozvmx.com/community/index.php?topic=6413.25;wap2 - Cached
 12 to 15 are not deemed to be children's products under the law," said Scott Wolfson, a CPSC spokesman. "Those that are old Y12 or any newer ...

[CPSC Approves Sale of Units for 12- to 15-year-olds - Planetminis](#)
 planetminis.com/.../107686-cpsc-approves-sale-of-units-for-12-to-1... - Cached
 ... aware that those models for youths 12 to 15 are not deemed to be children's products under the ... Wolfson said dealers should "keep in touch with CPSC. ...



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... that those models for youths 12 to 15 are not deemed to be children's products under the law," said Scott Wolfson, a CPSC spokesman. ...

PlasticsNews: Materials Archives

plasticnews.com/blog/materials/

"CPSC has informed state amusement ride officials of the risks that has a certain number of employees," CPSC spokesman Scott Wolfson told the WSJ. DIDP and DnQP, which are not deemed to be harmful in most circumstances. ...

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... that those models for youths 12 to 15 are not deemed to be children's products under the law," said Scott Wolfson, a CPSC spokesman. ...

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... that those models for youths 12 to 15 are not deemed to be children's products under the law," said Scott Wolfson, a CPSC spokesman. ...

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General Comment

See attached file(s)

Attachments

ATV comments to CPSC 10 11 final



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Office of the Secretary
Consumer Product Safety Commission
Room 502
4330 East-West Highway
Bethesda, Maryland 20814
Via: www.regulations.gov

**Comments of Consumer Federation of America
and Consumers Union to the U.S. Consumer Product Safety Commission
On**

**“Amendment to Standard for All Terrain Vehicles; Notice of Proposed
Rulemaking”**

CPSC Docket No. CPSC-2011-0047

Consumer Federation of America (CFA) and Consumers Union submit these comments in response to the Federal Register Notice, Federal Register, Vol. 76, No. 142, published on Monday, July 25, 2011.

The Consumer Product Safety Improvement Act of 2008 (CPSIA) required the Consumer Product Safety Commission (CPSC) to publish, as a mandatory consumer product safety standard, the American National Standard for Four-Wheel All-Terrain Vehicles Equipment Configuration, and Performance Requirements, developed by the Specialty Vehicle Institute of America (ANSI/SVIA 1-2007). This Notice of Proposed Rulemaking responds to the 2010 update of the ANSI/SVIA standard.

Our organizations have a long history of working to decrease injuries and deaths caused by ATVs. In particular, CFA opposed the 2001, 2007 and 2010 (September 8, 1999 and November 13, 2006, May 6, 2010) SVIA/ANSI ATV standard. In those comments we expressed our concern that the standard was inadequate to reduce injuries and deaths. We also have previously supported the CPSC’s previous comments submitted to ANSI/SVIA, which signaled concern about the lack of new provisions on warning labels, hang tags, owner’s manuals and rider training. We still stand by those comments and reiterate them as many of our concerns have not been addressed adequately or at all.

While the CPSC Notice of Proposed Rulemaking noted that many of the changes made to the 2010 version were minor, there were two provisions that CPSC initially

found to reduce safety: 1) How the speed for the braking test of youth ATVs is calculated, and 2) the force applied to passenger handholds during testing.¹ We agree with CPSC that these provisions may have the result of reducing safety. We understand that industry is addressing one of these issues and is not opposed to addressing the second, though are unaware of the specific details. Further, as we commented to ANSI/SVIA, we opposed the 2010 standard for numerous reasons² and we urge CPSC to consider and seek to rectify the issues we describe below as it promulgates a mandatory standard.

Of great concern to our organizations is that this standard does not seem to address the death and injury data CPSC has released on ATV injuries and fatalities, nor do these standards seem to take strides to reduce risks posed by ATVs in any way. According to the latest CPSC data.³

- Estimates of serious injuries requiring emergency room treatment among people of all ages decreased by a not statistically significant 2.4 percent, from 135,100 in 2008 to 131,900 in 2009.
- The overall increase of 20 percent between the estimated number of injuries in 2001 (110,100) and 2009 (131,900) is statistically significant. Trend analysis by CPSC indicates that for all ATVs, there is a statistically significant upward trend in emergency room visits for people of all ages during the years 2001 through 2009.
- The estimated number of ATV-related fatalities for all ages decreased from 857 in 2007 to 780 in 2009. The agency notes, however, that the 2009 data is not considered complete.
- In 2009, ATVs killed at least 61 children younger than 16, accounting for 16 percent of fatalities. Forty eight percent of children killed were younger than 12 years old.
- Children under 16 suffered an estimated 32,400 serious injuries in 2009 – or 25 percent of all injuries. The 2009 emergency department-treated injury estimate for children younger than 16 years of age represents a 14 percent decrease, which is a statistically significant decrease over the 2008 estimate.⁴

These standards should consistently seek to reduce injuries and deaths caused by ATVs. What follows is a list of concerns with explanations that our organizations have with this standard:

1. Category-T and Youth Model ATVs

¹ Fed Register, Vol. 76, No. 142, Monday, July 25, 2011 at 44290.

² Comments Offered by CFA in Response to the Canvass Draft ANSI/SVIA Standard for Four Wheel All-Terrain Vehicles, May 6, 2010, are available upon request to CFA.

³ U.S. Consumer Product Safety Commission, 2009 Annual Report of ATV-Related Deaths and Injuries, December 2010. Available on the web at: <http://www.cpsc.gov/library/foia/foia11/os/atv2009.pdf>

In the 1986 report from the CPSC ATV task force, “Regulatory Options for All-terrain Vehicles”, the human factors staff concluded that,

Between the ages of 6 and 11 years, while physically capable of handling the small (50 and 60 cc engine displacement) ATV models, children still lack the cognitive and perceptual abilities to do so safely. Their motor abilities at this age range still tend to be erratic and slower than desirable . . . the findings are clear that most children under 12 should not be on child-size ATVs due to lack of maturity. Therefore, a ban on ATVs intended for use by children under 12 years of age should be considered if the industry will not withdraw them from the market voluntarily.

SVIA appears to have ignored this recommendation, although there has been no indication from the injury and death statistics compiled by CPSC that would suggest abandoning this principle. Neither rationale nor evidence has emerged to justify the creation of a new “transitional” class of ATVs, which would serve to place children on larger, faster, heavier and more powerful ATVs. The 2010 standard creates the Category T-youth model ATV and provides that it would have a maximum unrestricted speed capability of 38 miles per hour. No data was provided to justify why 38 mph was selected. We are concerned that this could lead to more children being seriously harmed by ATVs.

Further, there is no evidence provided that justifies any of the speeds for any of the youth model ATVs. We also object to the speeds of the other classes of youth models: the Category Y-6+ with a maximum speed of 15 mph; Category Y-10+ with a maximum speed of 30 mph; and Category Y-12+ with a maximum speed of 30 mph. These speeds are not compatible with the developmental abilities of the children who theoretically can operate them. No evidence has been provided that proves that children of these ages can safely operate vehicles at the speeds indicated. While the ATV industry has argued that the existence of these youth model ATVs will keep children off of adult size ATVs, the industry has not justified the speed limits for these models as being safe for children.

In addition, the weight of the ATV is a critical factor that adds to the seriousness of injuries and ATV deaths. The 2010 standard should provide a maximum weight based upon scientific evidence for each class of ATV. This must include consideration of the impact of the weight on a turned over ATV, the risk of traumatic brain injury in rollovers, and the threshold weight preventing the crushing of the chest cavity of a child operating the “appropriate sized” machine.

2. Speed Limiting Devices

The 2010 standard relies upon speed-limiting devices to limit the speed of the various classes of youth- size ATVs. We are concerned that there are insufficient barriers in place to prevent children from defeating these devices. The standard now requires tools to remove or adjust the device. We recommend that the standard be amended so that the speed-limiting device is not serviceable by a consumer or, at a minimum, that measures

are put in place that would make accessing the device impossible by a child. The fact that a child or a parent could defeat the speed-limiting device entirely diminishes the use of the device. To best limit the speed of the vehicle, the speed-limiting device should not be accessible to consumers. We are further concerned that the speed-limiting devices have unacceptably high failure rates.

In addition, there is no provision in the standard that requires that the speed-limiting device works as intended other than the test procedure, which does not take into account reasonable use and abuse over the lifetime of the product. CPSC has found that some ATVs have speed-limiting devices that do not work as intended.⁵ We recommend the inclusion of a performance standard for the speed-limiting devices.

3. Type I ATVs- Should Make Carrying a Passenger Impossible

Type I ATVs are designed for one driver and no passengers. Warning labels on ATVs and recommendations by the ATV industry, CPSC, and other organizations have stated that there should never be passengers on ATVs. However, the long seat on ATVs makes it not only possible but also inviting for a passenger to ride. The seat length should be shortened and designed differently, making it impossible for more than one person to sit on the seat at one time. Other design standards should be considered to make carrying passengers impossible.

4. Type II ATVs

Type II ATVs have been developed to allow for an operator to carry a passenger. However, given, the long-held view of CPSC and the SVIA that have maintained that ATVs should not be operated with a passenger because of dire safety consequences, it is unclear what evidence exists to support the creation of such a tandem ATV. Further, it is not clear how the Type II ATV is designed to allow for the addition of a passenger. Other than additional factors to allow for the physical presence of another person such as footrests and handholds, there seems to be an absence of a standard for lateral stability or other standards making the machine better equipped to carry two passengers. The addition of a passenger reduces the stability of a slow moving ATV by at least 11%⁶; nevertheless, the pitch stability standard in this draft standard is unchanged for both Type I and Type II ATVs. At a minimum, the standard should be amended to take into account the Type II ATVs' increased instability while operated with a passenger.

Further, since there is an increase in instability, the standard should require the addition of a roll cage. A roll cage would ensure that a user would be contained in the event of a rollover, thus preventing the possibility of fatal crushing injuries. Finally, the warning label on the Type II ATVs should indicate its increased instability, warn

⁵ CPSC Staff Response Regarding Follow-Up questions from Commissioner Moore after the June 15, 2006 ATV Safety Review Briefing, July 11, 2006.

⁶ Mathematical modeling of the stability of passenger-carrying tandem seat all terrain vehicle (ATV), prepared by MIRA Ltd. For the Health and Safety Executive, United Kingdom, 2004. (available on the web at <http://www.hse.gov.uk/research/rrpdf/rr223.pdf>)

operators and passengers of this and recommend the riding positions that least increase the instability of the vehicle.

5. Death and Injury Data

The most recent death and injury data from CPSC should be conspicuously provided to consumers in as many places and methods that can increase a consumer's knowledge about the risk they are assuming by operating or allowing their child to operate an ATV. The owner's manual should include the most recent CPSC death and injury data. In addition, all training videos or DVDs should include this information.

6. Language in Labels

The General Warning Label should include a statement about the inappropriateness and danger of children under 16 riding ATVs that are too large, too fast and too powerful for them. The language of the warning labels for all ATVs should include the following statement, "WARNING: Risk of death. ATV's intended for adults should not be used by children."

7. Lateral Stability/ Pitch Stability

The inherent instability of ATVs is a serious problem that this standard does not address. CPSC examined incidence from its 2001 injury study and found that 45 percent of injuries occurred in incidents in which an ATV overturned. The 2010 ATV standard must be amended to add a lateral stability test and improve the pitch stability equation by requiring a higher pitch stability coefficient, or the current pitch stability computation should be abandoned. A better approach is to include a lateral stability test, which would include both static and dynamic rollover test, such as the test the National Highway Traffic Safety Administration (NHTSA) uses for motor vehicles, and a comparative analysis of vehicle performance. An effective test method for lateral stability should be developed and set forth in this draft standard.

8. Seat Belts Should be Standard and Roll Cages Should be Required

All ATVs should be equipped with seat belts and standards should create a minimum standard for seat belt integrity. In addition to seat belts, this standard should also require all ATVs to be equipped with a roll cage to prevent the driver from being crushed by the weight of the vehicle in the event of a rollover. The standard should set forth the necessary dimensions and should provide for a standard setting a minimum force and weight that the roll cage can withstand.

9. Headlights

This standard should provide that all ATVs be equipped with headlights that automatically turn on when the engine is started. Numerous riding conditions could be improved by headlights, such as rain, fog, snow, and dirt.

10. Service Brake Performance

Sixteen percent of all ATV recalls until November 2005 involved a brake failure. The implications of brake failures are vast; however, the 2007 standards weakened existing brake performance standards, and the 2010 standard does not fix that problem. We urge the draft standard to return to the 2001 language.

The 2010 standard, like the 2007 version, had been changed from the 2001 standard: the number of stops was set at 200 stops but has now been changed to, “stops recommended by the manufacturer.” A justification for this change has not been included nor have a minimum number of stops been set forth. If the number of stops is greatly reduced by a manufacturer, it seems possible that the brakes may not be tested to reflect reasonable use over the lifetime of the vehicle. In addition, the performance test should be conducted at full load capacity.

Regarding ATVs with higher maximum speed capability, the 2010 standard states that one out of four stops has to demonstrate braking deceleration of 5.88 m/s^2 or greater. Since the safety impact of stopping a vehicle is so important, a 25 percent success rate is too low. We are concerned that requiring four stops under this test may not effectively replicate actual use of the vehicle, and recommend that all four stops should meet this threshold. In addition, the time between braking tests must be kept to a minimum, such as less than one minute between runs. That would allow the test to determine if brake fade would adversely affect stopping distance. At a minimum, properly working brakes could prevent ATV collisions. This standard must be amended to improve brake performance and reduce the risk for serious injury and death that failed brakes create.

11. Free Training

The standard should require free “hands-on” ATV training for operators and all riders of ATVs. The training should be geographically accessible to all ATV operators and riders. The standard should set forth the requirements for the training classes, taking into account riders’ different age levels and abilities and ensuring that the training is substantive and improves ATV operator and rider knowledge about safe ATV operation.

12. Marketing and Advertising must be Consistent with Warning Labels

The *General Warning Label* provisions of the standard require warning labels which indicate that the operator must always “use proper riding techniques to avoid overturns on hills and rough terrain and in turns.” We recommend that this standard also include a provision that states, “All marketing and advertisements for all-terrain vehicles must not contradict any warning label in this standard or any warning in a training manual.” Too often, advertisements have been identified that market ATVs by showing riding behavior that contradicts messages in warning labels and manuals. An article published in the *Oregonian* on May 14, 2007 highlights specific examples of these

contradictory messages.⁷ These contradictions, which compromise safety, should be prohibited in this standard.

13. Selling the Appropriate Size ATV

This standard should include a provision that prohibits ATV retailers from selling inappropriate sized ATVs. A 2010 GAO Report found that “manufacturers and distributors have agreed to use their best efforts to prevent their dealers from selling adult-sized ATVs for use by children, but recent GAO undercover checks of selected dealers in four states indicated that 7 of 10 were willing to sell an adult-sized ATV for use by children.”⁸ Since the selling of the wrong-sized ATV occurs so often and has such a significant impact on safety, the new standard should include a provision that prohibits this practice.

Conclusion

For all of the aforementioned reasons, we oppose this standard and urge CPSC to address the issues raised in these comments in their Proposed Rulemaking.

Submitted by,

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⁷ The May 14, 2007 *Oregonian* article is available on the web at:

http://blog.oregonlive.com/oregonianatv/2007/05/atv_labels_read_rider_beware.html

⁸ Government Accountability Office (GAO), ALL-TERRAIN VEHICLES: How They Are Used, Crashes, and Sales of Adult-Sized Vehicles for Children’s Use, April 2010. (available on the web at <http://www.gao.gov/new.items/d10418.pdf>)

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Comment from Ann Staron

Submitter Information

Name: Ann Staron

General Comment

Joint Comments of American Honda Motor Co., Inc., American Suzuki Motor Corporation, Arctic Cat Inc., Bombardier Recreational Products Inc., Kawasaki Motors Corp., U.S.A., Polaris Industries Inc., and Yamaha Motor Corporation, U.S.A.

Attachments

CPSC-2011-0047 - ATV Companies Joint Comments

INTRODUCTION

The seven major distributors of all-terrain vehicles (“ATVs”) appreciate the opportunity to comment on the U.S. Consumer Product Safety Commission’s (“CPSC” or the “Commission”) notice of proposed rulemaking (“NPR”) regarding amendment of the Commission’s mandatory ATV standard to reference the ANSI/SVIA 1-2010 voluntary standard.¹ Specifically, these joint comments are submitted on behalf of American Honda Motor Co., Inc., American Suzuki Motor Corporation, Arctic Cat Inc., Bombardier Recreational Products Inc., Kawasaki Motors Corp., U.S.A., Polaris Industries Inc., and Yamaha Motor Corporation, U.S.A. (the “ATV Companies”). In particular, the ATV Companies take this opportunity to respond to the NPR’s request for comments and information on several specific issues regarding “other potential improvements to ATV safety” which the notice concedes are beyond the scope of the immediate proposed revisions to the mandatory standard and thus not directly involved in this rulemaking. The ATV Companies also suggest that the amended standard should become effective for 2013 model year (“MY”) ATVs, rather than 30 days after publication.

COMMENTS AND INFORMATION

1. ATV Rollover Protective Systems

With respect to “other potential improvements to ATV safety” beyond those changes included in the revised ANSI/SVIA 1-2010 voluntary standard, the NPR first requests comment on ATV rollover protective systems (“ROPS”). Investigation and research into various proposed ROPS for ATVs over more than 20 years has found them to be unsuitable. As an initial matter, each such device would raise the center of gravity of the ATV, thereby degrading vehicle stability. These proposed structures may also entail injury risks similar to, or greater in magnitude than, any prospective safety benefits.

¹ 76 Fed. Reg. 44,289 (July 25, 2011).

Without restraints, these structures act as a rigid external projection which can be highly injurious by impacting or crushing the rider during a rollover or pitchover as the rider separates from the vehicle. With restraints, the structure serves to transmit large g-forces to the rider due to the relatively small mass of the vehicle, thereby potentially increasing the severity of injuries (in particular brain injuries) and the number of fatalities.

Depending on the specific design, these proposed ROPS further serve to degrade rider mount/dismount, cargo capacity and overhead clearance, and to limit the types of terrain on which the vehicle can be used to those that do not have branches, underbrush or other features that could snag the ROPS or restraints. They may also encourage warned against risk-taking behaviors due to a false sense of security. Finally, they would conflict with “rider active” vehicle operational needs with regard to stability, mobility, visibility and comfort. Indeed, many experienced ATV riders might choose not to engage the ROPS restraints due to the belief that they do not allow for the appropriate range of rider activity in operating and controlling the vehicle in particular usage scenarios.

The CPSC staff has previously considered and addressed the issue of ROPS. For example, in a 1990 letter to Congress, the CPSC outlined some of the difficulties that ROPS would present for ATVs, concluding that “[T]he inherent limitations that a roll cage with harness or other restraint would impose on the movement required for ATV riding, the adverse influence on the stability of the ATV due to the increased center-of-gravity height due to the roll cage, and the size restrictions needed for use in a narrow environment (e.g., a forest path) are some of the reasons why Commission engineers have not advocated a roll cage as a solution to ATV-related injuries.”²

Similarly, in its 1991 Federal Register notice withdrawing the initial Advance Notice of Proposed Rulemaking on ATVs, CPSC noted that it had specifically considered the possible

² Letter from Edward Harrill to Rep. Doug Barnard, Jr., Sept. 21, 1990, at 2.

development of auxiliary protective devices such as ROPS, but then went on to explain in detail why it had rejected this option: “Devices such as roll cages or roll bars, together with operator restraints, have been used to reduce injuries with other motorized vehicles. ATV riding techniques and the riding environment, however, have many differences from those for other motorized vehicles. In order for such devices to be effective, the rider would have to be restrained so he or she would not extend outside the zone of protection provided by, for example, a roll cage. The rider, however, must be able to move forward and back and side to side in order to control the vehicle. Thus, the restraint would have to allow for such movement, and the roll cage would have to extend far enough outward and upward to prevent the loosely-restrained operator from contacting the ground, rocks, or other terrain features if the vehicle rolls over. The resulting roll cage would likely greatly extend the width and height of the ATV. Because ATVs operate in narrow spaces between trees, rocks, etc. and on narrow trails, this increased size might significantly adversely affect ATV utility and may increase the likelihood of collision with trees, etc. In addition, the presently-available data do not allow an estimate of how many riders would use the restraint system. Accordingly, presently-available data do not allow an estimate of how many injuries could be prevented by roll cages, etc., or how many injuries might be caused by new hazards introduced by these devices.”³

The Pro-Tec ROPs recently acquired by CPSC appears to raise a number of these same issues. In particular, in addition to raising the center of gravity, height and overhead clearance of the vehicle, thereby adversely affecting stability, mobility and utility, it would allow no rearward movement by the operator, which is an instructed rider active safety behavior when descending slopes. It is also not clear whether the seat belt restraint system has a retractor, or is merely hand adjustable. In order for the belt system to allow unhindered forward and side-to-side rider activity,

³ 56 Fed. Reg. 47,166, 47,172 (Sept. 18, 1991).

the operator must be loosely belted with significant play in the straps. This means that the seat belt would either have to be loosened by hand adjustment to that extent, or spooled out to a significant degree due to such rider activity even if a retractor is present. This in turn appears to raise a substantial possibility of partial or full excursion of the rider's head, torso or arms from the belt system during a rollover, with the consequent risk of being impacted and injured by the ROPS structure.

In fact, there is a separate category of motorized off-highway vehicles which incorporate ROPS and rider restraints as integral design features. Recreational Off-Highway Vehicles ("ROVs") are intended by the manufacturer primarily for recreational use by one or more persons, have four or more tires, a steering wheel for steering control, non-straddle seating, maximum speed capability greater than 30 MPH, gross vehicle weight rating no greater than 3,750 lbs., less than 80 inches in overall width, and engine displacement of 1,000 cc or less.⁴ The voluntary standard for ROVs provides that such vehicles shall have ROPS which meet specified performance requirements.⁵ The standard further provides that the vehicles shall also have an occupant retention system that meets specified designed and/or performance requirements.⁶

The basic reason why ROVs, unlike ATVs, are designed with ROPS and occupant restraints is that they are not "rider active." That is, they are not designed to incorporate rider movement from front to back and side to side as an integral element of operating and controlling the vehicle.⁷ In addition, given the steering wheel and non-straddle seating, ROVs – unlike ATVs – are not

⁴ See ANSI/ROHVA 1-2011, § 3.

⁵ *Id.* §§ 4.7, 10.

⁶ *Id.* §§ 4.8, 11.

⁷ Although ROVs are not "rider active" in the same manner as ATVs, ROVs are "rider interactive" vehicles. As explained in the on-product labels, operator's manuals and other vehicle materials, ROV operators and passengers both play an active and important role during operation, including keeping their body parts inside the cabin at all times, bracing and counter-posturing during various vehicle maneuvers, and staying alert to potential hazards such as rollovers.

designed to allow riders to easily separate from the vehicle to escape injury during a rollover. Instead, they are designed with restraints to retain riders in the vehicle during a rollover and ROPS, in combination with the occupant retention system, to protect them from injury during such an event.

As a class, ROVs are heavier, longer, wider and higher than ATVs. While ROVs can be used for some of the same recreational uses as ATVs, as a class of vehicles, they are less suitable for other typical activities, such as riding on narrow forested trails.

Any assumption that ROPS and operator restraints are appropriate on ATVs because of their presence on ROVs would thus be misguided. It does not account for the fundamental differences in design, use patterns and operator interaction between the two classes of vehicles. It also fails to recognize that consumers currently (and appropriately) have a choice between these two classes of vehicles for motorized off-highway recreation. Those who prefer vehicles with ROPS and occupant restraints can choose ROVs, while ATVs are available for those who prefer smaller, lighter vehicles that allow unhindered rider activity for particular use scenarios and access to narrow, forested trails.

2. Modifications with Respect to the Maximum Speed of ATVs

Maximum speed capability is one among a number of important vehicle characteristics that prospective ATV owners consider, based upon their planned use pattern for the vehicle, in deciding which model to purchase. The maximum speed capability of different models of adult-sized ATVs varies depending on a number of factors, including vehicle weight, engine size, compression ratio, drive and gear ratios, and tire type and size. Maximum speed capability also varies depending upon the primary intended use of the vehicle, with sport models used primarily for recreation, and in some instances competitive racing, generally having greater speed capability than utility models used primarily for non-recreational purposes such as agriculture and light industry. However, even within the sports and utility categories, differences in the foregoing factors leads to a range of

maximum speed capabilities among the various models. In part, this is because it is quite common for utility models to be used secondarily for recreation, where maximum speed capability is more important.

CPSC data has never shown a significant correlation between high speed *per se* and ATV accidents. Indeed, based on Epidemiological Investigation Report information, most accidents do not appear to occur at high or maximum speeds. Moreover, whether or not speed is considered to be excessive at the time of any particular accident depends upon an assessment of many factors, including rider skill, terrain, the presence or absence of other ATVs or off-highway vehicles in the vicinity, as well as weather conditions.

Given the multiple engineering and design factors that go into determining maximum speed capability, the wide range of ATV uses, some of which require greater maximum speed capability than others, and the fact that a single ATV may be used over time for a range of recreational and utility purposes, there is no basis for establishing a limit on the maximum speed capability of adult-sized ATVs generally, or of sport and utility vehicles, respectively. Not only would such a limit be design restrictive, for some ATV models it could also unduly circumscribe the utility of the vehicles expected by consumers by indirectly limiting the engine power necessary for the range of intended non-recreational uses, even when operated at lower speeds.

In short, pursuing a “one size fits all” approach of attempting to establish a limit on the maximum speed capability of adult-sized ATVs as a whole, or for sport and utility ATVs as separate categories, would be inappropriate. Such an approach would reflect a lack of understanding of the range of maximum speed capabilities among current ATV models. It would also ignore the fact that consumers choose the model they purchase based in part upon the important relationship of its maximum speed capability to the potentially wide range of purposes for which they intend and expect to be able to use the vehicle. Moreover, as noted above, there is no data

showing that maximum speed capability, in and of itself, is a significant causal factor in ATV accidents. For all the foregoing reasons, the ATV Companies suggest that CPSC not invest significant time and resources into pursuing possible maximum speed capability limits for adult-sized ATVs.

3. Child-Proof Ignition Safety Locks for Adult-Sized ATVs

The NPR also seeks comments on the potential use of “child-proof” ignition “locks” on adult-sized ATVs to deter children from using the vehicles. In this regard, CPSC recently awarded a grant to Virginia Polytechnic Institute and State University (“Virginia Tech”) to develop a prototype child-proof ignition device for a particular adult-sized ATV model.

Although the concept of “child-proofing” adult-sized ATVs may be facially appealing, the use of ignition locks presents significant behavioral, physical, mechanical, and operational issues concerning not only the feasibility and potential benefits of this kind of countermeasure, but also whether it might create potential hazards and have other adverse effects. As discussed below, these issues include:

- The complexities and limitations in using cognitive, biometric, and anthropometric proxies for such a countermeasure;
- The countermeasure likely would not limit children as young as 10 from starting the vehicles, making it ineffective for the vast majority of the child population at risk;
- The countermeasure could create significant new hazards for operators (and passengers, in the case of two-up ATVs), both during normal and foreseeable operation of the vehicles and upon a malfunction;
- The prospect for consumer rejection (through disabling or overriding) of the countermeasure;
- The potential for parents and guardians to place too much reliance on the countermeasure, rather than controlling access to the vehicle’s keys, monitoring vehicle usage, and properly instructing children not to operate the vehicles;
- The likelihood that some parents or guardians mistakenly equate a child’s ability to operate the countermeasure with his or her ability to operate the ATV; and

- The extent to which the countermeasure might prevent some adult operators from being able to start the vehicles, either due to physical size, disability, or other factor.

The prototype device developed by Virginia Tech illustrates some of these critical questions. Child-proof ignition systems such as the Virginia Tech prototype require users to have a certain “cognitive capability” and “weight and reach capabilities” in order to start the vehicle’s engine.⁸ These cognitive and biometric requirements are intended to serve as proxies to determine whether the user is a child or an adult. As such, they are based on predictions about what might be “resistant” to children but “relatively easy for adults to operate.”⁹

Any attempt to generalize these cognitive and biometric requirements for a child-proof countermeasure on ATVs presents serious challenges, as the Virginia Tech report recognizes. For example, the report notes that children as young as eight “will begin to be able to integrate different perspectives, and by ages eleven and twelve, there are critical hormonal changes and brain rewiring, including advancement of the frontal lobes [that] create a high variance in abilities [of children].”¹⁰ Because children eventually “develop adult behaviors and abilities due to changes in the brain,” the Virginia Tech report acknowledges that a drawback of the prototype ignition system is that “injuries will not be completely preventable as the age of the child increases.”¹¹

Similarly, reliance on physical biometrics has its limits, as observed in trials of the Virginia Tech’s simultaneous “three-step toggle” and weight mechanism system. The prototype requires the rider to weigh at least 90 pounds and sit upright and far back on the seat cushion to activate a magnetic switch; from that position, the rider must press down the run-switch button on the left

⁸ Robert C. Harvey et al., *Child Resistant Pan-somatic All Terrain Vehicle (ATV) Ignition System*, U. VA. ENG’G DESIGN SYMPOSIUM 54, 55 (2011).

⁹ *Id.* at 54.

¹⁰ *Id.*

¹¹ *Id.*

handle and start button on the right handle, while also depressing the right brake pedal.¹² As such, the system is designed to allow only those who are at least 90 lbs, and thus “adult-sized,” to start the engine.¹³ However, the design is under-inclusive since many children under 16 years weigh over 90 lbs. By the designers’ own estimates, the prototype device would not prevent a large number of children, even as young as under 10 years, from starting the engine.¹⁴ This estimation is consistent with the available data. According to the National Health Statistics Report, the mean weight for 10 year-old boys and girls is 88.3 and 93.5 lbs, respectively.¹⁵ The mean weight for 11 year-old children is 103.2 lbs for boys and 108.4 lbs for girls.¹⁶

As such, the use of anthropometric parameters for such a countermeasure has obvious drawbacks, since the assignment of a particular gateway weight or size may prove to be under-inclusive, while increasing these metrics may prove to be over-inclusive by preventing smaller adults from starting the vehicle.¹⁷ Indeed, due to the varying cognitive and physical capabilities of children, the Virginia Tech designers determined that a child-proof device could only “successful[ly] limit children that are ten years or younger.”¹⁸ Thus, at best, a child-proof ignition system requiring complex cognition and anthropometric thresholds may prevent an extremely young child, such as a

¹² *Id.* at 55.

¹³ *Id.* at 54.

¹⁴ “If the weight mechanism portion of the design meets the expectations of the project team then [] 5% of the children under the age of ten would be able to successfully complete the task, while still being able to reach the pedal design enough to complete the pedal design task.” *Id.* at 58. If 5% of children under age ten can complete the task, a far higher portion of children between 11 and 15 will be able to do so. This does not even take into account using things like a backpack weighed down by books or the help of a friend to increase the child’s weight or reach.

¹⁵ National Health Statistics Report, at 6, Table 2 (Oct. 22, 2008) (attached as Exhibit 1).

¹⁶ *Id.*

¹⁷ It bears mentioning that, aside from the flaws discussed, increasing the weight and physical requirements runs the risk of discriminating against certain adult users, such as smaller adults, women, the elderly, or persons with disabilities. In other words, complicated pan-somatic systems may prevent certain adults from otherwise legitimately using adult ATVs.

¹⁸ *See* Harvey, U. VA. ENG’G DESIGN SYMPOSIUM at 54, 55, 58.

six-year old, from starting the ignition, but will be unlikely to prevent older children or teenagers from doing so.¹⁹

The complex cognitive and “anthropometric limitations” of a child-proof system raise serious questions about the feasibility and effectiveness of such a countermeasure for ATVs.²⁰ For starters, a system like the Virginia Tech prototype, which feasibly “limit[s] no higher than a 10 year old”²¹ from using adult-sized ATVs, would be significantly under-inclusive. Incidents of injuries associated with adult ATVs involving younger children are far fewer than those involving pre-teens and teenagers. According to estimates by the National Electronic Injury Surveillance System (“NEISS”), there were 143% more injuries or fatalities generally involving ATVs last year for children aged 11-15 than 10 and under.²² Looking specifically at incidents involving child operators of adult ATVs, similar findings were made in the 2001 CPSC Injury Survey, in which operator age and engine size data were reported. Of the examined cases, 46 child operators injured were between the ages of 11-15, while eight children were 10 years or younger.²³ These cases show that children between 11-15 were injured 5.75 times (575%) more than those 10 and under. Stated differently, children 10 years or under only accounted for 14.8% of the surveyed ATV injuries to children under 16. Accordingly, the child-proof countermeasure would have limited, if any, effect in deterring the vast majority of children injured by riding adult-sized ATVs.

¹⁹ “As children reach the ages of eleven and twelve they develop adult behaviors and abilities due to changes in the brain (e.g. formal operations); thus injuries will not be completely preventable as the age of the child increases.” *Id.* at 54.

²⁰ *See id.* at 58.

²¹ *Id.* at 54.

²² U.S. Consumer Product Safety Commission, *NEISS Estimates Query Builder*, <https://www.cpsc.gov/cgibin/NEISSQuery/home.aspx> (last accessed on Oct. 7, 2011).

²³ Analysis, *U.S. Consumer Product Safety Commission ATV Injury Survey for 2001* (results file provided to Heiden Associates, Mar. 21, 2002) (attached as Exhibit 2). Adult ATVs are defined as those with engine sizes greater than 90cc. As a point of comparison, according to NEISS database for 2001, there were 210% more injuries or fatalities generally involving ATVs for children aged 11-15 than 10 and under. U.S. Consumer Product Safety Commission, *NEISS Estimates Query Builder*.

There are likewise complex behavioral and social issues that would require further examination in determining the potential effectiveness of any child-proofing countermeasure, even if a feasible design were identified. Research shows that many adult ATV users consider ATV-riding to be a recreational family activity and are therefore willing to grant their children access to adult-sized ATVs. Such parents have confidence in their own ability to instruct, protect, set family rules for, and judge the abilities of their children.²⁴ Many of these parents reported a “safe” age to operate an adult ATV to be much younger than 16,²⁵ and are also known to associate a child’s ability to operate an adult-sized ATV with the child’s ability to operate other vehicles (e.g., farm equipment, and, in some states, automobiles).²⁶

Given these reported parental attitudes and preferences, it is far from clear that a child-proof ignition device – even if otherwise mechanically effective in preventing older children and young teens from starting the vehicles – would be accepted by consumers. Some adults may choose to bypass the countermeasure, simply by starting the ATV for the child or permanently disabling or modifying the device.

Consumer acceptance versus potential rejection of such a device, therefore, would require separate consideration. This is particularly true considering the potential for such regulation to result in negative, often paradoxical, consequences. For example, in 1977, Federal Motor Vehicle Safety Standard 208 was amended to require all new automobiles produced after September 1982 to come equipped with passive-restraint systems (i.e., devices that did not require active participation

²⁴ See Bill McInturff, *Presentation of: ATV Safety Focus Groups*, Public Opinion Strategies, 4, 5, 9-11, 14, 15 (1998). Many parents believe that harm to children typically occurs when riding unsupervised or unprotected.

²⁵ In an ATV safety focus group, “[w]omen tended to report a ‘safe’ age to drive an adult ATV as 11 or 12 years old [and] men said a safe age was 13 or 14.” *Id.* at 5.

²⁶ J. Paul Frantz et al., *Response to ATV Labeling and Categorization Provisions in U.S. CPSC Notice of Proposed Rule Making*, Applied Safety and Ergonomics, Inc., at 9 (2006).

from the operator or passenger, such as automatic seatbelts).²⁷ Consumers found that the automatic seatbelt systems implemented by many manufacturers under the standard interfered with the consumers' comfort and ease of movement. As a consequence, many car owners disconnected the devices, leaving driver and passenger beltless in many instances.²⁸ In other words, the use of this countermeasure, while facially appealing, in fact produced the opposite behavior from what was intended – less rather than more seatbelt use.²⁹

There is related evidence showing that when consumers are under the impression that an element of risk has been lowered due a certain technology, they may be less likely to follow other safety precautions out of belief that the technology provides sufficient protection.³⁰ This observed behavior, which has been called the “lulling effect,” can create serious risks of harm to children. For example, in 1972, the Food and Drug Administration (FDA) ordered manufacturers of painkillers and other selected drugs to equip their bottles with child-proof caps that were difficult to open for children (and sometimes for adults as well). The introduction of this countermeasure was followed by a substantial *increase* in the per capita rate of fatal accidental poisonings in children.

²⁷ See Kenneth E. Warner, *Bags, Buckles, and Belts: The Debate Over Mandatory Passive Restraints in Automobiles*, 8 J. HEATH POL. POL'Y & L. 44, 46 (1983); Samuel D. Elswick, *Geier v. American Honda Motor Co.: Airbags, Federal Preemption, and the Viability of a Regulatory Compliance Defense*, 28 N. Ky. L. Rev. 135, 137-39 (2001) (for history of seatbelt and passive-restraint legislation).

²⁸ See, e.g., *Motor Vehicle Mfrs. Ass'n v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29 (1983).

²⁹ Sam Foley, Ten Worst Automotive Fads, MSN Autos, <http://autos.ca.msn.com/editors-picks/gallery.aspx?cp-documentid=23546090&page=4> (last accessed Oct. 7, 2011). The National Highway Traffic Safety Administration later rescinded the requirement, concluding that automatic restraint was no longer reasonable or practicable. 46 Fed. Reg. 53,419 (Oct. 29, 1981) (“The automatic restraint requirements are being rescinded because of uncertainty about the public acceptability and probable usage rate of the type of automatic restraint which the car manufacturers planned to make available to most new car buyers. . . . The agency is also seriously concerned about the possibility that adverse public reaction to the cost and presence of automatic restraints could have a significant adverse effect on present and future public acceptance of highway safety efforts.”).

³⁰ According to risk homeostasis theory, people engage in behavioral changes compensating for what they perceive as a change in risk. See generally, e.g., Gerald J.S. Wilde, *Target Risk: Dealing with the Danger of Death, Disease and Damage in Everyday Decisions*, <http://psyc.queensu.ca/target/> (accessed Oct. 7, 2011); Sam Peltzman, *The Effects of Automobile Safety Regulation*, 83 J. POL. ECON. 677, 703-04, 717 (1975) (Peltzman showed that added safety devices diminished drivers' incentive to exercise care, concluding that “auto safety regulation has not affected the highway death rate” due to offsetting behavior of drivers, such as “higher driving speeds, more young drivers, and increased inebriation”).

The new regulation, it was determined, had “lulled” parents into believing that the child-proof caps were sufficient protection, making them less careful in the handling and storing of the “safer” bottles. As a result, the new countermeasure had serious unintended consequences, “leading to 3,500 additional [fatal plus non-fatal] poisonings of children under age 5 annually from analgesics.”³¹

Similarly here, the introduction of child-proof ignitions for adult-sized ATVs would require careful evaluation of the potential behavioral responses of consumers, to ensure that any such countermeasure does not have unintended detrimental effects on child safety. If, for example, parents place too much reliance on the child-proof device, they may fail to follow other well-established safety precautions, including controlling access to the vehicle’s keys, monitoring vehicle usage, and properly instructing children not to use the vehicles. Some parents may also wrongly equate a child’s ability to operate a child-proof ignition device to the child’s ability to operate the adult-sized vehicle itself. As discussed above, a significant portion of the child population may have the cognitive skills and physical abilities to operate a child-proof ignition system, but may not have the cognitive skills, strength, or size to operate an adult-sized ATV.³²

In addition to these many potential implications for children, a child-proof countermeasure on adult-sized ATVs would have to be carefully evaluated and tested for its effects on adult usage and safety. Any countermeasure should not interfere with the ATV’s normal operation or detrimentally affect the vehicle’s ability to function in different riding environments and conditions. ATVs are commonly used in remote areas on varying terrains and in all kinds of weather. If a

³¹ See, e.g., W. Kip Viscusi, *Consumer Behavior and the Safety Effect of Product Safety Regulation*, 28 J.L. & ECON. 527, 537-46 (1985); W. Kip Viscusi, *The Lulling Effect: The Impact of Child-Resistant Packaging on Aspirin and Analgesic Ingestions*, 74 AM. ECON. REV. 324, 326-27 (1984) (both available at <http://law.vanderbilt.edu/faculty/faculty-personal-sites/w-kip-viscusi/publications/index.aspx>).

³² Switching on a “child-proof” ignition system requires a limited set of hand or foot movements that can be easily learned, whereas operating an ATV requires more complicated skills, such as weight-shifting, maintaining appropriate center-of-gravity, maneuvering around obstacles, and operating at speeds appropriate for conditions.

“child-proofed” ignition device malfunctions, fails to operate properly in extreme cold or when wet, or impedes an adult operator who may be injured or otherwise temporarily disabled from starting the vehicle, it could create serious unintended consequences.

The Virginia Tech prototype again illustrates some of these additional issues. The Virginia Tech report only describes starting an “electric-start” ATV on flat, level terrain, during which time the user must sit upright on the back of the seat in order to activate a switch under the seat cushion. However, if an ATV needs to be started while located on an uphill slope, such rearward rider positioning in order to start the vehicle is contrary to the rider-active principles of an ATV, which require that the rider’s weight should be shifted forward instead of backward. Being forced to activate the switch in a rearward position while on an uphill slope could risk causing the vehicle to slide or roll backwards, leading to a loss of control. Similarly, it is foreseeable that an operator stalled on a slope will have trouble activating the two handlebar switches, while at the same time attempting to reach and operate brake/clutch levers, in order to restart the ATV via electric start. An ATV that stalls while going uphill must be restarted quickly since being unable to do so while on a slope prevents the operator from getting out of a potentially hazardous situation. Having to overcome an ignition interlock system takes additional time and attention that again could cause the vehicle to roll backward and seriously harm the operator (and passenger, in the case of two-up ATVs).

Another problematic aspect of the Virginia Tech prototype is its use of two springs and a reed switch under the rear of the seat base for the weight sensor. The seat bases of production ATVs must be firmly-mounted to avoid amplifying the effects of rough terrain during off-road operation, which helps maintain vehicle control. Attempting to address this problem with the Virginia Tech design by enclosing the weight sensor inside the seat cushion, or putting the seat on rails (similar to a passenger-side car seat), would create a host of other production, durability, and

safety issues. These include the potential migration of the switch within the seat, the difficulty of servicing the weight sensor if inside the seat, the effect of weight sensor modifications on the ability to service the airbox under the seat, and the lack of a fail-safe mechanism.

The addition of a “push” action to the engine-stop switch, which the Virginia Tech prototype employs, would create additional complications, whether that switch already has a slide, rotary, or push-operating motion. If the engine-stop switch is either a slide or rotary switch, the addition of a push-action may interfere with the switch’s function of stopping the engine in the case of an emergency. If the engine-stop switch is a push-button (with a latching feature to meet the required ANSI/SVIA 1-2010 standard), an entirely different switch would be required since pushing the engine-stop switch as part of the ignition process would prevent the ATV from starting.

A child-proof ignition device must also account for the use of adult-sized ATVs in wet, muddy, dusty, snowy, and below-freezing conditions. For example, snow or ice accumulation around the seat could affect the functionality of the “operator-presence switch” used in the Virginia Tech prototype, which as noted is designed to detect the weight of the operator on the rear of the seat. The foam in the seat itself could likewise stiffen in cold temperatures, making the seat switch inoperative. A similar malfunction could occur due to the placement of a switch located by the foot pedal – an area that is regularly exposed to water, mud, dust, and other debris during off-road operation. Any of these potential problems with a child-proof ignition device could leave an adult operator (and passenger, in the case of two-up ATVs) stranded in remote areas, possibly in inclement weather.

Lastly, the technology used by Virginia Tech in developing its child-proof ignition prototype is largely outdated. The prototype design requires that “the three task components [to start an ATV] are all a part of the main ignition circuit (they all close a switch in the circuit).”³³ The systems and

³³ Harvey, U. VA. ENG’G DESIGN SYMPOSIUM at 55.

circuits used in most newer ATVs are different and commonly utilize engine control units (“ECU”). Among other functions, the ECU receives system inputs from numerous parts of the vehicle and determines that all relevant conditions are met for the ATV to start. Although this technology might be adapted to receive and verify inputs from a multi-task child-proof ignition system, such as the Virginia Tech prototype, such changes would likely significantly exceed \$500 per unit. And even if new technologies could be adapted, regardless of cost, it would not address the problems and issues identified above, concerning proper anthropometric parameters, consumer behavior and acceptance, design, production and durability challenges, or the potential risks to operators (and passengers, in the case of two-up ATVs) if the device fails or becomes inoperable.

For all of these reasons, the concept of a child-proof ignition device, while facially appealing, presents a host of complex technical and behavioral issues that could make the countermeasure largely ineffective or – worse – create unintended consequences for consumers. Parents already can and should “child-proof” adult-sized ATVs by controlling access to vehicle keys and monitoring operation of the vehicles. These are the same common-sense steps that parents and other adults routinely take to control the use of other motorized vehicles, without any of the potential problems, limitations, or other complexities that a child-proof ignition device presents.

4. Effective Date of ANSI/SVIA 1-2010 Standard Revisions

The ATV Companies currently must certify ATVs to the ANSI/SVIA 1-2007 standard as that is the mandatory standard currently “applicable” to such products.³⁴ The ATV Companies therefore are providing certificates of conformity to each distributor and retailer of their respective ATVs that state such compliance,³⁵ as well as attaching labels to all ATVs certifying that the

³⁴ See 15 U.S.C. §§ 2063(a)(1)(A), 2089(a); 16 C.F.R. § 1420.3(a).

³⁵ See 16 C.F.R. § 1110.11(b).

vehicle complies with the 2007 standard, as required by section 12 of the 2007 standard itself as well as 16 C.F.R. § 1420.3(b).

CPSC is required to promulgate the amended standard within 180 days of publication of the proposed rule, or before January 21, 2012.³⁶ CPSC has further proposed that the amended standard incorporating the revisions made by ANSI/SVIA 1-2010 become effective 30 days after the Final Rule is published.³⁷ Under this schedule, the 2010 standard likely would become the applicable mandatory standard sometime in February 2012. Once the 2010 standard becomes the applicable mandatory standard, the ATV Companies would need to update their respective certificates of conformity to reflect compliance with the 2010 standard. The certification labels installed on the ATVs also would need to be updated in this respect.

This update to the on-ATV certification label may present a manufacturing problem, as some of the companies may still be producing 2012 MY ATVs in the February 2012 time frame. This would necessitate a running change to the certification label to reflect compliance with the 2010 standard in the middle of 2012 MY production. This running change would present two key problems for companies that manufacture ATVs. First, it would require a switch of labels at all manufacturing facilities on an overnight basis as of the date the ANSI/SVIA 1-2010 standard becomes the applicable mandatory standard. This presents the possibility of error in terms of which labels end up being applied to particular ATVs at the plant. Second, it may create confusion in the marketplace, as two 2012 ATVs of the same model may have different certification labels (one to the 2007 standard and the other to the 2010 standard), which could lead consumers to the inaccurate conclusion that there are significant differences between the two vehicles.

³⁶ 15 U.S.C. § 2089(b)(2).

³⁷ 76 Fed. Reg. at 44,291.

To avoid these issues, the ATV Companies respectfully request that the amended standard reflecting the revisions made by ANSI/SVIA 1-2010 become effective for 2013 MY ATVs. Alternatively, the effective date for the amended standard should be extended to 60 days after publication in order to allow ATV manufacturers time to obtain new labels and to put robust production tracking processes in place to minimize the possibility of incorrect certification labels being placed on some vehicles. This will mitigate the difficulties inherent in necessitating a running change with respect to certification and labeling during 2012 MY production. Because the differences between the 2010 standard and the 2007 standard are primarily clerical and clarifying in nature, specifically making the amended standard effective beginning with 2013 MY production, or alternatively extending its effective date to 60 days after publication, should not present any safety risk to the public.

CONCLUSION

Over the past 23 years, in cooperation with the Commission, the ATV Companies have taken unprecedented steps as private companies to promote the safe and responsible use of their products, including initial adoption and periodic revision of the ANSI/SVIA standard, as well as implementation of Action Plan undertakings to, among other measures, provide free hands-on training and monitor and enforce dealer compliance with ATV age recommendations. The ATV Companies believe that their long-standing adherence to the ANSI/SVIA standard and implementation of these Action Plans have been effective in addressing the issue of ATV safety. Indeed, CPSC's 2009 Annual Report of ATV Deaths and Injuries (the most recent such Annual Report, released in December 2010) showed that the risk of injury per 10,000 four-wheel ATVs in use decreased for the eighth straight year and was lower than at any time since the Commission began calculating this risk in 1985. The ATV Companies further believe that the recent extension of these same obligations to all members of the industry pursuant to the Consumer Product Safety

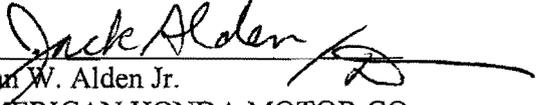
Improvement Act of 2008, including new entrants who have not previously shouldered them, will provide added safety benefits.

The ATV Companies will also continue to support enactment of comprehensive state legislation regulating ATV use. Such state legislation represents a promising additional approach to reducing ATV injuries and fatalities, which – as consistently shown by CPSC’s own data and analysis – result primarily from warned against behaviors by operators and passengers.

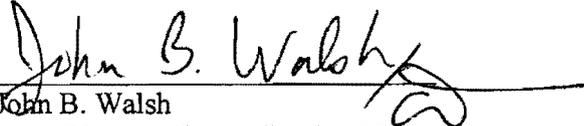
CPSC should accordingly recognize that rather than pursuing potential efforts to redesign the product in spite of the foregoing concerns and without any empirical basis, the most promising strategy for further enhancing ATV safety is: 1) enforcing the revised ANSI/SVIA 1-2010 standard, once adopted; 2) supporting comprehensive state regulation of ATV use; 3) ensuring the provision of free hands-on training and the monitoring and enforcement of dealer age recommendation compliance under the approved Action Plans; and 4) promoting greater parental supervision of young riders and compliance by consumers with the ATV age recommendations.

Finally, the amended standard based on ANSI/SVIA 1-2010 should become effective beginning with 2013 MY ATVs, or alternatively, 60 days after publication in order to mitigate the difficulties in making a running change in certification labeling during 2012 MY production.

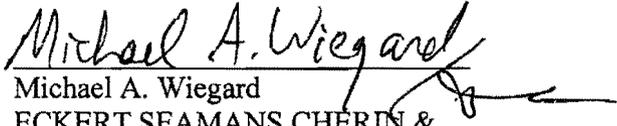
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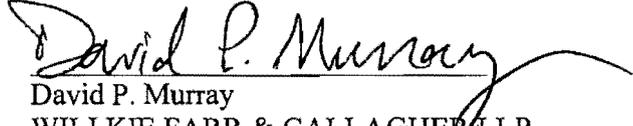
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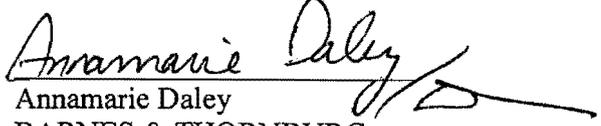
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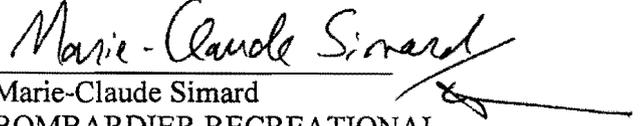
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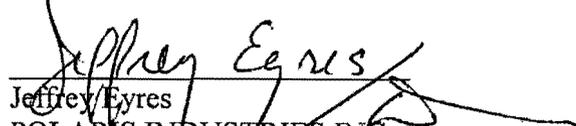
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EXHIBIT 1

**JOINT COMMENTS
OF
AMERICAN HONDA MOTOR CO., INC.,
AMERICAN SUZUKI MOTOR CORPORATION,
ARCTIC CAT INC.,
BOMBARDIER RECREATIONAL PRODUCTS INC.,
KAWASAKI MOTORS CORP., U.S.A.,
POLARIS INDUSTRIES INC., and
YAMAHA MOTOR CORPORATION, U.S.A.**

Table 2. Weight in pounds for children and adolescents from birth through 19 years of age by sex and age, by mean, standard error of the mean, and selected percentiles: United States, 2003–2006

Sex and age ¹	Number examined	Mean	Standard error	Percentile								
				5th	10th	15th	25th	50th	75th	85th	90th	95th
				Pounds								
Male												
Birth to 2 months	101	11.5	0.27	*	*	9.2	10.1	11.5	12.9	13.8	*	*
3–5 months	139	16.0	0.18	*	13.6	14.1	14.7	15.9	17.1	17.7	18.1	*
6–8 months	130	18.6	0.30	*	15.0	15.9	16.7	18.5	20.0	20.9	21.8	*
9–11 months	124	21.5	0.32	*	*	18.9	19.7	21.4	23.0	23.4	*	*
1 year	360	25.5	0.28	19.6	20.3	21.5	23.1	25.3	27.7	29.3	30.5	31.6
2 years	292	31.1	0.31	24.8	25.5	27.2	28.2	30.7	33.2	34.9	36.1	37.2
3 years	210	34.8	0.35	*	29.5	30.1	31.3	33.8	37.8	39.9	41.2	*
4 years	208	40.9	0.68	*	33.4	34.2	35.8	39.8	44.0	46.9	50.1	*
5 years	202	48.7	1.07	*	38.4	40.0	41.7	46.3	51.7	55.5	59.3	*
6 years	176	53.3	0.72	*	43.0	44.1	46.1	52.2	57.8	60.8	65.1	*
7 years	181	58.7	1.28	*	43.3	46.3	49.3	56.4	65.2	71.3	74.6	*
8 years	151	69.3	1.99	*	51.7	53.4	55.7	64.0	75.6	84.5	92.3	*
9 years	176	76.3	1.57	*	56.9	58.7	62.2	71.2	86.9	93.7	97.2	*
10 years	172	88.3	1.89	*	62.6	65.4	70.0	82.2	99.5	118.2	125.3	*
11 years	158	103.2	3.58	*	73.2	75.2	78.2	97.4	119.0	139.6	147.8	*
12 years	275	112.0	2.71	70.5	79.2	81.6	87.0	103.3	126.3	143.6	160.5	182.7
13 years	284	127.4	3.03	79.1	86.9	92.4	96.8	122.5	142.0	162.0	178.6	200.5
14 years	260	139.1	3.81	93.6	96.9	104.2	113.4	131.8	155.9	168.6	185.8	218.4
15 years	270	154.9	2.99	106.9	115.4	121.2	128.3	146.1	169.4	186.8	198.1	221.3
16 years	308	167.7	3.31	117.8	121.8	127.8	135.7	155.8	195.1	212.3	224.7	256.0
17 years	279	165.4	2.86	119.2	125.0	129.2	134.2	155.6	185.7	202.8	223.4	244.7
18 years	283	170.2	3.68	118.5	126.2	130.8	141.1	160.3	184.6	215.5	233.2	243.3
19 years	271	176.8	3.54	119.7	128.1	134.8	142.5	168.7	204.8	219.7	236.5	258.6
Female												
Birth to 2 months	81	10.9	0.22	*	*	*	9.7	10.8	11.8	*	*	*
3–5 months	94	14.9	0.23	*	*	*	13.7	14.5	16.2	*	*	*
6–8 months	122	17.9	0.30	*	*	15.7	16.1	17.7	19.4	20.2	*	*
9–11 months	126	20.2	0.25	*	*	17.5	18.1	19.9	22.1	22.7	*	*
1 year	328	24.1	0.24	18.4	19.3	20.0	21.7	24.1	26.3	27.5	28.6	29.5
2 years	335	29.5	0.29	22.4	23.7	24.6	26.6	29.0	31.8	34.0	35.4	37.0
3 years	191	34.8	0.45	*	28.2	29.5	31.2	34.2	37.0	39.3	40.8	*
4 years	226	39.4	0.46	*	32.6	33.5	35.4	38.6	42.7	44.6	45.8	*
5 years	199	45.3	0.82	*	35.1	37.2	38.7	43.3	48.7	53.8	56.1	*
6 years	193	51.5	1.08	*	40.6	42.1	43.8	48.8	55.8	60.4	65.5	*
7 years	157	60.2	1.37	*	46.5	47.9	52.7	56.6	65.5	74.1	78.3	*
8 years	184	67.7	2.07	*	49.3	51.8	55.1	62.1	74.8	86.3	92.8	*
9 years	185	81.0	2.18	*	57.9	61.3	65.3	75.0	92.7	102.8	111.8	*
10 years	189	93.5	2.35	*	64.1	67.7	71.6	89.2	108.1	122.4	129.1	*
11 years	175	108.4	2.88	*	73.3	76.7	83.7	104.3	125.1	137.6	150.3	*
12 years	249	116.7	2.88	*	80.2	89.0	96.0	109.1	131.7	148.5	168.0	*
13 years	292	126.4	2.15	81.2	90.9	94.7	103.9	119.9	139.8	160.0	167.6	195.2
14 years	269	129.6	3.85	*	97.1	101.1	106.8	120.0	142.9	167.2	178.6	*
15 years	248	134.2	1.67	*	102.4	104.9	111.7	126.9	149.0	169.0	178.5	*
16 years	253	135.6	2.10	*	104.2	109.1	117.3	129.7	147.7	157.7	175.5	*
17 years	252	145.6	3.65	*	108.1	113.3	119.4	133.6	158.5	175.6	192.5	*
18 years	272	149.0	4.75	*	105.3	109.6	120.3	138.8	168.1	190.0	203.0	*
19 years	239	148.6	3.95	*	112.2	116.4	121.9	138.9	162.2	185.8	204.3	*

* Figure does not meet standards of reliability or precision.

¹Age shown is age at time of examination.

NOTE: Pregnant females were excluded.

EXHIBIT 2

**JOINT COMMENTS
OF
AMERICAN HONDA MOTOR CO., INC.,
AMERICAN SUZUKI MOTOR CORPORATION,
ARCTIC CAT INC.,
BOMBARDIER RECREATIONAL PRODUCTS INC.,
KAWASAKI MOTORS CORP., U.S.A.,
POLARIS INDUSTRIES INC., and
YAMAHA MOTOR CORPORATION, U.S.A.**

Drivers under 16 by Engine Size (4-wheel ATVs in 2001 CPSC Injury Survey)

Age	CC	Count	CC	Age	Count
6	400	1	50	12	1
7	80	1	80	7	1
8	90	1	80	9	1
8	500	1	90	8	1
9	80	1	90	9	2
9	90	2	90	13	1
9	200	1	90	14	1
10	200	1	125	15	2
10	250	2	175	15	1
10	400	1	200	9	1
10	500	1	200	10	1
11	200	2	200	11	2
11	235	1	200	13	2
11	250	2	200	14	2
11	300	2	200	15	1
11	350	1	215	14	1
11	400	1	220	13	2
12	50	1	225	13	1
12	250	1	235	11	1
13	90	1	250	10	2
13	200	2	250	11	2
13	220	2	250	12	1
13	225	1	250	13	3
13	250	3	250	14	4
13	300	3	250	15	5
13	350	1	300	11	2
13	425	1	300	13	3
14	90	1	300	14	2
14	200	2	300	15	1
14	215	1	350	11	1
14	250	4	350	13	1
14	300	2	350	14	2
14	350	2	400	6	1
14	500	1	400	10	1
15	125	2	400	11	1
15	175	1	400	15	1
15	200	1	425	13	1
15	250	5	500	8	1
15	300	1	500	10	1
15	400	1	500	14	1

*Engine size and driver age as reported in the 2001 CPSC Injury Survey.

Drivers under 16 by Engine Size*
(4-wheel ATVs in 2001 CPSC Injury Survey)

Age	< 91	91-199	200+	Total
6	0	0	1	1
7	1	0	0	1
8	1	0	1	2
9	3	0	1	4
10	0	0	5	5
11	0	0	9	9
12	1	0	1	2
13	1	0	13	14
14	1	0	12	13
15	0	3	8	11
Total	8	3	51	62

*Engine size and driver age as reported in the 2001 CPSC Injury Survey.
 Source: CPSC ATV Injury Survey results file provided to Heiden Associates,
 March 21, 2002.

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Amendment to Standard for All-Terrain Vehicles

Document: CPSC-2011-0047-0006
Comment from Chandra Thorbole

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General Comment

Please find attached a summary regarding ATV engineering issues provided by Drs David Renfroe and Chandra K Thorbole of The Engineering Institute in Farmington, AR. Dr. Thorbole has collaborated with a group conducting multidisciplinary research on ATV safety for children based at the Arkansas Children's Hospital Research Institute. This work has included the development of a validated model of a full sized ATV ridden by a child. Further work by this group is planned to explore the challenges of handling an ATV by a child.

We recognize, with Chairman Adler, that it is important to consider the real-world use of the vehicles in rulemaking (eg children are riding the vehicles even though they are not designed for children). However, we are concerned that the new standards may not do much to protect children since it is evident that further research to improve stability and other aspects of the vehicles is still required. Further, while a uniform policy approach is desirable, it is as yet unclear whether existing state level policies are effective in preventing ATV injury.

Arkansas ATV Research Group

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Attachments

Response to NPR on ATV

Response to Commissioner Robert S. Adler request for comments

David A. Renfroe & Chandra K. Thorbole

The Engineering Institute

Handling Characteristics

1. The most interesting aspect of the NPR is the lack of a discussion concerning the handling characteristics and pitch/bounce motion of ATV's as it relates to safety. First with regards to handling, whether it is a child or an adult riding an ATV, the acrobatics required to affect a turn in the vehicle are incomprehensible when read and is a difficult task to learn when being instructed. Furthermore, after learning the gymnastics of turning, the situation in any turn is never the same twice. The problem is that the vehicles are poorly designed with regards to their handling characteristics. Considering the vehicles reach speeds of 70 MPH, the steering characteristics can cause the loss of control under the best of circumstances.

Since the 1930's vehicle dynamists have studied the principles that constitute a longitudinally stable vehicle. For both the initiation of a turn and the stability of the vehicle at high speed, the understeer gradient has been a measurement that can predict the longitudinal stability of the vehicle. What is desired is a vehicle that begins with a positive understeer gradient that gradually increases as the limit of lateral acceleration for the vehicle is approached as shown in Figure 1.

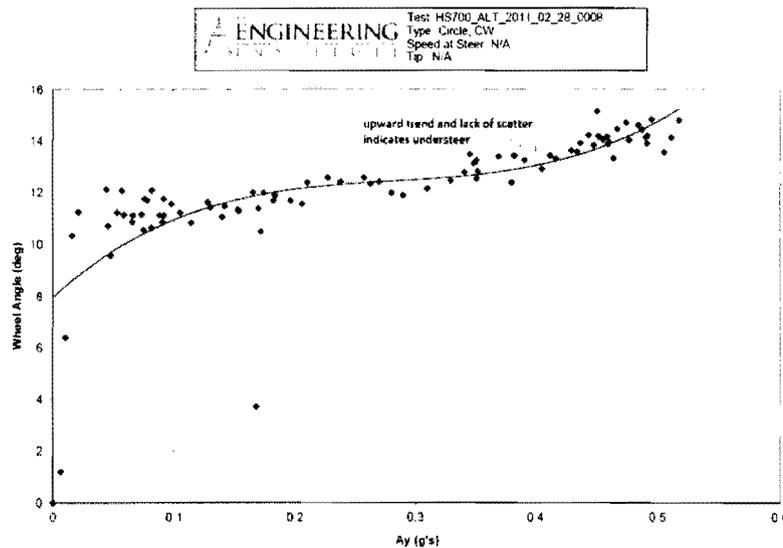


Figure1 : Desired handling characteristic.

However, the ATV has a very odd characteristic. It begins with an extremely high understeer gradient at low lateral accelerations that tend to delay the vehicle's response to a steering

maneuver from the rider, and transitions to neutral steer at between 0.3 g's to 0.4 g's that progressively worsens until it is oversteer at higher lateral accelerations as shown in Figure 2.

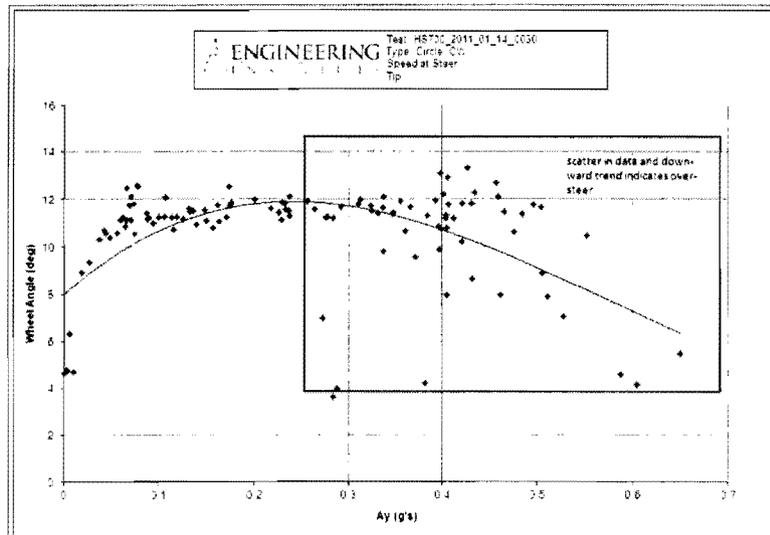


Figure 2 : Typical ATV/UTV handling characteristic.

The unwary neophyte rider while sitting astride such a vehicle, assuming that it will handle similar to a car since it has 4 wheels, can begin to ride forward on a flat uniform surface and begin to steer the vehicle. Instead of turning as would be expected, it continues to drive forward. The rider continues to input steer, not knowing he is supposed to stand up and pull up on the handlebars and put his weight on the footpeg on the outside of the intended turn, finally as the front tires develop more lateral force due to the increased slip angle from the steering angle begins to turn. As the turn progresses and lateral forces begin to build, the weight begins to shift to the outside wheels reducing the weight on the inside tires. For most solid axle ATV's the roll stiffness in the rear suspension is much higher than the roll stiffness in the front suspension, contrary to all vehicle dynamics rules of design. This causes the reduction of the weight on the tires on the inside tires to be much greater on the rear tire than on the front. For the solid axle fixed spool rear end of the ATV two things happen. First the inside rear tire is turning the same speed as the outside rear tire. When the weight is the same on the inside and outside tires the friction of the tires resist the turning of the vehicle. With the reduction of the force on the inside tire this resistance to turning is reduced. Thus the turning angle of the steering wheels becomes more effective and the angular velocity or turning velocity increases. But wait, there's more. The second effect is that with the reduction of the weight on the inside rear wheel more than the reduction of weight of the inside front wheel, the lateral force capability of the rear wheels is reduce relative to the lateral force capability of the front wheels. This results in an increase in the angular velocity of the vehicle. So once the angle of the front wheels start the vehicle turning the vehicle will tend to continue to turn in an ever decreasing arc until it spins out or rolls over. This is a classic definition of instability.

Adults that can get their feet on the foot pegs and have a significant weight relative to the vehicle have a fighting chance to control the vehicle. Children have neither of those advantages and thus are twice disadvantaged before they even start to drive. The sinister part of all of this is that it is not evident to the adults or the child. What the adult feels when they ride is not what a child will feel. Thus the danger is masked by the difference in feel and the fact that it has four wheels and thus is safer than two. Unfortunately, the two wheeler does not mask its instabilities. They are obvious and thus respected and the rider accounts for those instabilities. The four wheeler on the other hand, it not what it appears. Honda stated it aptly in an advertisement to their Japanese riders, "The ATV is a wilder horse than you would suppose." In a day when the ATV had low power and low speed, they were actually touting the uncontrollable nature of the vehicle as a source of fun and excitement. Now with the high powered high speed vehicles, obeying the time proven rules for vehicle stability is a necessary step toward safety.

Although the ATV has a solid rear axle for traction reasons, that need not be a reason for sacrificing longitudinal stability. By managing the roll stiffness couple between the front and rear axles, the extreme understeer transitioning to extreme oversteers can be controlled. Modifying the design of a Honda ATV the understeer gradient was modified as shown in the following graph in Figure3. The red curve is the original solid rear axle performance and the purple is the modified independent rear axle performance.

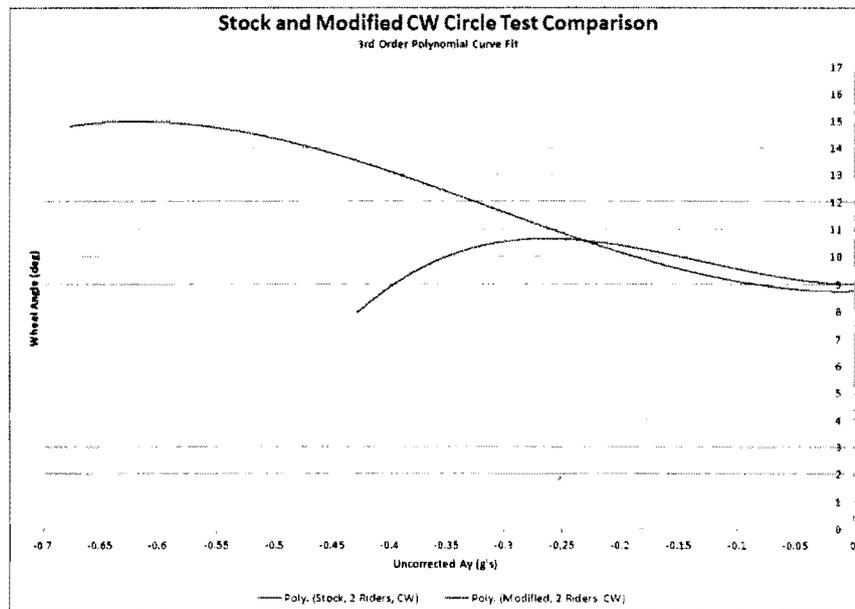


Figure 3: Modified handling characteristic with independent rear suspension instead of solid rear axel.

This was not an expensive alteration. For many of the modern ATV's there would be no cost associated with the implementation of this design alteration.

Crushing Injuries

Head injury prevention is always a primary focus and gets lots of attention. This problem can be fixed by primary prevention or by using and mandating a good quality helmet use. The crushing injury mechanism involves the ATV slamming down on the rider fallen on the ground. The computer simulation using a biodynamic code is conducted to demonstrate the crush injury mechanism. This type of injury is primarily dictated by the dynamic grip strength of the rider. The grip strength controls the detachment of the rider from the ATV which controls the relative position of the rider with respect to the flipping ATV. Crushing injuries can be prevented in UTVs with proper design of the roll cage and a proper restraint system. In the ATV, the option of a roll cage is out of question as this destroys the very reason for which people buy this recreational vehicle. In such a scenario the only way to prevent child crush injury is to prevent the accident by modifying the vehicle or not allowing the child to ride such dangerous vehicle.



Figure 4: Grip released in the initial phase of the ATV trip.

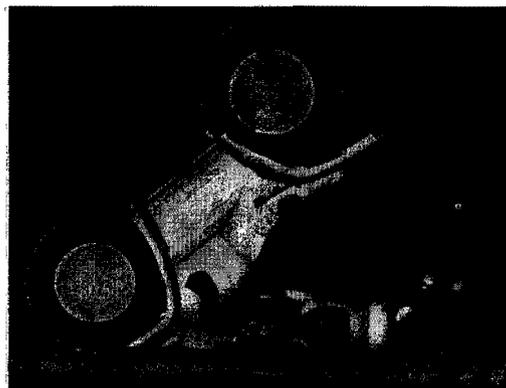


Figure 5: Grip released at the end of the ATV trip sequence.