



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

March 19, 2013

Ms. Kathy Woods
Director of Standards
Outdoor Power Equipment Institute (OPEI)
341 South Patrick Street
Alexandria, Virginia 22314

Dear Ms. Woods:

This letter responds to the recent revision of ANSI/OPEI B71.10-201x, *Off-Road Ground Supported Outdoor Power Equipment Gasoline Fuel Systems Performance Specifications and Test Procedure*. Per your letter of February 13, 2013, the B71.10 Technical Committee (subsequently referred to as committee) will reballot the revised standard because changes to several sections were deemed significant. As part of the canvass review process, U.S. Consumer Product Safety Commission (CPSC) staff has reviewed the revised draft standard and has the following comments.¹

In an August 24, 2012 letter² to you, CPSC staff recommended that the draft revised standard include various issues that currently are not addressed. The committee disagreed with all of CPSC staff comments, providing individual reasons for each comment.

In this letter, CPSC staff does not introduce any new comments. Rather, CPSC staff reinforces the points made in the August 24, 2012 letter.

First, regarding inclusion of handheld equipment in B71.10, the committee stated that revisions to individual standards for handheld products, such as chainsaws, would address fuel system leak issues. While CPSC staff applauds the OPEI for dealing with handheld products individually on some products, inclusion of fuel system performance tests into other handheld product standards should be adopted in the near future. As mentioned in the August 24, 2012 letter, CPSC databases indicate that multiple handheld products leak fuel.

Second, the committee continues to regard the issue of testing the fuel system componentry as only a one-time processing check, unless there are substantive changes. However, CPSC staff believes that the standard needs to account for changes in daily molding manufacturing processes, material changes, assembly procedures, component supplier changes, and tank deflashing procedures. We have learned in our product safety assessments that errors in some of the above-listed processes can lead to fuel leaks in

¹ These comments are those of CPSC staff and they have not been reviewed or approved by, and may not necessarily reflect the views of, the Commission.

² Letter from Mr. Han Lim, CPSC staff to Ms. Kathy Woods, OPEI, August 24, 2012.

the product. CPSC staff reiterates the recommendation that all instances of “one time qualification” be removed in Sections 3.9, 4.2, 4.3, 5.2, and 5.3.

Third, the committee disagreed with CPSC staff’s recommendation for consideration of a drop impact test on fuel tanks to guard against impact forces that the tanks can be subjected to when in use. The committee cited “a multitude of products and more data needed” as the rationale for not currently dealing with this issue. CPSC staff would be delighted to work with the committee to study the multitude of scenarios that involve impact effects. The locations of fuel tanks and other fuel system componentry can subject these components to impact forces that may lead to fuel leaks. Inclusion of the drop impact test similar to SAE J288, *Snowmobile Fuel Tanks* and ASTM F852, *Standard Specification for Portable Gasoline Containers for Consumer Use* should be considered.

Fourth, CPSC staff believes that it is possible for snow throwers to be subjected to temperature extremes during normal use. In the current version of the B71.10 standard, there are no requirements for extreme temperature soak testing. Snow thrower fuel systems can sit in extremely cold environments when they are in storage for months at a time, then be subjected to extremely high temperatures when the engines are operating. Such temperature extremes can contribute to expansion and contraction with tanks and related componentry. The committee should consider a test that specifies soak times at high- and low-temperature points. The committee should consider examining SAE J288, *Standard for Snowmobile Fuel Tanks*, which specifies stress cracking at 60°C and -40°C because, similar to snowmobiles, ground-supported equipment, such as snow throwers, can be subjected to those temperature extremes.

Fifth, CPSC staff has concerns that the current revised B71.10 standard does not specify objective criteria for evaluating bending/twisting moment and engine vibration effects. These effects can contribute to the numerous consumer complaints of leaking fuel systems. Most outdoor gasoline-powered equipment does not remain stationary; therefore, appropriate test scenarios should be designed to challenge the appliances to various vibration and moment effects. CPSC staff reinforces the comments made in the August 24, 2012 letter regarding this issue.

Industry standards play a crucial role in consumer product safety of manufactured goods. Despite the existence of the B71.10 standard, fuel leaks from outdoor gasoline-powered equipment continue to be reported and subsequently, can lead to recalls of the equipment. Improved safety standards will help reduce leaking fuel systems, reduce product recalls, and improve consumer satisfaction. CPSC staff appreciates this opportunity to provide comments on this draft standard. CPSC staff looks forward to future collaborations with the committee to improve an evolving standard that covers many gasoline-powered appliances with potential fire hazards. Please do not hesitate to contact me with questions about these comments.

Sincerely,

Han Lim
Mechanical Engineer
Division of Combustion and Fire Sciences
Directorate for Engineering Sciences

cc: Colin Church, CPSC Voluntary Standards Coordinator

Ballot for ANSI/OPEI B71.10-201X

Letter ballot for 60-day review of draft standard ANSI/OPEI B71.10-201X, American National Standard for Off-Road Ground-Supported Outdoor Power Equipment – Gasoline Fuel Systems – Performance Specifications and Test Procedures. Please check the appropriate box:

Affirmative.

Affirmative with comment(s). [Please use the supplied response form to submit your comment(s).]

Negative with reason(s). [The reason(s) for the negative vote shall be given and, if possible, should include specific wording or actions that would resolve the reason(s) for the negative vote. Please use the supplied response form to submit your negative reason(s).]

Abstain with reason(s).

I no longer wish to be to be a voting member.

Reason(s) for Abstaining: CPSC staff are not permitted to vote. However, CPSC staff is providing comments in the attached letter.

Date: _____ March 19, 2013 _____

Signed: _____

Name (print legibly please): _____ Han Lim _____

Title: _____ Mechanical Engineer _____

Company Name: _____ US Consumer Product Safety Commission _____

Address: _____ 5 Research Place _____

Address: _____ Rockville, MD 20850 _____

Tel: _____ 301-987-2327 _____ Fax: _____ 301-427-1956 _____

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Please return to OPEI by March 15, 2013 (email preferred) to:

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