



Ballot Vote Sheet

TO: The Commission
Alberta E. Mills, Secretary

THROUGH: Austin C. Schlick, General Counsel
Jason Levine, Executive Director

FROM: Daniel R. Vice, Assistant General Counsel, Regulatory Affairs
David M. DiMatteo, Attorney, Regulatory Affairs

SUBJECT: Revision to Children's Gasoline Burn Prevention Act Regulation, 16 C.F.R. part 1460

DATE: October 19, 2022

BALLOT VOTE DUE: Tuesday, October 25, 2022

In 2009, the Children's Gasoline Burn Prevention Act (CGBPA) mandated the child-resistance requirements for closures on portable gasoline containers that were found in the voluntary standard ASTM F2517-05, *Standard Specification for Determination of Child Resistance of Portable Fuel Containers for Consumer Use*. The Commission codified this requirement as a consumer product safety rule in 16 CFR part 1460.

ASTM has revised its standard and notified the Commission of the revised standard (ASTM F2157-22e1). Under the CGBPA, when ASTM notifies CPSC that it has revised ASTM F2517, the revised standard automatically is incorporated into the consumer product safety rule, unless the Commission determines that the revised standard does not carry out the purposes of section 2(b) of the CGBPA and so notifies ASTM.

Staff is forwarding to the Commission a briefing memorandum recommending that the Commission allow ASTM F2157-22e1 to become the mandatory standard for portable gasoline containers, and for staff to publish a direct final rule to update the ASTM standard incorporated by reference in 16 CFR part 1460. Attached for Commission consideration is a draft *Federal Register* notice for the latter purpose. If approved by the Commission, the Office of the General Counsel will seek approval of the incorporation by reference from the Office of the Federal Register, in accordance with the requirements in 1 CFR part 51, and upon receiving such approval, will send the notice to the *Federal Register* for publication.

Please indicate your vote on the following options:

**U.S. Consumer Product
Safety Commission**
4330 East-West Highway
Bethesda, MD 20814
cpsc.gov

**National Product Testing
& Evaluation Center**
5 Research Place
Rockville, MD 20850



Ballot Vote Sheet

I. Approve publication of the attached document in the *Federal Register*, as drafted.

(Signature)

(Date)

II. Approve publication of the attached document in the *Federal Register*, with the specified changes.

(Signature)

(Date)

III. Determine that the proposed revision does not carry out the purposes of section 2(b) of the CGBPA and therefore do not approve publication of the attached notice in the *Federal Register*.

(Signature)

(Date)

IV. Take other action specified below.

(Signature)

(Date)

Attachment: Draft *Federal Register* notice: Children’s Gasoline Burn Prevention Act Regulation

[Billing Code 6355-01-P]

CONSUMER PRODUCT SAFETY COMMISSION

16 CFR Part 1460

[Docket No. CPSC-2015-0006]

Children’s Gasoline Burn Prevention Act Regulation

AGENCY: Consumer Product Safety Commission.

ACTION: Direct final rule.

SUMMARY: The Children’s Gasoline Burn Prevention Act (CGBPA or the Act) mandated, as a consumer product safety rule, the child-resistance requirements for closures on portable gasoline containers published in the voluntary standard, ASTM F2517–05. ASTM F2517 was revised in 2015 and 2017, and the U.S. Consumer Product Safety Commission (CPSC) allowed those revisions to become mandatory pursuant to the Act. On September 1, 2022, the Commission received notice that ASTM F2517 has been revised again. In this direct final rule, the Commission evaluates the revised ASTM F2517-22e1 standard and finds that the revisions carry out the purposes of the CGBPA. Accordingly, pursuant to the Act, the 2022 revisions to the child-resistance requirements of ASTM F2517 will be incorporated into the mandatory standard for closures on portable gasoline containers. This direct final rule updates the Commission’s regulation to reflect that the requirements for closures on portable gasoline containers must meet the requirements in ASTM F2517–22e1.

DATES: The rule is effective on [INSERT DATE 30 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER], unless CPSC receives a significant adverse comment by [INSERT DATE 15 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER]. If CPSC receives such a comment, it will publish a notice in the

Federal Register, withdrawing this direct final rule before its effective date. The incorporation by reference of the publication listed in this rule is approved by the Director of the Federal Register as of [INSERT DATE 30 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: You can submit comments, identified by Docket No. CPSC-2015-0006, by any of the following methods:

Electronic Submissions: Submit electronic comments to the Federal eRulemaking Portal at: www.regulations.gov. Follow the instructions for submitting comments. Do not submit through this website: confidential business information, trade secret information, or other sensitive or protected information that you do not want to be available to the public. CPSC typically does not accept comments submitted by electronic mail (e-mail), except as described below.

Mail/hand delivery/courier/confidential Written Submissions: CPSC encourages you to submit electronic comments by using the Federal eRulemaking Portal. You may, however, submit comments by mail, hand delivery, or courier to: Office of the Secretary, Consumer Product Safety Commission, 4330 East West Highway, Bethesda, MD 20814; telephone: (301) 504-7479.

Instructions: All submissions must include the agency name and docket number. CPSC may post all comments without change, including any personal identifiers, contact information, or other personal information provided, to: www.regulations.gov. If you wish to submit confidential business information, trade secret information, or other sensitive or protected information that you do not want to be available to the public, you may submit such comments by mail, hand delivery, or courier, or you may e-mail them to: cpsc-os@cpsc.gov.

Docket: For access to the docket to read background documents or comments received, go to: www.regulations.gov, and insert the docket number, CPSC-2015-0006, into the “Search” box, and follow the prompts.

FOR FURTHER INFORMATION CONTACT:

Julio A. Alvarado, Office of Compliance and Field Operations, Consumer Product Safety Commission, 4330 East West Highway, Bethesda, MD 20814-4408; telephone (301) 504-7418; jalvarado@cpsc.gov.

SUPPLEMENTARY INFORMATION:

A. Background

The CGBPA was enacted on July 17, 2008. Section 2(b) of the Act requires that each portable gasoline container manufactured on or after January 17, 2009, for sale in the United States, “shall conform to the child-resistance requirements for closures on portable gasoline containers specified in the standard ASTM F2715-05,” *Standard Specification for Determination of Child Resistance of Portable Fuel Containers for Consumer Use*. CGBPA, Public Law 110-278; 122 Stat. 2602, Sec. 2(b) (July 17, 2008), codified as a note to 15 U.S.C. 2056. ASTM F2715-05 established requirements for determining the child resistance of gasoline containers and other types of portable fuel containers, to mitigate hazards associated with children under age 5 accessing gasoline. Section 2(a) of the Act states that the provision of section 2(b) shall be considered to be a consumer product safety rule issued by the CPSC under section 9 of the Consumer Product Safety Act, 15 U.S.C. § 2058.

Under section 2(d) of the Act, ASTM must notify the Commission of any revision to the child-resistance requirements of ASTM F2517-05. Once ASTM notifies the CPSC, the revisions will be incorporated by operation of law into the consumer product safety rule unless, within 60

days of such notice, the Commission determines that the revisions do not carry out the purposes of section 2(b) of the CGBPA, and so notifies ASTM.

In February 2015, ASTM notified CPSC that it had revised ASTM F2517-05 with the publication of ASTM F2517–15. The Commission determined that the revisions in ASTM F2517–15 carried out the purposes of section 2(b) of the CGBPA, and those revisions were incorporated into the mandatory standard in April 2015. The Commission published a direct final rule (DFR) codifying the incorporation by reference of ASTM F2517–15 at 16 CFR part 1460. 80 FR 16961 (Mar. 31, 2015). In November 2017, ASTM again notified the Commission that it had revised ASTM F2517. The Commission allowed ASTM F2517–17 to be incorporated into the mandatory standard and published a DFR updating the incorporation by reference in the CFR. 82 FR 58728 (Dec. 14, 2017).

On September 1, 2022, ASTM notified CPSC of another revision, ASTM F2517-22e1. Unless the Commission determines that the revised standard does not carry out the purposes of section 2(b) of the CGBPA and notifies ASTM of such a determination by October 31, 2022, the revision will be incorporated into the mandatory consumer product safety standard by operation of law.

As set forth in section **B. Description of the Rule** in this preamble, the Commission has determined that the revisions made to ASTM F2517 carry out the purposes of section 2(b) of the CGBPA. Accordingly, by operation of law, ASTM F2517–22e1 will be incorporated into mandatory standard, and this direct final rule updates 16 CFR part 1460 to incorporate by reference ASTM F2517-22e1.¹

¹ The Commission voted TBD-TBD to approve publication of this notice.

B. Description of the Rule

ASTM F2517-22e1, which was published in August 2022, is an editorially corrected version of ASTM F2517-22, which was published in July 2022. Compared to ASTM F2517-17, ASTM F2517-22e1 contains substantive revisions as well as editorial, non-substantive revisions. After reviewing the changes to the child-resistance requirements in sections 2 through 7 of F2517-22e1, the Commission concludes that these revisions carry out the purposes of section 2(b) of the Act.

The revisions in ASTM F2517-22e1 update the standard to reflect current gasoline container designs, remove ambiguities in the child test requirements, creates an adult test that reflects usage patterns and applies requirements to aftermarket products such as pour spouts which make it more likely that containers will not be left unsecured and accessible to children. The Commission concludes that these changes carry out the purposes of section 2(b) of the Act by improving the portable gasoline container standard, compared to the requirements of ASTM F2517-05. Below is a discussion of ASTM F2517-05, subsequent revisions to the standard, and the substantive and non-substantive changes made to ASTM F2517-22e1. These changes, and the background of the voluntary standard, are described in more detail in the CPSC staff's briefing memorandum.²

1. Requirements in ASTM F2517-05

The Act made the child-resistance requirements in ASTM F2517-05 for closures on portable gasoline containers a mandatory consumer product safety standard. Section 2(d) of the Act makes this 2005 version of the standard a benchmark for assessing revisions to the standard. ASTM F2517-05 required that container closures have adequate resistance to opening by

² Staff Briefing Memorandum available at: [INSERT WEBLINK].

children between 42 months (3 years and 6 months) and 51 months of age (4 years and 3 months). ASTM 2517-05 also required performance testing to demonstrate that containers could be opened by older adults.

The child and older adult testing requirements in ASTM F2517-05 were based on the Poison Prevention Packaging Act (PPPA), 15 U.S.C. §§ 1471-77. In 2005, gasoline containers had one opening to fill and pour from the container. To store the container, a consumer would screw on a threaded cap, typically using a ratchet mechanism similar to child-resistant medicine bottles. To fill the gasoline container, or attach a nozzle to pour from the container, one would use force and squeeze to defeat the ratchet. The nozzles used in 2005 generally did not contain any closures or child-resistance features. Containers also had a second small opening to vent the container. ASTM F2517-05 did not require a child-resistant closure for the vent opening. Gasoline vapors would escape the gasoline container through the vent opening.

ASTM F2517-05 included a requirement for a child test program using a panel of children. The child test required the container to pass a two-part test. First, the tester would ask a pair of children to open the container and give them 5 minutes to open it. If a child opened a container, the test result for that child was marked a failure. The second part of the test was for children who did not open their containers in the first part of the test. The tester would visually demonstrate opening the container, ask the children to open it, and then give the children 5 minutes to open the container. If a child opened a container, the test result was marked a failure. If a child did not open a container, the result was marked a pass.

The older adult test program used 100 adults between 50 and 70 years old, consisting of at least 70 percent women. The older adult test had two parts. First, the tester would ask an older adult to open all the caps on the container according to the instructions on the caps and

gave the older adult 5 minutes to familiarize themselves with the container and open the caps. If the older adult was unable to open the container in 5 minutes, the tester gave the older adult two “screener packages” to open. A screener package is a gasoline container with the child-resistance mechanism defeated. If the older adult was able to open both screener packages, then the test result was marked a failure, because the test showed that the child-resistance feature made the cap too difficult for the older adult to open. If the older adult could not open either screener package, then the older adult was not counted, because the older adult could not open the gas can, even with the child-resistance mechanism already defeated.

The second part of the older adult test was for older adults who opened a container in the first 5 minutes. The tester replaced the older adult’s first container with an identical container. The tester then asked the older adult to open the caps according to the instructions on them. After the older adult completed that step, the tester asked the older adult to close the caps on the container according to the instructions. A test where the older adult completed both tasks within 1 minute total was marked a pass, because the test showed that an older adult could open and close two child-resistant containers. Otherwise, the test was marked a failure. For the container to pass the older adult test, at least 90 percent of the older adults must have passed.

2. Requirements Introduced in ASTM F2517-15 and ASTM F2517-17

The 2015 and 2017 revisions are described in detail in the staff package. Significant elements of the 2015 revision included a new requirement that the tester tell the child to “use your teeth if you want to” during a child test. This instruction was based on testing provisions in the CPSC regulations related to the PPPA, 16 CFR § 1700.20. ASTM F2517-15 also expanded the scope of the standard to include diesel and kerosene containers, as well as aftermarket components.

In 2017, to account for changes to gasoline container closures, ASTM revised the requirements to prepare containers for testing as well as the instructions given to children. ASTM F2517-17 also allowed the use of centralized testing as long as socio-economic diversity was maintained. Testing laboratories were finding it difficult to test in daycare facilities, and centralized testing permitted increased testing options.

3. Ambiguities in Applying ASTM F2517-17

Gasoline container designs have changed considerably since 2005, primarily in response to U.S. Environmental Protection Agency (EPA) vapor emission requirements. Gasoline containers made before 2009 generally contained only one closure to refill and dispense gasoline. Typically, gasoline containers now contain two closures, one to secure the container after refilling (refilling closure) and a second within the spout to prevent vapors from escaping (dispensing closure). Gasoline containers also no longer contain a separate vent; instead, they use a venting mechanism incorporated in the dispensing closure.

When a dispensing closure on current gasoline containers is not activated, the opening automatically closes and seals in the fuel and vapors. This self-sealing closure is typically achieved using a spring-loaded mechanism. Opening the dispensing closure on EPA-compliant gasoline containers also generally requires a more complex series of actions (*e.g.*, insert the nozzle into receptacle, then push, then turn), compared to older gasoline containers (*e.g.*, squeeze then turn).

The ASTM subcommittee working on the 2022 standard revision identified three ambiguities that had arisen in applying ASTM F2517-17. The first involved a failure provision relating to children “accessing liquid” in the container. This requirement was added in 2017, to account for self-sealing mechanisms on EPA-compliant gasoline containers. Laboratories,

however, were uncertain whether a child passes the test who was able to open momentarily a self-sealing closure without keeping it open long enough to get liquid.

The second ambiguity involved screener packages used to determine if an older adult was an acceptable participant for testing. Prior to EPA emission limits, the screener package was typically made by replacing the child-resistant screw cap with a non-child-resistant screw cap (e.g., a screw cap with the ratchet removed) on the only closure. EPA-compliant gasoline containers, however, now also have a second closure with integrated child-resistance features, so a new approach was needed to screen older adult participants. ASTM F2517-17 did not clearly indicate a solution.

The final ambiguity involved the resealing portion of the older adult test. Older adults were given 1 minute to open and then resecure the container. EPA-compliant gasoline containers, however, now include separate dispensing closures and filling closures, and the standard did not indicate whether the dispensing closure, filling closure, or both closures, should be tested.

4. Substantive Changes to ASTM F2517

a. Accessing Liquid Failure Criteria in Child Testing

To address the ambiguity of the term “accessing liquid,” the revised standard changed the test to evaluate whether children are able to “dispense liquid” from a self-sealing closure. This new requirement maintains the understanding that a child should not gain access to the liquid, but does not necessarily fail a container with a spring-loaded closure simply because a child pressed the trigger momentarily but could not keep it open long enough to dispense liquid from the container. This revision represents an improvement over ASTM F2517–05 because it enables self-sealing solutions such as spring-loaded closures, and the momentary exposure of

children to gasoline fumes and vapors from a self-sealing closure exposes children to less fumes and vapors than a gasoline container from prior to 2009, which, by design, allowed gasoline fumes and vapors to escape.

b. Instructions to Children to Use Their Teeth

Testing laboratories indicated during the development process of ASTM F2517-22e1 that they seldom witnessed children trying to use their teeth when testing gasoline containers. Furthermore, because gasoline container closures are larger and shaped more irregularly than products like medicine bottle caps, and they rely on a sequence of actions rather than just exceeding a certain torque threshold, children are unlikely to gain a meaningful advantage by using their teeth when attempting to open a gasoline container closure. Additionally, stakeholders raised concerns that children using their teeth could sustain injuries to their mouth or swallow pieces of plastic.

Therefore, ASTM F2517-22e1 removes the instruction to encourage children to use their teeth. The standard does not prohibit children from using their teeth, so that children can interact with the closures as they choose to, including using their teeth. However, the risk of harming the children during the test is reduced, without adversely affecting the ability to ascertain the child-resistance of the container. Removing this instruction aligns with international standards.³

c. New Adult Test Replacing Previous Older Adult Test

The revised standard includes a new adult test. Adults are still given 5 minutes to read the instruction, familiarize themselves with the container, and demonstrate that it can be opened and resecured. Then the adults are given two, 1-minute periods to open and resecure each

³ CSA Z76.1, ISO 8317-15, ISO 14375:2018, EN 862:2006-02.

closure. However, the demographics, mixture of genders of adults, and suitability of participants have been changed to reflect more accurately those who actually use gasoline containers.

Many of the ASTM F2517-17 older adult test requirements were based on requirements for products subject to 16 CFR 1700.15(b)(2)(i) and the PPPA. However, the usage and demographics of users of gasoline containers differ from those for products subject to the PPPA, such as medicine bottles. Gasoline containers are generally used to fuel products for yard work (*e.g.*, lawn mowers, leaf blowers), and other activities (*e.g.*, ATVs); so gasoline container users are expected to have a baseline physical ability that allows them to complete these tasks. In addition, gasoline containers are designed to be used repeatedly, so gasoline container users are expected to have some experience in their operation.

- The new adult test requirements broaden the age range of adults, rather than all participants being between 50 and 70, as in the previous older adult test. Adults between the ages of 50 and 70 are still included; the new age distribution is:
 - 22%–28% are 18 to 29 years of age;
 - 45%–55% are 30 to 49 years of age; and
 - 22%–28% are 50 to 70 years of age.
- The new adult test includes more men, but it still requires at least 30 percent women, rather than 70 percent women, as in the previous older adult test.

The adult test also replaces the screener package with a self-certifying question, asking adult participants if they have used a gasoline container in the last 2 years. Adults who report unfamiliarity with gasoline containers are not used for the test.

Additionally, the revised standard permits adult test participants to view videos and other informative materials that might be found on the internet to reflect better the modern methods

that manufacturers use to provide information to consumers, if those test subjects attempt to find the videos. Adult participants who try to access additional information that a manufacturer has on the internet during the familiarization period of the test would be given that information by the tester. Finally, the adult test sequence specifically instructs the adult to open and reseal both the refilling and dispensing closures within 1 minute for each closure.

d. Approving a Family of Containers

In addition to addressing implementation issues that had arisen with ASTM F2517-17, ASTM F2517-22e1 allows a “family” of gasoline containers to be acceptable if the smallest container (which is very likely the easiest for children to manipulate) is tested by children and the largest container (which is very likely the hardest for children to manipulate) is tested by adults. A “family” of gasoline containers consists of containers that share the same design features, including the same child-resistance features, but in varying sizes and colors. The child-resistance features still need to be tested, but the same features do not need to be tested repeatedly when shown to be acceptable on other containers. This revision maintains child-resistance because the child-resistance features are the same within the “family” of containers. Accordingly, if children cannot access the smallest container in the family, then it is likely they will not be able to access the larger containers in the same family.

5. Non-Substantive Revisions in ASTM F2517

In addition to clarifying ambiguities in the prior standard, as discussed above, the ASTM subcommittee made several non-substantive changes to the standard that are relevant to CPSC’s implementation of the Act. First, ASTM F2517-22e1 newly includes the terms “dispensing system,” “closure,” “filling opening,” and “portable fuel container” in the terminology section.

ASTM F2517-22e1 also includes a new “requirements” section, Section 4. Requirements that are applicable to both child and adult testing were moved into this section.

Two unnecessary requirements were removed from ASTM F2517. The ASTM subcommittee removed repetitive testing steps for containers where dispensing systems may be stowed in the container. Some modern gasoline containers include a dispensing system that is stowed for sale, but is not intended or practical for the consumer to re-stow in regular use. Un-stowing a dispensing system was an unnecessary component to testing. Additionally, a requirement to seal containers 72 hours before testing was removed because statistical data indicated that the torque required to open the container did not change over time.

The readability of ASTM F2517-22e1 was improved. The protocol steps are now written in the imperative. For instance, the language stating that “the testing shall take place in a well-lit location that is or becomes familiar to the children and is isolated from all distractions” was revised to state in the imperative “conduct the testing in a test area that is well-lit and where the children are isolated from all distractions.” The test protocols also were reorganized into a consistent structure of “Test Parameters,” “Test Environment,” and “Test Panel.”

These non-substantive changes do not impact the purposes of the Act regarding the child resistance requirements, because the technical requirements that affect the determination of child resistance were not changed.

6. Change to Statutory Definition of “Portable Gasoline Container”

When Congress enacted the CGBPA in 2008, section 2(c) of the Act defined “portable gasoline container” as “any portable gasoline container intended for use by consumers.” In 2020, Congress amended the definition of “portable gasoline container,” by inserting after “for use by consumers” the following: “and any receptacle for gasoline, kerosene, or diesel fuel,

including any spout, cap, and other closure mechanism and component of such receptacle or any retrofit or aftermarket spout or component intended or reasonably anticipated to be for use with such receptacle, produced or distributed for sale to or use by consumers for transport of, or refueling of internal combustion engines with, gasoline, kerosene, or diesel fuel.”⁴ The current mandatory standard incorporated the previous statutory definition at 16 CFR 1460.2. This definition is being updated to reflect the revised statutory definition. Therefore, in addition to updating the incorporation by reference to ASTM F2517-22e1, the draft final rule also updates the definition of “portable gasoline container” stated in 16 CFR 1460.2 to reflect the current statutory definition.

C. Direct Final Rule Process

The Commission is issuing this rule as a direct final rule. Although the Administrative Procedure Act (APA; 5 U.S.C. 551-559) generally requires agencies to provide notice of a rule and an opportunity for interested parties to comment on it, section 553 of the APA provides an exception when the agency “for good cause finds” that notice and comment are “impracticable, unnecessary, or contrary to the public interest.” *Id.* 553(b)(B). The Commission concludes that when it updates a reference to ASTM F2517 that is incorporated by reference under section 2(d) of the CGBPA, notice and comment are not necessary.

Specifically, under section 2(d) of the CGBPA, when ASTM revises ASTM F2517, that revision will become the new CPSC standard, unless the Commission determines that ASTM’s revision does not carry out the purposes of section 2(b) of the Act. Thus, unless the Commission makes such a determination, the ASTM revision becomes CPSC’s mandatory standard by

⁴ The amendment to this definition was contained in the Portable Fuel Container Safety Act of 2020, codified at 15 U.S.C. § 2056d, as stated Pub. L. No. 116–260, div. FF, title IX, § 901(c), available at: <https://www.govinfo.gov/content/pkg/PLAW-116publ260/pdf/PLAW-116publ260.pdf>.

operation of law. The Commission is allowing ASTM F2517-22e1 to become CPSC’s new standard. The purpose of this direct final rule is to update the Code of Federal Regulations (CFR) so that it reflects the version of the standard that takes effect by statute. This rule updates the reference in the CFR, but under the terms of the CGBPA, ASTM F2517-22e1 takes effect as the new CPSC mandatory standard for portable fuel containers, even if the Commission does not issue this rule. Additionally, the revision of the definition of portable gasoline container in the regulation is merely to ensure the definition comports with the revised statutory definition. Thus, public comments would not alter substantive changes to the standard or the effect of the revised standard as a consumer product safety standard under section 2(b) of the CGBPA. Under these circumstances, notice and comment are unnecessary.

In Recommendation 95-4, the Administrative Conference of the United States (ACUS) endorses direct final rulemaking as an appropriate procedure to expedite rules that are noncontroversial and not expected to generate significant adverse comments. *See* 60 FR 43108 (Aug. 18, 1995). ACUS recommends that agencies use the direct final rule process when they act under the “unnecessary” prong of the good cause exemption in 5 U.S.C. 553(b)(B). Consistent with the ACUS recommendation, the Commission is publishing this rule as a direct final rule, because CPSC does not expect any significant adverse comments.

Unless CPSC receives a significant adverse comment by [INSERT DATE 15 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER], the rule will become effective on [INSERT DATE 30 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER]. In accordance with ACUS’s recommendation, the Commission considers a significant adverse comment to be “one where the commenter explains why the rule would be inappropriate,” including an assertion challenging “the rule’s underlying premise or approach,”

or a claim that the rule “would be ineffective or unacceptable without a change.” 60 FR 43108, 43111 (Aug. 18, 1995). As noted, this rule merely updates a reference in the CFR to reflect a change that occurs by statute and a change to the statutory definition of “portable fuel container,” and public comments should address these specific actions.

If the Commission receives a significant adverse comment, the Commission will withdraw this direct final rule. Depending on the comment and other circumstances, the Commission may then incorporate the adverse comment into a subsequent direct final rule or publish a notice of proposed rulemaking, providing an opportunity for public comment.

D. Incorporation by Reference

Section 1460.3 of the direct final rule incorporates by reference ASTM F2517-22e1. The Office of the Federal Register (OFR) has regulations regarding incorporation by reference. 1 CFR part 51. Under these regulations, agencies must discuss, in the preamble to a final rule, ways in which the material the agency incorporates by reference is reasonably available to interested parties, and how interested parties can obtain the material. In addition, the preamble to the final rule must summarize the material. 1 CFR 51.5(b).

In accordance with the OFR regulations, section **B Description of the Rule** of this preamble summarizes the major provisions of ASTM F2517-22e1 that the Commission incorporates by reference into 16 CFR part 1460. The standard is reasonably available to interested parties. Until the direct final rule takes effect, a read-only copy of ASTM F2517-22e1 is available for viewing, at no cost, on ASTM’s website at: www.astm.org/CPSC.htm. Once the rule takes effect, a read-only copy of the standard will be available for viewing, at no cost, on the ASTM website at: www.astm.org/READINGLIBRARY/. Interested parties can also schedule an appointment to inspect a copy of the standard at CPSC’s Office of the Secretary, U.S.

Consumer Product Safety Commission, Room 820, 4330 East West Highway, Bethesda, MD 20814, telephone: (301) 504-7479; e-mail: cpsc-os@cpsc.gov. Interested parties can purchase a copy of ASTM F2517-22e1 from ASTM International, 100 Barr Harbor Drive, P.O. Box C700, West Conshohocken, PA 19428-2959 USA; telephone: (610) 832-9585; www.astm.org.

E. Effective Date

The CGBPA provides that “the proposed revision shall be incorporated in the consumer product safety rule . . . unless, within 60 days of such notice, the Commission notifies ASTM International that the Commission has determined that such revision does not carry out the purposes” of section 2(b) of the Act. Unless the Commission receives a significant adverse comment by [INSERT DATE 15 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER], the rule will become effective on [INSERT DATE 30 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER]. Portable gasoline containers manufactured or imported on or after the effective date must comply with the child-resistance requirements for closures on portable gasoline containers in ASTM F2517–22e1.

F. Certification

Section 14(a) of the CPSA requires that products subject to a consumer product safety rule under the CPSA, or to a similar rule, ban, standard, or regulation under any other act enforced by the Commission, be certified as complying with all applicable CPSC requirements. 15 U.S.C. 2063(a). Such certification must be based on a test of each product, or on a reasonable testing program. Because ASTM F2517–22e1 is considered a consumer product safety rule under the CPSA, portable gasoline containers manufactured or imported on or after [INSERT DATE 30 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER], are

subject to the testing and certification requirements of section 14 of the CPSA with respect to ASTM F2517-22e1.

G. Regulatory Flexibility Act

The Regulatory Flexibility Act (RFA; 5 U.S.C. 601-612) generally requires agencies to review proposed and final rules for their potential economic impact on small entities, including small businesses, and prepare regulatory flexibility analyses. 5 U.S.C. 603, 604. The RFA applies to any rule that is subject to notice and comment procedures under section 553 of the APA. *Id.* As discussed in section **C. Direct Final Rule Process** of this preamble, the Commission has determined that notice and the opportunity to comment are unnecessary for this rule. Therefore, the RFA does not apply. CPSC also notes the limited nature of this document, which merely updates the incorporation by reference to reflect the standard that becomes mandatory under the CGBPA and to conform the definition of “portable gasoline containers” in the regulation with the revised statutory definition.

H. Environmental Considerations

The Commission’s regulations provide a categorical exclusion for the Commission’s rules from any requirement to prepare an environmental assessment or an environmental impact statement where they “have little or no potential for affecting the human environment.” 16 CFR 1021.5(c)(2). This rule falls within the categorical exclusion, so no environmental assessment or environmental impact statement is required.

I. Preemption

Section 26(a) of the CPSA provides that where a consumer product safety standard is in effect and applies to a product, no state or political subdivision of a state may either establish or continue in effect a requirement dealing with the same risk of injury unless the state requirement

is identical to the federal standard. 15 U.S.C. 2075(a). Section 26(c) of the CPSA also provides that states or political subdivisions of states may apply to CPSC for an exemption from this preemption under certain circumstances. The CGBPA deems rules issued under that statute a “consumer product safety rule.” Therefore, once a rule issued under the CGBPA takes effect, it will preempt in accordance with section 26(a) of the CPSA.

J. Congressional Review Act

The Congressional Review Act (CRA; 5 U.S.C. 801-808) states that before a rule can take effect, the agency issuing the rule must submit the rule, and certain related information, to each House of Congress and the Comptroller General. 5 U.S.C. 801(a)(1). The CRA submission must indicate whether the rule is a “major rule.” The CRA states that the Office of Information and Regulatory Affairs determines whether a rule qualifies as a “major rule.”

Pursuant to the CRA, this rule does not qualify as a “major rule,” as defined in 5 U.S.C. 804(2). To comply with the CRA, CPSC will submit the required information to each House of Congress and the Comptroller General.

List of Subjects in 16 CFR Part 1460

Consumer protection, Gasoline, Incorporation by reference, Safety.

For the reasons stated above, the Commission amends 16 CFR part 1460 as follows:

PART 1460—CHILDREN’S GASOLINE BURN PREVENTION ACT REGULATION

1. Revise the authority citation for part 1460 to read as follows:

Authority: Sec. 2, Pub. L. 110–278, 122 Stat. 2602; and Pub. L. No. 116–260, div. FF, title IX, § 901(c).

2. Revise § 1460.2 to read as follows:

§ 1460.2 Definition

Portable fuel container means any portable gasoline container intended for use by consumers and any receptacle for gasoline, kerosene, or diesel fuel, including any spout, cap, and other closure mechanism and component of such receptacle or any retrofit or aftermarket spout or component intended or reasonably anticipated to be for use with such receptacle, produced or distributed for sale to or use by consumers for transport of, or refueling of internal combustion engines with, gasoline, kerosene, or diesel fuel.

3. Revise § 1460.3 to read as follows:

§ 1460.3 Requirements for child-resistance for closures on portable gasoline containers.

Each portable gasoline container manufactured on or after [INSERT DATE 30 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER] for sale in the United States shall conform to the child-resistance requirements for closures on portable gasoline containers specified in sections 2 through 7 of ASTM F2517-22e1, *Standard Specification for Determination of Child Resistance of Portable Fuel Containers for Consumer Use*, approved June 1, 2022. The Director of the Federal Register approves this incorporation by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. A read-only copy of the standard is available for viewing on the ASTM website at www.astm.org/READINGLIBRARY/. You may obtain a copy from ASTM International, 100 Barr Harbor Drive, PO Box C700, West Conshohocken, PA 19428-2959; telephone (610) 832-9585; www.astm.org. You may inspect a copy at the Office of the Secretary, U.S. Consumer Product Safety Commission, Room 820, 4330 East West Highway, Bethesda, MD 20814, telephone (301) 504-7479, e-mail cpsc-os@cpsc.gov, or at the National Archives and Records Administration (NARA). For

information on the availability of this material at NARA, e-mail fr.inspection@nara.gov, or go to: www.archives.gov/federal-register/cfr/ibr-locations.html.

Dated: _____

Alberta E. Mills, Secretary
Consumer Product Safety Commission

Memorandum

TO: The Commission
Alberta E. Mills, Secretary

THROUGH: Austin C. Schlick, General Counsel
Jason K. Levine, Executive Director
DeWane Ray, Deputy Executive Director for Safety
Operations

FROM: Duane E. Boniface, Assistant Executive Director
Office of Hazard Identification and Reduction

Scott Ayers, Fire Program Area Manager
Directorate for Engineering Sciences

SUBJECT: Staff Recommendation to the Commission on Revisions to
ASTM F2517, Standard Specification for Determination of Child
Resistance of Portable Fuel Containers for Consumer Use

DATE: October 19, 2022

I. Introduction

Section 2(b) of the Children’s Gasoline Burn Prevention Act (the Act)¹ requires that portable gasoline containers manufactured for sale in the United States on or after January 17, 2009 (6 months after enactment) “shall conform to the child-resistance requirements for closures on portable gasoline containers specified in the standard ASTM F2517-05 . . .” The Act provides that this requirement shall be considered a consumer product safety rule issued under section 9 of the Consumer Product Safety Act (CPSA).

Regarding revisions to ASTM 2517, section 2(d) of the Children’s Gasoline Burn Prevention Act, states:

(d) Revision of Rule.—If, after enactment of this Act, ASTM International proposes to revise the child resistance requirements of ASTM F2517-05, ASTM International shall notify the Consumer Product Safety Commission of the proposed revision and the proposed revision shall be incorporated in the consumer product safety rule under subsection (a) unless, within 60 days of such notice, the Commission notifies ASTM

¹ Children’s Gasoline Burn Prevention Act, Pub. L. No. 110-278, § 2(b) (July 17, 2008), available at: <https://www.congress.gov/110/plaws/publ278/PLAW-110publ278.pdf>, as amended by the Consolidated Appropriations Act of 2021, Pub. L. No. 116–260, div. FF, title IX, § 901(c), available at: <https://www.govinfo.gov/content/pkg/PLAW-116publ260/pdf/PLAW-116publ260.pdf>.

International that the Commission has determined that such revision does not carry out the purposes of [section 2](b).

ASTM previously revised F2517-05 twice, in 2015 and 2017, and pursuant to the Act the Commission incorporated each of these revisions into the mandatory consumer product safety rule, 16 CFR part 1460.^{2,3}

ASTM published a new revised version of the standard in July 2022 (ASTM F2517-22) and then editorially corrected it in August 2022 (ASTM F2517-22e1). On September 1, 2022, ASTM notified the Commission of the ASTM F2517-22e1 revision.⁴ Under the revisions provision in the Act, the revised child-resistance requirements of ASTM F2517-22e1 will be incorporated into 16 CFR part 1460 by operation of law, unless the Commission notifies ASTM by October 31, 2022, that ASTM F2517-22e1 does not carry out the purposes of section 2(b) of the Act.

Staff recommends that if the Commission determines that the revised requirements in the standard carry out the purposes of section 2(b) of the Act, then it should revise the rule at 16 CFR part 1460 to incorporate by reference the updated ASTM standard, ASTM F2517-22e1. Currently, 16 CFR § 1460.3 incorporates by reference sections 2 through 6 of ASTM F2517-17.

As described below, staff concludes that the revisions to the child-resistance requirements in ASTM F2517-22e1 carry out the purposes of section 2(b) of the Act and recommends that the Commission approve the revised standard to be incorporated into 16 CFR part 1460. The Office of the General Counsel (OGC) is providing a draft direct final rule (DFR) to the Commission to update the incorporation by reference of the voluntary standard.

In addition to updating the incorporation by reference, the DFR also would include an updated definition in 16 CFR § 1460.2 of “portable gasoline container” . The Act originally defined “portable gasoline container” as “any portable gasoline container intended for use by consumers.” In 2020, however, Congress amended the definition of “portable gasoline container” by inserting after “for use by consumers” the following: “and any receptacle for gasoline, kerosene, or diesel fuel, including any spout, cap, and other closure mechanism and component of such receptacle or any retrofit or aftermarket spout or component intended or reasonably anticipated to be for use with such receptacle, produced or distributed for sale to or use by consumers for transport of, or refueling of internal combustion engines with, gasoline, kerosene, or diesel fuel.”⁵ Accordingly, staff recommends that this definition be updated to reflect the revised statutory definition.

² The Commission published a direct final rule incorporating by reference the revised standard, ASTM F2517-15, 80 Fed. Reg. 16961 (March 31, 2015).

³ The Commission published a direct final rule incorporating by reference the revised standard, ASTM F2517-17, 82 Fed. Reg. 58782 (December 14, 2017).

⁴ ASTM F2517-22 was approved on June 1, 2022.

⁵ The amendment to this definition was contained in the Portable Fuel Container Safety Act of 2020, codified at 15 U.S.C. § 2056d, as stated Pub. L. No. 116–260, div. FF, title IX, § 901(c), available at: <https://www.govinfo.gov/content/pkg/PLAW-116publ260/pdf/PLAW-116publ260.pdf>.

II. General Description of Evolution of ASTM F2517

A. Requirements in ASTM F2517-05

The Act made the child-resistance requirements for closures on portable gasoline containers specified in the standard ASTM F2517-05 a mandatory consumer product safety standard. Pursuant to section 2(d) of the Act, staff use this standard and version as the benchmark for assessing updates. Under ASTM F2517-05, *Standard Specification for Determination of Child Resistance of Portable Fuel Containers for Consumer Use*, closures on affected containers subject to the standard were required to show adequate resistance to children between 42 months (3 years and 6 months) and 51 months of age (4 years and 3 months). ASTM 2517-05 also required performance testing on containers subject to the standard to demonstrate that the closures can be opened by older adults. Aftermarket components were not required to be child resistant.

The child testing and older adult testing requirements for gasoline containers in ASTM F2517-05 were developed based on the Poison Prevention Packaging Act (PPPA), 16 CFR part 1700. In 2005, gasoline containers had one opening used to fill and pour from the container. To store the container, a consumer would screw a threaded cap over the opening; that threaded cap would typically use a ratchet mechanism to provide the child resistance. This ratchet mechanism was similar to the child-resistance features used for medicine bottles. To fill the container or attach a nozzle to pour from the container, one would use force and squeeze to defeat the ratchet, then unscrew the cap. The nozzles used on gasoline containers in 2005 generally did not contain any closures or child resistance features. At that time, gasoline containers also had a second small opening used to vent the container during filling and pouring. This second opening tended to be a small hole that was typically left open by the consumer. ASTM F2517-05 did not require a child resistant closure for the vent opening. Gasoline vapors would escape the gasoline container through the vent opening.

Prior to testing, containers were conditioned at 0 °F for 8 hours, 140 °F for 8 hours, and all closures were opened and re-secured 250 times. Each container was inspected for damage or fuel leakage and damaged or leaking containers not tested. The container would then be filled to half the rated capacity with water and sealed for at least 72 hours before testing with the required torque recorded. Also, any additional closures not being tested were locked out so the children and adults could focus on the closure being tested.

The child test program in ASTM F2517-05 used a panel of 50, 100, 150, or 200 children, depending on initial results. The child test required the container to pass a two part test: first, the tester would ask a pair of children to “*Please try to open this for me*” and then would give the children 5 minutes to open the container. If a child opened his/her container, the test result for that child was marked a failure. The second part was for the children who did not open their containers. The tester would visually demonstrate opening the container and then the tester would then ask the child(ren) “*Now you try to open your containers*” and then would give the children another 5 minutes to open the container. If a child opened his/her container, the test result was marked a failure. If a child did not open his/her container, the test result was marked a pass.

ASTM F2517-05 required the container to pass one of the following conditions:

- A container had a pass result of at least 94% for a panel of 50 children.

- A container had a pass result of at least 90% for a panel of 100 children.
- A container had a pass result of at least 88% for a panel of 150 children.
- A container had a pass result of at least 85% for a panel of 200 children.

The older adult test program used a group of 100 adults between 50 and 70 years old, with at least 70 percent being women. The older adult test had two parts: first, the tester would ask an older adult to “*please open all the caps on this container according to the instructions on the caps*” and then gave the older adult 5 minutes to familiarize themselves with the container and open the caps. If the older adult was unable to open the container in 5 minutes, the tester gave the older adult two “screener packages” to open. A “screener package” is a product (e.g., gasoline container) with the child-resistance mechanism defeated. If the older adult was able to open both “screener packages,” the test result was marked a failure, because the test showed that the child-resistance feature made the cap too difficult for the older adult to open. If the older adult could not open either “screener package,” the older adult was not counted, because the older adult could not open the gasoline container even with the child-resistance mechanism already defeated, and the older adult was dismissed.

The second part of the older adult test was for the older adults who opened their containers in the first 5 minutes. The tester removed the first container from the older adult and replaced it with an identical container. The tester then asked the older adult to “*please open all the caps on it according to the instructions on the caps.*” Then after the older adult completed that step, the tester asked the older adult to “*please close all the caps on the container properly, according to the instructions on the caps.*” A test where the older adult completed both tasks within 1 minute total was marked a pass, because the test showed that an older adult could open and close two child-resistant containers. Otherwise the test was marked a failure. For the container to pass the older adult test, at least 90 percent of the older adults must have passed.

B. *Requirements Introduced in ASTM F2517-15 and ASTM F2517-17*

In 2015 ASTM added a requirement that the tester specifically tell the child that “you can use your teeth if you want to” during a child test. This instruction was based on testing provisions in the CPSC regulations related to the PPPA, 16 CFR § 1700.20. ASTM F2517-15 also expanded the scope of the standard to include diesel and kerosene containers as well as aftermarket components. Prior to this, aftermarket components generally were not child resistant. Diesel and kerosene present similar safety concerns to children as gasoline.

In 2017 ASTM revised the statement the tester gives the children from “*Please try to open the container*” to “*Please keep trying to open this for me or to get the liquid out*” which is directed twice during the child testing. And it also revised the statement the tester gives the children from “*Now you try to open your container*” to “*Now you try to open your container or get the liquid out*” which is directed once during the child testing. Both statements were revised to account for changes that had been integrated into gasoline container closures.

ASTM F2517-17 also changed the water fill requirement for testing gasoline containers from “half full” to “one-quarter full.” Children and adult tests were conducted with the gasoline containers with water; for a one-gallon gasoline container ASTM F2517-17 required approximately 2.1 lbs of water, as opposed to the approximately 4.2 lbs of water previously. The committee adopted these lower weight limits so it would be easier for children to manipulate. ASTM F2517-17 also removed the requirement to lock out any closure not under

test. Testing laboratories reported that children would frequently focus on the lock-out mechanism and not try to access the liquid. The lock-out requirement was originally intended to allow the child to focus on the closure under test.

Finally, ASTM F2517-17 allowed the use of centralized testing as long as socio-economic diversity was maintained. Testing laboratories were finding it increasingly difficult to test in daycare facilities, and centralized testing permitted increased testing options.

III. ASTM's Reasons for 2022 Revision to F2517

Gasoline container designs have changed considerably since 2005, primarily in response to vapor emission limiting requirements enacted by the U.S. Environmental Protection Agency (EPA). Prior to 2009, gasoline containers generally had one opening and one closure for that opening, which ASTM F2517 required to be child-resistant. A vent hole was included in designs, but was not considered an opening, and thus it did not need to be child resistant. Consequently, gasoline containers required significant re-design to meet the vapor emissions standards along with child-resistance. Gasoline containers manufactured after 2009 met EPA standards but incorporated features not considered in 2005, necessitating an update to ASTM F2517.

As noted above, gasoline containers made before 2009 generally contained only one closure that was opened to refill and dispense gasoline. Typically, gasoline containers now contain two closures, one used to secure the gasoline container after refilling (refilling closure) and a second within the spout to prevent gasoline vapors from escaping (dispensing closure), see Figure 1. Gasoline containers also no longer contain a separate vent, instead the venting mechanism is incorporated into the dispensing closure to ensure a smooth pour while dispensing.



Figure 1. Examples of Modern Gasoline Containers. With (A) the refilling closure and (B) the dispensing closure trigger identified.

When a dispensing closure on current gasoline containers is not activated, the opening automatically closes and seals in the fuel and its vapors. This self-sealing is typically achieved using a spring-loaded mechanism. Opening the dispensing closure on EPA-compliant gasoline containers also generally requires a more complex series of actions (e.g., insert the nozzle into receptacle, then push, then turn) compares to older gasoline containers (e.g., squeeze then turn).

A. Interpretation Ambiguities in ASTM F2517-17

In 2017, after the Commission determined that ASTM F2517-17 carried out the purpose of the Act and allowed this revision to be incorporated into 16 CFR § 1460.3, CPSC's Office of Compliance and Field Investigations required all gasoline containers to be tested to ASTM F2517-17, even if the gasoline containers were previously tested to ASTM F2517-15, and provided guidance for manufacturers and importers to issue a General Certificate of Conformity

(GCC) for a gasoline container. Consequently, testing laboratories that were familiar with PPPA testing, but had not previously tested gasoline containers, were contracted to test gasoline containers to ASTM F2517-17. Manufacturers soon learned that some testing laboratories interpreted sections of ASTM F2517-17 differently than other testing laboratories. From this experience, the ASTM F15.10 subcommittee identified three key ambiguities in ASTM F2517-17 that caused interpretation issues:

The Failure Criteria of Children “Accessing Liquid”

The first ambiguity in ASTM F2517-17 involved the the failure provision of children “accessing liquid” in the container. The wording of this requirement was added in 2017 to account for self-sealing mechanisms on EPA-compliant gasoline containers. However, testing laboratories found the term “accessing liquid” to be a subjective determination when evaluating self-sealing closures. Testing laboratories were uncertain whether to pass a child in a situation where s/he had enough strength and dexterity to open momentarily a self-sealing closure but could not keep the closure open long enough to get liquid out. During a public meeting to discuss the issue, CPSC staff and the ASTM F15.10 subcommittee expressed the view that the container’s child-resistance should not be considered a failure if a child managed to open momentarily a self-sealing closure but could not keep the mechanism open long enough to access liquid because it immediately self-sealed. The group concluded that a failure should be when the child was able to get liquid out because that would present a risk that a child could ingest the fuel. Notably, the momentary exposure of children to gasoline fumes and vapors from a momentary opening of a self-sealing closure exposes children to far less fumes and vapors than the exposure from a pre-2009 gasoline container that vents vapors before and while the child interacts with the container.

The “Screener Package” for Modern Gasoline Containers

The second ambiguity involved the “screener packages” used to determine if an older adult was an acceptable participant for testing. In ASTM F2517-05, F2517-15, and F2517-17, an older adult, who failed the initial 5-minute familiarization period, was given two “screener packages” to open. If the older adult was unable to open both “screener packages,” s/he was deemed to be an unacceptable participant, and her/his results were not counted, because that older adult could not open a non-CR closure. Prior to EPA emission limits, the “screener package” was typically made by replacing the child-resistant screw cap with a non-child-resistant screw cap (e.g., a screw cap with the ratchet removed) on the only closure. EPA-compliant gasoline containers have a second closure with the child-resistance features integrated into the dispensing features of the closure. Creating a non-child-resistant gasoline container would not be representative of closures being used, so the consensus view was that a new approach would be necessary to screen older adult participants.

The Resecuring Portion of the Older Adult Test

The final ambiguity involved the resealing portion of the older adult test. Older adults were given 1 minute to open and then resecure the container. However, EPA-compliant gasoline containers include separate dispensing closures and filling closures, and there was no indication in the standard whether the dispensing closure or filling closure, or both closures, should be tested. The ASTM F15.10 subcommittee and CPSC staff, during a public meeting to discuss the

issues, concluded that each closure should be evaluated separately with its own 1-minute test, given that they serve different purposes.

B. Reasons to Revise *ASTM F2517-17*

These three ambiguities described above arose because modern gasoline containers complying with the EPA emissions requirements have design features that did not exist when the child and older adult test requirements in ASTM F2517 were developed. The child-resistance requirements for gasoline containers in ASTM F2517-05, ASTM F2517-15, and ASTM F2517-17 were developed based on a framework for assessing child resistance of gasoline containers manufactured before the advent of modern design innovations which addressed EPA emission requirements. However, after the design changes implemented to meet EPA emissions requirements, the ambiguities of ASTM F2517-17 and previous versions of ASTM F2517 have created uncertainty and potential inconsistency in testing the overall child-resistance (as well as accessibility to older adults) of modern gasoline containers compared to gasoline containers manufactured in 2005.

Therefore, the ASTM F15.10 subcommittee on portable fuel containers set out to revise ASTM F2517-17, considering modern gasoline containers currently on the market to address these ambiguities and any other issues identified during discussions. Staff actively worked with the stakeholders on the ASTM F15.10 subcommittee to develop changes to ASTM F2517 that reflect both EPA and child-resistance requirements. The revisions to the standard, and staff's assessment of the impact of the changes, are summarized below and grouped by substantive and non-substantive changes.

IV. Summary of Changes in *ASTM F2517-22e1*

ASTM F2517-22e1 is a substantial re-write of the standard, including changes to generally improve readability and organization of the voluntary standard. The pertinent changes are summarized into five sections below. The first four sections address substantive changes to the standard, the fifth section addresses non-substantive changes.

A. *Accessing Liquid Failure Criteria in Child Testing*

As noted, the ASTM F15.10 subcommittee found the failure criteria in ASTM 2517-17 of children "accessing liquid" to be ambiguous when applied to today's EPA-compliant containers. In ASTM 2517-22e1, the failure criteria for children "accessing liquid" from containers with self-sealing closures was changed to "dispense liquid." No change was made if a container does not have a self-sealing closure; however such a container would most likely not meet EPA requirements. This new requirement maintains the understanding that the child should not gain access to the liquid, but it does not necessarily fail a container with a spring-loaded closure simply because a child pressed the trigger momentarily but could not keep it open long enough to access the liquid in the container. Prior to 2009, gasoline containers that met ASTM F2517-05 allowed gasoline fumes and vapors to freely escape the gasoline container. Momentary opening of a self-sealing closure exposes children to no more fumes and vapors than a gasoline container from prior to 2009, which met ASTM F2517-05.

B. *Instructions to Children to Use Their Teeth*

Testing laboratories indicated during the development process of ASTM F2517-22e1 that they seldom witnessed children trying to use their teeth when testing gasoline containers. As a

practical matter, gasoline container closures are much larger and shaped more irregularly than products subject to 16 CFR § 1700.20, such as medicine bottle caps. Gasoline containers rely on a sequence of actions to open the container and not just exceeding a certain torque threshold. Therefore, staff agreed with the ASTM F15.10 subcommittee's position that a child is unlikely to gain an advantage by using their teeth when attempting to open a gasoline container closure. Additionally, stakeholders on the ASTM F15.10 subcommittee raised concerns that children using their teeth could sustain injuries to their mouth or accidentally swallow pieces of plastic.

Therefore, during the development of the ASTM F2517-22e1 revision, the ASTM F15.10 subcommittee removed the instruction to encourage children to use their teeth. During testing, children still can interact with the closures as they choose to, including using their teeth. Removing this instruction also aligns with ASTM F2517-05, which did not include this instruction, as well as international standards.⁶ The revisions were balloted to the ASTM F15 committee and passed.

C. *New Adult Test Replacing Previous Older Adult Test*

As identified above, the ASTM F15.10 subcommittee found two issues with the older adult tests in ASTM F2517-17, the first regarding the "screening package" to verify suitability of the older adult participant, and the second regarding which closure(s) the older adult should test. The ASTM subcommittee decided to develop a new adult test in place of the older adult test. This approach accounts for the design of modern gasoline containers and their usage patterns today. The elements of the test were kept similar. Adults are still given 5 minutes to read the instruction, familiarize themselves with the container, and demonstrate that it can be opened and resecured. Then the adults are given two 1-minute periods to open and resecure each closure. However, the demographics, mixture of genders of adults, and suitability of participants were changed to reflect more accurately those who actually use gasoline containers.

Many of the ASTM F2517-17 older adult test requirements were based on requirements for products subject to 16 CFR § 1700.15(b)(2)(i) and the PPPA. However, the usage and demographics of users of gasoline containers versus products subject to the PPPA such as medicine bottles are different. Gasoline containers are generally used to fuel products used for yard work (e.g., lawn mowers, leaf blowers), and other activities (e.g., ATVs), so gasoline container users are expected to have a baseline physical ability that allows them to complete these tasks. In addition, gasoline containers are designed to be used repeatedly, so gasoline container users are expected to have some experience in their operation.

- The new adult test requirements in ASTM F2517-22e1 broaden the age range of adults, rather than all participants being between 50 and 70 as in the previous older adult test. Adults between the ages of 50 and 70 are still included; the new age distribution is:
 - 22 – 28% are 18 to 29 years of age
 - 45 – 55% are 30 to 49 years of age
 - 22 – 28% are 50 to 70 years of age

⁶ CSA Z76.1, ISO 8317-15, ISO 14375:2018, EN 862:2006-02

- The new adult test allows for more men, but still requires at least 30% women, rather than 70% women in the previous older adult test.⁷

The adult test also replaces the “screener package” with a self-certifying question, asking the adult participant if s/he has used a gasoline container in the last 2 years. Adults unfamiliar with gasoline containers are not suitable candidates for the test. Additionally, the revised standard permits adult test participants to view videos and other informative materials that might be found on the internet to better reflect modern methods that manufacturers use to provide information to consumers, if those test subjects attempt to find the videos. Adult participants that try to access additional information that a manufacturer has on the internet during the familiarization period of the test would be given that information by the tester. Finally, the adult test sequence specifically instructs the adult to open and resecure both the refilling and dispensing closures within one minute for each closure.

D. *Approving a Family of Containers*

ASTM F251722e1 allows a “family” of gasoline containers to be acceptable if the smallest container (which is very likely the easiest for children to manipulate and thus the most severe test of child resistance for this family of containers) is tested by children and the largest container (which is very likely the hardest for children or adults to manipulate and thus the most severe test of adult accessibility for this family of containers) is tested by adults. A “family” of gasoline containers consists of containers that share the same design features, including using exactly the same child-resistance features, but in varying sizes and colors. The child resistance features still need to be tested, but the same features do not need to be repeatedly tested when shown to be acceptable on other containers. This change maintains child-resistance because the child-resistance features are exactly the same within the “family” of containers else the containers would not be a “family.” Accordingly, if children cannot access the smallest container in the family, then it is expected that they will not be able to access the larger containers in the same family.

E. *Non-Substantive Revisions in ASTM F2517-22e1*

The ASTM subcommittee made several non-substantive or non-germane changes to the standard.

- The types of containers that are subject to ASTM F2517-22e1 was expanded from ASTM F2517-17. However, this change is not applicable to the CPSC mandatory standard as the Act, not the voluntary standard, defines which products are within scope of the mandatory requirement. ASTM F2517-22e1 may now be used to assess other types of containers such as safety cans that meet ANSI/UL/CAN/ULC 30:2022, *Standard for Metallic and Nonmetallic Safety Cans for Flammable and Combustible Liquids* and containers sold in Canada that meet the Canadian specification for consumer gasoline containers, CSA B376, *Portable Containers for Gasoline and Other Petroleum Fuels*.
- ASTM F2517-22e1 includes the terms “dispensing system,” “closure,” “filling opening,” and “portable fuel container” in the terminology section.
- ASTM F2517-22e1 includes a new “requirements” section, Section 4. Requirements that are applicable to both child and adult testing were moved into this section.

⁷ For comparison, the PPPA regulations in 16 CFR part 1700.15(b)(2)(ii) provide alternate younger-adult effectiveness requirements for products in aerosol forms and products that require metal containers, similar to the changes the ASTM F15.10 subcommittee sought for gasoline containers described below.

- ASTM F2517-22e1 removes repetitive testing steps for containers where dispensing systems may be stowed in the container. Some modern gasoline containers include a dispensing system that is stowed for sale, but not intended or practical for the consumer to re-stow in regular use. Un-stowing a dispensing system was an unnecessary component to testing.
- A requirement to seal containers 72 hours before testing was removed as statistical data indicated that the torque required to open the container did not change over time.
- Finally, the readability of ASTM F2517-22e1 was improved. The protocol steps are now written in the imperative. For instance, “the testing shall take place in a well-lit location that is or becomes familiar to the children and is isolated from all distractions” was revised to “conduct the testing in a test area that is well-lit and where the children are isolated from all distractions.” And the test protocols were reorganized into a consistent structure of “Test Parameters”, “Test Environment”, and “Test Panel”.

These non-substantive changes do not impact the purpose of the Act regarding the child resistance requirements. The technical requirements that affect the determination of child-resistance were not changed by the non-substantive revisions.

V. Staff Assessment of the Changes

Staff considers that the purpose of the Children’s Gasoline Burn Prevention Act was to require a level of child resistance for gasoline cans at least equivalent to ASTM F2517-05. The Act states that updates to ASTM F2517 shall be incorporated in the consumer product safety rule unless the Commission determines that the updated standard does not serve the purpose of section 2(b) of the Act. Staff considered the changes in ASTM F2517-22e1 as a whole, as described below.

A. Changes Affecting the Scope

In 2020, Congress amended the Act to include diesel containers, kerosene containers, and aftermarket components. Diesel and kerosene present similar dangers to children and consumers may use containers intended for diesel or kerosene for gasoline. Aftermarket components generally have not been child-resistant and retailers frequently display aftermarket components with gasoline containers; ASTM F2517-22e1 now requires aftermarket components to meet these requirements. The expanded scope in ASTM F2517-22e1 change carries out the purposes of the Act, as amended in 2020, as it has requirements for the recently included products. As a whole this change improves the safety of ASTM F2517-22e1 compared to ASTM F2517-05, as ASTM F2517-05 did not include any requirements for these products.

B. Changes Affecting the Child Testing

The changes to the child test from ASTM F2517-05 to ASTM F2517-22e1 include decreasing the container fill amount to 25% from 50%; lighter containers are more easily manipulated by children making it harder for child resistance mechanisms to resist children’s efforts to gain access. The instructions given to children in ASTM F2517-22e1 were changed to “please get the liquid out” and are less ambiguous for self-sealing containers than what the instruction had been in ASTM F2517-05. As described above, there is no increased exposure to gasoline fumes and vapors from self-sealing containers when tested to ASTM F2517-22e1, as gasoline containers meeting ASTM F2517-05 between 2005 and 2009 were open to the atmosphere through the vent opening and were generally emitting vapors and fumes continuously and not just momentarily. Children are not instructed to use their teeth in both ASTM F2517-05 and

ASTM F251722e1. The lockout of closures not under test in ASTM F2517-05 is no longer in ASTM F2517-22e1 (removed in ASTM F2517-17) as observations during testing showed that children focused more on the lockout mechanism and less on defeating the child resistance features. In ASTM F2517-22e1, children test the smallest container, and therefore the easiest to manipulate, to accept a family of containers. Children are also permitted to be tested at a centralized location in ASTM F2517-22e1, as long as socio-economic diversity is maintained. The changes to the child testing section in ASTM F2517-22e1 as a whole, carry out the purposes of the Act as children now test an easier to manipulate container, with less distraction, and clearer directions from the tester, which should result in more stringent test conditions for containers.

C. Changes Affecting the Adult Testing

The changes to the adult test from ASTM F2517-05 to ASTM F251722e1 include decreasing the container fill amount to 25% from 50%, with lighter containers being more easily manipulated by adults and thus easier for adults to properly open and resecure closures. The age distribution in ASTM F2517-22e1 also changed, and includes younger adults. The gender distribution also changed and allows more men. Finally, the "screener package" used to screen adults was changed to a self-certification statement from the adult participant that s/he had used a gasoline container in the past two years. These changes were made so that adult participants are more likely to be gasoline container users. The adult test in ASTM F2517-22e1 also now requires the adult to test all the closures. The adult test in ASTM F2517-05 assumed one closure was tested and did not specify which closure. This change ensures that all closures are tested by adults. Any closure not tested by adults may be too difficult or complex for an adult to re-secure and could therefore be left open when children encounter the gasoline container. Also, in ASTM F2517-22e1 adults test the largest container, and therefore the most difficult to manipulate, to accept a family of containers. Adults are also permitted to be tested at a centralized location in ASTM F2517-22e1 as long as socio-economic diversity is maintained. The changes to the adult testing section in ASTM F2517-22e1 as a whole, carry out the purposes of the Act as potentially more complex child resistance designs would pass the adult accessibility test and lead to a greater variety of acceptable child resistant designs.

D. Overall Assessment of ASTM F2517-22e1 Compared to ASTM F2517-05

Staff considers that the purpose of the Children's Gasoline Burn Prevention Act was to provide the child resistance portions of ASTM F2517-05 for gasoline cans. Staff considers the changes to the scope of products included an improvement as the Act now includes diesel containers, kerosene containers, and aftermarket components and ASTM F2517-22e1 requires these to meet the child resistance specifications. Staff considers the changes to the child testing an improvement as children test less-filled and thus easier-to-manipulate containers, with less distraction, and clearer direction from the tester. The changes to the adult testing expand the age range of adults and change the gender distribution in a manner that will allow for designs that are harder for children to access to be acceptable. Therefore taking these changes into consideration, staff assesses ASTM F2517-22e1 as an overall improvement that carries out the purpose of the Act.

VI. Conclusion

After reviewing the changes to the child-resistance requirements in F2517-22e1, as outlined above, staff concludes that sections 2 through 7 of ASTM F2517-22e1 carry out the purpose of the child-resistance requirements for closures on portable gasoline containers required in section 2(b) of the Act. The revisions update the standard to reflect modern gasoline containers, remove ambiguities in the child test failure requirements, and create an adult test that makes it more likely containers will not be left unsecured and accessible to children.

Staff recommends that if the Commission determines that ASTM's revision carries out the purposes of the Act mandating child-resistance requirements for closures on portable gasoline containers, the Commission should publish a DFR to revise 16 CFR part 1460 to incorporate by reference ASTM F2517-22e1. Incorporating the revised voluntary standard into the mandatory standard would reduce regulatory confusion by correctly stating the current requirements in the Code of Federal Regulations. Additionally, updating the definition of portable gasoline container in the regulation to be consistent with the current statutory definition would reduce confusion as to which products are subject to the regulation. OGC is providing a draft DFR for the Commission's consideration.