Code 6355-01

CONSUMER PRODUCT SAFETY COMMISSION

16 CFR Chapter II

[Docket No. CPSC-2022-0017]

Determinations Regarding Portable Fuel Container Voluntary Standards under the Portable Fuel Container Safety Act

AGENCY: Consumer Product Safety Commission.

ACTION: Determinations.

SUMMARY: The Portable Fuel Container Safety Act of 2020 (PFCSA) provides that the Consumer Product Safety Commission (Commission) must promulgate a rule to require flame mitigation devices in portable fuel containers that impede the propagation of flame into the container, unless the Commission determines that there is a voluntary standard for flame mitigation devices that impedes the propagation of flame into the container. The Commission is announcing in this document that it has determined that such voluntary standards exist for all known classes of portable fuel containers. Therefore, the Commission will not be promulgating a final rule, and pursuant to the PFCSA, the requirements of such voluntary standards shall be treated as a consumer product safety rule under the Consumer Product Safety Act (CPSA).

DATES: The Commission determinations made under the PFCSA for ASTM F3429/F3429M-20, ASTM F3326-21, and section 18 of UL 30:2022 discussed in this document will be effective by operation of law as consumer product safety rules on [INSERT DATE 180 DAYS AFTER DATE OF PUBLICATION IN THE *FEDERAL REGISTER*].

FOR FURTHER INFORMATION CONTACT: Jennifer H. Colten, Office of Compliance and Field Operations, Consumer Product Safety Commission, 4330 East West Highway, Bethesda, MD 20814–4408; telephone (301) 504-8165; *jcolten@cpsc.gov.*

SUPPLEMENTARY INFORMATION:

I. The Portable Fuel Container Safety Act of 2020

The PFCSA[1] requires the Commission to promulgate, not later than 30 months after December 27, 2020, a final rule to require flame mitigation devices in portable fuel containers that impede the propagation of flame into the container. 15 U.S.C. 2056d(b)(1), (2). However, the Commission is not required to promulgate a final rule for a class of portable fuel containers within the scope of the PFCSA if the Commission determines at any time that:

- There is a voluntary standard for flame mitigation devices for those containers that impedes the propagation of flame into the container;
- The voluntary standard is or will be in effect not later than 18 months after the date of enactment of the PFCSA (*i.e.,* June 27, 2022); and
- The voluntary standard is developed by ASTM International or such other standard development organization that the Commission determines to have met the intent of the PFCSA.

15 U.S.C. 2056d(b)(3)(A). Any such Commission determinations regarding applicable voluntary standards must be published in the *Federal Register*. 15 U.S.C. 2056d(b)(3)(B).

II. Portable Fuel Container Voluntary Standards

A. Background

The PFCSA requires the Commission to promulgate a final rule to require flame mitigation devices on portable fuel containers by June 27, 2023. 15 U.S.C. 2056d(b)(1). The PFCSA provides an exception to the rulemaking requirement if the Commission determines that a voluntary standard for a class of portable fuel containers has requirements for flame mitigation devices that impede the propagation of flames into the container. 15 U.S.C. 2056d(b)(3)(A). The Commission must publish any such determination in the *Federal Register*, and the

[1] 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, section 901, available at: https://www.govinfo.gov/content/pkg/PLAW-116publ260/pdf/PLAW-116publ260.pdf.

requirements of such a voluntary standard "shall be treated as a consumer product safety rule." 15 U.S.C. 2056d(b)(3)(B) and (b)(4).

1. Definition of Flame Mitigation Device

The PFCSA does not define the term "flame mitigation device." However, ASTM F3429, *Standard Specification for Flame Mitigation Devices Installed in Disposable and Pre-Filled Flammable Liquid Containers,* defines a "flame mitigation device" as "a device or feature attached to, installed in, or otherwise integral to, a container that is expected to inhibit the propagation of an external flame into the container." A common type of flame mitigation device used with portable fuel containers is a flame arrestor (also known as flame arrester or flash arresting screen). A flame arrestor is a screen that quenches and cools a flame so that it cannot pass through the flame arrestor. Other examples of flame mitigation devices include, but are not limited to, expanded metal mesh, screens, bladders, pinhole restrictors, and pumps.

2. Statutory Definition of "Portable Fuel Container"

The PFCSA defines the term ''portable fuel container'' to mean any container or vessel (including any spout, cap, and other closure mechanism or component of such container or vessel or any retrofit or aftermarket spout or component intended or reasonably anticipated to be for use with such container):

- Intended for flammable liquid fuels with a flash point less than 140 degrees Fahrenheit, including gasoline, kerosene, diesel, ethanol, methanol, denatured alcohol, or biofuels;
- That is a consumer product with a capacity of 5 gallons or less; and
- That the manufacturer knows or reasonably should know is used by consumers for transporting, storing, and dispensing flammable liquid fuels.

15 U.S.C. 2056d(b)(8).

Some examples of portable fuel containers include portable gasoline containers and containers for cigarette lighter fluid, charcoal lighter fluid, and liquid fireplace fuel (such as firepot fuel). Products that store substances like liquified petroleum gas ("LP gas," commonly

called "propane") are not within scope of the statutory definition of "portable fuel containers" because these substances are only liquid at high pressure, and when exposed to ambient conditions, readily vaporize.

3. Flame Jetting Hazard

The principal hazards that flame mitigation devices protect against are flame jetting and container rupturing. "Flame jetting," as defined in ASTM F3429, is a "phenomenon where an external ignition source causes a sudden ignition within a liquid container that directionally propels burning vapor and liquid from the mouth of the container." Container rupturing is similar to flame jetting, except the burning vapor and liquid exit through a rupture in the container. The injury potential associated with each hazard is the same, severe burns and possible death. Flame jetting typically injures people other than the person holding the container, while container rupturing typically injures the person holding the container. In this notice, references to flame jetting also include container rupturing.

B. Relevant Voluntary Standards

The PFCSA allows the Commission to separate portable fuel containers into different classes. 15 U.S.C. 2056d(b)(3)(A). CPSC staff evaluated the specifications for many portable fuel containers and recommends separating portable fuel containers into two classes: containers sold pre-filled, and containers sold empty. Below are staff's descriptions and assessments under the PFCSA of the relevant portable fuel container voluntary standards for containers sold pre-filled, and containers sold empty, which together, encompass all known classes of portable fuel containers. A more detailed description of staff's assessment of the voluntary standards is available in staff's memorandum.[2]

[2] CPSC staff's memorandum "Voluntary Standards Evaluation Under the Portable Fuel Container Safety Act of 2020" is available at: https://www.cpsc.gov/s3fs-public/Federal-Register-Notice-Notice-of-Commission-Determinations-Regarding-Voluntary-Standards-Under-the-Portable-Fuel-Container-Safety-Act-of-2020.pdf?VersionId=vhydmadrMn5PqRmgzmfLxhk80ddFo52E.

1. Containers Sold Pre-Filled

Containers sold pre-filled are likely to be discarded by the consumer once the contents (the flammable liquid fuel) are completely used; whereas containers sold empty are specifically designed to be reused. Pre-filled containers and empty containers are used differently and have different product lifespans. The differences also mean that the flame mitigation devices will be subjected to different conditions that can affect performance over time, and therefore, requirements differ for pre-filled versus empty containers. For example, pre-filled containers, such as those used for charcoal lighter fluid, can be squeezed easily, and therefore, are likely to create a larger vacuum force pulling external flames into the container.

a. ASTM F3429/F3429M-20

Portable fuel containers sold pre-filled are within the scope of ASTM F3429/F3429M-20, *Standard Specification for Performance of Flame Mitigation Devices Installed in Disposable and Pre-Filled Flammable Liquid Containers*. ASTM lists the standard as a dual standard in inch-pound (F3429 designation) and metric (F3429M designation) units. Both designations of the standard are substantively identical except for the inch-pound vs metric units used in the standard. ASTM F3429/F3429M was first published in 2020 and has not been revised since publication of the standard. The standard was developed by the ASTM F15.72 subcommittee for Pre-Filled Containers of Flammable and Combustible Liquids.

The standard requires two performance tests of the container's flame mitigation devices. The first is an endurance test, in which the container is subjected to an external and stationary 2.5-inch flame at the mouth of the container for 30 seconds. The second test is a flashback test, in which the container is subjected to an external flash fire near the container mouth. The container passes each test if the contents of the container do not catch fire or otherwise ignite in each of five consecutive trials. The two tests demonstrate that the flame mitigation device impedes the propagation of two different types of ignition sources, a stationary flame and a moving flame.

2. Containers Sold Empty

Portable fuel containers sold empty, such as gas cans, are designed to receive fuel from a service station pump for transfer later into a fuel-powered product, such as a lawnmower. They are designed to be used in this manner many times and to hold flammable liquids for long periods, over large temperature variations.

Safety cans are portable fuel containers sold empty that the U.S. Occupational Safety and Health Administration (OSHA) generally regulates for use in the workplace. OSHA requires spring-loaded or self-closing openings and flash-arresting screens on safety cans, 29 CFR 1926.155(l). OSHA also requires that safety cans be approved by a nationally recognized testing laboratory (NRTL), 29 CFR 1926.155(a). The OSHA requirements do not specify to which standard an NRTL must test the safety can. Safety cans tend to be more expensive than typical gas cans but are available for purchase by consumers at many physical and online retailers.

a. ASTM F3326-21

Portable fuel containers sold empty for general consumer use are within the scope of ASTM F3326-21, *Standard Specification for Flame Mitigation Devices on Portable Fuel Containers*. "Portable Fuel Containers," as used in the title of ASTM F3326, refers to containers that meet the scope of ASTM F852, *Standard Specification for Portable Gasoline, Kerosene, and Diesel Containers for Consumer Use*. ASTM F3326 was initially published in 2019 and has been revised twice. The current version of the standard is ASTM F3326-21.

ASTM F3326 requires a performance test of the container's flame mitigation devices after the container is exposed to several use-and-abuse tests. Use-and-abuse tests are designed to ensure a flame mitigation device still functions after simulating normal use and reasonably foreseeable abuse of the container over time. The flame mitigation device performance test demonstrates that the container prevents a flame traveling at five meters per second from igniting the contents of the container in each of five consecutive trials. The test also demonstrates that

the flame mitigation device impedes the propagation of a rapidly travelling flame front into the container.

b. UL 30:2022

Portable fuel containers that are sold empty and meet the OSHA requirements for safety cans are within the scope of ANSI/CAN/UL/ULC 30:2022 (UL 30:2022), *Standard for Safety Metallic and Nonmetallic Safety Cans for Flammable and Combustible Liquids*. UL 30:2022 is a voluntary standard that covers various requirements for safety cans, including requirements for flame mitigation devices. The standard is under the jurisdiction of UL Standard Technical Panel (STP) 30. The current version of the standard, UL 30:2022, was published in 2022, and it has been in effect since April 29, 2022.

Section 18 of UL 30 has two performance test options. The first option is to subject the safety can mouth to an external and stationary 2.5-inch flame for 30 seconds. The safety can pass the test if the interior content of the safety can does not catch fire or otherwise ignite in each of five consecutive trials. The second performance test option is used for safety cans that have a flame arrestor. In this performance test, a 7.5-inch flame is balanced on one side of the flame arrestor as a fuel-air mixture passes through. The flame arrestor fails if the flame crosses the flame arrestor and ignites the fuel-air mixture. CPSC staff advises that compliance to section 18 of UL 30:2022 would meet the OSHA requirement for a "flash arresting screen." 29 CFR 1926.155(l).

III. Responses to Comments

On May 24, 2022, the Commission published a notice of availability seeking public comment on a CPSC staff draft document, ''Voluntary Standards Evaluation Under the Portable Fuel Container Safety Act of 2020,'' which provided staff's initial assessment and recommendations to the Commission regarding whether the relevant voluntary standards qualify for the exception from the rulemaking requirement under the PFCSA. 87 FR 31540. Six comments were submitted in response to the request for comments. The comments generally

supported staff's recommendations and did not suggest any other voluntary standards the Commission should consider when making a determination under the PFCSA, or any class of portable fuel containers that the referenced voluntary standards fail to address. A brief summary of the comments and staff's responses is provided below.

Comment: The Portable Fuel Container Manufacturers Association (PFCMA) supports CPSC staff's recommendation to require that products meet the three staff-recommended voluntary standards, as applicable. The PFCMA concurs with CPSC staff's assessment that the voluntary standards meet the requirements of the PFCSA. The PFCMA notes that each of the referenced standards was developed in collaboration with industry, consumer safety advocates, and CPSC experts. Consequently, the PFCMA indicates that the standards promote practical approaches to mitigating the risk of flame-jetting for each application. The PFCMA states that its members have been compliant with the relevant voluntary standards for several years.

Comment: Zippo Manufacturing Company (ZMC) states that it supports CPSC staff's recommendation to require pre-filled portable fuel containers to meet ASTM F3429. ZMC recommends that CPSC refer to the list found in ASTM F3429 when listing "other" flame mitigation devices. The commenter states that the ASTM standard specifies that "other examples of [flame mitigation devices] include, but are not limited to, expanded metal mesh, screens, bladders, pinhole restrictors, and pumps."

Response: Staff included in its briefing memorandum the examples of flame mitigation devices listed in ASTM F3429/F3429M-2020, which include, but are not limited to, expanded metal mesh, screens, bladders, pinhole restrictors, and pumps.

Comment: Calumet Specialty Products Partners, L.P.'s Performance Brand business unit indicates that it did not object to the Commission requiring pre-filled portable fuel containers to meet ASTM F3429/F3429M-20, but they request a delayed effective date of December 31, 2023, due to supply chain delays, testing delays, and time needed to design flame mitigation devices.

The commenter also provides technical suggestions for potential future development of ASTM F3429/F3429M-20.

SolvChem, Inc., also requests additional time to comply with the voluntary standard, requesting an effective date of January 2024, for three reasons: (1) time needed to develop the devices; (2) time needed to test the devices to the standard; and (3) time needed to purchase the tooling and equipment necessary to produce the devices. This commenter asserts that tooling and equipment lead times are at an all-time high, with some lead times expected to be 6 months to a year. The commenter clarifies that the purchase of tooling and equipment must occur after the development and approval of any potential device.

Response: Under the PFCSA, a voluntary standard that the Commission determines meets the requirements of the rulemaking exception under PFCSA "shall be treated as a consumer product safety rule promulgated under section 2058 of this title beginning on the date which is the later of" either "180 days after publication of the Commission's determination" or "the effective date contained in the voluntary standard." 15 U.S.C. 2056d(b)(4). Here, the later date is 180 days after publication of the Commission's determinations. Therefore, the relevant voluntary standards will be effective pursuant to the PFCSA 180 days after publication of the Commission's determinations in this document. We note that the voluntary standard referred to by the commenter has been in place since 2020.

Comment: R.B. Howes & Co. Inc., asks whether "additives" would be considered a "fuel." The commenter understands that, based on its reading of CPSC staff's voluntary standards evaluation for the PFCSA, the provisions apply to fuels with a flash point below 140 degrees Fahrenheit. The commenter states that it manufactures diesel fuel additives, which, it asserts, are not fuels and have flash points above the 140-degree Fahrenheit threshold. However, the commenter states that it is unclear whether additives with flash points within the scope of the PFCSA would be exempted from the requirements, and therefore, requests clarification.

Similarly, an anonymous commenter asks for the Commission to define "liquid fuels." This commenter indicates that they represent a contract manufacturer of various chemical products. The commenter understands that, based on their reading of CPSC staff's voluntary standards evaluation for the PFCSA, the provisions would apply only to fuels and not "fuel-adjacent products," such as fuel additives. The commenter requests a definition for "liquid fuels" so that businesses have clarity.

Response: The PFCSA defines "portable fuel containers" as products "intended for flammable liquid fuels with a flash point less than 140 degrees Fahrenheit, including gasoline, kerosene, diesel, ethanol, methanol, denatured alcohol, or biofuels." 15 U.S.C. 2056d(b)(8)(A). Fuels generally are considered substances that can be burned to release energy, and liquids with a flash point below 140 degrees Fahrenheit are, by the definition of flash point, capable of being burned at that temperature. Staff assessed all known flammable liquid fuels with a flash point less than 140 degrees as part of the evaluation of the voluntary standards under the PFCSA. Accordingly, while classification of a particular container for purposes of the PFCSA is case-specific, as a general matter, when a liquid with a flash point less than 140 degrees Fahrenheit is intended to be used as, or in, a fuel mixture to support combustion, it is a fuel under the definition of "portable fuel containers" as indicated in the PFCSA.

IV. Commission Determinations Regarding Portable Fuel Containers Voluntary Standards

As noted in section I of this document, under the PFCSA, the Commission is not required to promulgate a final rule if the requirements for an exception are met for a class of portable fuel containers within the scope of the PFCSA. 15 U.S.C. 2056d(b)(3).

Portable fuel containers sold pre-filled and portable fuel containers sold empty are together subject to three voluntary standards. Based on CPSC staff's assessment and recommendations regarding the three voluntary standards, and consideration of the comments submitted, the Commission makes the following determinations[3] regarding ASTM

[3] The Commission voted 4-0 to publish this document.

F3429/F3429M-20, ASTM F3326-21, and section 18 of UL 30:2022 under section 2056d(b)(3)(A) of the PFCSA.

A. Commission Determination Regarding ASTM F3429/F3429M-20

The Commission determines that for portable fuel containers sold pre-filled, ASTM F3429/F3429M-20, *Standard Specification for Performance of Flame Mitigation Devices Installed in Disposable and Pre-Filled Flammable Liquid Containers*, meets the requirements of the exception to rulemaking under the PFCSA. ASTM F3429/F3429M-20 contains effective performance requirements for flame mitigation devices in portable fuel containers that impede the propagation of flame into the container; the standard was in effect before June 27, 2022; and the standard was developed by ASTM International. *See* 15 U.S.C. 2056d(b)(3)(A). Based on these findings, the Commission determines that rulemaking is not required under the PFCSA for portable fuel containers sold pre-filled, because ASTM F3429/F3429M-20 meets the requirements of the PFCSA.

B. Commission Determination Regarding ASTM F3326-21

The Commission determines that for portable fuel containers sold empty, ASTM F3326-21, *Standard Specification for Flame Mitigation Devices on Portable Fuel Containers*, meets the requirements of the exception to rulemaking under the PFCSA. ASTM F3326-21contains effective performance requirements for flame mitigation devices in portable fuel containers that impede the propagation of flame into the container; the standard was in effect before June 27, 2022; and the standard was developed by ASTM International. 15 U.S.C. 2056d(b)(3)(A). Based on these findings, the Commission determines that rulemaking is not required under the PFCSA for portable fuel containers sold empty, because ASTM F3326-21 meets the requirements of the PFCSA.

C. Commission Determination Regarding UL 30:2022

The Commission determines that for safety cans sold empty, ANSI/CAN/UL/ULC 30:2022, *Standard for Safety Metallic and Nonmetallic Safety Cans for Flammable and*

Combustible Liquids, meets the requirements of the exception to rulemaking under the PFCSA. Section 18 of UL 30:2022 contains effective performance requirements for flame mitigation devices in safety cans that impede the propagation of flame into the container; the standard was in effect before June 27, 2022; and the standard was developed by UL, which, like ASTM International, is an ANSI-accredited standards developer and is experienced in the development of consumer product voluntary standards. 15 U.S.C. 2056d(b)(3)(A). Based on these findings, the Commission determines that rulemaking is not required under the PFCSA for portable fuel containers that are safety cans sold empty, because section 18 of UL 30:2022 meets the requirements of the PFCSA.

D. Publication of Notice of Commission Determinations

The Commission is publishing this notice of Commission determinations in the *Federal Register,* as required under section 2056d(b)(3)(B) of the PFCSA. The three portable fuel container voluntary standards will become effective as mandatory consumer product safety rules on [INSERT DATE 180 DAYS AFTER DATE OF PUBLICATION IN THE *FEDERAL REGISTER*]. 15 U.S.C. 2056d(b)(4). The Commission may in the future issue a direct final rule to incorporate the voluntary standards into the Code of Federal Regulations.

V. Effect of Commission Determinations Regarding Portable Fuel Container Voluntary Standards

Under the PFCSA, because the Commission has determined that the three voluntary standards discussed above, collectively covering the two known classes of portable fuel containers, meet the requirements for the exception to the rulemaking requirement, the requirements of those voluntary standards shall be treated as consumer product safety rules promulgated under section 9 of the CPSA (15 U.S.C. 2058), beginning on the date that is the later of 180 days after publication of the Commission's determination, or the effective date contained in the voluntary standard. 15 U.S.C. 2056d(b)(4). In this instance, the publication of this notice is the later of the two possible statutory dates. Therefore, portable fuel containers

manufactured after [180 DAYS AFTER PUBLICATION IN THE *FEDERAL REGISTER*] must comply with the requirements of either ASTM F3429/F3429M-20, ASTM F3326-21, or section 18 of UL 30:2022, as applicable. Specifically, portable fuel containers sold pre-filled are required to comply with the requirements of ASTM F3429/F3429M-20. Portable fuel containers sold empty (that are not safety cans) are required to comply with the requirements of ASTM F3326-21. Safety cans are required to meet the requirements of either ASTM F3326-21 or section 18 of UL 30:2022.

VI. 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, must 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. 15 U.S.C. 2063(a)(1). Under the PFCSA, because of the Commission's determinations, ASTM F3429/F3429M-20, ASTM F3326-21, and section 18 of UL 30:2022, are considered consumer product safety rules under the CPSA. Therefore, portable fuel containers manufactured after [INSERT DATE 180 DAYS AFTER DATE OF PUBLICATION IN THE *FEDERAL REGISTER*], are subject to the testing and certification requirements of section 14(a)(1) of the CPSA.

VII. Public Access to Portable Fuel Containers Voluntary Standards

ASTM F3429/F3429M-20, ASTM F3326-21, and UL 30:2022 are available to the public for review, free of charge, as described below.

For free-of-charge, read-only online access to ASTM F3429/F3429M-20:

- Access ASTM's CPSC reading room at: http://www.astm.org/cpsc.htm.
- Search for ASTM F3429.

Note: In the future, read-only access to the standard may move to ASTM's Reading Room at: https://www.astm.org/products-services/reading-room.html.

For free-of-charge, read-only online access to ASTM F3326-21:

- Access ASTM's CPSC reading room at: http://www.astm.org/cpsc.htm.
- Search for ASTM F3326.

Note: in the future, read-only access to the standard may move to ASTM's Reading Room at: https://www.astm.org/products-services/reading-room.html.

For free-of-charge, read-only online access to ANSI/CAN/UL/ULC 30:2022:

- Access UL's Standards Sale Site at: http://shopulstandards.com.
- Click "Browse and Buy Standards," and search for UL 30.
- Click "Digital View," and sign in, or create a user account.

ASTM F3429/F3429M-20, ASTM F3326-21, and ANSI/CAN/UL/ULC 30:2022 are also available to review in person through CPSC's Office of the Secretary, 4330 East West Highway, Bethesda, MD 20814.

Alberta E. Mills,
Secretary, Consumer Product Safety Commission.

[FR Doc. 2022-28325 Filed: 1/12/2023 8:45 am; Publication Date: 1/13/2023]