CONSUMER PRODUCT SAFETY COMMISSION

16 CFR Part Chapter II

Fire Pots and Gel Fuel; Advance Notice of Proposed Rulemaking; Request for Comments and Information

AGENCY: Consumer Product Safety Commission.

ACTION: Advance notice of proposed rulemaking.

SUMMARY: The Consumer Product Safety Commission (“the Commission,” “CPSC,” or “we”) has reason to believe that firepots and gel fuel used together may present an unreasonable risk of injury. As of September 30, 2011, the Commission is aware of 76 incidents that resulted in 2 deaths and 86 injuries involving firepots used with gel fuel. All of these incidents occurred between April 3, 2010 and September 1, 2011. Many of the injuries were severe; over half of the victims reportedly required hospitalization. This advance notice of proposed rulemaking (“ANPR”) initiates a rulemaking proceeding under the Consumer Product Safety Act (“CPSA”). We invite comments concerning the risk of injury associated with firepots, gel fuel and gel fuel containers, the regulatory alternatives discussed in this notice, and other possible ways to address this risk. We also invite interested persons to submit an existing standard or a statement of intent to modify or develop a voluntary standard to address the risk of injury described in this notice.

DATES: Written comments in response to this notice must be received by [insert date that is 60 days after publication in the Federal Register].
ADDRESSES: You may submit comments, identified by Docket No. CPSC-2011-0095, by any of the following methods:

Electronic Submissions

Submit electronic comments in the following way:


To ensure timely processing of comments, the Commission is no longer accepting comments submitted by electronic mail (e-mail), except through www.regulations.gov.

Written Submissions

Submit written submissions in the following way:

Mail/Hand delivery/Courier (for paper, disk, or CD-ROM submissions), preferably in five copies, to: Office of the Secretary, Consumer Product Safety Commission, Room 820, 4330 East West Highway, Bethesda, MD 20814; telephone (301) 504-7923.

Instructions: All submissions received must include the agency name and docket number for this rulemaking. All comments received may be posted without change, including any personal identifiers, contact information, or other personal information provided, to http://www.regulations.gov. Do not submit confidential business information, trade secret information, or other sensitive or protected information electronically. Such information should be submitted in writing.
Docket: For access to the docket to read background documents or comments received, go to http://www.regulations.gov.

FOR FURTHER INFORMATION CONTACT: Rohit Khanna, Fire Program Area Team Leader, Office of Hazard Identification and Reduction, Consumer Product Safety Commission, National Product Testing and Evaluation Center, 5 Research Place Rockville, MD 20850; telephone 301-987-2508, or e-mail rkhanna@cpsc.gov.

SUPPLEMENTARY INFORMATION:

A. Background

CPSC staff identified firepots used with gel fuel as an emerging hazard in June 2011, after a severe injury was reported to the CPSC. We pursued investigations and conducted analyses of these incidents. As of September 30, 2011, we are aware of 76 incidents involving firepots used with gel fuel that resulted in 2 deaths and 86 injuries. In an effort to address this emerging hazard, the CPSC’s Office of Compliance and Field Operations initiated several recalls of pourable alcohol gel fuel. To date, 12 voluntary recalls have been announced recalling more than 2 million bottles of gel fuel. The products involved in the recalls were alcohol-based gel fuel in containers intended to be used with firepots. Each recalled product was marketed for use with firepots. We seek to establish a more permanent means to reduce or eliminate the hazard posed by firepots using gel fuel.

B. The Products
The incidents discussed in this ANPR all involve firepots used with alcohol-based gel fuel. When firepots and gel fuel are used together, they can present serious burn and fire hazards. Firepots and gel fuel are usually sold as separate products, but they are often marketed for use together, and some companies manufacture both products.

1. Firepots

This ANPR covers firepots that are designed and intended to be used with gel fuel. Firepots are portable, decorative lighting accents marketed for indoor and outdoor use. Their purpose is decorative. They provide some illumination and are not intended to provide heat. Many are made of ceramic material and look like vases or decorative pots, but some have different features and materials, such as a partial enclosure made of glass. Firepots are also sometimes called personal fireplaces, personal fire pits, firelights, or fire bowls. These products have the following characteristics in common. They: (1) are portable; (2) are open on at least one side; (3) have an open cup, usually made of stainless steel, to hold the gel fuel; and (4) are used with alcohol-based gel fuel. This ANPR does not cover stationary fireplaces or lighting products that have a wick or use a type of fuel other than alcohol-based gel fuel.

Firepots are relatively new products. They were not prominently marketed until late 2009. Firepots range in price from under $20 to more than $100. Based on a review of online retailers’ product offerings, most models are priced at $20 to $40. Based on information relating unit sales of gel fuel by a leading manufacturer to its sales of firepots, we estimate that nearly 2.5 million firepots could have been sold to consumers
since the product was introduced. Most units likely were purchased in 2010, and during
the first six months of 2011. We have identified at least 10 companies that have
manufactured firepots or have been wholesalers/private labelers of firepots. These
firepots have been sold online or through retail outlets that market home and garden
products. Most of the leading marketers of firepots also have marketed their own brands
of gel fuel. The leading firms in the firepot market have fewer than 20 employees, and
they are categorized primarily as wholesalers. Under size standards issued by the U.S.
Small Business Administration (“SBA”), wholesalers with fewer than 100 employees
could be considered small businesses. Barriers to market entry are minimal, and
additional firms could market firepots that they manufacture or import.

2. Gel Fuel

This ANPR also covers gel fuel that is designed and intended to be used as fuel
for firepots. Gel fuel is composed primarily of alcohol, and it produces a clean-burning
flame with no visible smoke or ash. CPSC staff analyzed 18 samples of firepot gel fuels
to determine chemical composition, flash point, and viscosity. The analyses showed that
firepot gel fuel is primarily alcohol-based (containing approximately 80 percent alcohol).
The types of alcohol most commonly included were ethanol, isopropanol (“IPA”), and
ethanol and IPA mixtures. The remaining components in the gel fuel samples were
water, gelling agents, and additives, including citronella and eucalyptus. The analysis
determined that the flashpoint for these samples was less than or equal to 74° Fahrenheit
(“F”), with the lowest measure being 32° F. Gel fuel has a higher viscosity than liquid
fuels. The analysis found that gel fuel viscosities ranged from 5,000 to 25,000 CentiPoise (“cP”). These viscosities are similar to those of molasses (5,000 cP) or chocolate syrup (10,000 to 25,000 cP).

Gel fuel intended for use with firepots has been sold in sizes ranging from one pint to one gallon, with one-quart containers apparently the most common size. Individual containers of gel fuel generally have sold at retail for $5 to $20 per unit. Although firepots have had a significant presence in the consumer market for the last two years only, at least one firm has marketed gel fuel similar to what is used in firepots for approximately the last 10 years to be used as fuel for gel fuel fireplaces. Gel fuel for fireplaces has been available in single-use cans since at least the middle 1980s. These products continue to be marketed by some firms, including firms that had been active in the market for firepots. Gel fuel also is available in single-use cans that can be placed in the firepot. Single-use cans of gel fuel intended for use with firepots are covered by this ANPR. Most manufacturers and private labelers identified by CPSC staff who offer gel fuel in bottle containers did not offer it for sale until 2009 or later.

Information on unit sales of gel fuels was provided by 11 of the firms that agreed to voluntary recalls of their products during 2011. These firms had combined shipments of about 2.5 million units since 2008. One firm accounted for nearly two-thirds of the total reported unit sales. A twelfth firm also agreed to a recall of its products, but information on its unit sales is not available. Available information indicates that the firms would be considered small businesses under SBA guidelines.
C. The Risk of Injury

1. Incident Data Overview

As of September 30, 2011, we are aware of 76 incidents involving firepots that were using gel fuel. These incidents resulted in 2 deaths and 86 injuries, a majority of which resulted in severe burns that reportedly required hospitalization. The incidents occurred between April 3, 2010 and September 1, 2011. A majority of the reported incidents (as well as a majority of the injuries and both fatalities) occurred when a consumer was pouring more fuel into a firepot (referred to as “refueling”), resulting in an explosion. This and other hazard scenarios are discussed in section C.2 of this preamble.

Many injuries were severe. Of the 86 injury victims, 48 of them (56%) were hospitalized. Many victims who were not hospitalized received treatment in emergency rooms for their burn injuries. Most (53) of the incidents involved 1 victim, but 9 had no victims, and 14 had multiple victims.

The two fatalities were a 51-year-old man and an 84-year-old woman. Of the 86 nonfatal injury victims, 19 were victims of unknown age. Among the 67 injury victims whose age is known, 1 was under 5 years of age, 7 were between ages 5 and 14, 12 were between ages 15 and 29, 39 were between ages 30 and 49, 7 were between 50 and 64, and 1 was older than 64.

2. Hazard Scenarios
From the reported incidents, we identified eight hazard scenarios associated with firepots using gel fuel. The most common hazard scenario involves refilling the firepot with gel fuel. The eight identified hazard scenarios are discussed below.

**Refueling firepot.** The majority of incidents, the majority of high severity injuries, and both deaths reported to date, occurred when consumers were attempting to refill a firepot that had just recently been in use. In 49 incidents (64 percent of all reported incidents), consumers were reportedly in the process of, or had just finished, refilling a firepot when the flame in the firepot ignited the vapors in the fuel container and an explosion resulted. These 49 incidents caused 2 fatalities and 61 injuries, 35 of which were high severity burns needing hospitalization. In 36 of the 49 refueling incidents, the most seriously injured person was not the person who was refilling the firepot. Details on the extent of the burns frequently are missing for the hospitalized cases, but at least nine victims of this scenario reportedly sustained between 20 to 70 percent total body surface area (“TBSA”) burns. In 26 of these 49 incidents, consumers reported that they believed the firepot had run out of fuel because they did not see any flames in the firepot. In 6 of these 49 incidents, consumers reported that a low flame was present in a nearly empty firepot.

For example, in one incident, a 51-year-old man sustained 60 percent TBSA burns and died after being hospitalized for 33 days. His wife also was hospitalized with serious burns. According to the incident report, “His wife was sitting at the table as he was pouring the fuel. Suddenly there was an explosion and the husband, wife, lanai,
plants, clothing, etc., were all on fire.” Flaming gel fuel was dripping from the top of the lanai onto the victims and patio.

According to another refueling incident report, a firepot was at the center of a patio table and had been burning for nearly two hours. The four people present believed that the flame had gone out. One began to pour more gel fuel into the burn cup. According to the incident report, “Once the bottle was tilted in a direction to pour the gel fuel, a fireball erupted. The fireball appeared to come from outside the bottle and above the gel burner. The ‘explosion’ knocked the victim backwards out of her chair where she laid with parts of her upper body on fire.” The victim was hospitalized (including three nights in the intensive care unit) and released with second-degree burns on 10 percent of her body—on her face, arms, chest, stomach, and back. The person pouring the gel fuel suffered minor burn injuries.

**Explosion while lighting firepot.** In five incidents (about 7 percent) an explosion occurred in the firepot, which already had fuel in it, when the consumer attempted to light the firepot with an open-flame ignition source (such as a match or lighter). These incidents resulted in nine injuries, four of which were high severity burn injuries needing hospitalization. According to the incident reports, in three cases the firepot had already been in use that day and was being relit having just been refilled. In two cases, it was not clear whether the firepot had previously been in use that day.

**Fuel container explosion.** In two incidents (about 3 percent), the gel fuel container was a short distance away from a lit firepot when the container exploded. In
both incidents, the victims were hospitalized, one with high severity burn injuries. In one incident, the consumer reportedly poured the fuel from a gallon jug into a ceramic firepot, lit it with a long BBQ lighter, and placed the jug of fuel a foot away when the jug of fuel ignited and exploded. A 50-year-old female was injured and hospitalized. In the other incident, the 25-year-old victim reported: “We poured (brand X) fuel gel into our fire pot and lit it. We sat the bottle of gel about a foot away from the pot. (We don't remember if the top was on or off the bottle.) All of the sudden, the bottle exploded. The gel that passed over the open flame of the pot ignited and landed on me. (It sounded like a gunshot.) The flash sunburned my face, synged (sic) my eyelashes, and burned my left ear. It caught my left arm, back, hair and shirt on fire.” Engineering analysis of these incidents suggests that it was likely that a small flame was present on the bottle after refueling of the firepot, which could have ignited the flammable vapors in the fuel container.

**Burn cup ejection.** In six incidents (about 8 percent), reports stated that the burn cup ejected spontaneously from the firepot during use. These incidents resulted in three injuries, one of which required hospitalization. Although we could not replicate this scenario in laboratory testing, we believe that the burn cup ejections may be caused by excessive pressure that builds up due to inadequate venting in the interior of the firepot.

**Explosion during use.** In four incidents (about 5 percent), reports stated that fuel in the burn cup exploded spontaneously while the firepot was in use. Single victims were injured in three of these cases, with one victim, a 5-year-old boy, reportedly hospitalized.
for four days for burn injuries to his face, eyes, and chest. In another incident, a dog was set on fire; it ran into the house, causing a fire and substantial property damage. We could not replicate this scenario in laboratory testing, but we believe that fuel explosions may be due to exposure to contaminants.

**Tip over of firepot.** In three incidents (about 4 percent), lit firepots tipped over, causing burning gel fuel to spill. These incidents resulted in six injuries, four of which were high severity burn injuries requiring hospitalization. Two of the victims were young children. In these scenarios, the firepot was placed on a surface, such as a table or stool, when a person bumped into the supporting surface or accidentally knocked over the firepot, causing the burning gel fuel to fall onto the victims.

**Firepot breakage.** In three incidents (about 4 percent), the firepot reportedly broke while it was in use. In one incident it was reported that when the firepot broke, ceramic shards went flying. These incidents did not result in injury. We did not observe this scenario in our laboratory testing. However, it is possible that the temperature and internal pressure generated during use of the firepot could cause the ceramic firepot to break.

**Explosion while extinguishing flame.** In one incident, a consumer reported that when she attempted to extinguish a firepot using the snuffer device that was supplied with the firepot, a flame erupted and flaming gel spurted up to five feet away. The burning gel ignited furniture and carpeting, causing property damage but no injuries. This scenario also was not observed in laboratory testing.
**Not enough information.** In three incidents, not enough information was available to classify the hazard pattern. These incidents resulted in three injuries, one requiring hospitalization.

3. *Details Concerning Injuries*

Injuries resulting from these incidents can be extensive and life-threatening, requiring lengthy, costly, and painful treatment. Burn injuries are classified by the depth of tissue that is burned, which is expressed as the degree of burn (first-, second-, or third-degree). Burn severity is a function of the victim’s age, the depth of burn, the extent of burn (generally expressed as the percentage of total body surface area that has second- or third-degree burns), and by the specific location of the burned area(s). Certain areas of the body are considered to be critical areas (face, ears, hands, feet, joints, genitals, and perineum). As a general rule, any injuries involving second- or third-degree burns in critical areas, and/or >20 percent TBSA, are considered high severity and require hospitalization.

The reported injuries range from minor to high severity, and two victims are known to have died from their severe burns. Surviving victims of firepot incidents may require life-support and medical treatment in intensive care units. Detailed information is not available for all hospitalization cases involving high severity injuries, but we are aware of at least 15 hospitalized victims who were admitted for extensive periods (from 10 to 76 days based on the most recent update of each specific case). Eleven cases specifically noted that between 20 to 70 percent of the total body surface area was
burned. Victims may require multiple surgeries, including skin grafts, and they may be at risk from complications, such as shock, fluid loss, and infection. In addition, victims may be left with extensive deep scarring, permanent disfigurement and functional impairment, and severe psychological trauma, especially if the face is involved.

D. Analysis of Hazards Posed by Firepots and Gel Fuel

Firepots used together with gel fuel create a serious hazard that consumers may not perceive accurately. Various characteristics of both firepots and gel fuels may be responsible for this. We have analyzed the incidents and samples of the products to understand these hazards better.

1. Firepots

a. Physical Characteristics

Firepots have certain physical characteristics that our analysis indicates could contribute to the hazard reported in these incidents. All firepots subject to this ANPR have an open receptacle, referred to as a “burn cup,” to hold gel fuel. The burn cup is usually made of stainless steel or ceramic material. It has no covering. If the firepot falls or is knocked over, the burning gel fuel can spread onto people or combustible items. Unlike candles, oil lamps, or other outdoor lighting accessories that require a wick to produce a flame, firepots do not need a wick to sustain a flame; so when a firepot is knocked over, the fuel and fire will spread readily.

Firepots are available in a variety of shapes and sizes. The geometry of some may make them more likely to tip over if the firepot, or the surface on which it sits, is
bumped accidentally. We conducted tests of several tip-over scenarios. In these tests, when firepots placed on a flat surface were tipped, fuel was ejected up to 5 feet. When firepots were positioned on heights simulating placement on a table or bar, as reported in the incident data, a firepot falling from a 31-inch height splattered fuel approximately 5 feet, and falls from a 42-inch height splattered fuel about 9 feet. Consumers are not likely to anticipate the significant distance that gel fuel can spatter. We are aware of three firepot tip-over incidents injuring six victims in which four victims were hospitalized.

The burn cup sits within the firepot and is not secured to the base of the firepot by any means. We are aware of six incidents in which the burn cup ejected from the firepot. Staff did not observe this scenario in laboratory testing. One possible explanation for this scenario is that while the firepot is in use with the gel fuel, it reaches very high temperatures, which produces increased pressure within the firepot. This build up of pressure, without adequate venting, may cause the burn cup to eject.

b. Warnings and Use

We examined 11 samples of firepots to assess the warnings provided with the products and to consider hazards related to how consumers are likely to use firepots. Most of the firepots that we examined have a warning directing the consumer not to leave a burning firepot unattended and to keep it away from children and pets. Some firepots instruct the user to place the firepot on a flat and level surface only. Most of the firepots
that we examined had a warning directing the user not to add fuel to an open flame and to check that the flame is out before refueling.

These warnings were usually on the package or in the instructions enclosed in the package. One sample had the warning on the product, but it was not affixed permanently and would be removed by the consumer before using the firepot because the warning blocks the burn cup. None of the samples had permanent warnings about refilling that could be noticed each time the product is used. We believe that the warnings we examined are not likely to be effective. They were not conspicuous due to their placement, lack of visual differentiation, and lack of pictorial symbols. Moreover, only one warning label clearly stated that the consequence of not following the warning was severe burns.

Consumers may not observe and follow warning labels on or accompanying firepots, even if the warnings are present. In general, the safer a product is perceived to be, the less likely people are to read the instructions and warnings that accompany it. Also, the more familiar people are with a product, the less likely they are to read instructions and warnings. Firepots appear to be simple and familiar decorative accessories that are easy to use. They may resemble familiar and less hazardous products, such as candle holders. In addition, it may be difficult for consumers to comply with a warning not to refill the firepot while it is still hot or burning. As discussed in section D.2.a. of this preamble, gel fuel produces a nearly invisible flame that consumers may not detect. In 26 of the 49 incidents that reportedly occurred while a consumer was
refilling a firepot, consumers reported that the flame was out, that there were no visible flames, or that no gel fuel was left in the firepot. In 10 of the refilling incidents, consumers acknowledged that the flame was low, the pot was hot, or that there was a small amount of gel fuel left in the pot before they refilled it. In these situations, consumers may be refilling the firepots because they are not sufficiently knowledgeable about the behavior of alcohol-based fuels, and they identify firepots with familiar and less hazardous products.

2. Gel Fuel

a. Physical and Chemical Characteristics

We examined the physical and chemical properties of 18 samples of gel fuel to evaluate how these characteristics may contribute to the firepot incidents that have been reported. The gel fuel samples that we analyzed were composed primarily of alcohol (approximately 80 percent alcohol with the balance being water, gelling agent, and additives like citronella). Most contained ethanol and/or IPA. Gel fuel is flammable. According to regulations under the Federal Hazardous Substances Act (“FHSA”), a substance is considered flammable if it has a flashpoint above 20° F and below 100° F. 16 CFR 1500.3(c)(6)(ii). The flashpoint for the samples that we examined was less than or equal to 74° F. (Two samples that contained butane had flashpoints of 32° F and 36° F.) Under a widely recognized classification system, gel fuel would also be considered a Class 1 Flammable Liquid. See National Fire Protection Association (“NFPA”) 30, Flammable and Combustible Liquids Code, Chapter 4.
Gel fuel produces a clean-burning flame and generates very little smoke or soot. This makes the flame less visible than flames produced by other types of fuel, particularly if it is burning during daylight. Moreover, as the gel fuel in the burn cup burns, the flames become more obscured in the bottom of the cup. A small flame or smoldering combustion of the spent gel fuel may remain in the base of the burn cup when the fuel is almost exhausted. This can mislead consumers into thinking that the firepot’s flame is out and needs more fuel. If the consumer adds fuel to the firepot when there is a small flame or smoldering combustion in the burn cup, the gel fuel can easily ignite.

Gel fuel has a higher viscosity than liquid fuels, such as gasoline or kerosene. Its consistency is similar to molasses or honey. This higher viscosity means that a pool of spilled gel fuel will not spread as widely as a less viscous liquid. However, the higher viscosity increases the risk of injury with these burning fuels. Most incidents involved burning gel fuel that contacted victims when the fuel exploded, was ejected, or spilled. Due to its viscosity, burning gel fuel, when it contacts skin or clothing, sticks to that surface more than liquid fuel. Burning gel fuel is difficult to extinguish with the usual methods used to put out a fire. The reaction that most individuals would have when they are on fire would be to “stop, drop, and roll.” However, this maneuver is ineffective because patting the flaming gel fuel actually spreads the burning surface. Using water to extinguish a gel fuel fire also is not likely to be effective because, to be successful, a significant amount of water would be needed, and initially pouring water on the fire is likely to spread the burning gel fuel over a larger surface area.
b. Characteristics of Gel Fuel Containers

Most of the reported incidents occurred when a consumer was in the process of pouring more gel fuel into a firepot that was, or recently had been, in use. We examined the gel fuel containers and assessed how the combination of the properties of the gel fuel and characteristics of the gel fuel containers may contribute to the risk of injury in these incidents.

In the majority of incidents, consumers reported “explosions” and/or ejecting of burning alcohol fuel during refilling, or bottles “exploding” after refilling. These phenomena can be explained by understanding the chemistry within the vapor space (also called the “headspace”) of the bottle. (See Figure 1.) The headspace is the area inside the container that is above the level of the fuel in the container. With alcohol-based gel fuel at room temperature, the concentration of the alcohol vapors in the headspace is above the lower flammable limit (“LFL”) and below the upper flammable limit (“UFL”). This means that, at room temperatures, there is an explosive concentration within the alcohol fuel bottle headspace. When exposed to an open flame, this atmosphere will cause an explosion and eject burning fuel. For this to happen, the bottle must have a sufficient amount of gaseous headspace but still have a substantial amount of fuel remaining. The amount of gaseous headspace governs the energy of the explosion, which then ejects the remaining gel fuel. If the bottle is in an orientation where fuel is near the bottle throat and a flame is able to penetrate into the headspace igniting the explosive atmosphere, an explosion can occur, which rapidly increases the pressure inside the bottle
and ejects the remaining liquid or gel fuel, igniting it as it exits. Testing at CPSC has confirmed this scenario.

Most gel fuel containers are open-mouth containers that resemble water bottles or containers used for storing cleaning liquids. They do not have safety features, such as venting, grounding, or flame arrestors to prevent ignition of flammable vapors. Furthermore, while a majority of the incidents involved refueling, there are incidents, such as tipovers, can ejections, and explosions, which would not be addressed by requiring safety features on the gel fuel containers.

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**Diagram of the Refilling Explosion Phenomena**

1.) Some fuel in throat
2.) Flame enters bottle
3.) Head Space Explodes
4.) Deflagration pressure increase pushes on liquid/gel surface
5.) Ejecting fuel from the bottle
6.) Fuel ignites from the flame or deflagration

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Figure 1. Diagram of the most likely cause of flaming gel fuel ejecting while refilling in the presence of a flame.
c. **Warnings and Use of Gel Fuel**

As noted, gel fuel is flammable. Under the FHSA, it is required to have labeling that warns of the flammability hazard. 15 USC 1261(p). Almost all of the gel fuel samples we examined complied with the warning label requirements of the FHSA. However, we found that these warnings do not effectively address the hazards posed by gel fuel. As with the firepot warnings, the gel fuel warnings are not conspicuous. The majority of gel fuel bottles that we examined warn against refilling a firepot. However, this warning is only one element in a long list of directions for use or that is included in the list of generic warnings, such as: “keep away from children” or “never leave a burning fire pot unattended.” The refilling warnings are not differentiated from other statements on the containers, and they do not have any pictorial symbols. None of the warnings state the consequence of refilling a firepot while it is hot or burning.

As with firepots, consumers are not likely to perceive the hazard posed by gel fuel. Gel fuel containers often are packaged in containers that look familiar, resembling water bottles. They do not have any special closures, such as child-resistant packaging, that might alert a consumer to the potential hazard. The containers may have phrases such as “environmentally friendly,” “eco-friendly,” “live safe, burn safe,” and “non-toxic” that may reduce the likelihood that a consumer would consider the substance to be hazardous. This may lead consumers to ignore warnings on the product.
E. Relevant Statutory Provisions

We are conducting this proceeding under the Consumer Product Safety Act ("CPSA"). 15 U.S.C. 2051 et seq. Firepots and gel fuel are consumer products. Id. 2052(a)(5). Under section 7 of the CPSA, the Commission can issue a consumer product safety standard if the requirements of such a standard are “reasonably necessary to prevent or reduce an unreasonable risk of injury associated with [a consumer product].” Id. 2056(a). Such a standard must be expressed in terms of performance requirements or requirements for warnings or instructions. Id. Under section 8 of the CPSA, the Commission can issue a rule declaring a product to be a banned hazardous product when the Commission finds that a consumer product is being, or will be, distributed in commerce and there is no feasible consumer product safety standard that would adequately protect the public from the unreasonable risk associated with the product. Id. 2057.

Section 9 of the CPSA sets out the procedure that the Commission must follow in order to issue a standard or a banning rule. The rulemaking may begin with an ANPR that identifies the product and the nature of the risk of injury associated with the product, summarizes the regulatory alternatives being considered by the Commission, and provides information about any relevant existing standards and a summary of the reasons the Commission believes they would not eliminate or adequately reduce the risk of injury. The ANPR also must invite comments concerning the risk of injury and regulatory alternatives and invite submission of an existing standard or a statement of
intent to modify or develop a voluntary standard to address the risk of injury. *Id.* 2058(a). The next step in the rulemaking would be for us to review comments submitted in response to the ANPR and decide whether to issue a proposed rule along with a preliminary regulatory analysis. The preliminary regulatory analysis would describe potential benefits and costs of the proposal, discuss reasonable alternatives, and summarize the potential benefits and costs of the alternatives. *Id.* 2058(c). We would then review comments on the proposed rule and decide whether to issue a final rule along with a final regulatory analysis. *Id.* 2058(d)-(g).

**F. Relevant Existing Standards**

We are not aware of any existing mandatory or voluntary standards that would address the risk of injury associated with firepots and gel fuel. Other federal agencies have regulations concerning Class I flammable liquids. For example, the U.S. Department of Transportation (“DOT”) sets out certain requirements for storage and transportation of these substances. *See, e.g.*, 49 CFR parts 172 through 177. The Occupational Safety and Health Administration (“OSHA”) regulates these substances in the workplace. 29 CFR 1910.106. These regulations do not establish any requirements related to the risk of injury identified in the reported incidents. NFPA 30, *Flammable and Combustible Liquids Code*, is a voluntary standard concerning classification, storage, and handling of flammable and combustible liquids. It does not directly address the firepot- gel fuel incidents. However, some of the provisions concerning containers for
storing flammable liquids could provide guidance for requirements for gel fuel containers.

G. Regulatory Alternatives

We are considering the following alternatives to address the risk of injury associated with firepots and gel fuel:

1. Mandatory standard. We could issue a rule establishing performance requirements for firepots and/or gel fuel to prevent or reduce an unreasonable risk of injury associated with these products. For example, possible performance requirements for firepots might include stability requirements to address the tip-over hazard. Possible requirements for gel fuel might include performance requirements for flame visibility to increase consumers’ awareness of the presence of a flame. To address the refueling hazard, one option may be requirements for gel fuel containers to prevent ignition of the flammable headspace or to require venting of the container.

2. Mandatory labeling rule. We could issue a rule setting requirements for labeling and/or instructions for firepots and/or gel fuel if we found that such warnings and instructions could sufficiently reduce the risk of injury identified in the reported incidents.

3. Voluntary standard. If we determined that a voluntary standard was adequate to address the risk of injury associated with firepots and gel fuel, we could defer to the voluntary standard in lieu of issuing a mandatory rule.
4. **Banning rule.** We could issue a rule declaring firepots and/or gel fuel to be banned hazardous products if we found that no feasible consumer product safety standard would adequately protect the public from the unreasonable risk of injury associated with these products.

5. **No regulatory action.** We could take no regulatory action, but continue to rely on corrective actions under section 15 of the CPSA to address the risk of injury associated with firepots and gel fuel.

**H. Solicitation of Information and Comments**

This ANPR is the first step of a proceeding that could result in a mandatory rule for firepots and gel fuel. We invite interested persons to submit comments on any aspect of the alternatives discussed above.

In accordance with section 9(a) of the CPSA, we also invite comments on:

1. The risk of injury identified by the Commission, the regulatory alternatives being considered, and other possible alternatives for addressing the risk.

2. Any existing standard or portion of a standard that could be issued as a proposed regulation.

3. A statement of intention to modify or develop a voluntary standard to address the risk of injury discussed in this notice, along with a description of a plan (including a schedule) to do so.

In addition, we invite comments and information concerning the following:
1. What products should we include in or exclude from the rulemaking? For example, gel fuels tend to use ethanol, isopropanol, and ethanol and isopropanol mixtures. Specifying the type of alcohol used in gel fuel would provide clarity as to the scope of any rule on gel fuel. However, if a gel fuel manufacturer could substitute a different alcohol or chemical for ethanol or isopropanol, a rule that was specific with respect to the type of alcohol used might then be inapplicable.

2. What possible warnings or instructions for firepots and/or gel fuel could address the risk of injury?

3. What possible performance requirements for firepots, gel fuel, and/or gel fuel containers could address the risk of injury? Examples of possible performance requirements are a stability test for firepots making them less likely to tip over or a flame visibility test for gel fuel so that the flame would be more apparent.

4. What are the potential costs to manufacturers of labeling or performance requirements?

5. What are the potential benefits of a rule that would require warnings or instructions?

6. What are the potential benefits of a rule that would establish performance requirements for firepots, gel fuel, and/or gel fuel containers?

7. What is the potential economic impact of banning firepots and/or gel fuel? What alternative products would remain available?

8. What is the potential impact of a rule on small entities?
9. What other uses exist for pourable gel fuels other than the firepots covered by the ANPR and the fireplaces that are expressly not covered by this ANPR? What is the potential impact on gel fuel sold for stationary fireplaces of any rule?

10. Should pourable gel fuels ever be allowed to be used in open containers or open flame applications that might allow for spillage or splattering of gel fuels?

11. Do single-use cans of gel fuel present the same hazard as pourable gel fuels? Should single-use cans be treated differently under a rule?

Dated: December 20, 2011

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Todd A. Stevenson, Secretary
Consumer Product Safety Commission

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