ENVIRONMENTAL PROTECTION AGENCY

40 CFR Chapter I

[EPA-HQ-OPPT-2019-0490; FRL-10001-34]

TSCA Section 21 Petition to Prohibit the Use of Hydrofluoric Acid at Oil Refineries;

Reasons for Agency Response

AGENCY: Environmental Protection Agency (EPA).

ACTION: Petition for rulemaking; denial.

SUMMARY: This document announces the availability of EPA’s response to an August 7, 2019 petition it received under section 21 of the Toxic Substances Control Act (TSCA) from Public Employees for Environmental Responsibility (PEER). PEER petitioned EPA to prohibit the use of hydrofluoric acid in manufacturing processes at oil refineries under TSCA section 6(a) and require a phase-out of use at such facilities within two years. After careful consideration, EPA has denied the TSCA section 21 petition for the reasons discussed in this document.

DATES: EPA’s response to this TSCA section 21 petition was signed November 4, 2019.

FOR FURTHER INFORMATION CONTACT: For technical information contact: Robert Courtnage, National Program Chemicals Division, Mailcode 7404T, Office of Pollution Prevention and Toxics, Environmental Protection Agency, 1200 Pennsylvania Ave., NW., Washington, DC 20460-0001; telephone number: 202-566-1081, email address: courtnage robert@epa.gov.

For general information contact: The TSCA-Hotline, ABVI-Goodwill, 422 South Clinton Ave., Rochester, NY 14620; telephone number: (202) 554-1404; email address: TSCA-Hotline@epa.gov.
SUPPLEMENTARY INFORMATION:

I. General Information

A. Does this Action Apply to Me?

This action is directed to the public in general. This action may, however, be of interest to those persons who are using or may use hydrofluoric acid in manufacturing processes at oil refineries. Since other entities may also be interested, the Agency has not attempted to describe all the specific entities that may be affected by this action.

B. How Can I Access Information About this Petition?

The docket for this TSCA section 21 petition, identified by docket identification (ID) number EPA-HQ-OPPT-2019-0490, is available at http://www.regulations.gov or at the Office of Pollution Prevention and Toxics Docket (OPPT Docket), Environmental Protection Agency Docket Center (EPA/DC), West William Jefferson Clinton Bldg., Rm. 3334, 1301 Constitution Ave., NW., Washington, DC. The Public Reading Room is open from 8:30 a.m. to 4:30 p.m., Monday through Friday, excluding legal holidays. The telephone number for the Public Reading Room is (202) 566-1744, and the telephone number for the OPPT Docket is (202) 566-0280. Please review the visitor instructions and additional information about the docket available at http://www.epa.gov/dockets.

II. TSCA Section 21

A. What is a TSCA Section 21 Petition?

Under TSCA section 21 (15 U.S.C. 2620), any person can petition EPA to initiate a rulemaking proceeding for the issuance, amendment, or repeal of a rule under TSCA sections 4, 6 or 8, or an order under TSCA sections 4, 5(e) or 5(f). A TSCA section 21 petition must set forth the facts that are claimed to establish the necessity for the action requested. EPA is required
to grant or deny the petition within 90 days of its filing. If EPA grants the petition, the Agency must promptly commence an appropriate proceeding. If EPA denies the petition, the Agency must publish its reasons for the denial in the *Federal Register*. A petitioner may commence a civil action in a U.S. district court to compel initiation of the requested rulemaking proceeding within 60 days of either a denial or, if EPA does not issue a decision, within 60 days of the expiration of the 90-day period.

**B. What Criteria Apply to a Decision on a TSCA Section 21 Petition?**

Section 21(b)(1) of TSCA requires that the petition “set forth the facts which it is claimed establish that it is necessary to issue, amend, or repeal a rule.” 15 U.S.C. 2620(b)(1). Thus, TSCA section 21 implicitly incorporates the statutory standards that apply to the requested actions. In addition, TSCA section 21(b)(4)(B) establishes standards a court must use to decide whether to order EPA to initiate rulemaking in the event of a lawsuit filed by the petitioner. 15 U.S.C. 2620(b)(4)(B). TSCA sections 6(b) and 26 contain substantive legal and scientific requirements for making a risk determination under section 21(b)(4)(B)(ii) in the case of a proceeding for the issuance of a TSCA section 6(a) rule. Accordingly, EPA has relied on the standards in TSCA sections 26 and 6 to evaluate this TSCA section 21 petition and issue its decision to deny it.

**III. Summary of the TSCA Section 21 Petition**

**A. What Action was Requested?**

On August 7, 2019, PEER petitioned EPA under TSCA section 21 to promulgate regulations pursuant to TSCA section 6(a), and under the Administrative Procedure Act (APA) to take the same action pursuant to section 112 of the Clean Air Act (CAA). PEER petitioned EPA to prohibit the use of hydrofluoric acid in manufacturing processes at oil refineries and
require oil refineries to phase out the use of hydrofluoric acid within two years. This *Federal Register* notice specifically addresses PEER’s TSCA section 21 petition, not the petition under the APA.

**B. What Support Does the Petitioner Offer?**

PEER requests that EPA promulgate a TSCA section 6(a) rule, asserting that: (1) hydrofluoric acid is inherently dangerous; (2) the potential for industrial accidents presents too great a risk; (3) there is the potential for terrorist attacks targeting chemical plants, including refineries; and (4) there are safer alternatives to hydrofluoric acid for use at oil refineries. In its petition, PEER provides information from the National Institute of Occupational Safety and Health on the hazardous properties of hydrofluoric acid and the significant hazard posed if released accidentally.

PEER cites events in Torrance, California, South Korea, and Philadelphia to support concerns that additives may be ineffective in reducing cloud formation or addressing the potential for dangerous concentrations of hydrofluoric acid to persist miles away from the refinery. In the Torrance case, a valve failure unrelated to hydrofluoric acid caused an explosion and a projectile landed near tanks containing hydrofluoric acid; however, no injuries were reported, and no hydrofluoric acid was released. In the South Korea case, worker error led to an escape of gaseous hydrofluoric acid. Five worker deaths resulted, as well as many injuries to first responders. In this case, however, there was an unawareness of hydrofluoric acid being present and proper personal protective equipment was not worn, due to a difference in standards for how hydrofluoric acid is used in South Korea.

The most recent incident PEER referenced was a fire at a refinery in Philadelphia in June 2019. Although 5,000 pounds of hydrofluoric acid were released due to equipment failure
unrelated to hydrofluoric acid, there were no deaths and only minor injuries (Ref. 1). A second fire in a Richmond, California, refinery in 2012 is also referenced by PEER as a near-miss.

PEER states that a prohibition on use of hydrofluoric acid at refineries is warranted because there are safer alternatives that can be readily substituted (Ref. 1). The petition offers minimal information about these alternatives; it briefly mentions two options: solid acid catalyst alkylation, and ionic liquid alkylation, both of which use non-hazardous chemicals (Ref. 1). However, PEER presents limited information about these alternatives.

C. Background

Hydrofluoric acid is a solution of hydrogen fluoride in water and a precursor to fluorine compounds. In oil refineries, hydrofluoric acid is used as a catalyst in a process called alkylation. Due to its hazard properties, hydrofluoric acid is regulated by the federal government under several authorities, including related to preparation for emergency response to accidental and other nonroutine releases. The authorities include the Superfund Amendments and Reauthorization Act, the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, the Emergency Planning and Community Right-to-Know Act, the Resource Conservation and Recovery Act and the CAA, which are all under the EPA’s jurisdiction. Hydrofluoric acid is also regulated under the Hazardous Materials Transportation Act under the jurisdiction of the Department of Transportation. As PEER acknowledges, hydrofluoric acid is regulated under the Chemical Accident Prevention Provisions, 40 C.F.R part 68 (commonly referred to as the Risk Management Plan (RMP) rule pursuant to CAA section 112(r), (42 U.S.C. § 7412(r)). The RMP rule requires facilities that have certain extremely hazardous substances, such as hydrofluoric acid, above a threshold quantity, to develop a risk management program that identifies the potential effects of a chemical accident, and steps the facility is taking to
prevent an accident and spells out emergency response procedures should an accident occur. The RMP rule also requires facilities to report to EPA a summary of the actions described in an RMP. In addition to the RMP rule, the General Duty Clause under CAA section 112(r)(1) requires facilities to identify hazards present from accidental releases of extremely hazardous substances such as hydrofluoric acid, design and maintain a safe facility, and minimize the consequences of accidental releases.

There are also several Occupational Safety and Health Administration (OSHA) health and safety standards that employers must follow that apply to hydrogen fluoride, including implementing a process safety management program under 29 C.F.R § 1910.119; determining the appropriate level of employee respiratory protection under 29 C.F.R § 1910.134; implementing a hazard communication program under 29 C.F.R §1910.120, implementing a program of engineering controls, work practices and personal protective equipment to control exposure under 29 C.F.R. § 1910.132 and 1910.1000); and developing and implementing an emergency response plan, including emergency procedures and training of personnel under 29 C.F.R §1910.120 and 1910.38.

The Department of Homeland Security’s Cybersecurity and Infrastructure Security Agency (CISA), through the Chemical Facility Anti-Terrorism Standards (CFATS) program, requires facilities that use chemicals of interest (COI) such as hydrofluoric acid to report to CISA when a threshold of the COI is reached. Based on the assessed risk, CISA determines whether the facility is a high-risk facility and is then ranked into Tiers 1, 2, 3, and 4, with Tier 1 being the highest risk. If a facility is tiered, it must submit a Security Vulnerability Assessment (SVA) and a Site Security Plan (SSP)—or an Alternative Security Program (ASP)—that meets the risk-based performance standards (RBPS). More information is available at
Among other things the RBPS address are security issues such as perimeter security, access control, personnel security, and cybersecurity.

IV. Disposition of TSCA Section 21 Petition

EPA is denying the petition based on the petition’s lack of sufficient facts establishing that it is necessary for the Agency to issue a rule under TSCA section 6(a).

TSCA section 21 requires EPA to respond to a petition within 90 days of filing of the petition. If that petition requests a TSCA section 6(a) rulemaking and EPA grants that petition, TSCA section 21 requires EPA to promptly commence an appropriate proceeding under TSCA section 6. To grant a petition for a TSCA section 6(a) rulemaking, a petition would need to provide the facts establishing that the requested rulemaking is necessary. See, e.g., Trumpeter Swan Soc. v. EPA, 774 F.3d 1037, 1040 (D.C. Cir. 2014) (explaining that TSCA section 21 requires that a petition “set forth facts establishing the need for the requested rule”). Those facts would need to be sufficiently clear and robust for EPA to be able to conclude, within 90 days of filing the petition, that the chemical presents an unreasonable risk of injury to health or the environment and that issuance of a TSCA section 6(a) rule is the appropriate response to the petition. To make the threshold finding, EPA would need hazard and exposure data and other information that enables the Agency to assess risk and conclude whether the risk is unreasonable. In the absence of that information, EPA would need additional factual information to make a determination, which would require a denial and resubmittal by petitioners. Petitioners should look to and utilize the congressionally mandated, and EPA issued, “Guidance to Assist Interested Persons in Developing and Submitting Draft Risk Evaluations Under the Toxic Substances Control Act.” (EPA 740-R17-001, June 22, 2017) See TSCA section 26(l)(5). This guidance
document sets forth the “quality of the information submitted and the process to be followed in
developing draft risk evaluations.” *Id.*

The petition would need to include, for example, some analysis of the methods used to
classify the data or information submitted or used, hazard thresholds recommended or chosen,
and exposure estimates and patterns contemplated or addressed. This factual information is
necessary for EPA to be able to determine whether there is an unreasonable risk of injury to
health or the environment, consistent with the best available science, based on the weight-of-the-
scientific-evidence, and taking into account reasonably available information, as required by
TSCA sections 26(h), (i) and (k), respectively. The petition would also need to include other
factual information necessary to address whether or why the requested TSCA section 6(a) rule is
the appropriate response to the petition. These are critical threshold requirements applicable to a
finding of unreasonable risk and a determination that TSCA section 6(a) rulemaking is
necessary. A petition without such information is facially incomplete because it fails to provide
minimum factual information for EPA to make the threshold findings needed to respond to and
act on the petition as contemplated by TSCA section 21.

In this case, PEER’s petition refers to hazard databases and makes conclusory statements
of toxicity but provides little further information that would support granting a TSCA section
6(a) rulemaking request. The petition lacks analysis that would be expected in a TSCA risk
evaluation preceding a section 6(a) rulemaking. For example, there is no discussion of the
appropriate hazard threshold, exposure estimates, assessment of risks, or how the facts presented
allow EPA to comply with its duties under section 26 or other statutory requirements in making
an unreasonable risk determination. Absent such minimal factual information, EPA cannot make
the threshold determinations necessary to substantively assess and grant a petition for a TSCA
section 6(a) rulemaking. As a result, EPA denies PEER’s petition request as facially incomplete.

V. References

The following is a listing of the documents that are specifically referenced in this document. The docket includes these documents and other information considered by EPA, including documents that are referenced within the documents that are included in the docket, even if the referenced document is not physically located in the docket. For assistance in locating these other documents, please consult the technical person listed under FOR FURTHER INFORMATION CONTACT.

Whitehouse, Timothy, Public Employees for Environmental Responsibility (PEER) to the Administrator of the Environmental Protection Agency. Re: Ban on Hydrofluoric Acid in Refineries: Petition for Rulemaking. Received August 7, 2019.

List of Subjects in 40 CFR Chapter I

Environmental protection, Hydrofluoric Acid, Oil Refineries, Chemicals, Hazardous substances, Prohibition on Chemicals.

Dated: November 4, 2019.

Alexandra Dapolito Dunn,

Assistant Administrator, Office of Chemical Safety and Pollution Prevention.

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