



December 27, 2022

Office of Pollution Prevention and Toxics
U.S. Environmental Protection Agency
1200 Pennsylvania Ave. NW
Washington, DC 20460

Submitted online via the Federal eRulemaking Portal: <http://www.regulations.gov>

Re: Docket ID No. EPA-HQ-OPPT-2020-0549 -- TSCA Section 8(a)(7) Reporting and Recordkeeping Requirements for Perfluoroalkyl and Polyfluoroalkyl Substances; Notice of Data Availability and Request for Comment

On November 25, 2022 the Environmental Protection Agency (EPA) announced it was soliciting comments on the Initial Regulatory Flexibility Analysis (IRFA)¹ and updated economic analysis after the completion of a Small Business Advocacy Review (SBAR)² for the proposed rule on reporting and recordkeeping requirements for per- and polyfluoroalkyl substances (PFAS)³ under the Toxic Substances Control Act (TSCA).⁴

IPC⁵ and ITI⁶ respectfully submit these comments on behalf of over 3,000 member companies, including printed circuit board manufacturers, electronic manufacturing services, cable and wire harness manufacturers, electronics industry suppliers, and original equipment manufacturers. Many of our members are considered small and medium businesses and start-ups. Our members represent the complex, global supply chain of electronics, and include a wide range of manufacturers and importers – what our members manufacture, and import is used in thousands of articles across dozens of industry sectors, including products found in homes and businesses around the world.

While IPC and ITI appreciate EPA's recognition that there will be significant social costs associated with the proposed rule, we would like to reiterate that these costs are still underestimated and the burden to the electronics industry will be substantial. IPC and ITI recognize and agree that EPA, in its original proposal, significantly underestimated the compliance and social costs associated with the PFAS Reporting Rule and that major changes to the rule will be needed in order to address compliance costs.

The reporting requirements as outlined in the proposed rule will disproportionately burden electronics article manufacturers (including importers) without yielding abundant or useful information to enable the EPA to achieve its goals.

¹ TSCA Section 8(a)(7) Reporting and Recordkeeping Requirements for Perfluoroalkyl and Polyfluoroalkyl Substances; Notice of Data Availability and Request for Comment, 87 Fed. Reg. 72439, (Nov. 25, 2022).

² Final Report of the Small Business Advocacy Review Panel on EPA's Proposed Rule Toxic Substances Control Act Reporting and Recordkeeping Requirements for Perfluoroalkyl and Polyfluoroalkyl Substances, U.S. Small Business Administration, Office of Advocacy, <https://www.regulations.gov/document/EPA-HQ-OPPT-2020-0549-0123>, (Aug. 2, 2022).

³ 86 Fed. Reg. 33926 (June 28, 2021)

⁴ 15 U.S.C. § 2601 et. seq.

⁵ <https://www.ipc.org/about-ipc>

⁶ <https://www.itic.org/about/>



The estimate provided by IRFA does not fully consider the complex supply chain for electronics manufacturing. For complex articles with global, multi-layered supply chains, it is extremely difficult for article manufacturers and importers to obtain information about traceable chemical substance content. Visibility from the original equipment manufacturers, the electronics assemblers, or the electronics suppliers down the supply chain to the chemical formulators and manufacturers is constrained by the limited ability to connect with and obligate all supply chain partners to reliably collect and accurately report data and information on possibly thousands of chemical substances used in any number of different electronics manufacturing processes, parts, and components. Addressing the historical use (going back 10 years) of a chemical adds additional layers of complexity and complication because supply chain partners regularly change, supply chain partners may no longer have a contractual obligation to provide information, and electronic components, parts, and finished articles may have significantly changed during that time.

Response to EPA's IRFA:

To reinstate our original comments and concerns for the proposed rule on reporting and recordkeeping requirements for PFAS⁷ under the TSCA, IPC and ITI provide input on the following topics:

1. The costs to electronics manufacturing will be significant.
2. The time and resources needed to understand the structural definition of PFAS proposed for this rule will be significant. Therefore, a finite list of PFAS, as suggested by the SBAR Panel recommendation will provide greater clarity to industry on reporting obligations.
3. Clarification is needed on the "known or reasonable ascertainable standard."
4. EPA should exclude article manufacturers (including importers). However, if article manufacturers (including importers) are included in the scope, EPA should establish reporting thresholds.

1. The cost to electronics manufacturing will be significant

In the published IRFA, the EPA has updated its estimate costs for the proposed rule as proposed from approximately \$10.8 million to \$875 million in social costs, as well as from \$948,078 to \$1.5 million in agency costs.⁸ While we appreciate the recognition of increased costs, we would like to reiterate the significant burden placed on industry. In our previous comments on the proposed rule, we provided cost estimates of compliance with a broad PFAS reporting and recordkeeping rule. Generally, we estimated that cost of compliance for the proposed rule based on a minimum of 1,000 PFAS substances can range from \$300M to \$500M. In addition to cost, we also emphasize the time needed to track chemicals across the supply chain. It can take upwards of 12 months to track a single chemical through a supply chain. Tracking thousands of PFAS chemicals will pose significant problems for a company.

In the IRFA, EPA outlined compliance costs associated with the activities required by the proposed rule, including: (1) rule familiarization, (2) article importer compliance determination, (3) form completion, (4) CBI claim substantiation, (5) recordkeeping, and (6) central data exchange (CDX) registration and

⁷ 86 Fed. Reg. 33926 (June 28, 2021)

⁸ Initial Regulatory Flexibility Analysis and Updated Economic Analysis for TSCA Section 8(a)(7) Reporting and Recordkeeping Requirements for Perfluoroalkyl and Polyfluoroalkyl Substances (IRFA), Pg. 1



electronic signature. For each of these activities required by the proposed rule, there is a recognition that there will be increased costs to manufacturers, including importers. The costs associated with these activities include hiring technical personnel to understand the complexities of PFAS and increased labor costs and hours for technical and managerial expertise.

For article importers, costs are associated with (1) identifying the type of imported articles that potentially contain PFAS, (2) identifying suppliers involved, (3) collecting data from suppliers, and (4) recordkeeping. Unfortunately, these tasks pose difficulties because there are a range of factors that make obtaining data burdensome. IPC and ITI have seen these difficulties firsthand while prompting industry to prepare for the broad PFAS REACH Restriction Proposal in the European Union. We have worked with companies to determine where PFAS may be located or used in the manufacturing supply chain. However, the complexity of identifying suppliers and understanding what kinds of PFAS exist in articles has proven difficult. Due to the complexity of the supply chain and the intellectual property protections implemented throughout the supply chain, manufacturers are often unaware of where PFAS exists and whether a chemical may even qualify as PFAS. The IRFA touches on some of the complexities related to data sharing. IPC and ITI agree with the EPA that more often than not, the factors that make data gathering harder exist and result in companies not having a basic understanding of PFAS in their products or supply chain.

Many member companies noted their inability to estimate costs given the multitude of unknowns including PFAS use in their products may not be identified by its CAS Registry Number (CASRN), how the EPA will define and enforce the “known to or reasonably ascertainable by” concept, and the overall challenges with the complexity of the supply chain for complex articles such as electronics. The costs associated with the recordkeeping and reporting obligations could be charged back to customers, including the OEMs, raising prices for the consumer for the finished article. IPC and ITI look forward to seeing changes to the PFAS Reporting Rule that will better consider these significant costs to industry.

2. The time and resources needed to understand the structural definition of PFAS proposed for this rule will be significant. Therefore, a finite list of PFAS, as suggested by the SBAR Panel recommendation will provide greater clarity to industry on reporting obligations.

IPC and ITI agree with the SBAR Panel’s recommendation to limit the scope of reporting to a finite list of PFAS identified by CASRNs, rather than a structural definition of PFAS. Many companies will not have the technical expertise to understand and identify PFAS structures across the supply chain and typically track chemicals in their products using a declaration process based on CASRNs. The additional task of understanding a structural definition and applying that to further identify thousands of PFAS is not only burdensome, but also infeasible.

In the context of this proposed rule, most electronics article manufacturers and importers do not currently have information on the PFAS content of the electronics articles for a variety of reasons, including:

- Many PFAS chemistries are not tracked because they are not currently regulated, they are not recognized as hazardous, or they are below reporting thresholds for safety data sheets. If PFAS are not identified by manufacturers or formulators, then the ability to track and identify PFAS throughout the supply chain is made more challenging.



- Articles are not supplied with and generally do not require detailed material content documentation (e.g., safety data sheets for chemicals), and there are no universal best practices or regulatory requirements for full material disclosure or full substance disclosure requirements.
- Electronics articles have evolved with time and legacy data regarding substance content may not be available. Similarly, many electronics companies and suppliers have merged or gone out of business, and legacy data on former products may not be available.
- Substance data management systems are not widely used, and the robustness of those systems has changed with time.

Having a finite list can at least limit what technical experts are looking for in articles. This provides clarity on what manufacturers and importers need to identify and report. EPA has recognized in the IRFA that small article importers may not have staff and technical knowledge or expertise to understand a structural definition. IPC and ITI agree with this observation. IRFA estimates that a non-attorney consultant to support reporting on technical information can cost upwards \$300-400 per hour and \$400-10,000 for an attorney consultant.⁹ Further, for such a complex supply chain the costs can reach \$3,000-\$10,000 per component.¹⁰ These costs, in accumulation for reporting, will be astronomical for a small business forced to rely on external counsel for reporting compliance based on a complex structure-based PFAS definition. Implementing recordkeeping and reporting based on a structural definition of PFAS is not only unduly burdensome in practice, but costly, especially to small businesses.

3. Clarification is needed on the “known or reasonably ascertainable standard”

The new rule will require electronics article manufacturers and importers to try to identify and collect limited information and/or make the determination that the information is “not known or reasonably ascertainable,” which is an unclear threshold for compliance.

IPC and ITI appreciate EPA’s attempt in the IRFA to demonstrate what can qualify as “known or reasonable ascertainable.” Particularly, we appreciate that the IRFA acknowledged the complexities of the supply chains and the difficulties in determining whether a specific chemical substance may be present in an imported product, article, or waste.¹¹ IRFA also referenced opacity in downstream supply chains and the inability to provide required downstream use and disposal information.¹²

Based on the proposed rule, our companies are unclear to what threshold would qualify as due diligence, “known to or reasonably ascertainable by,” or “reasonable estimates,” specifically as they relate to historical data. EPA should provide non-binding guidance regarding accepted practices that will satisfy the inquiry standard, while recognizing that affected companies may take different approaches and flexibility is important. Examples could include:

- Inquiry to and file search of current internal groups and personnel whose employment duties include receiving, generating, or researching reportable information (such as SDS, product data, and technical/quality assurance data).

⁹ IRFA, 41

¹⁰ IRFA, 41

¹¹ IRFA, 39

¹² *Id.*



- Outreach to suppliers and vendors with which there is a direct and ongoing contractual relationship, requesting PFAS information, or if supplier does not have information to identify specific PFAS, a certification that PFAS is (or is not) present.
- Outreach to downstream users requesting product use information.

IPC and ITI would also like to reiterate from our previous comments that obtaining information from 10 years prior may not be feasible. IPC and ITI appreciate EPA's recognition that "there may be submitters who do not have records going back to January 1, 2011, and for whom certain information is not known or reasonable ascertainable."¹³ Electronics article manufacturers (including importers) may no longer have contractual relationships with historical suppliers of parts and components dating back 10 years as suppliers are likely to have significantly changed within a 10-year period. For example, some members companies had a U.S. manufacturing presence 10 years ago, but due to larger economic drivers, now have no domestic manufacturing. As a result, supply chains significantly changed in response to new locations of manufacturing facilities. Without a current contractual relationship, historical suppliers would be under no obligation to provide historical data, if even available, to a finished article manufacturer.

- In addition to changes with suppliers, electronic articles may have also changed significantly during this 10-year timeframe. For some electronics, product lifetimes range from two to five years with refreshes in models occurring almost annually. For other electronics, lifetimes can be a decade or more but will require frequent model refreshes. For example, one computer hard drive with a certain configuration may be on the market for five to six years, refreshes and new configurations occur every few years, and, therefore, within 10 years, a company may have five generations of the same product with dozens of configurations (e.g., external cables or enclosures) and hundreds of different hardware sets.
- Also, under this proposed rule, companies would be required to obtain data for electronic articles that may have been discontinued for almost 10 years. Older or discontinued models of finished articles are extremely unlikely to have readily available chemical composition data related to PFAS. Additionally, spare and replacement parts are manufactured at the same time and are also extremely unlikely to have these data. While manufacturers may be legally required to maintain records for certain chemical data, those records would only be applicable to that specific regulation as of the effective date of the regulation; it is unlikely to include the full chemical composition of the part or component article. As noted, only a small subset of specific PFAS chemicals or subgroups have been regulated to date.

ITI and IPC also support EPA's findings that "submitters need not conduct extensive supply chain surveys." However, there is still ambiguity in determining what "a reasonable person similarly situated might be expected to possess, control or know." For these reasons, we ask for clarification on this standard.

- 4. EPA should exclude article manufacturers (including importers). However, if article manufacturers (including importers) are included in the scope, EPA should establish reporting thresholds and provide exemptions for byproducts and impurities.**

¹³ IRFA, 7



We suggest EPA consider consistency with existing regulatory reporting requirements for restricted substances in articles with de minimis exemptions as well as exemptions for byproducts and impurities. Article manufacturers (including importers) are included in this proposed rule and articles containing PFAS, including imported articles, are included in the scope of reportable chemical substances. The requirements will also extend to byproducts and impurities. Many electronics article manufacturers and importers are obligated to comply with regulatory requirements affecting articles, including the EU's REACH Regulation, the Waste Framework Directive, and the RoHS Directive for EEE. These requirements aim to protect human health and the environment by limiting the amount of certain hazardous materials [e.g., RoHS restricted substances or REACH substances of very high concern (SVHC)] to a permitted threshold, with reporting requirements effective only if the article exceeds this de minimis value. For electronics article manufacturers (including importers), PFAS regulated under these programs are tracked through their chemical management programs as of the required compliance date for that program.

As stated in our initial comments, we suggest that if article manufacturers (including importers) remain in scope, a phased-in approach requiring a specific portion or subset of PFAS to be added incrementally over time based on de minimis and/or threshold levels should be established moving forward. EPA proposed that PFAS manufacturers have one year following the effective date of the final rule to submit all required information through the CDX system. As stated, EPA is proposing with this rule to require article manufacturers to undertake a potential 200% to 1700% increase in the number of chemicals managed within their chemical management programs at one time and report to EPA on those chemicals. It generally takes between six (6) to 12 months to survey a supply chain regarding the presence of *one chemical*. Companies are struggling to determine how quickly they can add in thousands of new chemicals into their reporting systems and receive accurate and reliable information from the supply chain.

Closing

IPC and ITI strongly recommend the exclusion of article manufacturers (including importers) from this reporting rule. IPC and ITI also strongly encourage EPA to reconsider the initial proposed rule considering the newly available data suggesting significant increase in costs for reporting and recordkeeping. Reporting for electronics article manufacturers (including importers) will result in unreliable data to drive future EPA action, especially for reporting of historical data.

Thank you for the opportunity to provide comments on this proposed rule. We thank EPA for its continued collaboration in the areas of chemical reporting and disclosure. We look forward to any follow-up conversations to these comments.

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