



August 30, 2024

Submitted via email to [PFASproducts@Maine.gov](mailto:PFASproducts@Maine.gov)

Melanie Loyzim  
Commissioner  
Maine Department of Environmental Protection  
17 State House Station  
Augusta, Maine 04333-0017

**Re: Joint Comments from SEMI and SIA in Response to the DEP Concept Draft Language for PFAS in Products Rule**

Dear Commissioner Loyzim:

On behalf of SEMI<sup>1</sup> and the Semiconductor Industry Association (SIA)<sup>2</sup>, we write to offer comments in response to the Maine Department of Environmental Protection (DEP) Concept Draft Language for Perfluoroalkyl and Polyfluoroalkyl Substances (PFAS) in Products Rule (the Concept Draft) released on August 5, 2024. These comments discuss the definition that DEP has put forward for “semiconductor” in the Concept Draft as well as accompanying notes and the fees DEP plans to assess for products requiring notification. SEMI and SIA appreciate the DEP’s efforts on the Concept Draft and look forward to future engagement as it relates to the semiconductor supply chain.

**I. Comments Regarding Definitions (Section 2)**  
**a. Definition of Semiconductor**

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<sup>1</sup> SEMI® represents more than 3,000 member companies to advance the technology and business of electronics manufacturing. SEMI members are responsible for the innovations in materials, design, equipment, software, devices, and services that enable smarter, faster, more powerful, and more affordable electronic products. Electronic System Design Alliance (ESD Alliance), FlexTech, the Fab Owners Alliance (FOA) and the MEMS & Sensors Industry Group (MSIG) are SEMI Strategic Association Partners, defined communities within SEMI focused on specific technologies. Since 1970, SEMI has built connections that have helped its members prosper, create new markets, and address common industry challenges together. SEMI maintains offices in Bangalore, Berlin, Brussels, Hsinchu, Seoul, Shanghai, Silicon Valley (Milpitas, Calif.), Singapore, Tokyo, and Washington, D.C. For more information, visit [www.semi.org](http://www.semi.org).

<sup>2</sup> SIA has been the voice of the semiconductor industry for over 45 years, representing 99 percent of the U.S. semiconductor industry by revenue and nearly two-thirds of non-U.S. chip firms. Semiconductors are one of America’s top export industries and a key driver of America’s economic strength, national security, and global competitiveness. The semiconductor industry directly employs over 300,000 workers in the United States, and U.S. semiconductor company sales totaled \$264 billion in 2023. Through this coalition, SIA seeks to strengthen leadership of semiconductor manufacturing, design, and research by working with Congress, the Administration, and key industry stakeholders around the world to encourage policies that fuel innovation, propel business, and drive international competition. Additional information is available at [www.semiconductors.org](http://www.semiconductors.org).

SEMI and SIA recognize that the Concept Draft exempts semiconductors, including semiconductors incorporated into electronic equipment, and equipment and materials used in the manufacture of semiconductors, per the statutory requirements in 38 M.R.S. § 1614(4)(K) as amended through L.D. 1537. However, the narrow definition of “semiconductor” that DEP outlined in the Concept Draft is not aligned with the broad exemption for semiconductors that the Maine Legislature included in the statute. SEMI and SIA recommend that DEP modify the proposed DEP definition to read as follows:

**Semiconductor.** “Semiconductor” means material having conductivity characteristics intermediate between conductors and insulators, as well as a discrete functional object having two or more layers of metallic, insulating, or semiconductor material, deposited or otherwise placed on, or etched away or otherwise removed from, a piece of semiconductor material in accordance with a predetermined micron or sub-micron pattern and intended to perform electronic and other related functions. Semiconductors do not include commonly associated materials such as printed circuit boards (PCB), PCB mounting solder, PCB mounting flux, external wires, PCB screen printing ink, connectors and sockets, or PCB conformal coatings.

Our recommended definition would reflect the semiconductor chip product definition used at the federal level in 17 U.S.C. § 901(a)(1). This harmonization of DEP’s future rule with federal law is crucial given that our industry operates across the country and globally, meaning that inconsistencies between how jurisdictions define semiconductor must be avoided to ensure regulatory consistency. In addition, the use of the phrase “discrete functional object” would ensure the inclusion of the assembled, packaged semiconductor devices that are in fact the products being sold. Finally, SEMI and SIA have also proposed additional changes concerning the exclusionary portion of the semiconductor definition from the Concept Draft to more accurately reflect the various components, such as PCBs and auxiliary items, that do or do not comprise a semiconductor.

#### **b. Note following Definition of Semiconductor**

The note following DEP’s semiconductor definition in the Concept Draft states that “[a] product must meet the definition of a semiconductor, a product will not be considered a semiconductor because other products that serve the same or similar purpose are semiconductors.” The comma in this note is grammatically incorrect, and the clause after the comma may foster confusion. To ameliorate these issues, SEMI and SIA recommend that the note be rewritten as such in the interest of clarity:

NOTE: A product will not be considered a semiconductor solely because it serves the same or similar purpose as an established semiconductor. To be considered a semiconductor, the product must match all aspects of the definition.

## **II. Comments Regarding Exemptions (Section 4)**

### **a. Note following Subsection 11 of Section 4(A)**

Section 4(A) of the Concept Draft outlines and provides clarifying notes on the products exempt from DEP’s future rule pursuant to 38 M.R.S. § 1614(4) as amended through L.D. 1537. The note under Subsection 11 of Section 4(A) in the Concept Draft explains in part that “[w]hile semiconductors incorporated into electronic equipment are exempted from this Chapter, electronic equipment in their entirety is not.” This statement is inaccurate given that the law’s exemption for semiconductors at 38

M.R.S. § 1614(4)(K) covers “equipment . . . used in the manufacture of semiconductors.” Such exempted semiconductor manufacturing equipment could be electronic equipment. Moreover, 38 M.R.S. § 1614(4)(L) and (M) exempt, respectively, non-consumer electronics and equipment directly used in the manufacture or development of products described in paragraphs E to L.

SEMI and SIA therefore recommend that the note under Subsection 11 of Section 4(A) in the Concept Draft be edited to clarify that electronic equipment used in the manufacture of semiconductors is also exempt. Rewritten, this note would read as follows:

NOTE: While semiconductors incorporated into electronic equipment are exempted from this Chapter, electronic equipment in their entirety is not exempt unless the electronic equipment is used in the manufacture of semiconductors, is considered a non-consumer electronic product under Subsection 12, or (as described in Subsection 13) is otherwise considered equipment directly used in the manufacture or development of products described in Subsections 5 through 12. Manufacturers of non-exempt electronic equipment are still subject to sales prohibitions, currently unavoidable use determinations, and notification requirements on the balance of their product which is not comprised of semiconductors.

**b. Typographical Error in Subsection 12 of Section 4(A)**

SEMI and SIA note that the last word of Subsection 12 of Section 4(A) does not accurately reflect the language of the statute on which DEP’s future rule will be based. Specifically, the conjunction “or” must be replaced with “and”, as follows:

(12) Non-consumer electronics and non-consumer laboratory equipment not ordinarily used for personal, family or household purposes; and

Use of the conjunction “or” in this situation does not fit given that all the listed items in Subsections 1 through 13 are collectively exempt from the statute’s obligations.

**c. Note Following Subsection 13 of Section 4(A)**

As mentioned above, 38 M.R.S. § 1614(4)(M) exempts “[e]quipment directly used in the manufacture or development of the products described in paragraphs E to L.” We recommend that DEP include a note following Subsection 13 of Section 4(A) in the Concept Draft to clarify the meaning of “directly used” in this context, in line with the fact that the Maine Legislature included this exemption in the statute as a means to broadly protect supply chains on which exempted products such as semiconductors rely:

NOTE: Equipment “directly used” in the manufacture or development of products described in Subsections 5 through 12 includes equipment and related materials used for the servicing, maintenance, operation and upgrading of products described in Subsections 5 through 12.

**III. Comments Regarding Fees (Section 6)**

Products exempted under 38 M.R.S. § 1614(4), including semiconductors, do not require currently unavoidable use determinations and are therefore not subject to the law’s notification requirements. Nonetheless, reporting fee requirements must be reasonable for those that are subject to notification.

Notably, the Concept Draft puts forward a \$5,000 reporting fee per notification. Even though notification is a one-time obligation and DEP indicated in the Concept Draft that no fees will be assessed for updates to existing notifications, a \$5,000 fee would create a fee structure that if left uncapped would pose an unwarranted financial burden on companies with extensive product offerings that may have to submit several different notifications. SEMI and SIA recommend that DEP impose a cap on notification fees, similar to DEP's annual cap on asbestos abatement and licensing fees.<sup>3</sup> In addition, DEP should consider ensuring the product categories for notification are generally broad enough to capture categories of many individual products with common profiles, which would in effect create a similar notification fee structure as a cap.

#### **IV. Conclusion**

SEMI and SIA are committed to balancing the need for environmental protection and the sustainability of semiconductor manufacturing operations, which is a complex challenge. SEMI and SIA are grateful for the opportunity to engage on this matter and on DEP's planned rulemaking efforts and are available to meet at your convenience to further elaborate on the issues discussed in these comments. If you have any questions or would like to discuss our positions, please do not hesitate to contact Ben Kallen, Senior Manager for Public Policy and Advocacy at SEMI ([bkallen@semi.org](mailto:bkallen@semi.org)) and Alex Gordon, Manager of Government Affairs at SIA ([agordon@semiconductors.org](mailto:agordon@semiconductors.org)).

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<sup>3</sup> DEP Fee Schedule (effective Nov. 1, 2023 to Oct. 31, 2024), note 22, <https://www.maine.gov/dep/feeschedule.pdf>.

