Comments of the
Semiconductor Industry Association

On

The Interim Final Rule Entitled
"Foreign-Produced Direct Product Rule Additions, and Refinements to Controls for Advanced Computing and Semiconductor Manufacturing Items"

89 Fed. Reg. 96790 (December 2, 2024)
RIN 0694-AJ74
Docket No. 241126-0302

Submitted February 28, 2025

The Semiconductor Industry Association (SIA) submits these comments in response to the request from the Bureau of Industry and Security (BIS) within the Department of Commerce (Commerce) in the interim final rule (IFR) entitled "Foreign-Produced Direct Product Rule Additions, and Refinements to Controls for Advanced Computing and Semiconductor Manufacturing Items," 89 Fed. Reg. 96790.

Part I contains introductory and background comments about SIA and semiconductors and general comments about the IFR and the related semiconductor manufacturing and advanced computing rules in the Export Administration Regulations (EAR). Part II contains comments and questions regarding specific provisions in the IFR for BIS's consideration.

Part I – Introduction and Background

SIA has been the voice of the U.S. semiconductor industry for almost 50 years. Our member companies represent more than 99% of the U.S. semiconductor industry by revenue and nearly two-thirds of non-U.S. firms, and are engaged in the full range of research, design, and manufacture of semiconductors – including both wafer fabrication and back-end assembly, test, and packaging of chips. Semiconductor technology was invented in America more than 65 years ago, marking an indelible point of pride in our history. Today, the U.S. remains the global leader in semiconductor technology and innovation, which drives America's economic strength, national security, and global competitiveness in a range of downstream industries. More information about SIA and the semiconductor industry is available at https://www.semiconductors.org/.

Semiconductors are complex products critical to the functioning of everyday consumer electronics, communications, and computing devices in the automotive, industrial, financial, medical, retail, and many other sectors of the economy. They are also critical components for future technologies, such as artificial intelligence, quantum computing, and 5G/6G telecommunications. As stated by the President's Council of Advisors on

Science and Technology, "It has never been clearer that leadership in semiconductors is a national priority to ensure both our economic prosperity and our national security."[1]

SIA and its member companies understand that export controls are necessary tools for safeguarding national security, and the need for targeted policies designed to achieve specific national security objectives. But this must be done without unduly harming commercial innovation, manufacturing, employment, and continued American leadership in critical technologies. As emphasized in our previous comment submissions,[2] U.S. export controls should also be aligned and implemented in a coordinated manner with other key supplier nations to ensure the national security objectives of those actions are actually met, and the U.S. semiconductor industry can compete on a level playing field around the world.

The U.S. government has issued multiple, consequential – and often unilateral – semiconductor-focused restrictions intended to protect U.S. national security under a "small yard, high fence" doctrine. In the past few years, however, the "small yard" of strategic technologies has grown substantially bigger. These regulations are reshaping semiconductor supply chains and the global competitive landscape for chips and downstream chips-consuming firms alike, causing many customers around the globe to shift reliance to non-U.S. chips suppliers, and prompting retaliatory actions designed to degrade U.S. semiconductor competitiveness. These policies warrant review and re-evaluation to assess whether they are achieving their intended objectives and whether the compliance requirements are as straightforward and minimally burdensome as possible, but also whether they are inadvertently hindering the U.S. national security innovation base and U.S. technology leadership.

We likewise urge the Commerce Department and other key agencies involved in developing and implementing export controls to ensure the private sector has meaningful opportunities to provide insights and technical expertise into the policymaking process. To that end, the Commerce Department should move swiftly to re-establish the President's Export Council Subcommittee on Export Administration (PECSEA). The Commerce Department formally announced the reestablishment of the

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[1] President's Council of Advisors on Science and Technology, *Report to the President: Revitalizing the U.S. Semiconductor Ecosystem*, September 2022, https://bidenwhitehouse.archives.gov/wp-content/uploads/2022/09/PCAST_Semiconductors-Report_Sep2022.pdf.

[2] Comments of the Semiconductor Industry Association (SIA) on "Implementation of Additional Export Controls: Certain Advanced Computing Items; Supercomputer and Semiconductor End Use; Updates and Corrections; and Export Controls on Semiconductor Manufacturing Items; Corrections and Clarifications," (89 Fed. Reg. 23876 (April 4, 2024)), April 29, 2024, https://www.regulations.gov/comment/BIS-2023-0016-0036; Comments of the Semiconductor Industry Association (SIA) on "Implementation of Additional Export Controls: Certain Advanced Computing Items Supercomputer and Semiconductor End Use; Updates and Corrections," (88 Fed. Reg. 73458 (Oct. 25, 2023)), Jan. 17, 2024, https://www.regulations.gov/comment/BIS-2022-0025-0074; Comments of the Semiconductor Industry Association on "Export Controls on Semiconductor Manufacturing Items," (88 Fed. Reg. 73424 (Oct. 25, 2023)), Jan. 17, 2024, https://www.regulations.gov/comment/BIS-2023-0016-0015.

PECSEA through a Federal Register notice[3] in January 2024 and solicited nominations for membership. Executives from several SIA member companies applied to volunteer time away from their businesses to serve on the PECSEA. Over a year later, the Commerce Department has yet to appoint members to the advisory group or hold a meeting. We encourage the Commerce Department to swiftly appoint members to the PECSEA and convene its first meeting in the first half of 2025.

We similarly call for BIS to update membership of its Technical Advisory Committees (TACs). Many semiconductor industry representatives have been nominated to serve on various TACs but still await approval after a year and even longer. We urge the Commerce Department to prioritize appointing new TAC members without further delay and commit to publishing up-to-date lists of TAC members on the BIS website.

SIA has long been a partner of the U.S. government in providing constructive and substantive feedback to ensure export controls with respect to semiconductor technology are crafted in a manner that enhances our national security while still enabling SIA member companies to out-compete, out-innovate, and win the competition for global semiconductor leadership. We therefore appreciate the opportunity to provide comments and questions with respect to the IFR, and request that BIS swiftly publish FAQs to clarify key technical details and reduce regulatory uncertainty regarding specific provisions in the IFR, as identified in the forgoing comments.

Part II – Comments on the IFR

Below, SIA provides comments on a number of provisions and technical details in the IFR that should be clarified and revised.

Comment II.A: New Red Flags 21, 24, and 27 are unclear, onerous, and should be revised.

The IFR added eight new Red Flags in supplement no. 3 to part 732 that are intended to provide additional guidance to assist exporters, reexporters, and transferors as part of their compliance programs. SIA and its members seek additional clarity regarding Red Flags 21, 24, and 27 to ensure that compliance obligations are straightforward and manageable.

- New Red Flag 21 identifies a scenario where “an exporter, reexporter, or transferor receives an order for which the ultimate owner or user of the items is uncertain”, and specifies that this uncertainty requires the need for due diligence, particularly for items where such information would typically be known to an exporter, reexporter, or

[3] Bureau of Industry and Security, “Notice of Reestablishment of the President’s Export Council Subcommittee on Export Administration and Solicitation of Nominations for Membership,” 89 Fed. Reg 1064 (Jan. 9, 2024), https://www.federalregister.gov/documents/2024/01/09/2024-00190/notice-of-reestablishment-of-the-presidents-export-council-subcommittee-on-export-administration-and.

transferor, such as for **advanced computing items**, supercomputers, or semiconductor manufacturing equipment (SME).

- **Comment:** In particular, Red Flag 21 describes a scenario where the export, reexporter, or transferor receives a request to ship equipment for the "development" or "production" of ICs to a distributor without a manufacturing operation, when the item is ordinarily customized for the end user or installed by the supplier. It further advises, because a distributor without a manufacturing operation "would never be the end user of such equipment", exporters, reexporters, and transferors are required to conduct due diligence to resolve this uncertainty regarding the end user before proceeding with the transaction. Based on this scenario, the inclusion of "advanced computing" (noted in bold type above) as an example in this red flag does not accurately reflect standard industry practices. The control criterion for "advanced computing items" captured by 3A090.a applies to any item with "a 'total processing performance' of 4800 or more" regardless of end use, including products that are "non-datacenter" items, such as high-end graphics cards and client processors. Non-datacenter "advanced computing" items (classified in ECCNs 3A090 and 4A090) do not require customization or installation support and are often sold through distribution channels as standalone items that make it possible for the end-user to produce their own product.

  SIA recommends Red Flag 21 be revised to remove the reference to "advanced computing items" in bolded text above or modify the text to limit the scope of the red flag only to datacenter items meeting the control criterion.

- **Comment:** With respect to SME, it is unclear whether Red Flag 21 applies only to third-party distributors, or whether it also applies to affiliated distributors. Additional compliance guidance is needed to clarify whether Red Flag 21 would apply in a scenario where a U.S. company sends EAR items to its affiliate abroad, but the U.S. company does not know the ultimate owner or user at the time of export because the affiliate company abroad will keep the EAR items in inventory until they are needed by the ultimate end user/owner.

  SIA requests BIS to clarify whether this scenario would fall under Red Flag 21 and would require the exporter to resolve the issue with respect to affiliated distributors.

- New Red Flag 24 applies when an exporter, reexporter, or transferor receives a request for an item or service from a new customer whose senior management or technical leadership (e.g., process engineers that are team leaders or otherwise leading development or production activities) overlaps with an entity on the Entity List.

- **Comment**: The purpose of the Entity List is to identify a specific person or party that is subject to specific license requirements for the export, reexport and/or transfer (in-country) of specified items. If there is "knowledge" that a new customer may be an affiliate or related party to an entity on the Entity List and may create a risk of diversion to an Entity List party, that must be investigated, which has always been the case. However, establishing a requirement to research the employees of other companies to determine where a customer's "senior management or technical leadership" team may overlap with an Entity List company, regardless of whether there is "knowledge" of such information, appears to go beyond the established due diligence framework for the Entity List.

  As a practical compliance matter, the names of individuals in senior management and technical leadership roles are not always easily available and can be difficult to locate. Integrating data sources (e.g., LinkedIn or media announcements) containing this information into trade compliance screening systems is not currently available through screening service providers to support a transactional business and would be very challenging to integrate. Further, matching rotations of key personnel to a particular end-use restriction is particularly complex and onerous. These concerns are particularly acute if a certification from the new customer attesting that none of its senior management/technical leadership overlaps with an entity on the Entity List is not sufficient to resolve the red flag. Clear guidance regarding whether a certification is sufficient or whether an exporter is obligated to verify the certification through additional due diligence is needed if this red flag remains in the EAR.

  Given the difficulties in determining senior management and technical leadership and the confusion this may cause, we recommend this red flag be removed. Instead, SIA recommends that BIS identify entities through entity listings as needed.

- New Red Flag 27 identifies a scenario where the end user is a "facility" that is physically connected to a separate "facility" where "production" of "advanced-node ICs" occurs, which raises a red flag that the end user is also a "facility" where the "production" of "advanced-node ICs" occurs, and the supplier would need to conduct additional due diligence before proceeding with the transaction. This Red Flag also identifies a scenario of a building with a "tunnel, or other connection" to another building.

  - **Comment:** The term "physically connected" is undefined in both the IFR and the EAR. Without further clarity, the due diligence requirement to identify a "bridge, tunnel, or other connection" is burdensome on companies and exceeds what companies are typically able to identify during routine due diligence. SIA recommends BIS remove this due diligence requirement.

Comment II.B: BIS should clarify the application of § 734.4 De minimis U.S. content.

The IFR adds new *de minimis* provisions in § 734.4(a)(8) and § 734.4(a)(9). These provisions generally specify that there is no *de minimis* level of U.S. controlled content for specified foreign-made items destined to certain countries or end users.

While § 734.4(a)(8) and § 734.4(a)(9) refer only to foreign-made items *containing* U.S.-origin ICs, the preamble also refers to foreign-made items *incorporated* in a U.S.-origin IC.

SIA recommends BIS confirm the *de minimis* rules in § 734.4(a)(8) and § 734.4(a)(9) apply only when a foreign-made item *contains* a U.S.-origin IC.

Comment II.C: BIS should clarify provisions in the IFR with respect to software keys.

The IFR modified the scope of 734.19 by adding a new paragraph (b) to specify that software keys, also called software license keys, which allow users the ability to use "software" or hardware by providing access to it, and software keys that renew existing "software" or hardware use licenses are classified and controlled under the same ECCNs) as the corresponding "software" or hardware to which they provide access, or in the case of hardware, the software key would be classified under the corresponding ECCN in the software group. The preamble to the IFR further specifies that "this clarification applies to, **among other items,** software keys for electronic computer-aided design (ECAD) tools that are important to the development and production of "advanced-node ICs"."

We request that BIS provide examples of other types of software license keys that are covered by the IFR, as well as examples of software license keys that are not covered by new paragraph (b) under EAR 734.19.

SIA also requests that BIS clarify whether a software key is an "item." If BIS considers software keys items, we seek clarification on the following questions:

- *Is a software key an "item" that is "not subject to the EAR" if the corresponding software/hardware is "not subject to the EAR"?*
- *If so, could transmittal/delivery of a license key "not subject to the EAR" be restricted under the U.S. person restrictions based on the end-user?*
- *Further, could a software key be an item "subject to the EAR" if it is generated outside the United States (e.g., if the software to which it relates is U.S.-origin)?*

Comment II.D: BIS should revise the text of ECCN 3D992.b to accurately reflect the regulatory intent expressed in the Preamble of the Interim Final Rule that published in the Federal Register at 90 FR 5298 on January 16, 2025 ("January 16 IFR"), thereby correcting a technical drafting error, where an important defined term, "specially designed," has been omitted.

In order to avoid an overbroad interpretation of this control by exporters outside the EDA industry, we believe it is particularly important to make the correction to "specially designed." The text should reflect the intent of the January 16 IFR preamble.

The scope of ECCN 3D992 is described in the preamble of the January 16 IFR as follows:

> *c. Revisions to ECCNs **3D992**, 3D993, 3D994, 3E992, 3E993, and 3E994. Paragraphs 3D992.a, 3D993.a, 3E993.a are **amended by adding "specially designed" for consistency with other 990 series software controls**. ECCNs 3D994 and 3E994 are amended by adding "specially designed" to the heading for consistency with other 990 series software and technology controls.*

However, the text of ECCN 3D992.b on the CCL of the EAR does not reflect the preamble of the January 16 IFR. As a result, ECCN 3D992.b is overly broad and can be interpreted to include software already controlled under other entries, such as ECCN 3D001 and 3D991. Without the amendment for inclusion of "specially designed", ECCN 3D992.b is ambiguous and could control non-electronic design automation software, such as computer aided design software and general-purpose solvers for consumer electronics. This conflict between the text of ECCN 3D992.b and the preamble is contrary to the rulemaking requirements of the Export Control Reform Act, as recounted by BIS in the IFR:

> *. . . as noted under § 1752(7) of ECRA, administering export controls in an effective manner "**requires a clear understanding both inside and outside the U.S. Government of which items are controlled**."*

We therefore recommend that BIS publish the following revised text for ECCN 3D992.b so that it is consistent with the intent of the control as described in the Preamble (change indicated in bold):

> *b. 'Electronic Computer-Aided Design' ('ECAD') "software" **"specially designed"** for the integration of multiple dies into a 'multi-chip' integrated circuit, and having all of the following:*
>
> *b.1. Floor planning; and*
>
> *b.2. Co-design or co-simulation of die and package.*
>
> *Technical Note: For the purposes of 3D992.b, 'multi-chip' includes multi-die and multi-chiplet.*

In the interim, we respectfully request that BIS issue a Frequently Asked Question on the scope of ECCN 3D992.b so that the exporting public is aware that the text should be interpreted in accordance with the preamble of the January 16 IFR.

Comment II.E: BIS should clarify the applicability of a Temporary General License (TGL) with respect to 3A090.c and consider developing additional resources for exporters to facilitate compliance with this rule.

The IFR revised the Advanced Computing TGL at paragraph (d)(2) of General Order No. 4 in Supplement No. 1 to EAR Part 736 to address new ECCN 3A090.c in the TGL's product and end use scope.

But as revised, the Advanced Computing TGL only overcomes the license requirement in EAR § 742.6(a)(6)(iii) which does not impose licensing requirements on items classified in ECCN 3A090.c. Did BIS intend for the TGL to also overcome EAR § 742.6(a)(6)(i)(B), which imposes a license requirement on ECCN 3A090.c items? SIA requests that BIS issue a correction to the rule or an FAQ to clarify the scope of the TGL.

With the complexity of these new controls, BIS should produce a decision tree to help guide exporters similar to what BIS has prepared for other regulatory requirements that include multipart/multiple dates/various footnotes/TGLs/Exceptions. (see, e.g., https://www.ecfr.gov/current/title-15/subtitle-B/chapter-VII/subchapter-C/part-732).

Comment II.F: BIS should make a technical correction in Section III.C.2, Conforming Changes for Addition of 3A090.c.

The Preamble (see IFR p. 96801) indicates BIS amended the EAR to include a clarifying parenthetical phrase in § 744.23(a)(3)(ii). Specifically, it notes "[l]astly, this IFR adds a parenthetical phrase with an application example under new paragraphs (a)(3)(ii) to provide a better understanding of this provision." However, the parenthetical phrase is not included in the EAR revisions. Given the complexity of the new rules, BIS should amend the EAR to include the contemplated clarifying parenthetical.

* * *

Thank you for the opportunity to comment on the IFR. SIA looks forward to continued partnership with BIS and other agencies in providing support and feedback regarding export control policy, particularly with respect to semiconductors.

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