

Practice Update

Updated Advanced Computing and Semiconductor Manufacturing Export Controls Take Effect

November 21, 2023

On October 17, 2023, the Commerce Department’s Bureau of Industry and Security (“BIS”) released two interim final rules (“IFRs”) that amended the Export Administration Regulations (“EAR”) to significantly expand export controls on advanced computing and semiconductor manufacturing items originally established under an [October 7, 2022, IFR](#). Aside from a Temporary General License (“TGL”) effective October 25, 2023, described further below, these recent updates became effective November 17, 2023.

In its [press release](#) announcing the recent amendments, BIS explained that the October 17 IFR and recent amendments “were strategically crafted to address, among other concerns, the PRC’s efforts to obtain semiconductor manufacturing equipment essential to producing advanced integrated circuits needed for the next generation of advanced weapon systems, as well as high-end advanced computing semiconductors necessary to enable the development and production of technologies such as artificial intelligence (AI) used in military applications.”

The recent IFRs broaden the October 17 IFR and add substantial complexity to the regulations. With frequent cross-references, the recent IFRs also require familiarity with various Country Groups identified at Supplement No. 1 to EAR Part 740. Of

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particular relevance to the destination scopes of new license requirements imposed under the updates are Country Groups D:1 (countries that present national security concerns), D:4 (countries presenting missile technology concerns), and D:5 (arms embargoed countries). These Country Groups include the People's Republic of China ("China").

The Advanced Computing and Supercomputer IFR

The BIS rule on "Implementation of Additional Export Controls: Certain Advanced Computing Items; Supercomputer and Semiconductor End Use; Updates and Corrections" (the "AC/S IFR") adjusts controls for integrated circuits ("ICs") and other items used in advanced computing and imposes measures to address circumvention of the controls.

More specifically, and among other things, the AC/S IFR makes the following changes:

- Broadens controls on ICs at paragraph (a) of Export Control Classification Number ("ECCN") 3A090 by removing interconnect bandwidth as a control parameter and replacing it with controls on ICs with one or more digital processing units having either a total processing performance of 4800 or more, or a total processing performance of 1600 or more and a performance density of 5.92 or more.
- Further broadens controls at ECCN 3A090 by adding a new paragraph (b) to catch less advanced ICs with a total processing performance of 2400 or more and less than 4800 and a performance density of 1.6 or more and less than 5.92, or; a total processing performance of 1600 or more and a performance density of 3.2 or more and less than 5.92.
- Adds new .z paragraphs to nine ECCNs to identify items on the Commerce Control List that meet or exceed the performance parameters of ECCN 3A090 or 4A090.

- Broadens Regional Stability controls to require a license for advanced computing items destined to Country Groups D:1, D:4, and D:5 countries, except for Cyprus and Israel.
- Creates new License Exception Notified Advanced Computing (“NAC”) at EAR Section 740.8 to authorize exports, reexports, and in-country transfers of certain advanced computing items to otherwise restricted destinations when all conditions for use of the license exception are met.
- Broadens the country scope of license requirements under the advanced computing Foreign Direct Product (“FDP”) rule at EAR Section 734.9(h) to require licenses for exports, reexports, and in-country transfers of foreign-produced items destined to Country Group D:1, D:4, and D:5 countries, except for Cyprus and Israel, or to an entity headquartered in, or whose ultimate parent is headquartered in, a Country Group D:5 country or Macau.
- Broadens the country scope of license requirements for U.S. person activities related to the development and production of advanced-node ICs at EAR Section 744.6 to apply to activities to or within Country Group D:5 and Macau, and for an entity headquartered in, or whose ultimate parent is headquartered in, a Country Group D:5 country or Macau.
- Broadens the country scope of license requirements for prohibited supercomputer end uses at EAR Section 744.23 to apply to Country Group D:5 and Macau.
- Adds five new red flags to Supplement No. 3 to EAR Part 732—Know Your Customer Guidance that can provide constructive knowledge that a violation of the EAR has occurred or is about to occur.
- Adds a new TGL at Supplement No. 1 to EAR Part 736, valid until December 31, 2025, to authorize the export or reexport of various advanced

computing items to certain recipients for certain back-end activities.

The Semiconductor Manufacturing Equipment IFR

The BIS rule on “Export Controls on Semiconductor Manufacturing Items” (the “SME IFR”), expands the list of semiconductor manufacturing items (“SME”) subject to controls, expands lists of destinations requiring a license for certain SME, and refines SME, supercomputing, and advanced-node IC end use controls.

More specifically, and among other things, the SME IFR makes the following changes

- Expands control listings to include additional types of SME and moves control listings from ECCN 3B090 to ECCNs 3B001 and 3B002.
- Broadens Regional Stability controls to require a license for SME items destined to Country Group D:5 countries and Macau.
- Revises EAR de minimis provisions to add a zero percent threshold for certain lithography equipment now described at ECCN 3B001.f.1.b.2.b. when destined for use in the development or production of advanced-node ICs, subject to certain exceptions.
- Revises and reformats end use controls on supercomputer, advanced node ICs, and semiconductor manufacturing end-use controls at EAR Section 744.23.
- Adds new definitions at EAR Section 772.1 for “Extreme Ultraviolet” and “Advanced-Node Integrated Circuits.”
- Adds a new TGL, valid until December 31, 2025, to authorize companies to send less restricted SME items subject to Antiterrorism controls to certain recipients for use in certain development or production activities.

- Incorporates informal BIS guidance and clarifies the scope of end use restrictions on U.S. person activities related to semiconductor manufacturing facilities under EAR Sections 744.6 and 744.23 and removes the term “semiconductor fabrication” from the description of the types of facilities of concern from those sections.

Public Comments to the Rules

The AC/S IFR and SME IFR also include BIS responses to public comments submitted to the October 17 IFR that provide useful clarifications and other guidance on 141 topics.

BIS is also seeking public comments to the AC/S IFR and SME IFR, which are due no later than December 18, 2023. Comments can pertain to any relevant topic, such as expected industry impacts, scoping definitions used in the controls, and other topics of potential use to BIS in further refining the controls.

BIS specifically seeks public comments on the following topics:

- Impacts companies would expect if BIS changed its current approach to deemed exports and reexports under Regional Stability controls imposed under the IFRs.
- How BIS should address the use of infrastructure as a service (“IaaS”) to develop large dual-use AI foundation models with potential capabilities of national security concern.
- Technical solutions to limit the use of ECCN 3A090 and 4A090 items in conjunction with large numbers of other such items in ways that enable training large dual-use AI foundation models with capabilities of concern.
- Ways that BIS can assist semiconductor fabrication facilities to more easily identify “direct products” that facilities are or will be producing that are subject to the EAR on the basis of the Advanced Computing foreign direct product rule.

- How to refine control parameters under ECCN 3A090 to more precisely control ICs used in training large-scale AI systems.
- A definition of “headquartered companies” to catch entities headquartered in, or whose ultimate parent company is headquartered in, either Macau or a destination specified in Country Group D:5.
- A definition of “supercomputer” that more precisely controls supercomputers used to support foreign government agencies.

Public comments provide a chance for members of the regulated community to influence the BIS rulemaking process, whereby commentors may point out errors and unintended impacts of the IFRs. Stakeholders can also submit examples, data, and studies that allow BIS to identify alternatives to controls not yet considered by policymakers.

Contact [Matthew Goldstein](#) or Matthew Moedritzer at Akerman’s Washington, D.C. office for questions about this alert or for more information on U.S. export controls. Goldstein and Moedritzer focus their practice on international trade and national security laws. They consult on exports from the United States, reexports from abroad, arms brokering, foreign investment, and other activities regulated by the Department of Commerce Bureau of Industry and Security (BIS), Department of State Directorate of Defense Trade Controls (DDTC), Department of Treasury Office of Foreign Assets Control (OFAC), and the Committee on Foreign Investment in the United States (CFIUS).

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