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Client Alert

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Department of Commerce Issues Export Controls on Advanced Computing Chips and Artificial Intelligence Models

The Department of Commerce's Bureau of Industry and Security released on January 13, 2025, an interim final rule to implement an export control framework for Artificial Intelligence Diffusion to protect U.S. national security and foreign policy interests.

On January 13, 2025, the Department of Commerce's Bureau of Industry and Security ("BIS") released an interim final rule ("IFR"), 90 Fed. Reg. 4544, amending the Export Administration Regulations ("EAR") to implement an export control framework to regulate global diffusion of artificial intelligence ("AI") models and large clusters of advanced computing integrated circuits ("IC"). This IFR builds on prior AI-related rules implemented by BIS in October 2022, October 2023, October 2024, and December 2024, that restricted the export, reexport, and transfer (in-country) of advanced computing ICs and certain semiconductor manufacturing equipment to specific destinations and end users that pose significant risk to U.S. national security and foreign policy interests. Having addressed such risks, BIS explained that it now seeks to mitigate risks associated with sales of larger quantities of advanced computing ICs to other destinations and end users. This IFR "aims to ensure that model weights of the most advanced U.S. AI models are stored outside the United States only under stringent security conditions and the large clusters of advanced ICs necessary to train those models are built in destinations that pose comparatively lows risks of diversion or misuse."

Although effective immediately, the IFR delays compliance with most requirements until May 15, 2025 and certain security requirements related to a validated end user program until January 15, 2026. Comments are due to BIS no later than May 15, 2025.

The IFR principally (1) expands existing controls on the export, reexport, and transfer (in-country) of advanced computing ICs and (2) implements new export controls on model weights of the most advanced AI models.

1. **Global Licensing Requirement:** The IFR expands the licensing requirements, first established in October 2022 and augmented in October 2023 and 2024, for advanced computing ICs. Such ICs will now require a license to export, reexport, or transfer (in-country) to or within any destination worldwide. However, this global licensing requirement can be overcome by the addition of several new license exceptions and a broadened data center validated end-user ("VEU") program as follows:

    a. **License Exception AI Authorization ("AIA")** for the export, reexport, and transfer (in-country) of advanced computing ICs and model weights to or within 18 allies and partner countries, called "AI Authorization Countries,"

    b. **License Exception Advanced Computing Manufacturing ("ACM")** for the development, production, and storage of advanced computing ICs,

    c. **License Exception Low Processing Performance ("LPP")** for shipments up to a certain compute power per country, and

    d. **Universal VEU ("UVEU") and National VEU ("NVEU") Authorizations** for companies to build data centers abroad, subject to stringent security standards and quotas.

2. **AI Model Weight Technology Controls:** The IFR imposes a new global licensing requirement on closed-weight AI models trained on more than 10^{26} computational operations. Closed-weight models are those for which the model weight is not publicly available and historically have been more advanced than open-weight AI models.[i] In addition, a new foreign direct product ("FDP") rule will apply these new controls to model weights produced abroad when using advanced computing ICs made with U.S. technology or equipment. Although License Exception AIA is only available for the targeted model weights, closed-weight models trained with fewer than 10^{26} computational operations and open-weight models are excluded from the scope of the controls.

The framework establishes a multi-part structure to reduce the risk that countries of concern, including China, obtain advanced computing ICs and AI models while enabling validated entities and low-risk countries to access such items. It will be critical for all companies who are purchasing advanced computing ICs and related items or licensing/acquiring AI models to review the CCL to understand whether the hardware, software, and technology they will be acquiring is captured by the Export Control Classification Numbers ("ECCNs") related to these new and expanded rules. We outline below key elements of the IFR.

ADVANCED COMPUTING IC KEY QUESTIONS AND ANSWERS

- **What are the new licensing requirements for advanced computing ICs?**
    - **Commerce Control List ("CCL") based controls:**[ii] For advanced computing commodities classified on the CCL in certain identified ECCNs, including 3A090.a, 4A090.a, corresponding software and technology, and corresponding .z paragraph commodities, software and technology, a license is required to export, reexport, or transfer (in-country) to or within any destination worldwide. This worldwide licensing requirement broadly "catches" the items that fall under these ECCNs, but

the IFR then provides several "off-ramps" to licensing for specific destinations and end users in the form of several license exceptions.

- The IFR likewise expands the existing Advanced Computing FDP rule in EAR § 734.9(h) to impose U.S. licensing requirements on foreign produced items meeting certain criteria that are destined to any location worldwide.
- Of note, BIS maintains the current licensing requirements for exports, reexports, transfers (in-country) of items falling under certain identified ECCNs, including 3A090.a, 4A090.a, corresponding software and technology, and corresponding .z paragraph commodities, software and technology to or within certain higher-risk countries (specifically Country Groups D:1, D:4, and D:5, excluding destinations also specified in Country Groups A:5 or A:6), including China.[iii]

- **What is the licensing policy for advanced computing ICs?**
  - For items now subject to the global licensing requirements described above, BIS will evaluate license applications under a tiered framework. For exports, reexports, or transfers (in-country) to or within:
    - **Macau or a destination specified in countries subject to an arms embargo (*i.e.*, Country Group D:5), or any entity headquartered in, or whose ultimate parent is headquartered in, Macau or such countries**, BIS will apply a presumption of denial.
    - **AI Authorization Countries**, BIS will apply a presumption of approval to AI Authorization Countries, which are an identified list of destinations, including Australia, Belgium, Canada, Denmark, Finland, France, Germany, Ireland, Italy, Japan, Netherlands, New Zealand, Norway, Republic of Korea, Spain, Sweden, Taiwan, and the United Kingdom.[iv]
    - **For all other countries,** BIS will apply a presumption of approval up to a per-country allocation of 790 million total processing performance ("TPP") for the period of 2025 to 2027 calculated on a cumulative installed basis beginning in 2025. Items exported, reexported, or transferred (in-country) prior to 2025 will not count toward country allocations. Once the allocation is met, BIS will apply a policy of denial. The allocation can be doubled pursuant to government-to-government assurances. Such countries will be identified in paragraph (b) of Supplement No. 5 to Part 740. To assist in monitoring the allocation quota, relevant license applications for must include a purchase order or equivalent document and contain the total aggregated TPP value each applicable item.[v]
  - For items subject to the licensing requirements destined for the higher-risk countries described above, BIS will apply a presumption of approval for exports, reexports, or transfers (in-country) to or within destinations not specified in Macau or an arms embargoed country (*i.e.*, Country Group D:5) or to any entity not headquartered in, and whose ultimate parent company is not headquartered in, these destinations. Conversely, BIS will apply a presumption of denial for exports, reexports, or transfers (in-country) to or within Macau or a destination in Country Group D:5, or to an entity headquartered in, or whose ultimate parent company is headquartered in, these destinations.[vi]
- **How was License Exception Notified Advanced Computing ("NAC") and Advanced Computing Authorized ("ACA") amended?** BIS expanded License Exception NAC/ACA to align with the new global licensing policy by making it available, provided all criteria are met, for exports, reexports, and transfers (in-country) of eligible items to any destination worldwide, except Macau, an arms embargoed country (*i.e.*, a

destination in Country Group D:5), or to an entity headquartered in, or whose ultimate parent company is headquartered in, Macau or an arms embargoed country.

In addition, BIS updated the information required for notification required under the license exception to align with new clearly delineated review criteria. In evaluating NAC notifications, BIS will review (1) eligibility under NAC, (2) end-user ties to military or intelligence organizations that prompt national security or human rights concerns, (3) whether the technical parameters are > 2800 TPP or the ICs have > 1000 GBs memory bandwidth, (4) whether ICs will be aggregated with other ICs into data center clusters, and (5) if to be used in a data center, the size of the data center and whether the items will be used internally by a company headquartered in the United States or certain allied countries (*i.e.*, Country Group A:5 or A:6 countries).

Accordingly, NAC notifications must now also include:

- All NAC and license approvals to the end-user in the past 12 months;
- Memory bandwidth of the item; and
- If destined for use in a data center or computing clusters, the computing power of the cluster and whether it will be used internally by a company headquartered in the United States or a destination in Country Groups A:5 or A:6 or used by any other countries not headquartered in such destinations or by external parties, such as through cloud services.

- **What does License Exception AIA authorize?** License Exception AIA authorizes the export, reexport, and transfer of eligible commodities, software, and technology (e.g., advanced computing ICs) to entities located in AI Authorization Countries, unless headquartered outside of, or with an ultimate parent company headquartered outside of, such countries.[vii] To utilize the exception, the exporter must:
  - Furnish the ultimate consignee (i.e., the entity that has ownership over the eligible item) with the ECCN;
  - Notify the ultimate consignee that the shipment is made pursuant to License Exception AIA;
  - Obtain a one-time certification for each ultimate consignee stating, among other things, that the ultimate consignee (1) is aware the item is exported pursuant to License Exception AIA, (2) will not export, reexport, or transfer (in-country) the item to or for any prohibited end use or end user, and (3) will not export, reexport, or transfer the item to any entity headquartered or located outside of, or whose ultimate parent company is headquartered outside of, AI Authorization Countries; and
  - For ultimate consignees receiving eligible items with cumulative TPP of 253 million, submit a certification to BIS prior to the initial export, reexport, or transfer.[viii]
- **What does License Exception ACM authorize?** License Exception ACM builds upon the temporary general license in the October 2023 IFR. It authorizes the export, reexport, and transfer of items specified in ECCNs 3A090, 4A090, and related .z commodities, software, and technology to "private end users" not located in, headquartered in, or with an ultimate parent company headquartered in Macau or a destination in Country Group D:5 *if* the ultimate end use is development,[ix] production,[x] or storage (e.g., in a warehouse), and the items are ultimately destined to customers outside of Macau or a destination in Country Group D:5.[xi]
  - Although shipments under License ACM do not count toward country caps; exporters, reexporters, and transferors must maintain a system of distribution that is updated at least every six months to account for the quantity of controlled items transferred to, and subsequently out, of the facility.

- **What does License Exception LPP authorize?** License Exception LPP authorizes exports and reexports of up to 26.9 million TPP of advanced computing ICs per calendar year directly to a single ultimate consignee not headquartered in, or with an ultimate parent company headquartered in, Macau or a destination in Country Group D:5. The quota is calculated based on the total receipt of TPP by a single ultimate consignee from all exporters and reexporters. There is no restriction on the number of shipments, provided that the TPP limit is not exceeded. The license exception is not available for exports or reexports to Macau or a destination in Country Group D:5 nor to distributors, and it does not authorize in-country transfers.
    - Exporters and reexporters must obtain a certification from the ultimate consignee stating that (1) it is aware the item is shipped pursuant to License Exception LLP, (2) it has not received a cumulative of 26.9 million TPP of eligible items during the applicable calendar year under the license exception from all exporters and reexporters, and (3) the subject transaction will not result in the ultimate consignee exceeding the TPP limit. Exporters and reexporters must provide this certification to BIS within 30 days of a relevant export or reexport.
    - Once an ultimate consignee has reached the maximum allocation, it must notify BIS. Exporters and reexporters must also notify BIS of any LPP shipments with an aggregate TPP of 3.2 million or more.
- **How does the IFR amend the Data Center VEU authorization?** The IFR expands and bifurcates the Data Center VEU Program, as described in our prior client alert here, into (1) a Universal VEU ("UVEU") for companies headquartered in, or whose ultimate parent company is headquartered in, AI Authorization Countries, and (2) a National VEU ("NVEU") for companies headquartered in, or whose ultimate parent company is headquartered in, a destination in Country Group A, B, or D:1-D:4, except for Macau or destinations in Country Group D:5. Notably, this means that companies headquartered in China or whose ultimate parent is headquartered in China, which is an arms embargoed country listed in Country Group D:5, will not qualify for the Data Center VEU Program. The approved UVEU and NVEUs will be listed in Supplement No. 7 to Part 748 of the EAR.
    - The VEU must comply with the guidelines in new Supplement No. 10 to Part 748 of the EAR that outlines extensive requirements with respect to: ownership security, baseline security of chips and data, AI-specific cybersecurity, transit security, sanitation and disposal procedures, and personnel security standards and practices.
    - The VEU must also (1) not, without authorization from BIS, train a 4E091 AI model in locations outside of, or as Infrastructure-as-a-Service ("IaaS") for an entity headquartered outside of, AI Authorization Countries, (2) comply with model weight storage requirements, (3) ensure items subject to the EAR will not support prohibited end uses/users or activities that enable human rights abuses, (4) semi-annually report a complete facility-specific chip accounting, and (5) comply with monitoring, recordkeeping, and reporting requirements.
    - Absent an authorization from BIS, VEUs cannot transfer certain chips, assemblies, or computers to any entity headquartered in Macau or a destination in Country Group D:5, any entity designated on certain restricted party lists, or any person employed by the government of Macau or a destination in Country Group D:5 or otherwise presenting a high risk of facilitating diversion.
- **What is a UVEU Authorization?** A UVEU authorization provides a single authorization for the UVEU to build data centers anywhere in the world, except Macau or a destination in Country Group D:5. The UVEU must

notify BIS when it is building a data center in a new location 180 days before any export, reexport, or transfer to the new facility. However, the UVEU cannot transfer or install (1) more than 25% of its total AI computing power to or in locations outside of AI Authorization Countries, (2) more than 7% of its total AI computing power to or in a single country outside of AI Authorization Countries, and (3) for U.S.-headquartered UVEAs, more than 50% of its total AI computing power outside of the U.S.

- **What is a NVEU Authorization?** A NVEU authorization permits the NVEU to receive exports and reexports in a specific country specified in the authorization. A NVEU will require a separate NVEU authorization for each country in which it seeks to build data centers. The authorization does not permit building data centers in Macau or a destination in Country Group D:5. NVEU are subject to a per-company, per-country installed base allocation of TPP. Allocations are counted starting in 2025. Advanced computing ICs that suffer attrition due to loss, damage, failure, relocation, and resale will not count towards the allocation.
- **How does an entity apply for VEU Authorizations?** Applications for UVEUs and NVEUs will be submitted in the form of an advisory opinion request by the party with the ownership of the advanced compute. If the operator is different than the owner, then both must have their own VEU authorization. In addition to information currently required in requests for VEUs as outlined in Supplement No. 8 to Part 748 of the EAR, the applicant must also provide an overview of (1) business activities or corporate relationships with either government or military organizations of Macau or a destination in Country Group D:5, (2) supply chain risk management to limit Chinese origin equipment from the data center environment and supply chain, and (3) export control program and requirement procedures.
    - As part of the vetting process, BIS will consider whether the applicant has (1) a credible plan to meet or demonstrated track record of meeting physical, cyber, and personnel security standards for large-scale data center operations and complying with U.S. export control laws and respecting human rights, (2) any ties to military or military-intelligence end users, (3) adhered to U.S. rules on outbound investments, (4) eliminated supply chain dependencies on advanced ICs and network equipment produced by companies headquartered in Macau or a destination in Country Group D:5 as well as dependencies on equipment and services listed on the Federal Communications Commission's Covered List, and (5) any cooperative activities with entities headquartered in Macau or a destination in Country Group D:5 or listed on the Entity List or Specially Designated Nationals List.

AI MODEL WEIGHT KEY QUESTIONS AND ANSWERS

- **What AI model weights are subject to the new licensing requirements?** BIS has revised the CCL to add a new ECCN 4E091 that controls certain model weights, which are "numerical parameter[s] with an AI model [that] helps determine the model's outputs in response to inputs." Controlled model weights are identified by the amount of compute (i.e., number of computational operations) to train the model. ECCN 4E091 controls closed-weight AI models (i.e., a model with weights that are not published) that has been trained on more than 10^{26} computational operations. It does not include open-weight models meeting these parameters nor any closed-weight models that are less powerful than the most powerful open-weight model. At present there are no known open-weight models trained on more than 10^{26} computational operations.

  Notably, foreign produced items specified in ECCN 4E091 that are produced by an advanced IC (i.e., ECCNs 3A090 and corresponding .z paragraphs) subject to the EAR, whether made in the United States or abroad, will also be subject to licensing requirements. This includes any foreign produced item that is further trained or modified via post-training techniques, such as fine-tuning, quantization, or other techniques.[xii]

- **What are the licensing requirements for model weights?** Effective January 13, 2025, model weights classified in ECCN 4E091 will be subject to a global licensing requirement, except for the disclosure of software source code and technology to foreign nationals, whether in the United States or abroad, who are 'permanent regular employees'[xiii] employed by entities headquartered in, or with an ultimate parent headquartered in, AI Authorization Countries.[xiv]

  License applications will be reviewed under a presumption of denial for end users headquartered outside of, or with an ultimate parent headquartered outside of, AI Authorization Countries.

- **Are any license exceptions available for model weights?** Only License Exception AIA may overcome the above licensing requirements. It is available for entities headquartered in, or whose ultimate parent is headquartered in, AI Authorization Countries, provided that:

  - The entities obtaining the items are located outside of Macau or a destination in Country Group D:5, and
  - The items will be stored in a facility that complies with baseline security measures for chips and data, AI-specific cybersecurity requirements, and personnel security standards and practices as outline for the VEU program found in paragraphs 14, 15, and 18 of Supplement No. 10 to Part 748. The IFR delays compliance with this requirement until January 15, 2026.

  In addition to the certification requirements for License Exception AIA discussed above, the ultimate consignee must also certify that it will not without prior authorization from BIS, use the item to provide IaaS access for training AI models classified under ECCN 4E091 for entities headquartered in or located outside of, or whose ultimate parent is headquartered outside of, AI Authorization Countries.

- **Are there any red flags regarding exports, reexports, and transfers of AI model weights?** BIS revised its "Know Your Customer" Guidance and Red Flags in Supplement No. 3 to Part 732 to caution U.S. IaaS cloud computing providers in the United States that training an advanced AI model that falls under ECCN 4E091 for a customer that is a U.S. subsidiary of a foreign entity headquartered outside of AI Authorization Countries – and transferring the resulting model weight to that customer – creates a potential diversion concern. Accordingly, BIS encourages IaaS providers serving domestic customers to take additional compliance measures to determine whether controlled AI model weights will be exported, reexported, or transferred to a destination subject to a license requirement.

CONCLUSION

The IFR establishes a new strategy for export controls and imposes significant revisions to controls on advanced computing ICs and AI model weights. Companies and individuals that would be impacted by this rule are encouraged to submit comments no later than May 15, 2025. Experienced counsel can be helpful in drafting and filing comments on behalf of clients.

In addition, unless the new administration materially changes the IFR, companies should work to bring their activities and operations into compliance with the requirements laid forth in the IFR in advance of the respective May 15, 2025 and January 15, 2026 compliance deadlines. Experienced counsel can assist in navigating these complex requirements and, when necessary, applying for an export license or other authorization, such as a VEU authorization.

King & Spalding has a global footprint, substantial industry experience, and a deep bench of former trade and national security government officials. It is uniquely positioned to help guide companies in complying with these

complex U.S. export control rules and advocate for revisions and clarity to controls when they create unintended consequences for companies' global operations and workforce.

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[i] *See* Tharen Pillay, The Gap Between Open and Closed AI Models Might Be Shrinking. Here's Why That Matters, Time (November 5, 2024 9:15 AM EST), https://time.com/7171962/open-closed-ai-models-epoch/

[ii] *See* 15 C.F.R. § 742.6(a)(6)(iii).

[iii] The destination scope of this control mirrors the scope imposed in the October 2023 IFR on advanced ICs classified in ECCN 3A090. Destinations in Country Groups D:1, D:4, or D:5 that are also not specified in Country Groups A:5 or A:6. include Afghanistan, Armenia, Azerbaijan, Bahrain, Belarus, Burma, Cambodia, Central African Republic, China, Democratic Republic of Congo, Cuba, Egypt, Eritrea, Georgia, Haiti, Iran, Iraq, Jordan, Kazakhstan, North Korea, Kuwait, Kyrgyzstan, Laos, Lebanon, Libya, Macau, Moldova, Mongolia, Oman, Pakistan, Qatar, Russia, Saudi Arabia, Somalia, Republic of South Sudan, Sudan, Syria, Tajikistan, Turkmenistan, United Arab Emirates, Uzbekistan, Venezuela, Vietnam, Yemen and Zimbabwe.

[iv] *See* 15 C.F.R. Part 740, Supp. 5, paragraph (a).

[v] *See id.* at Part 736, Supp. 2, §§ (c)(3)-(4).

[vi] *See id.* at § 742.6(a)(6)(iii)(B).

[vii] *Id.* at § 740.27.

[viii] *Id.* at § 740.27.

[ix] "Development" is related to all stages prior to serial production, such as: design, design research, design analyses, design concepts, assembly and testing of prototypes, pilot production schemes, design data, process of transforming design data into a product, configuration design, integration design, layouts. *Id.* at § 772.1.

[x] "Production" means all production stages, such as: product engineering, manufacture, integration, assembly (mounting), inspection, testing, quality assurance. *Id.*

[xi] *Id.* at § 740.28

[xii] *Id.* at § 734.9(l).

[xiii] A permanent and regular employee is an individual who (1) is permanently (i.e., for not less than a year) employed by an entity, or (2) is a contract employee who (A) is in a long-term contractual relationship with the company where the individual works at the entity's facilities or at locations assigned by the entity (such as a remote site or on travel); (B) works under the entity's direction and control such that the company must determine the individual's work schedule and duties; (C) works full time and exclusively for the entity; and (D) executes a nondisclosure certification for the company that he or she will not disclose confidential information received as part of his or her work for the entity. *Id.* at § 734.20(d)(2).

[xiv] *See Id.* at § 742.6(a)(13).