



October 4, 2023

MEMORANDUM FOR: Alan Estevez
Under Secretary of Commerce for Industry and Security
Bureau of Industry and Security

A handwritten signature in black ink, appearing to read "Arthur L. Scott, Jr." with a stylized flourish at the end.

FROM: Arthur L. Scott, Jr.
Assistant Inspector General for Audit and Evaluation

SUBJECT: Management Alert: *Excluding Deemed Exports and Reexports from 15 C.F.R. § 742.6(a)(6) Could Pose a Significant Risk of Unauthorized Technology Release to China's Military*
Final Memorandum No. OIG-24-001-M

Attached is a management alert about the Bureau of Industry and Security's (BIS') decision to exclude certain deemed exports¹ and reexports from the licensing requirements of 15 C.F.R. § 742.6(a)(6).² Consistent with the Inspector General Act of 1978, as amended (IG Act),³ we are notifying you of a significant risk that could affect export control restrictions in place for China because of this issue.

During our audit of BIS' efforts to counter China's Military-Civilian Fusion strategy, we determined that U.S. companies are not required to obtain an export license before transferring or revealing technologies and software related to U.S.-controlled advanced computing and semiconductor manufacturing items to Chinese nationals in the United States. The decision to exclude deemed exports and reexports from licensing requirements may allow the release of controlled technology and software to China. This could undermine the effectiveness of the Export Administration Regulation's regional stability controls and may impact BIS' ability to control the dissemination of those controlled technologies and software.

On August 11, 2023, we discussed the contents of this management alert and our plans to issue this alert with BIS. Additionally, on September 18, 2023, a draft of the management alert was issued to BIS for comment. We also discussed the contents of the draft management alert after the issuance with BIS representatives on September 19, 2023, and September 21, 2023. We

¹ BIS defines a deemed export as the obligation to obtain an export license before transferring or revealing controlled technology (that is, technology whose export is regulated or restricted) to a foreign person. BIS "deems" such a release of technology to be an export to the person's home country.

² See Export Administration Regulation at 15 C.F.R. § 742.6(a)(6).

³ The IG Act establishes that one purpose of offices of inspectors general is "to provide a means for keeping the head of the establishments and Congress fully and currently informed about problems and deficiencies relating to the administration of those programs and operations and the necessity for and progress of corrective action." 5 U.S.C. § 402(b)(3).

considered their comments and made changes to the final management alert where appropriate.

We will post the alert on our public website. If you have any questions or concerns, please contact me at (202) 792-4192 or Division Director Karen Goff at (202) 253-1595.

Attachment

cc: Keven Valentin, Chief Financial Officer and Director of Administration, BIS
Jennifer Kuo, Audit Liaison, BIS
Kristina Potts, Alternate Audit Liaison, BIS
MaryAnn Mausser, Audit Liaison, Office of the Secretary



Management Alert

Excluding Deemed Exports and Reexports from 15 C.F.R. § 742.6(a)(6) Could Pose a Significant Risk of Unauthorized Technology Release to China's Military

October 4, 2023

Final Memorandum No. OIG-24-001-M

Key Issues

The exclusion of deemed exports and reexports from the licensing requirements of 15 C.F.R. § 742.6(a)(6) could result in the potential release of technology and software related to U.S.-controlled advanced computing and semiconductor manufacturing items to China, which may impact the national security of the United States. U.S. companies are not required to obtain an export license before releasing these controlled technologies and software to Chinese nationals in the United States. Instead, BIS told us that they rely in part on U.S. companies' internal processes to track foreign nationals' access to these technologies and software, as the unauthorized release of these technologies and software could impair the companies' viability and lead to criminal or administrative enforcement actions.

The Export Administration Regulations' (EAR's) licensing requirements (15 C.F.R. § 742.6(a)(6)) would have obliged U.S. companies to obtain a license before granting Chinese nationals in the United States access to those advanced technologies and software. However, BIS, after deliberations with the National Security Council and clearance by the Departments of Defense, State, and Energy, excluded deemed exports and reexports from these requirements. In addition, BIS does not assess the effectiveness of U.S. companies' internal processes to help protect the controlled technologies and software from improper release.

BIS and reviewing agencies have concluded that U.S. companies' innovation and technological leadership could be impaired if BIS subjected them to deemed export licensing requirements before they release these technologies and software to Chinese nationals in the United States. However, the decision to exclude deemed exports and reexports from the requirements may allow the release of controlled technology and software to China. This could undermine the effectiveness of the EAR's regional stability controls and may impact BIS' ability to control the dissemination of those controlled technologies and software. Without these licensing controls, China may gain access to certain high-performance computing and semiconductor technologies and software that could be used to implement its Military-Civilian Fusion strategy and enhance its military capabilities.

Background

Under the direction of the Chinese Communist Party, China's Military-Civilian Fusion strategy aims to develop the most technologically advanced military in the world by 2049 by eliminating barriers between China's civilian research and commercial sectors and its military and defense industrial sectors. The Chinese Communist Party is implementing this strategy by developing and acquiring key technologies, through licit and illicit means, to help modernize China's military capabilities. China's targeted technologies include quantum information sciences, robotics, semiconductors, aerospace technologies, biotechnology, and artificial intelligence, many of which have "dual use" (military and civilian) applications. China uses imports, foreign

investments, commercial joint ventures, mergers and acquisitions, and industrial and technical espionage to achieve its military modernization goals.⁴

To address the threat posed by China's Military-Civilian Fusion strategy, BIS, after deliberations with the National Security Council and clearance by the Departments of Defense, State, and Energy, published an interim rule amending the EAR on October 13, 2022, part of which became effective on October 7, 2022. The rule restricts the export to China of specific types of semiconductors, semiconductor production equipment, items related to advanced computing, and supercomputers.⁵

Among other things, the rule amends 15 C.F.R. § 742.6(a)(6) and adds four advanced computing and semiconductor manufacturing Export Control Classification Numbers (ECCNs) to the Commerce Control List.⁶ BIS also added to the control list technology and software associated with developing or producing supercomputers and semiconductors.⁷ All are controlled in support of U.S. national security and foreign policy concerns described in the October 7 rule.⁸ Under the EAR at 15 C.F.R. § 742.6(a)(6), a license is required to export or reexport any of the four new ECCNs to China; BIS applies a "presumption of denial" to these ECCNs because they could be diverted to military end uses and end users.⁹

Any release of a controlled technology to a foreign person in the United States is "deemed" to be an export to the person's most recent country of citizenship or permanent residency (i.e., their home country).¹⁰ Technology is information needed to develop, produce, use or operate, install, maintain, repair, overhaul, or refurbish an item.¹¹ U.S. entities must apply for an export license under the "deemed export" rule when both of the following conditions are met: (1) they intend to transfer controlled technologies to foreign nationals in the United States; and (2) transfer of the same technology to the foreign national's home country would require an export license.¹²

BIS, in consultation with other departments, is responsible for issuing deemed export licenses to U.S. companies that employ or host foreign nationals. According to BIS, organizations using deemed export

⁴ U.S. Department of State, 2020. *Military-Civil Fusion and the People's Republic of China*. Washington, DC: State Department. Available at <https://2017-2021.state.gov/wp-content/uploads/2020/06/What-is-MCF-One-Pager.pdf> (accessed on August 22, 2023).

⁵ See 87 Fed. Reg. 62,186, 62,198–99.

⁶ The Commerce Control List is in supplement no. 1 to part 774 of the EAR (15 C.F.R. part 774). ECCNs are five-character alphanumeric designations used on the Commerce Control List to identify dual use items for export control purposes. An ECCN categorizes items based on the nature of the product; that is, the type of commodity, software, or technology and its respective technical parameters. The new ECCNs from the rule are 3A090 (integrated circuits above specific performance thresholds), 3B090 (semiconductor manufacturing equipment and specially designed parts, components, and accessories for semiconductor manufacturing), 4A090 (computers, electronic assemblies, and components containing integrated circuits, any of which exceeds the limit in 3A090.a), and 4D090 (associated software for 4A090).

⁷ See EAR, 15 C.F.R. § 742.6(a)(6)(i).

⁸ See 87 Fed. Reg. 62,186–87.

⁹ See *id.* at 62,198–99.

¹⁰ See EAR, 15 C.F.R. § 734.13.

¹¹ See *id.* § 772.1.

¹² U.S. Department of Commerce Bureau of Industry and Security. "Deemed Exports Frequently Asked Questions." Available at https://www.bis.doc.gov/index.php/policy-guidance/deemed-exports/deemed-exports-faqs#faq_34 (accessed August 15, 2023).

licenses generally include universities, high technology research and development institutions, and biochemical firms, as well as the medical and computer sectors.

Our Observations to Date

The exclusion of deemed exports and reexports from the licensing requirements of 15 C.F.R. § 742.6(a)(6) could result in the potential release of technology and software related to U.S.-controlled advanced computing and semiconductor manufacturing items to China, which may impact the national security of the United States. U.S. companies are not required to obtain an export license before releasing these controlled technologies and software to Chinese nationals in the United States. Instead, BIS told us that they rely in part on U.S. companies' internal processes to identify and track foreign nationals' access to these technologies and software, as the unauthorized release of these technologies and software could impair the companies' viability and lead to criminal or administrative enforcement actions.¹³ The decision to exclude deemed exports and reexports from the licensing requirements of 15 C.F.R. § 742.6(a)(6) could pose a significant risk to the national security of the United States.

The EAR at 15 C.F.R. § 742.6(a)(6) would have obliged U.S. companies to obtain a license before granting Chinese nationals in the United States access to those advanced technologies and software. The licensing process gives BIS the information it needs to assess Chinese nationals' suitability to receive controlled technologies and software. However, BIS, after deliberations with the National Security Council and clearance by the Departments of Defense, State, and Energy, excluded deemed exports and reexports from these requirements. In addition, BIS does not confirm the effectiveness of U.S. companies' internal processes.

The U.S. Government Accountability Office (GAO) has issued several reports identifying weaknesses with the Department's deemed export control system that could allow the unauthorized release of deemed exports to foreign nationals in the U.S. In 2011, GAO reported that the Department of Commerce had not implemented recommendations from a 2002 GAO report to improve the enforcement of deemed exports.¹⁴ The 2002 report recommended that the Department establish a program to monitor companies', universities', and agencies' compliance with deemed export license security conditions to prevent the unauthorized transfer of controlled technologies.¹⁵ Despite GAO's 2002 recommendation, the 2011 report stated approximately 9 years later that the Department continued to lack a program to monitor compliance with security conditions in deemed export licenses. In 2022, GAO reported on an oversight issue involving deemed exports at U.S. universities.¹⁶ Specifically, GAO found that BIS had not fully assessed universities' risk of sensitive technology transfer, including unauthorized deemed exports. The report primarily focused on the risks foreign students and scholars pose when accessing those technologies and concluded that China likely represents the greatest threat to U.S. research security. A BIS senior official stated that except for one recommendation from the

¹³ Criminal violations are subject to up to \$1 million in penalties and 20 years' imprisonment. Administrative violations are subject to monetary penalties of \$353,534 (subject to adjustment for inflation) or twice the value of the transaction, whichever is greater; denial of export privileges; and exclusion from practice before BIS.

¹⁴ U.S. Government Accountability Office, February 2, 2011. *Improvements Needed to Prevent Unauthorized Technology Releases to Foreign Nationals in the United States*, GAO-11-354. Washington, DC: GAO.

¹⁵ GAO, September 6, 2002. *Department of Commerce Controls over Transfers of Technology to Foreign Nationals Need Improvement*, GAO-02-972. Washington, DC: GAO, Highlights page.

¹⁶ GAO, June 14, 2022. *Enforcement Agencies Should Better Leverage Information to Target Efforts Involving U.S. Universities*, GAO-22-105727. Washington, DC: GAO.

2022 report, the GAO recommendations from the 2002 and 2022 reports have been implemented and closed.¹⁷

BIS and reviewing agencies have concluded that U.S. companies' innovation and technological leadership could be impaired if BIS subjects them to deemed export licensing requirements before they release technology and software related to U.S.-controlled advanced computing and semiconductor manufacturing items to Chinese nationals in the United States.¹⁸ However, the decision to exclude deemed exports and reexports from the requirements of § 742.6(a)(6) may allow the release of controlled technology and software to China. This could undermine the effectiveness of the EAR's regional stability controls and may impact BIS' ability to control the dissemination of those controlled technologies and software. Without these licensing controls, China may gain access to certain high-performance computing and semiconductor technologies and software that could be used to implement its Military-Civilian Fusion strategy and enhance its military capabilities.

We recognize the extensive review among several federal agencies that resulted in the policy decisions reflected in the October rule. We also acknowledge that these agencies considered deemed exports and reexports and the related national security risks before deciding to exclude them. However, excluding deemed exports and reexports from the requirements of § 742.6(a)(6) does not mitigate the risk of foreign nationals releasing the controlled or sensitive technology identified in the rule, contrary to U.S. interests.

Despite the exclusion of deemed exports and reexports from the licensing requirements of § 742.6(a)(6), BIS is still responsible for enforcing the prohibition against unauthorized release of the controlled technologies and software. As such, BIS should consider developing a mitigation plan to minimize the risk of unauthorized release of these technologies and software to China.

On August 11, 2023, we discussed the contents of this management alert and our plans to issue this alert with BIS. Additionally, on September 18, 2023, a draft of the management alert was issued to BIS for comment. We also discussed the contents of the draft management alert after the issuance with BIS representatives on September 19, 2023, and September 21, 2023. We considered their comments and made changes to the final management alert where appropriate. We will post the alert on our public website.

Our Future Work

The concerns presented in this memorandum and any action BIS takes because of this management alert will be considered in our ongoing audit of BIS' efforts to counter China's Military-Civilian Fusion strategy.

¹⁷ We did not verify whether BIS had, in fact, implemented the GAO recommendations.

¹⁸ See 50 U.S.C. § 4811(3), which states that “[t]he national security of the United States requires that the United States maintain its leadership in the science, technology, engineering, and manufacturing sectors, including foundational technology that is essential to innovation.... The impact of the implementation of this subchapter on such leadership and competitiveness must be evaluated on an ongoing basis and applied in imposing controls under [this statute] to avoid negatively affecting such leadership.”