Developments in Export Controls on "Emerging" and "Foundational" Technologies

09.17.2020

There have been a number of developments regarding increased export requirements for ?emerging? and ?foundational? technologies. The Bureau of Industry and Security (BIS) recently issued a final rule designating the first ?emerging? technologies under its long-awaited initiative in this area. While the initial designation only applies to a narrow group of items, these are expected to be just the first of a number of technologies that it will designate in the coming months. In addition, on August 27, 2020 BIS issued an advanced notice of proposed rulemaking to solicit comments for identifying ?foundational? technologies under §1758 of the Export Control Reform Act. With these developments, the U.S. is continuing to push forward in the next stage of this important new area of export controls.

Background of the Export Control Reform Act And ?Emerging? and ?Foundational? Technologies. The Export Control Reform Act of 2018 (ECRA) was enacted as part of the National Defense Authorization Act For Fiscal Year 2019. Under ECRA §1758, the President was directed to identify ?emerging? and ?foundational? technologies that are essential to U.S. national security and impose increased export controls on such items. This designation is required to be made through an interagency process in coordination with the Departments of Commerce, Defense, State and other agencies.

On November 19, 2018 BIS published an advanced notice of proposed rulemaking that listed fourteen technologies that BIS was considering as ?emerging? technologies, including artificial intelligence, biotechnology, microprocessor technology, advanced computing, data analytics, quantum computing, additive manufacturing (3D printing), robotics, advanced materials and advanced surveillance technologies such as faceprint and voiceprint technologies (See: New Export Requirements for Emerging and Foundational Technologies.) Since that time BIS has considered public comments on the merits of controlling these and other technologies, and exporters have been awaiting the final designation of these technologies. Separately, BIS recently designated a number of technologies in rulemakings for increased export controls, such as artificial intelligence software for geospacial imagery, however these were not specified as ?emerging? technologies under ECRA §1758. (See: Commerce Adopts Export Controls on Artificial Intelligence Software for Geospacial Imagery).

With the new announcement discussed below, BIS has identified the first ?emerging? technologies that it has selected. It is expected that rather than announcing all newly designated ?emerging? technologies in one rule, BIS will announce these individually or in small groups over the coming months. In addition, with the recently-announced rulemaking on ?foundational? technologies discussed below, BIS is moving forward on a parallel path for enhanced controls on ?foundational? technologies.

Designation of Initial ?Emerging? Technologies. On June 17, 2020 BIS issued a final rule (the ?Final Rule?) in which it added the following items to the Commerce Control List (?CCL?) for increased export controls:

- Precursor Chemicals. Twenty-four precursor chemicals that can be used in chemical weapons were added to ECCN 1C350.d. BIS also added *chemical mixtures* in which at least one of the chemicals listed in ECCN 1C350.d constituted 30% or more of the weight of the mixture. The Final Rule also stated that *technology* and *software* related to the precursor chemicals are also controlled if such technology or software falls within the parameters of the controls described in ECCN 1D390, 1E001, 1E350, or 1E351.
- Equipment Capable of Use In Handling Biological Materials. ECCN 2B352 was amended by adding a Technical Note to indicate that cultivation chamber holding devices controlled in ECCN 2B352.b.2.b include single-use cultivation chambers with rigid walls. In addition, ??technology?? that is related to rigid-walled single-use cultivation chambers that were added to ECCN 2B352.b.2.b under the Final Rule is now subject to controls under ECCN 2E001, 2E002 or 2E301 if such ??technology?? falls within the parameters of the controls described therein.
- Human and Animal Pathogen and Toxins. ECCN 1C351 was amended to reflect changes to the Australia Group (AG) ??Control List of Human and Animal Pathogens and Toxins?? based on the February 2020 Intersessional Implementation Meeting recommendations that were adopted by the Australia Group. Specifically, the Final Rule adds the Middle East respiratory syndrome-related coronavirus (MERS-related coronavirus) to ECCN 1C351.a.30 due to its homology with severe acute respiratory syndrome-related coronavirus (SARS-related coronavirus) and its potential use in biological weapons activities.

The above items were added to the CCL as part of the implementation of the February 2020 Australia Group (AG) Intersessional Implementation Meeting ? the Australia Group is a multilateral organization focused on harmonization of export controls on chemical and biological weapons.

In the Final Rule BIS specifically identified the twenty-four chemical precursors and the single-use cultivation chambers with rigid walls as ?emerging? technologies that were adopted through the interagency process under ECRA §1758. BIS stated that it has concluded that such technologies are essential to U.S. national security and effective controls can be implemented on such items. The interagency process resulted in a finding that the absence of export controls on the precursor chemicals could be exploited for chemical weapons purposes, and the absence of controls on the single-use cultivation chambers could be exploited for chemical and biological weapons (CBW) purposes.

BIS did not state in the Final Rule why it was designating just a few items as ?emerging? technologies and whether additional technologies would be identified in the future. However based on comments from BIS officials we expect additional technologies to be added within the coming months.

Review of Controls For ?Foundational? Technologies. On August 27, 2020 BIS issued an Advanced Notice of Proposed Rulemaking (the ?ANPR?) in which it solicited comments on the criteria to be used in selecting ?foundational? technologies under ECRA §1758. Specifically, BIS requested comments on the definition of, and criteria for, identifying such technologies. The ANPR stated that a ?foundational? technology may warrant stricter controls if a present or potential application of that technology poses a national security threat to the United States. BIS is considering multiple technologies for such designation, including items currently subject to only anti-terrorism (AT) controls and those designated as EAR99.

The term ?foundational? technologies is defined broadly in the ANPR to include not only ?technologies? but also ?commodities? and ?software? as such terms are defined under the EAR.

Unlike the BIS advanced notice of proposed rulemaking for ?emerging? technologies issued in 2018, BIS did not provide a list of technologies in the current ANPR that it is considering as ?foundational? technologies. Rather, it provided a more open-ended statement of the items that it was considering. The ANPR stated:

For example, foundational technologies could include items that are currently subject to control for military end use or military end user reasons under Supplement No. 2 to part 744 of the EAR. Many of these items, including semiconductor manufacturing equipment and associated software tools, lasers, sensors, and underwater systems, can be tied to indigenous military innovation efforts in China, Russia or Venezuela. Accordingly, they may pose a national security threat. There may be additional items, classified on the CCL at the AT level or as EAR99 for which an export license is not required for countries subject to a U.S. arms embargo that also warrant review to determine if they are foundational technologies essential to the national security. For example, such controls may be reviewed if the items are being utilized or required for innovation in developing conventional weapons, enabling foreign intelligence collection activities, or weapons of mass destruction applications. BIS, through an interagency process, seeks to determine whether there are specific foundational technologies that warrant more restrictive controls, including technologies that have been the subject of illicit procurement

attempts which may demonstrate some level of dependency on U.S. technologies to further foreign military or intelligence capabilities in countries of concern or development of weapons of mass destruction.[1]

BIS requested comments in the following areas of inquiry:

- How to further define ?foundational? technology to assist in identification of such items;
- Sources to identify such items;
- Criteria to determine whether controlled items identified in AT level ECCNs, or covered by EAR99 categories, for which a license is not required to countries subject to a U.S. arms embargo, are essential to U.S. national security;
- The status of development of ?foundational? technologies in the United States and other countries;
- The impact specific ?foundational? technology controls may have on the development of such technologies in the U.S.;
- Examples of implementing controls based on end-use and/or end-user rather than, or in addition to, technology based controls;
- Any enabling technologies, including tooling, testing, and certification equipment, that should be included within the scope of a ?foundational? technology; and
- Any other approaches to the issue of identifying ?foundational? technologies important to U.S. national security, including the stage of development or maturity level of a ?foundational? technology that would warrant consideration for export control.[2]

Comments must be submitted to BIS by October 26, 2020.

Impact On CFIUS Requirements. Designation of a technology as an ?emerging? or ?foundational? technology can also raise additional obligations under regulations administered by the Committee On Foreign Investment In the United States (?CFIUS?) for U.S. companies being acquired by or receiving investments from foreign parties. Specifically, technologies that have been designated as ?emerging? or ?foundational? technologies are included as ?critical technologies? in 31 CFR §800.215(f). As such, companies that produce, design, manufacture, fabricate or develop such items could qualify as a ?TID U.S. Business? under 31 CFR §800.248 which may require mandatory declarations under CFIUS.

Next Step Ahead. Controls on ?emerging? and ?foundational? technologies are a noteworthy expansion of the U.S. export laws. While the above reported actions are just small initial steps, this process is continuing to march forward, and there will likely be significant additional announcements in the coming months. This reflects continued U.S. pressure to control strategically important technologies on a global basis, particularly involving China, Russia and other high priority adversaries. These could impact a broad array of U.S. industries, impacting exports, domestic operations and the sale of companies to foreign purchasers. Companies would be wise to monitor these developments carefully in the coming months as the next stage of this process unfolds.

Other Articles You May Be Interested In:

- Export Control Laws For The General Counsel
- Dealing With Violations In Export and Import Transactions
- ITAR For Government Contractors
- ITAR Compliance Checklist

[1] See ANPR, 85 Federal Register No. 167, August 27, 2020, p. 52934.
[2] Id.

Related People

- Christopher H. Skinner ? 202.293.8129 ? cskinner@williamsmullen.com

Related Services

- International Trade and Business
- ITAR, Export Controls and Economic Sanctions
- Emerging Companies