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US-EU Export Controls and Sanctions Alert: Commerce Solicits Public Comments to Proposed Changes to US Export Controls List Involving Emerging Technologies

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On November 19, 2018, the US Department of Commerce's (Commerce) Bureau of Industry Security (BIS) published in the *Federal Register* an advance notice of proposed rulemaking (ANPRM) that seeks public comments to assist BIS with defining and identifying emerging technologies critical to the national security of the US that should be subject to US export controls. The ANPRM contained a proposed list of categories of "emerging technology" identified through an interagency process. The ANPRM, however, does not address "foundational technology," which will be addressed in a separate notice, to be issued.

This ANPRM is particularly important because it indicates Commerce's intention to impose export licensing requirements on currently EAR99 technology to China and other countries.

Purpose of the Public of Comments

In our prior publication on Committee on Foreign Investment in the United States (CFIUS) reform, we discussed that the Export Control Reform Act of 2018 (ECRA) – enacted by the National Defense Authorization Act (NDAA) for Fiscal Year 2019 – modified the current definition of "critical technology" to include "emerging and foundational technologies" that are essential to the national security of the US. BIS has authority over the export of dual-use and less sensitive military items regulated under the Export Administration Regulations (EAR), which includes the Commerce Control List (CCL). The CCL lists many sensitive technologies with national security implications, and it is often consistent with the lists maintained by multilateral export control regimes of which the US is a member. However, emerging technologies, as they are newly developed or proposed for development, may not yet be listed on the CCL or controlled multilaterally and, therefore, have not been evaluated for their national security impact. Comments solicited by this ANPRM will be used to set the criteria for identifying national security-sensitive emerging technologies and will effect additions to the CCL.

Why This May Be Relevant to Your Business

As noted in the ANPRM, "[e]merging and foundational technologies, in keeping with ECRA, will be determined by an interagency process that will consider both public and classified information as well as information from the Emerging Technology Technical Advisory Committee and the Committee on Foreign Investment in the United States."

The ANPRM indicates that Commerce will "require a license for the export of emerging and foundational technologies to countries subject to a U.S. embargo, including those subject to an arms embargo …," including China. The representative list of technologies contained in the ANPRM consists of "categories of technology that are currently subject to the EAR but controlled only to embargoed countries, countries designated as supporters of international terrorism, and restricted end uses or end users." This includes EAR99 technologies, but also may include technologies controlled only for antiterrorism reason (e.g., ECCNs xY99x). However, Commerce states that it "does not seek to alter existing controls on technology already specifically described in the CCL. Such controls would generally continue to be addressed through multilateral regimes or interagency reviews."

In identifying emerging and foundational technologies, the process must consider:

"• The development of emerging and foundational technologies in foreign countries;

- The effect export controls may have on the development of such technologies in the United States; and
- The effectiveness of export controls on limiting the proliferation of emerging and foundational technologies in foreign countries."

Once the criteria for defining emerging technologies with national security implications are set, Commerce will use the criteria to ultimately establish controls, including interim controls, on the export, re-export or transfer (in-country) of those technologies. This may affect your business operations.

How You Can Inform the Process

For purposes of this ANPRM, the public can help inform this process by providing comments to BIS on:

"(1) How to define emerging technology to assist identification of such technology in the future;

(2) Criteria to apply to determine whether there are specific technologies within these general categories that are important to U.S. national security;

(3) Sources to identify such technologies;

(4) Other general technology categories that warrant review to identify emerging technology that are important to U.S. national security;

(5) The status of development of these technologies in the United States and other countries;

(6) The impact specific emerging technology controls would have on U.S. technological leadership; and

(7) Any other approaches to the issue of identifying emerging technologies important to U.S. national security, including the stage of development or maturity level of an emerging technology that would warrant consideration for export control."

The representative technology categories for which BIS is calling for comments include:

- Biotechnology, such as:
  - Nanobiology
  - Synthetic biology
  - Genomic and genetic engineering
  - Neurotech
- Artificial intelligence (AI) and machine learning technology, such as:
  - Neural networks and deep learning (e.g., brain modelling, time series prediction, classification)
  - Evolution and genetic computation (e.g., genetic algorithms, genetic programming)
  - Reinforcement learning
  - Computer vision (e.g., object recognition, image understanding)
  - Expert systems (e.g., decision support systems, teaching systems)
  - Speech and audio processing (e.g., speech recognition and production)
  - Natural language processing (e.g., machine translation)
  - Planning (e.g., scheduling, game playing)
  - Audio and video manipulation technologies (e.g., voice cloning, deepfakes)
  - AI cloud technologies
  - AI chipsets
- Position, navigation and timing (PNT) technology
- Microprocessor technology, such as:
  - System on chip (SoC)
  - Stacked memory on chip
- Advanced computing technology, such as:
  - Memory-centric logic
- Data analytics technology, such as:
  - Visualization
  - Automated analysis algorithms
  - Context-aware computing
- Quantum information and sensing technology, such as:
  - Quantum computing
  - Quantum encryption
  - Quantum sensing
- Logistics technology, such as:
  - Mobile electric power
  - Modeling and simulation
  - Total asset visibility
  - Distribution-based Logistics Systems (DBLS)
- Additive manufacturing (e.g., 3D printing)
- Robotics, such as:
  - Micro-drone and micro-robotic systems
  - Swarming technology
  - Self-assembling robots
  - Molecular robotics
  - Robot compliers
  - Smart dust
- Brain-computer interfaces, such as:
  - Neural-controlled interfaces Mind-machine interfaces
  - Direct neural interfaces
  - Brain-machine interfaces
- Hypersonics, such as:
  - Flight control algorithms
  - Propulsion technologies
  - Thermal protection systems
  - Specialized materials (for structures, sensors, etc.)
- Advanced materials, such as:
  - Adaptive camouflage
  - Functional textiles (e.g., advanced fiber and fabric technology)
  - Biomaterials
- Advanced surveillance technologies, such as:
  - Faceprint and voiceprint technologies

Public comments are due to BIS by December 19, 2018 and can be submitted via the Federal eRulemaking Portal, using the ID number BIS 2018-0024, or by mail or delivery to BIS (see Addresses section in the above-linked ANPRM for additional details).

We are closely following developments on ECRA, proposed rulemaking and new rules. Please contact any member of our team with any questions on this ANPRM, as well as the public comments submission process.

About Us

Our core export controls and sanctions team is transatlantic. Our lawyers have the ability to provide advice on the shifting regulatory framework on both sides of the Atlantic. We have extensive experience in advising and representing a wide range of companies and financial institutions in Europe, the US, as well as in other jurisdictions on export control and sanctions from a multijurisdictional perspective. The export controls and sanctions team is part of our overall International Trade Practice, providing a "one-stop shop" solution to global trade compliance through rapid, professional and tailored advice and compliance tools to fit your business needs and processes. If you have any questions relating to global export control and sanctions, please contact a member of our US or EU team listed herein, or email InternationalTradeCompliance@squirepb.com for assistance.

Resources to Strengthen Compliance

We encourage you to visit our blog, *The Trade Practitioner*, where you will find additional updates and information on export controls, sanctions and other international trade topics. In addition, organizations engaged in the trade of items specially designed for military or space applications are encouraged to download our complimentary *ITAR Practitioner's Handbook*, which covers the International Traffic in Arms Regulations (ITAR) and the US Department of Commerce "600 Series."

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