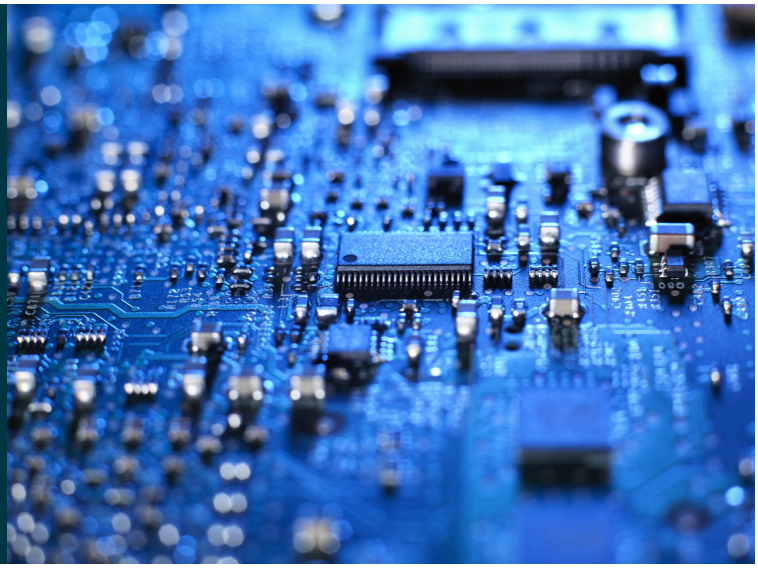
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BIS Implements New Controls on Additive Manufacturing, Quantum Computing, and Advanced Semiconductor Manufacturing



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ALERTS

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On September 6, 2024, the Bureau of Industry and Security (BIS) issued an interim final rule (the September 6 IFR) implementing new and revised export controls relating to emerging or critical technologies in the fields of quantum computing, advanced semiconductor manufacturing equipment, gate-all-around field-effect transistor (GAAFET) technology, and additive manufacturing. According to BIS, the agency is "harmonizing controls with like-minded countries" in an effort to stand "shoulder to shoulder...with our allies and key partners" and to eventually implement multilateral controls on these products.[1] Citing significant national security concerns, most of the new controls implemented by the September 6 IFR took effect immediately.

Most significantly, the September 6 IFR:

- adds 18 new Export Control Classification Numbers (ECCNs) and revises nine ECCNs. Many of these new/revised ECCNs are similar or identical to controls implemented by the UK and certain European countries earlier this year;
- imposes a worldwide license requirement on the exports, re-exports, or transfers (in country) for many of the newly controlled items, along with limitations on the use of certain license exceptions;
- introduces a new license exception, called License Exception Implemented Export Controls (License Exception IEC), for countries that have implemented equivalent controls for specific items; and
- minimizes the impact on deemed exports and re-exports, depending on the technology, to new and/or existing employees and contractors, through various grandfathering clauses, exclusions, and a new general license (GL) under General Order No. 6.

Exporters should be aware that activities subject to the new September 6 IFR controls may impose:

- new and continuing licensing obligations, most of which are effective immediately, but compliance requirements for exports, re-exports, and transfers (in-country) of quantum items specified in ECCNs 3A901, 3A904, 3B904, 3C907, 3C908, 3C909, 3D901 (for 3A901.b, 3B904), 3E901 (for 3A901, 3A904, 3B904, 3C907, 3C908, 3C909), 4A906, 4D906, or 4E906 to destinations in Country Group A:1 are delayed until **November 5, 2024**.
- new reporting obligations for exports, re-exports, and transfers and deemed exports and re-exports occurring after September 6, 2024, with the first such report due by **November 5, 2024**.

New ECCNs

The new interim final rule adds 18 new ECCNs and revises nine existing ECCNs, focusing on four major critical and emerging technologies. These include:

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- quantum computing items, including quantum computers, and related equipment, components, materials, software, and technology used in their development and maintenance (ECCNs 3D901, 3E901, 4D906, or 4E906);
- advanced semiconductor manufacturing equipment, featuring the tools and machines crucial for producing advanced semiconductor devices (ECCNs 3B001, 3B903, 3D907);
- GAAFET technology necessary for innovation in high-performance computing chips that can be used in supercomputers (ECCN 3E905); and
- additive manufacturing items, which cover equipment, components, and related technology and software designed for producing metal or metal alloy components as well as specific coating technology (ECCNs 2B910, 2D910, 2E903, 2E910).

We are happy to assist in evaluating whether your technologies, software, or products meet any of the new ECCN parameters.

Exports and Re-exports: Licensing Policy, General License, and License Exception

Exports and re-exports of the newly classified hardware and associated software and technology now require a license for many destinations, subject to certain exceptions, including:

- All of the items classified under the new ECCNs and a selection of related equipment, software, and technology under the revised ECCNs are controlled for export and re-export worldwide for national security (NS) and regional stability (RS) reasons.
- There is a presumption of approval when the export or re-export is to countries in Country Group A:1, A:5, and A:6 and a presumption of denial for destinations in Country Group D:1 or D:5; all other destinations will be reviewed on a case-by-case basis.
- While the new requirements are effective immediately, those entities exporting certain quantum computing items[2] have a delayed compliance period for exports, re-exports, and in-country transfers to Country Group A:1 destinations under NS and RS controls to complete license applications or implement internal compliance procedures for relevant ECCNs by **November 5, 2024**.

A new GL in General Order no. 6. authorizes exports, re-exports, and in-country transfers of GAAFET "technology" specified in ECCN 3E905 for the "development" or "production" of integrated circuits to end users located in Country Group A:5 or A:6 when the development or production "began to be performed on or prior to September 6, 2024."[3] Entities who utilize this GL are subject to a special, annual reporting obligation, which is discussed further below.

The interim final rule also creates a new License Exception, License Exception IEC, which authorizes exports and re-exports to and among, and in-country transfers within, countries that have implemented equivalent national export controls. BIS separately released a chart that lists countries eligible for License Exception IEC. At the same time, the rule limits the use of other license exceptions for the newly classified items.

Deemed Exports and Re-exports: Grandfathering Clauses, General License, and Exclusions

BIS acknowledges that losing access to foreign talent and academics would be "devastating" to U.S. technology leadership, given the heavy reliance on foreign expertise and relationships in research and development of critical and emerging technologies, especially amid a global shortage of talent.[4] BIS also recognizes that companies are strongly incentivized to, and hence already, implement measures to protect proprietary information. For that reason, the interim final rule seeks to limit the impact of the newly implemented controls on deemed exports and re-exports. Under the "deemed export" rule, an export license must be obtained before "releasing" controlled source code or technology to a foreign national, even when located in the United States, if a license would be required to export or re-export that source code or technology to the person's most recent country of citizenship or permanent residency. The grandfathering clauses and other deemed export or re-export exclusions in the interim final rule are an effort to avoid further disrupting ongoing research and development in critical and emerging technologies.

BIS included the following authorizations to assist companies with deemed exports and re-exports to foreign nationals[5] of source code or technology controlled by the new ECCNs:

- *GAAFET technology (ECCN 3E905)*: The new GL includes a grandfathering clause for deemed exports and re-exports (including future updates) to foreign person employees or contractors

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of Country Group D:1 or D:5 nationality who were hired on or before September 6, 2024, subject to new reporting obligations.
- *Quantum technologies and software (ECCN 3D901, 3E901, 4D906, or 4E906)*: Deemed exports and re-exports to foreign person employees or contractors of Country Group D:1 or D:5 nationality are authorized by the new GL, subject to additional special reporting obligations.
- *Dry etch equipment*: There is a full deemed export and re-export license requirement exclusion from NS and RS license requirements for technology or software in ECCNs 3D001, 3D002, and 3E001 for anisotropic dry plasma etch equipment and isotropic dry etch equipment in 3B001.c.1.a and c.1.c. This aligns with the exclusions implemented in an earlier rule, "Export Controls on Semiconductor Manufacturing Items."[6]
- *Excluding ECCN 3E905, all remaining new ECCNs*:[7] Grandfathering clauses for license requirements for NS and RS apply to deemed exports or re-exports of source code or technology, including for future developments and updates, to employees or contractors already employed as of September 6, 2024, including foreign national employees or contractors whose most recent country of citizenship is a D:1 or D:5 country.
- *Software and technology for newly classified items*: There is a limited exclusion from license requirements imposed under NS and RS controls for deemed exports and re-export for certain source code or technology captured by the following ECCNs 2D910, 2E910, 3D001, 3D901, 3D907, 3E001, 3E901, 3E905, 4D906, and 4E906. The limited exclusion applies to deemed exports or re-exports to foreign persons whose most recent citizenship or permanent residency is not a Country Group D:1 or D:5 country.

We have created a tool to assist entities in navigating these new deemed export rules, licenses, and exceptions, available here.

Special Reporting Obligations

Businesses, academic institutions, and other entities affected by the new interim final rule should also be aware of annual and termination reporting requirements regarding the new general license; these reports are to provide BIS the necessary visibility and oversight required to address relevant national security risks. Affected entities should take particular notice that the first report for i) exports and deemed exports of ECCN 3E905 pursuant to the new GL and ii) deemed exports of quantum software or technology pursuant to the new GL, in all instances covering the period from September 6 to October 28, 2024, is due by **November 5, 2024**. Subsequent annual reports must be submitted by February 1 for the reporting period ending December 31 of the prior calendar year.

i) For exports, re-exports, and transfers of products, software or technology specified in **ECCN 3E905 for GAAFET items** under the GL:

- The exporting entity must make annual reports to BIS regarding a) its end users in Country Group A:5 or A:6, and b) employees and contractors who are citizens of or permanent residents of Country Group D:1 or D:5 countries receiving deemed exports or deemed exports pursuant to the GL grandfather clause.
- An entity with deemed exports of ECCN 3E905 must also file a termination report within 30 days of the voluntary or involuntary termination of foreign national employees and contractors who are citizens of or permanent residents of Country Group D:1 or D:5 countries.

ii) For deemed exports of **quantum software or technology** under the GL[8]:

- Entities that released covered quantum software or technology to foreign persons of Country Group D:1 or D:5 nationality are responsible for submitting annual and termination reports to BIS.
- Termination reports are due within 30 days of a covered foreign person's last day with the host company or university.

Although the rule is effective immediately, BIS is seeking public comments on these changes until November 5, 2024.

We have developed tools to assist companies in assessing the applicability of these new controls and implementing any internal procedural changes required. For more information or any questions on these changes or any related matter, please contact Josephine Aiello LeBeau (202-973-8813, jalebeau@wsgr.com), Anne Seymour (202-973-8874, aseymour@wsgr.com), Jahna Hartwig (202-973-8868, jhartwig@wsgr.com) or any member of the export control and sanctions practice at Wilson Sonsini Goodrich & Rosati.

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[1]89 FR 72926.

[2]For ECCNs 3A901, 3A904, 3B904, 3C907, 3C908, 3C909, 3D901 (for 3A901.b, 3B904), 3E901 (for 3A901, 3A904, 3B904, 3C907, 3C908, 3C909), 4A906, 4D906, or 4E906 controls.

[3]89 FR 72926.

[4]89 FR 72929.

[5]The employees or contractors must not be prohibited persons under part 744 of the EAR, *e.g.*, not listed on the Entity List (supplement no. 4 to part 744), Unverified List (supplement no. 6 to part 744), Military End-User List (supplement no. 7 to part 744), or listed on the Denied Persons List (https://www.bis.gov).

[6]88 FR 73424.

[7]This grandfathering clause applies to all but one of the new ECCNs added, for deemed exports or reexports of technology in ECCN 3E905 ("Technology" according to the General Technology Note for the "development" or "production" of integrated circuits or devices, using "GAAFET" structures). Deemed exports for ECCN 3E905 are authorized under the GL, discussed in the above.

[8]For ECCN 3D901 (for 3A901.b, 3B904), 3E901 (for 3A901, 3A904, 3B904, 3C907, 3C908, 3C909), 4D906, or 4E906.

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