RECORD OF PUBLIC COMMENTS

PROPOSED RULE:

Proposed Enhancements and Simplification of License Exception Strategic Trade Authorization (STA)

Publication in *Federal Register*: December 8, 2023 (88 FR 85734) Comments due January 6, 2024

	SOURCE ¹	SIGNER(S) OF COMMENT	DATE
1.	Anonymous	Anonymous	1/09/24
2.	General Electric Company	Kevin Fuller	2/02/24
3.	Export Group for Aerospace, Defence	Brinley Salzmann	2/06/24
	and Dual-Use (EGADD)		
4.	Linde Advanced Material Technologies Inc.	James McNamara	2/06/24
	("Linde AMT")	James Wielkamara	2/00/24
5.	RTX Corporation (RTX)	RTX	2/06/24
6.	GE Aerospace	Scott W. Jackson	2/06/24
7.	The Boeing Company	Janelle F. Gamble	2/06/24
8.	Association for Uncrewed Vehicle	Scott Shtofman	2/06/24
	Systems International (AUVSI)		
9.	Aerospace Industries Association (AIA)	Derek "Dak" Hardwick	2/06/24
10.	Astroscale U.S. Inc.	Laura Cummings	2/06/24

¹ No commenters submitted Business Confidential comments.

DEPARTMENT OF COMMERCE

Bureau of Industry and Security

15 CFR Parts 740 and 774

[Docket No. 231117-0272]

RIN 0694-AJ32

Proposed Enhancements and Simplification of License Exception Strategic Trade Authorization (STA)

AGENCY: Bureau of Industry and Security, Department of Commerce. **ACTION:** Proposed rule.

SUMMARY: In this rulemaking, the Bureau of Industry and Security (BIS) proposes revising License Exception Strategic Trade Authorization (STA) under the Export Administration Regulations (EAR). The purpose of these changes is to encourage additional use of License Exception STA for ally and partner countries. BIS proposes specific revisions to License Exception STA and includes questions for public comment to help BIS better understand impediments in using License Exception STA. This proposed rule is part of a broader effort announced today that will revise several categories of export licensing requirements and the availability of export license exceptions for key allied and partner countries, as well as for members of certain multilateral export control regimes. **DATES:** Comments must be received by

BIS no later than February 6, 2024. **ADDRESSES:** Comments on this rule may be submitted to the Federal rulemaking portal (*www.regulations.gov*). The *regulations.gov* ID for this rule is: BIS– 2023–0019. Please refer to RIN 0694– AJ32 in all comments.

All filers using the portal should use the name of the person or entity submitting the comments as the name of their files, in accordance with the instructions below. Anyone submitting business confidential information should clearly identify the business confidential portion at the time of submission, file a statement justifying nondisclosure and referring to the specific legal authority claimed, and provide a non-confidential version of the submission. For comments submitted electronically containing business confidential information, the file name of the business confidential version should begin with the characters "BC." Any page containing business confidential information must be clearly marked "BUSINESS CONFIDENTIAL" on the top of that page. The corresponding non-confidential version of those comments must be clearly

marked "PUBLIC." The file name of the non-confidential version should begin with the character "P." Any submissions with file names that do not begin with either a "BC" or a "P" will be assumed to be public and will be made publicly available through https:// www.regulations.gov. Commenters submitting business confidential information are encouraged to scan a hard copy of the non-confidential version to create an image of the file, rather than submitting a digital copy with redactions applied, to avoid inadvertent redaction errors which could enable the public to read business confidential information.

FOR FURTHER INFORMATION CONTACT: For questions on this proposed rule, contact Timothy Mooney, Regulatory Policy Division, Office of Exporter Services, Bureau of Industry and Security, U.S. Department of Commerce at 202–482–2440 or by email: *RPD2@bis.doc.gov*, please include "RIN: 0694–AJ32" in the subject line.

SUPPLEMENTARY INFORMATION:

I. Background

In this proposed rule, the Bureau of Industry and Security (BIS) describes potential revisions to License Exception Strategic Trade Authorization (STA) under the Export Administration Regulations (EAR). The purpose of these changes is to encourage additional use of License Exception STA for ally and partner countries. This rule proposes changes that would: (1) clarify that License Exception STA is not a listbased license exception; (2) add text to make it more explicit that License Exception STA is eligible for deemed export and deemed reexports; (3) exclude deemed exports and deemed reexports from the requirement to have been listed on an approved license or other approval for "600 series" technology; (4) adopt a simpler and consistent approach to identify ECCNs eligible for License Exception STA; and (5) remove the limitation on the use of License Exception APR for reexports between and among certain partner and ally countries to reflect their close coordination with the United States on export controls.

This proposed rule also includes seven questions for public comment to help BIS better understand why License STA is being underutilized by exporters, reexporters, and transferors. BIS also requests comments on whether STA eligibility should be expanded or restricted for specific items, including for specific ECCNs and welcomes comments on additional measures that could further facilitate trade under License Exception STA with partner and ally countries.

This rule includes proposed changes to License Exception STA eligibility for ECCNs 1E001 and 2E003.f, which were previously proposed in the proposed rule "Clarifications of Availability and Expansion of Restrictions on Availability of License Exception Strategic Trade Authorization Under the Export Administration Regulations" (October 2021 rule) (see 86 FR 58615 (October 22, 2021)). Because this rule is addressing License Exception STA more broadly, such as how items excluded from License Exception STA will be identified and the passage of time since 2021, BIS is re-proposing these restrictions on the STA eligibility for ECCNs 1E001 and 2E003.f. This action will allow for public comment on these proposed changes to License Exception STA eligibility to help to better inform the current Administration's review of License Exception STA eligibility for these two ECCNs. See Section VII.B of this rule for additional background on these proposed changes. BIS encourages parties that may have commented on the October 22 rule to review these proposed changes to ECCN 1E001 and 2E003.f, along with any other interested parties.

Liberalizing Controls for Allies and Partners

Historically, the United States has relied on deep connections with its allies and partners to protect its vital national security and foreign policy interests. In particular, the United States acts in close cooperation with its allies and partners to bring together the international community to address military aggression, threats to sovereignty, and human rights abuses around the world. This is especially true in the context of export controls, in which multilateral and plurilateral controls are typically the most effective path toward accomplishing our national security and foreign policy objectives.

In remarks made on February 4, 2021, regarding America's place in the world, President Biden noted that America's alliances are some of our greatest assets and that leading with diplomacy means standing shoulder to shoulder with and working closely with our allies and key partners, thereby protecting the world against nefarious actors. At that time, President Biden highlighted the fact that the United States would be "more effective in dealing with Russia when we work in coalition and coordination with other like-minded partners." (https://www.whitehouse.gov/briefingroom/speeches-remarks/2021/02/04/ remarks-by-president-biden-onamericas-place-in-the-world/). Consistent with this direction, a year later following Russia's unjustifiable further invasion of Ukraine and Belarus' complicity in that invasion, the United States led formation of and continued alignment within the Global Export Controls Coalition (GECC), now comprising the United States and 38 other global economies. BIS's export controls on Russia and Belarus have been more effective because they have been imposed and maintained in coordination with U.S. allies and partners. At the same time, in addition to the GECC, BIS has forged deeper ally and partner country relationships through a series of bilateral and multilateral export controls dialogues, including under the auspices of the U.S.-European Union Trade and Technology Council (TTC) and the U.S.-Japan Commercial and Industrial Partnership (JUCIP).

The proposed changes with this rule and two other ally and partner rules published today are part of a broad effort to liberalize controls for allies and partner countries under the EAR (15 GFR parts 730–774). Together, these rules will ease several categories of export licensing requirements and increase the availability of export license exceptions for key allied and partner countries, as well as members of certain multilateral export control regimes.

License Exception STA History

License Exception STA was added to the EAR on June 16, 2011 (76 FR 35287) as one of the first actions taken under the Export Control Reform (ECR) Initiative. This license exception was intended to facilitate trade and military interoperability with our closest allies and partners by streamlining the controls under the EAR applicable for certain items destined for export control partner and ally countries. Through two authorizing paragraphs (§ 740.20(c)(1) and (2)), License Exception STA authorizes exports, reexports, and transfers (in-country), including deemed exports and deemed reexports for

certain items. Paragraph (c)(1) authorization is applicable to six reasons for control (national security (NS); chemical or biological weapons (CB); nuclear nonproliferation (NP); regional stability (RS); crime control (CC), and/or significant items (SI)) for countries identified in Country Group A:5. Paragraph (c)(2) authorization is available to overcome national security (NS) controls for certain ECCNs. As with all EAR license exceptions, certain terms and conditions must be met to use License Exception STA. In addition, entities that use License Exception STA must confirm that none of the general restrictions on the use of license exceptions under §740.2 applies.

Since 2011, BIS has updated License Exception STA to clarify certain requirements. For example, a November 11, 2017, final rule (82 FR 50511) added various notes to License Exception STA to clarify the intent of certain provisions, *e.g.*, the 'completing the chain' concept for "600 series" items, clarifying foreign governments are not required to provide a prior consignee statement, and clarifying how License Exception STA relates to transfers (incountry). These changes helped with public understanding and encouraged some additional usage of License Exception STA for ally and partner country transactions.

BIS has determined that amending License Exception STA to make the requirements simpler where possible, while still protecting U.S. national security and foreign policy interests, would make License Exception STA more beneficial for key allied and partner countries. Moreover, it is appropriate to reevaluate the effectiveness of License Exception STA and determine how it may be improved to better achieve its original objectives, as well as to better reflect the current export control environment (e.g., taking into account the significant amount of coordination between destinations identified in Country Group A:5 in supplement no. 1 to part 740 (Country Groups) and in supplement no. 3 to part 746 (Countries Excluded from Certain License Requirements of §§ 746.6, 746.7, and 746.8)).

BIS is publishing this rule as a proposed rule to receive comments on the proposed changes and to solicit public comments on general questions about License Exception STA. BIS particularly seeks input on whether any aspect of License Exception STA discourages use of the exception. License Exception STA was intended to be used in almost all cases when available, and BIS believed at the time License Exception STA was added to the EAR that it would be used in almost all cases when available. The use of License Exception STA has grown since 2011, but it remains persistently underutilized. In fiscal year (FY) 2022, 10% of all license applications reviewed by BIS were for transactions eligible for license exception STA. With respect to ''600 series'' munitions items, in FY 2022, 26% of license applications BIS processed were for transactions that were eligible for license exception STA.

Advantages of License Exception STA Over a BIS License

BIS has set out various evaluation criteria below to compare License Exception STA and BIS licenses. BIS has emphasized these points since 2011 in explaining to exporters, reexporters, and transferors the significant advantages to using License Exception STA compared to using a BIS license, with the one exception that License Exception STA does not allow for subsequent use of License Exception Additional Permissive Reexports (APR) under § 740.16(a) or (b). BIS also welcomes comments in response to this proposed rule for commenters to include any additional evaluation criteria that may be relevant when determining whether to use License Exception STA or a BIS license, in particular if those additional evaluation criteria may be why some exporters, reexporters, or transferors prefer using BIS licenses over License Exception STA when it is available.

Evaluation criteria	License exception STA	BIS license
Quantity authorized Dollar value authorized	No limitation on quantity No limitation on the dollar value	Limited to the quantity specified on the license. Dollar value is limited to the dollar value specified on the license and may only exceed that amount when it is within the shipping tolerance provisions under § 750.11, which generally allow for the total dollar value stated on that license to be exceeded by up to 10% of the dollar value.

Evaluation criteria	License exception STA	BIS license
Time needed to obtain the authorization.	License Exception STA is a written authorization in the EAR, so provided you meet the terms and conditions, License Exception STA could be used the same day you determine an authorization is needed.	Applying for a BIS license takes time. In certain cases, an applicant may be able to request expedited review (BIS licenses do not generally require a purchase order), but in most cases the review process will take on average around 40 calendar days from the time the license application is submitted until a final dis- position is received from BIS, with processing times for some applications being shorter and some taking much longer.
U.S. Government end-use checks.	Consistent with § 734.11, the U.S. Government may re- quest to conduct an end-use check for items re- ceived under License Exception STA, regardless of whether or not the certification requirement in § 740.20(d)(2)(viii) applies to the specific STA trans- action ¹ .	Consistent with §734.11, the U.S. Government may re- quest to conduct an end-use check for items re- ceived under a BIS license. These are done prior to a consignee receiving the items as a pre-license check or after the items are received as a post-ship- ment verification.
Subsequent transfers (in- country).	An item received under License Exception STA may be transferred (in-country) without requiring an EAR au- thorization, provided there are no part 744 end-use or end-user license requirements. This concept also applies to "600 series" items, but the 'completing the chain concept' as specified in Note 1 to paragraphs (b)(2) and (b)(3) (which this rule would redesignate as Note 1 to paragraph (b)(3)) of License Exception STA would need to be completed for a "600 series" item received under License Exception STA.	An item received under a BIS license may only be transferred (in-country) as authorized under the BIS license. Any transfer (in-country), such as to an end user not identified on the license, would require a new license or a separate EAR authorization. This is a significant disadvantage to using a BIS license compared to using License Exception STA. ²
Restrictions on subsequent reexports.	Commodities shipped pursuant to License Exception STA may not subsequently be reexported pursuant to paragraphs (a) or (b) of License Exception APR under § 740.16(a) or (b) ³ .	Unless limited by a condition on the license regarding the use of License Exception APR, a BIS license does not have limitations on the use of License Ex- ception APR under §740.16(a) or (b).

II. Clarification That License Exception STA Is Not A List-Based License Exception, Adding Additional Compliance Guidance on Steps To Determine if ECCN Is Excluded

In the introductory text to License Exception STA in § 740.20, this rule proposes revising the first sentence and

² For example, an exporter is exporting a "600 series" item to a defense contractor in the U.K. and knows there are three additional defense contractors involved in the manufacturing process prior to the finished item being provided to the U.S. military. This could be authorized under a BIS license instead of using License Exception STA, but if an additional U.K. defense contractor needs to be added that was not contemplated at the time the license was approved, a new license or other EAR license exception would be needed. For "600 series" items received under License Exception STA, as noted in the previous column, no authorization would be required to transfer (incountry) to the new entity involved in the manufacturing process, provided the 'completing the chain' concept is still followed for the ''600 series" item. For other items received under License Exception STA, there is no 'completing the chain' concept, so License Exception STA is even easier to use for transfers (in-country).

³ This has historically been one advantage to using a BIS license instead of License Exception STA. Today's proposed rule proposes narrowing the scope of the License Exception STA restriction on use of License Exception APR under § 740.16(a) or (b) for destinations identified in both Country Group A:5 and in supplement no. 3 to part 746 to put License Exception STA on a more equal playing field with BIS licenses in this respect. adding two new sentences at the end. The first sentence would specify that License Exception STA is not a listbased license exception. Rather, it is a transaction-based license exception. A list-based license exception requires reviewing the License Exceptions section in an ECCN and seeing an affirmative statement that the list-based license exception is available. License Exception STA does not appear under the License Exceptions section of any ECCN because it is not a list-based license exception; therefore, this additional step is not required for determining whether License Exception STA is available. The sentence this rule proposes to add will make this point clear for exporters, reexporters, and transferors. BIS also welcomes comments on whether it would be more beneficial to turn License Exception STA into a list-based license exception.

Certain information from an ECCN is used to determine whether License Exception STA may be used. For example, the reason(s) for control of an ECCN is (are) needed for determining whether an item classified under an ECCN may be authorized under License Exception STA. In addition, 142 ECCNs contain a Special Conditions STA section, which in most cases excludes the use of License Exception STA for an entire ECCN or portions of an ECCN for destinations identified in Country Group A:6. In 25 of those 142 Special Conditions for STA sections, there are exclusions for entire ECCNs or portions of an ECCN for destinations in Country Groups A:5 and A:6—meaning License Exception STA is not available in any case to authorize those items. As described under section V.A, this proposed rule proposes various changes to the Special Conditions for STA section in the ECCNs to adopt a simpler and consistent approach for excluding ECCNs or certain items under ECCNs from License Exception STA, along with proposing conforming changes to § 740.20(b)(2).

III. Clarifying License Exception STA Is Eligible for Deemed Exports and Deemed Reexports and Excluding Requirement for Recipient To Have Been Approved on a Prior U.S. Government Authorization

A. Clarifying STA Is Available for Deemed Exports and Deemed Reexports

Under the introductory text to § 740.20, this rule proposes revising the first sentence and adding a new second sentence to make it clear at the beginning of License Exception STA that the license exception may be used to authorize deemed exports and deemed reexports. BIS still receives questions from exporters, reexporters, and transferors on whether License Exception STA may be used to authorize deemed exports and deemed reexports, so this step would improve public understanding. The current

¹ Note that also consistent with § 734.11, the U.S. Government may request to conduct an end-use check for items received under any other BIS license exception or No License Required (NLR) designated shipments.

introductory text prior to these proposed changes uses the phrase 'including releases within a single country of software source code and technology to foreign nationals," which has the same meaning as deemed exports and deemed reexports, but to simplify the text, this rule proposes removing that text and adding in its place the terms deemed exports and deemed reexports. The second new sentence this rule would add to the introductory text specifies that for the paragraph (d) requirements, only paragraph (d)(4) is applicable for deemed exports and deemed reexports. Paragraph (d)(4) already specifies this relationship with paragraphs (d)(1) through (3), but this is still a common question that BIS receives on the use of License Exception STA.

B. Addition of a General Statement to Part 740 About the Use of EAR License Exceptions for Deemed Exports and Deemed Reexports

In § 740.1 Introduction, this rule proposes adding one sentence to the end of paragraph (a) (Scope) to clarify that any license exception authorizing exports and reexports of technology also authorizes deemed exports and deemed reexports, provided the terms and conditions for a release of technology under that license exception are met. This rule proposes this sentence to ensure that the scope of license exceptions also extends to deemed exports and deemed reexports provided the criteria are met. Certain EAR license exceptions are available for deemed exports and deemed reexports, such as License Exception Technology and software under restriction (TSR) under §740.6, but do not include a specific reference to deemed exports and deemed reexports. BIS welcomes comments in response to the rule whether it would be better to include this proposed sentence in §740.1 or to revise each of the applicable license exception sections in part 740 to add in a reference to deemed exports and deemed reexports.

C. Excluding Deemed Exports and Deemed Reexports From Note to Paragraph (c)(1)

In § 740.20, this rule proposes adding one sentence to the end of the Note to paragraph (c)(1), to specify the note is not applicable to deemed exports or deemed reexports authorized under License Exception STA under § 740.20(c)(1). BIS originally added the Note to paragraph (c)(1) to weed out potential front companies that may have tried to receive "600 series" items under License Exception STA under

§740.20(c)(1). The note to paragraph (c)(1) specified that License Exception STA under § 740.20(c)(1) may be used to authorize the export, reexport, or transfer (in-country) of "600 series" items only if the purchaser, intermediate consignee, ultimate consignee, and end user have previously been approved on a license or other approval and the note identifies the types of licenses or other approvals that are acceptable. For most exporters, reexporters, or transferors, this Note to paragraph (c)(1) has been easy to comply with and even when an exporter, reexporter, or transferor was not able to meet the terms of the note, that was easily addressed by applying for a license for that transaction. Then once the license was granted, the exporter, reexporter, or transferor would meet the terms of the Note to paragraph (c)(1) and could use License Exception STA going forward, provided the export, reexport, or transfer (in-country) met the other applicable terms and conditions for License Exception STA.

In the deemed export and deemed reexport context for the "600 series," the application of the Note 1 to paragraph (c)(1) has brought about certain unexpected results. First, because the person releasing the "600 series" technology to the foreign national would be in a position to vet the person in most cases as part of the employment with the entity making the release, which may include requiring entry into a nondisclosure agreement, the concern with a foreign national being an unknown entity is significantly less compared to an entity on the other side of the world that will be receiving a ''600 series'' item. Second, although the entity making a deemed export or deemed reexport could also apply for a license if needed initially to address the Note to paragraph (c)(1), in most cases once going through the process of obtaining a deemed export license from BIS, the entity making the deemed export or deemed reexport would likely simply rely on the BIS deemed export or deemed reexport license going forward instead of using License Exception STA. This would limit the usefulness of License Exception STA for authorizing "600 series" deemed exports and deemed reexports of technology and would not be warranted as a restriction in order to protect U.S. national security and foreign policy interests. At least in part as a result of this restriction, in FY 2022, BIS approved over 60 deemed export or deemed reexport license applications for "600 series" that would otherwise have been eligible for license STA

because the recipients were nationals of A:5 countries. For these reasons, this rule proposes adding a sentence to the end of the Note to paragraph (c)(1) to exclude deemed exports and deemed reexports from the scope of this note.

BIS has provided past regulatory guidance on this question, which does mitigate some concern about this Note 1 to paragraph (c)(1) discouraging the use of License Exception STA. To make all members of the public aware of this past guidance that BIS has provided to other deemed exporters and deemed reexporters, BIS includes that guidance here on the application of Note 1 to paragraph (c)(1). If the foreign person is a bona fide 'permanent and regular employee' of an entity that has previously been approved as a purchaser, intermediate consignee, ultimate consignee, or end user on a license or other approval, *i.e.*, Directorate of Defense Trade Controls (DDTC) Manufacturing License Agreement (MLA), Technical Assistance Agreement (TAA), Warehouse Distribution Agreement (WDA), or General Correspondence approval (GC) issued by BIS or DDTC at the U.S. Department of State, this would meet the requirement of the Note to paragraph (c)(1). For example, if a foreign national that is a bona fide "permanent and regular employee" of a European software company was meeting with a company in the U.S. and "600 series" technology or software source code was to be released, it would be sufficient for purposes of the Note to paragraph (c)(1), that the European software company met the scope of the Note to paragraph (c)(1) and this would extend to their bona fide "permanent and regular employee." In addition, if the foreign national had previously been listed individually on a license or other approval, as noted above that would be the second route for meeting the scope of the Note to paragraph (c)(1) for that foreign national. Note that a foreign person being a bona fide "permanent and regular employee'' of a U.S. entity that previously had been listed as an entity on a license or approval, such as an approved exporter, is not sufficient to meet the scope of the Note to paragraph (c)(1), because the concern in that scenario is with the bona fides of the foreign national and not the U.S. entity. BIS does note that this guidance will no longer be necessary if the proposed change becomes final and effective. BIS encourages as a good compliance practice for entities using License Exception STA for deemed exports and deemed reexports to have measures in place to vet the foreign

national, such as employment screening and the use of non-disclosure agreements. In addition, any deemed export or deemed reexport authorized under License Exception STA will need to comply with the requirements of paragraph (d)(4) (Requirements for releases of software source code or technology within a single country).

V. Simplification of Limitations on Use of License Exception STA Under Paragraph (b)(2) and Special Conditions for STA Section in ECCNs

A. Adopting a Simpler and Consistent ECCN Exclusion Approach for License Exception STA and Clarifying Relationship Between § 740.20(b)(2) and Special Conditions for STA Section in ECCNs

This proposed rule seeks to simplify License Exception STA by adopting a simpler and consistent approach for excluding ECCNs from License Exception STA. These proposed changes are discussed in this Section V.A, which also provides background on the current requirements and how these requirements have evolved since 2011. This rule proposes changes to enable exporters, reexporters, and transferors to more easily, quickly, and consistently determine whether an item is eligible for License Exception STA.

Prior to reviewing the exclusions under §740.20(b)(2) of License Exception STA, the exporter, reexporter, or transferor should review the Special Conditions for STA section in the applicable ECCN, which may exclude that ECCN or certain items under that ECCN from the use of License Exception STA. Substantively, in order to determine if an ECCN or certain items under that ECCN is excluded from the use of License Exception STA, an exporter, reexporter, or transferor will need to confirm that the item is not excluded under the Special Conditions for STA section of the ECCN and that the ECCN is not otherwise excluded from the use of License Exception STA under § 740.20(b)(2).

ECCNs as a whole or certain items under an ECCN may be excluded from License Exception STA under the Special Conditions for STA section of an Export Control Classification Number (ECCN) or under the exclusions under § 740.20(b)(2). When License Exception STA was originally added to the EAR, the construct was that the Special Conditions for STA section would generally be used to exclude certain items from License Exception STA for Country Group A:6, and the ECCNs exclusions under § 740.20(b)(2) would be used to exclude items completely from License Exception STA for Country Groups A:5 and A:6. However, over time as eligibility for certain ECCNs has been adjusted for License Exception STA, BIS deviated from the general construct for excluding ECCNs or certain items under ECCNs, and this has created unneeded complexity. This rule proposes changes to adopt a simpler and consistent approach for how ECCNs or certain items under ECCNs would be excluded from License Exception STA for Country Group A:6 or for Country Groups A:5 and A:6.

For example, in some of the Special Conditions for STA sections in ECCNs, BIS started excluding those ECCNs or certain items under those ECCNs completely from License Exception STA for Country Groups A:5 and A:6 instead of relying on 740.20(b)(2), which deviates from the original construct. In other cases, BIS used both Special Conditions for STA sections and §740.20(b)(2) to exclude ECCNs or certain items under those ECCNs completely from License Exception STA for Country Groups A:5 and A:6. Each of those variants creates unneeded complexity for exporters, reexporters, and transferors trying to understand what ECCNs or portions of ECCNs are excluded under License Exception STA, in particular if they are looking for a consistent construct for how items are being excluded under License Exception STA.

If either the Special Conditions for STA section or $\hat{\$}$ 740.20(b)(2) excludes an item from the use of License Exception STA, then that item is excluded. However, from a compliance perspective, using two different methods, and in certain cases using both methods of exclusion, creates unnecessary complexity. This rule would adopt a consistent, single construct for how ECCNs or portions of ECCNs are excluded from License Exception STA, which should make it easier for exporters, reexporters, and transferors to apply this aspect of License Exception STA.

This rule would make the following changes to §740.20(b)(2) to improve this aspect of License Exception STA. In §740.20(b)(2) (Limitations on the Use of License Exception STA), this rule would revise the paragraph heading to read as "Items excluded from the use License **Exception STA for Country Groups A:5** and A:6." This rule proposes deleting all of paragraph (b)(2) ECCN exclusions and moving those exclusions into the Special Conditions for STA section of the 29 respective ECCNs, except for existing paragraph (b)(2)(i), and existing paragraph (b)(2)(iii), which would be redesignated as paragraph (b)(2)(ii). This

rule also proposes the removal of the redundant paragraph (b)(2)(iv) that specified License Exception STA was not available for items subject to the exclusive export control jurisdiction of another U.S. Government agency. Paragraph (b)(2)(iv) is not needed because § 734.3(b)(1) of the EAR already specifies that items subject to the exclusive export control jurisdiction of another U.S. Government agency are not subject to the EAR. Paragraph (b)(2) would be limited to paragraph (b)(2)(i) specifying that License Exception STA may not be used to overcome parts 744 or 746 license requirements and paragraph (b)(2)(ii) specifying the reasons for control that License Exception STA may not overcome. The remaining paragraphs are under paragraph (b)(2) would be removed and added under the respective 29 ECCNs

The revisions to the 29 ECCNs would consist of revising 10 of the ECCNs (0A501, 1E001, 3E001, 6D003, 6E001, 6E002, 9D001, 9D002, 9D004, and 9E003), which already include an exclusion for certain portions of those ECCNs to exclude certain items under those ECCNs from License Exception STA for purposes of Country Group A:6, to identify the additional items under those ECCNs that are excluded from License Exception STA for both Country Groups A:5 and A:6. This rule also proposes revising 19 ECCNs (0A502, 0A503, 0A981, 0A982, 0A983, 0E504, 0E982, 1C353, 1C354, 1E351, 2E003, 6A002, 6D002, 6D991, 7D004, 9A001, 9B001, 9E001, 9E002), that do not include a Special Conditions for STA section to add an exclusion for those items for License Exception STA for purposes of Country Group A:5 and A:6. For 1E001, 2E003, 6D002, 7D004, 9B001, 9E001, and 9E002, this rule also proposes additional restrictions for STA eligibility.

As a conforming change to these proposed revisions to paragraph (b)(2), this rule would redesignate Note 1 to paragraphs (b)(2) and (3) as Note 1 to paragraph (b)(3).

BIS welcomes comments on whether the changes above will make it easier for exporters, reexporters, and transferors to use License Exception STA. In order to turn License Exception STA into a listbased license exception, BIS would remove all of the Special Conditions for STA sections in the respective ECCNs and §740.20(b)(2) and then add STA paragraphs under the License Exceptions section to each of those respective ECCNs. The new STA paragraphs would positively identify the ECCN or "items" level paragraphs under those respective ECCNs that are eligible for License Exception STA,

including any applicable exclusions. This would, in certain cases, lead to fairly long STA paragraphs, particularly when accounting for the differences in STA eligibility between Country Groups A:5 and A:6, which may make those provisions harder for exporters, reexporters, and transferors to understand.

Another alternative that BIS welcomes comments on would be to remove all of the Special Conditions or STA sections in 142 ECCNs and § 740.20(b)(2) and then add two new supplements to §740.20 with one supplement identifying items eligible for License Exception STA for Country Group A:5 and a second supplement identifying the smaller set of only items controlled for National Security (NS) reasons that would be eligible for License Exception STA for Country Group A:6. Although there could be added complexity in taking either of these approaches, both cases would reduce the overall number of steps needed to determine if an item was eligible for License Exception STA.

Lastly, on this aspect of the proposed rule, BIS also welcomes comments on any other alternative approaches that the agency may not have already described above that could be a better approach for identifying which items are eligible for or excluded from License Exception STA.

B. Addition of Note to Paragraph (b)(2) To Provide Additional Clarity Between the Relationship Between § 740.20(b)(2) and Special Conditions for STA Section in ECCNs

In §740.20, this rule proposes adding a new Note to paragraph (b)(2). This note would provide greater context on the relationship between § 740.20(b)(2) and Special Conditions for STA section in ECCNs. The note would describe the number of Special Conditions for STA sections and the types of items excluded under those ECCNs and clarify how these two exclusion methods work together in defining what ECCNs or other items under those ECCN are excluded from the use of License Exception STA, either for Country Group A:5 and A:6 or for only Country Group A:6.

VI. Removal of Limitation on Use of License Exception APR Under Paragraphs (a) and (b) for Reexports Between and Among Certain Countries To Reflect Their Close Coordination With the United States on Export Controls

In § 740.20(e) (Limitation on subsequent exports, reexports or in country transfers), this rule proposes

removing the limitation on the use of License Exception APR (§ 740.16(a) or (b) of the EAR) for commodities that have been exported, reexported, or transferred in-country pursuant to License Exception STA for reexports between and among destinations identified in both Country Group A:5 in supplement no. 1 to part 740 and supplement no. 3 to part 746 of the EAR (*i.e.*, a destination listed in Country Group A:5 but not in supplement no. 3 to part 746 would not eligible for using APR). These destinations have cooperated closely with the United States on export controls, including ensuring appropriate reexport controls were in place on Russia and Belarus after Russia's further invasion of Ukraine. Accordingly, given their effective dual-use export control systems and use of those systems to advance shared national security and foreign policy interests, BIS has determined it would be warranted to give these destinations more permissive treatment to receive items under License Exception APR paragraphs (a) and (b), which prior to this rule, would have required a different EAR authorization, such as using License Exception STA to authorize the reexport to these destinations or a BIS license.

BIS is aware that the limitation on the use of License Exception APR under paragraphs (a) and (b) has for certain reexporters encouraged them to continue to prefer receiving items under BIS licenses instead of agreeing to receive items under License Exception STA. The change this rule would make to paragraph (e) to narrow the scope of the License Exception APR restriction for these destinations would be consistent with U.S. national security and foreign policy interests and is anticipated by BIS to encourage consignees, as well as reexporters and transferors in these destinations for reexports between and among these destinations, to be more receptive to receiving items under License Exception STA, in particular if they have facilities that are located in more than one destination located in both Country Group A:5 and supplement no. 3 to part 746.

This rulemaking also proposes revisions to paragraph (e) for clarity by revising the heading to remove the terms "exports" and "in country transfer." The scope of paragraph (e) is a limitation on subsequent reexports, so this rule proposes making this clarification in the heading and in the first sentence of paragraph (e) to remove the second references to subsequently "exported" and "transferred in country." Subsequently "exported"

under License Exception APR is not needed because License Exception APR only authorizes reexports and transfers (in-country), so inclusion of "exported" is not needed and may create confusion for exporters, reexporters, and transferors. The inclusion of subsequently "transferred in country" is also not needed in the context of this paragraph. A commodity received under License Exception STA may be transferred (in-country) without requiring an EAR authorization, provided there is no part 744 end-use or end user controls applicable. See Note 1 to paragraph (a) of License Exception STA. If the commodity or other item received under License Exception STA is a "600 series" item, then the 'completing the chain' concept is applicable (as specified under Note 1 to paragraphs (b)(2) and (3) to License Exception STA, which this rule would redesignate as Note 1 to paragraph (b)(3)), but no additional EAR authorization is required for subsequent transfers (in-country), provided the chain is eventually completed and there are no applicable part 744 end-use or end user controls. Lastly, for clarity, this rule would revise the last sentence of paragraph (e) to remove the term "export" and add in its place the term "reexport."

VII. BIS Seeks Public Comments on Scope of ECCNs Eligible for STA

To assist BIS in assessing whether the scope of ECCNs currently eligible for STA meets the objective of STA and U.S. national security requirements, BIS seeks public comment on the following issues:

A. What additional items that are currently not eligible for License Exception STA do you believe should have STA eligibility added for Country Group A:5 or for both Country Groups A:5 and A:6? Commenters should identify specific ECCNs and the rationale for adding STA eligibility for Country Group A:5 or both Country Groups A:5 and A:6.

B. What additional items that are currently eligible for License Exception STA do you believe should have STA eligibility removed for Country Group A:5, for Country Group A:6, or for both Country Groups A:5 and A:6? In this rule, the USG is including proposed revisions to the License Exception STA eligibility for items under seven ECCNs in particular.

C. This rulemaking proposes specific regulatory revisions to further limit STA eligibility for the following ECCNs:

1. 1E001: The current STA special condition states that License Exception STA may not be used to ship or transmit

"technology" according to the General Technology Note for the "development" or "production" of equipment and materials specified by ECCNs 1A002, 1C001, 1C007.c, 1C010.c or d or 1C012 to any of the destinations listed in Country Group A:6. The proposed revisions to the regulatory text for 1E001 would restrict STA eligibility for 1E001 "technology" for the "development" or "production" of items specified in ECCNs 1A002; 1C001; 1C007.c or .d; 1C008.a.1; 1C009.b; 1C010.b, .c or .d; 1C351.a, .b, .c, .d.11, .d.12, .d.14, .d.15, or .e; 1C353; or 1C354, to any of the destinations listed in Country Group A:5 or A:6. In addition, the proposed revisions to the regulatory text for 1E001 would restrict STA eligibility for "technology" according to the General Technology Note for the "development" or "production" of equipment and materials specified by ECCN 1C012 to any of the destinations listed in Country Group A:6.

2. 2E003: The current 2E003 does not include a Special Conditions for STA section. The proposed revisions to the regulatory text for 2E003 would add a Special Conditions for STA section to restrict STA eligibility for "technology" according to the General Technology Note for 2E003.f when used for the application of inorganic overlay coatings on gas turbine engine combustors, or turbine blades, vanes or "tip shrouds," to any of the destinations listed in Country Group A:5 or A:6.

Note for proposed changes to 1E001 and 2E003: As referenced under the Section I, BIS requested public comment regarding STA eligibility of ECCN 1E001 and 2E003.f in the October 2021 rule. BIS received 6 public comments, and the comments were generally not supportive of new restrictions on STA eligibility for these two ECCNs; however, given the passage of two years and the current rule's request for comments on STA eligibility for other ECCNs, BIS wants to provide the public another opportunity to submit additional comments on 1E001 and 2E003.f, including those six entities that submitting comments previously, as well as any other interested entities.

3. 6D002: The current STA special condition in § 740.20(b)(2) states that License Exception STA may not be used for "software" in ECCN 6D002 "specially designed" for the "use" of commodities controlled under 6A002.b, to any of the destinations listed in Country Group A:5 or A:6. The proposed revisions to the regulatory text for 6D002 would restrict STA eligibility for software "specially designed" for the "use" of equipment controlled by 6A008 and 6B008 to both Country Group A:5 and A:6.

4. 7D004: The current STA Special condition states that "License Exception

STA may not be used to ship or transmit "software" in 7D004.a to .d and .g to any of the destinations listed in Country Groups A:6." The proposed revisions to the regulatory text in 7D004 would extend the STA eligibility restriction to Country Group A:5.

5. 9B001: The current STA Special condition states that "License Exception STA may not be used to ship commodities in 9B001 to any of the destinations listed in Country Group A:6." The proposed revisions to the regulatory text in 9B001 would extend the STA eligibility restriction to Country Group A:5.

6. 9E001: The current STA Special condition states that "License Exception STA may not be used to ship or transmit any technology in this entry to any of the destinations listed in Country Group A:6." The proposed revisions to the regulatory text in 9E001 would extend the STA eligibility restriction so that STA would not be able to used to ship or transmit any technology in 9E001 for the "development" of equipment under 9B001 to destinations in Country Group A:5 or A:6.

7. 9E002: The current STA Special condition states that "License Exception STA may not be used to ship or transmit any technology in this entry to any of the destinations listed in Country Group A:6. The proposed revisions to the regulatory text in 9E002 would extend the STA eligibility restriction so that STA would not be able to used to ship or transmit any technology in 9E002 for the "production" of equipment under 9B001 to destinations in Country Group A:5 or A:6.

Note: BIS requested public comment regarding STA eligibility of ECCN 9E003.k in the interim final rule which implemented decisions from the 2022 Wassenaar Arrangement (WA 2022 rule) (see 88 FR 71932 (October 18, 2023)); comment period for the WA22 rule closes on December 5, 2023. The restrictions BIS proposes for the regulatory text of the STA Special Conditions for ECCNs 6D002, 7D004, 9B001, 9E001, and 9E002 (and 9E003 in the WA 2022 rule) are included solely to provide clarity to the public of the potential scope of such restrictions to facilitate BIS's receipt of informed comments from the regulated public. Such text does not indicate BIS's regulatory intent to adopt such restrictions in final form.

Comments are welcome from the public on the STA eligibility restrictions proposed in this rule on ECCNs 1E001, 2E003, 6D002, 7D004, 9B001, 9E001, 9E002, as well as any other ECCN. As part of these comments, BIS welcomes information on the impact such changes would have to existing programs and transactions.

VIII. BIS Seeks Public Comments on the Following Additional Questions

In addition to the questions described above that BIS seeks public comments, BIS in this proposed rule also seeks comments on the following questions:

A. What factors contribute to the apparent reluctance of certain exporters, reexporters, and transferors to use License Exception STA or certain consignees to receive items under License Exception STA?

B. What changes should be made to the EAR to encourage greater usage of License Exception STA?

C. What changes or clarifications could be made to the information required on the prior consignee statement required under § 740.20(d)(2) for the "600 series," 9x515 ECCNs, and other ECCNs' prior consignee statements to facilitate increased usage of License Exception STA?

D. What additional changes could be made to License Exception STA to further facilitate exports, reexports, and transfers (in-country) between and among destinations identified in both Country Group A:5 in supplement no. 1 to part 740 and supplement no. 3 to part 746?

E. What are the anticipated effects of requiring use of License Exception STA under the EAR when eligible, like other EAR license exceptions?

F. Should License Exception STA be a list-based license exception?

G. What type of additional BIS outreach materials or outreach activities could encourage greater usage of License Exception STA?

Rulemaking Requirements

1. BIS has examined the impact of this rule as required by Executive Orders 12866, 13563, and 14094, which direct agencies to assess all costs and benefits of available regulatory alternatives and, if regulation is necessary, to select regulatory approaches that maximize net benefits (including potential economic, environmental, public, health, and safety effects, distributive impacts, and equity). This rule is considered a "significant regulatory action" under section 3(f) of Executive Order 12866.

2. Notwithstanding any other provision of law, no person is required to respond to, nor shall any person be subject to a penalty for failure to comply with, a collection of information subject to the requirements of the Paperwork Reduction Act of 1995 (44 U.S.C. 3501 *et seq.*) (PRA), unless that collection of information displays a currently valid Office of Management and Budget (OMB) Control Number.

This rule involves the following OMB-approved collections of information subject to the PRA:

• 0694–0088, "Multi-Purpose Application," which carries a burden hour estimate of 29.4 minutes for a manual or electronic submission;

• 0694–0096 "Five Year Records Retention Period," which carries a burden hour estimate of less than 1 minute:

• 0694–0122, "Licensing

Responsibilities and Enforcement;" and • 0607–0152 "Automated Export System (AES) Program," which carries a burden hour estimate of 3 minutes per electronic submission.

BIS expects the burden hours associated with these collections to decease by 221 hours for an estimated cost decrease of \$7,735, which is within the estimated burdens and costs of these collections. Additional information regarding these collections of information—including all background materials—can be found at https:// www.reginfo.gov/public/do/PRAMain by using the search function to enter either the title of the collection or the OMB Control Number.

3. This rule does not contain policies with federalism implications as that term is defined in Executive Order 13132.

4. Pursuant to section 1762 of ECRA (50 U.S.C. 4821), this action is exempt from the Administrative Procedure Act (APA) (5 U.S.C. 553) requirements for notice of proposed rulemaking, opportunity for public participation, and delay in effective date. While section 1762 of ECRA provides sufficient authority for such an exemption, this action is also independently exempt from these APA requirements because it involves a military or foreign affairs function of the United States (5 U.S.C. 553(a)(1)). However, in order to better inform these regulatory changes, BIS is publishing this rule as a proposed rulemaking in order to solicit public comments before being published in final form.

5. Because a notice of proposed rulemaking and an opportunity for public comment are not required to be given for this rule by 5 U.S.C. 553, or by any other law, the analytical requirements of the Regulatory Flexibility Act, 5 U.S.C. 601, et seq., are not applicable. Accordingly, no regulatory flexibility analysis is required, and none has been prepared.

List of Subjects

15 CFR Part 740

Administrative practice and procedure, Exports, Reporting and recordkeeping requirements.

15 CFR Part 774

Exports, Reporting and recordkeeping requirements.

For the reasons stated in the preamble, parts 740 and 774 of the Export Administration Regulations (15 CFR parts 730 through 774) are proposed to be amended as follows:

PART 740—LICENSE EXCEPTIONS

■ 1. The authority citation for part 740 continues to read as follows:

Authority: 50 U.S.C. 4801-4852; 50 U.S.C. 4601 et seq.; 50 U.S.C. 1701 et seq.; 22 U.S.C. 7201 et seq.; E.O. 13026, 61 FR 58767, 3 CFR, 1996 Comp., p. 228; E.O. 13222, 66 FR 44025, 3 CFR, 2001 Comp., p. 783.

■ 2. Section 740.1 is amended by adding a sentence at the end of paragraph (a) to read as follows:

*

§740.1 Introduction. *

*

(a) * * * Any license exception authorizing exports and reexports of technology also authorizes deemed exports and deemed reexports, provided the terms and conditions for a release of technology under that license exception are met.

■ 3. Section 740.20 is revised to read as follows:

§740.20 License Exception Strategic Trade Authorization (STA).

(a) Introduction. This section authorizes exports, reexports, and transfers (in-country), including deemed exports and deemed reexports, in lieu of a license that would otherwise be required pursuant to part 742 of the EAR. For purposes of the paragraph (d) requirements, only paragraph (d)(4) is applicable for deemed exports and deemed reexports. License Exception STA is not a list-based license exception.

Note 1 to paragraph (a): License Exception STA authorizes transfers (in-country) but is only needed to authorize a transfer (incountry) when an EAR authorization is required. If a transfer (in-country) is not being made under STA, the requirements specified in this section do not apply (see Note 1 to paragraph (b)(3) of this section for requirements specific to staying within the scope of the original License Exception STA authorization and the concept of 'completing the chain' for purposes of "600 series" items originally authorized under License Exception STA).

(b) *Requirements and Limitations*—(1) Requirements for Using License Exception STA.

(i) All of the reasons for control that impose a part 742 license requirement on the export, reexport, or in country

transfer must be addressed in at least one authorizing paragraph of this section.

(ii) The party using License Exception STA must comply with all of the requirements in paragraph (d) of this section.

(2) Items excluded from the use License Exception STA for Country Groups A:5 and A:6. Items identified under paragraphs (b)(2)(i) and (ii) are excluded from License Exception STA for Country Groups A:5 and A:6.

(i) License Exception STA may not be used in lieu of any license requirement imposed by "Part 744—Control Policy: End User and End Use Based" or by "Part 746—Embargoes and Other Special Controls" of the EAR.

(ii) License Exception STA may not be used for any item that is controlled for reason of encryption items (EI), short supply (SS), surreptitious listening (SL), missile technology (MT) or chemical weapons (CW);

Note 2 to paragraph (b)(2): In addition to the STA exclusions identified under paragraph (b)(2), 157 ECCNs on the CCL include Special Conditions for STA, which are used to exclude entire ECCNs or parts of ECCNs from the use of License Exception STA for destinations in Country Group A:6 or Country Group A:5 and A:6. If an item is excluded under the Special Conditions section of an ECCN or paragraph (b)(2) of this section, the item may not be exported, reexported, or transferred (in-country) under License Exception STA for that Country Group(s).

(3) Limitations on the Use of STA that are Specific to "600 series" Items. (i) License Exception STA may not be used for any "600 series" items identified in the relevant ECCN as not being eligible for STA.

(ii) License Exception STA may be used to export, reexport, and transfer (in-country) "600 series" items to persons, whether non-governmental or governmental, if they are in and, for natural persons, nationals of a country listed in Country Group A:5 (See supplement no. 1 to part 740 of the EAR) or the United States and if:

(A) The *ultimate* end user for such items is the armed forces, police, paramilitary, law enforcement, customs, correctional, fire, or a search and rescue agency of a government of one of the countries listed in Country Group A:5, or the United States Government;

(B) For the "development," "production," operation, installation, maintenance, repair, overhaul, or refurbishing of an item in one of the countries listed in Country Group A:5 or the United States that will be for one, or more, of the following purposes:

(1) Ultimately to be used by any such government agencies in one of the

countries listed in Country Group A:5 or the United States Government; or

(2) Sent to a person in the United States and not for subsequent export under § 740.9(b)(1) (License Exception TMP for items moving in transit through the United States); or

(C) The United States Government has otherwise authorized the ultimate end use, the license or other authorization is in effect, and the consignee verifies in writing that such authorization exists and has provided the license or other approval identifier to the exporter, reexporter, or transferor (as applicable).

(iii) License Exception STA may not be used to export, reexport, or transfer (in-country) end items described in ECCN 0A606.a, ECCN 8A609.a, ECCN 8A620.a or .b, or ECCN 9A610.a until after BIS has approved their export under STA under the procedures set out in § 740.20(g).

(iv) License Exception STA may not be used to export, reexport, or transfer (in-country) "600 series" items if they are "600 Series Major Defense Equipment" and the value of such items in the contract requiring their export exceeds \$25,000,000.

Note 3 to paragraph (b)(3): Any export, reexport, or transfer (in-country) originally authorized under License Exception STA must stay within the scope of the original authorization. For example, for "600 series" items authorized under License Exception STA, such items must be provided to an eligible ultimate end user, such as a Country Group A:5 military, to stay in compliance with the original authorization. This requirement for the "600 series" is referred to as 'completing the chain,' meaning regardless of how many times the "600 series" item is transferred (in-country) or whether the "600 series" item is incorporated into higher level assemblies or other items, the "600 series" item must ultimately be provided to an eligible ultimate end user, or be otherwise authorized under the EAR. This applies regardless of whether the "600 series" item has been incorporated into a foreign-made item that may no longer be "subject to the EAR." Because the other items eligible for authorization under License Exception STA (9x515 and other non-600 series ECCNs) do not include the "600 series" requirements specific to ultimate end user, this 'completing the chain' concept does not apply to 9x515 and other non-600 series ECCNs authorized under License Exception STA. However, the original export, reexport, or transfer (in-country) made under License Exception STA for 9x515 and other non-600 series ECCNs still must comply with the original authorization-meaning the terms and conditions of License Exception STA.

(c) Authorizing paragraphs—(1) Multiple reasons for control. Exports, reexports, and transfers (in-country) in which the only applicable reason(s) for control is (are) national security (NS); chemical or biological weapons (CB); nuclear nonproliferation (NP); regional stability (RS); crime control (CC), and/ or significant items (SI) are authorized for destinations in or nationals of Country Group A:5 (See supplement no.1 to part 740 of the EAR).

Note 4 to paragraph (c)(1). License Exception STA under § 740.20(c)(1) may be used to authorize the export, reexport, or transfer (in-country) of "600 series" items only if the purchaser, intermediate consignee, ultimate consignee, and end user have previously been approved on a license or other approval, *i.e.*, Directorate of Defense Trade Controls (DDTC) Manufacturing License Agreement (MLA), Technical Assistance Agreement (TAA), Warehouse Distribution Agreement (WDA), or General Correspondence approval (GC) issued by BIS or DDTC at the U.S. Department of State. Note to paragraph (c)(1) is not applicable to deemed exports or deemed reexports authorized under License Exception STA. BIS encourages as a good compliance practice for entities using License Exception STA to authorize deemed exports and deemed reexports to have measures in place to vet the foreign national, such as employment screening and the use of nondisclosure agreements. In addition, any deemed export or deemed reexport authorized under License Exception STA will need to comply with the requirements of paragraph (d)(4) of this section.

(2) Controls of lesser sensitivity. Exports, reexports, and transfers (incountry) in which the only applicable reason for control is national security (NS) and the item being exported, reexported, or transferred (in-country) is not designated in the STA paragraph in the License Exception section of the ECCN that lists the item are authorized for destinations in or nationals of Country Group A:6 (See supplement no. 1 to this part).

(d) Conditions—(1) Requirement to furnish Export Control Classification Number. (i) The exporter must furnish to the consignee the ECCN of each item to be exported pursuant to this section. Once furnished to a particular consignee, the ECCN that applies to any item need not be refurnished to that consignee at the time the same exporter makes an additional export of the same item, if the information remains accurate at the time of the additional export.

(ii) A reexporter or transferor must furnish to subsequent consignees the ECCN, provided by the exporter or a prior reexporter or transferor, of each item to be reexported or transferred (incountry) pursuant to this section. Once furnished to a particular consignee, the ECCN that applies to any item need not be refurnished to that consignee at the time the same reexporter or transferor makes an additional reexport or transfer (in-country) of the same item, if the information remains accurate at the time of the additional reexport or transfer (incountry).

(iii) For purposes of determining reexport or transfer eligibility under this section, the consignee may rely on the ECCN provided to it by the party required to furnish the ECCN under paragraph (d)(1)(i) or (ii) of this section unless the consignee knows that the ECCN is incorrect or has changed. The word "knows" has the same meaning as the term "knowledge" in § 772.1 of the EAR.

(2) Prior Consignee Statement. The requirements in this paragraph (d)(2)apply to each party using License Exception STA to export, reexport, or transfer (in-country), including reexporters and transferors of items previously received under License Exception STA. The exporter, reexporter, or transferor must obtain the following statement in writing from its consignee(s) prior to exporting, reexporting, or transferring (in-country) the item and must retain the statement in accordance with part 762 of the EAR. One statement may be used for multiple exports, reexports, or transfers (incountry) of the same items between the same parties so long as the party names, the description(s) of the item(s) and the ECCNs are correct. The exporter, reexporter, or transferor must maintain a log or other record (such as documents created in the ordinary course of business) that identifies each shipment made pursuant to this section and the specific consignee statement that is associated with each shipment. For purposes of this paragraph (d)(2), a log or other record is not required for intangible (*i.e.*, electronic or in an otherwise intangible form) exports, reexports, or transfers (in-country) made under License Exception STA, but an exporter, reexporter, or transferor is required, prior to making any export, reexport, or transfer (in-country), to ensure that a prior consignee statement has been obtained pursuant to the requirements of this paragraph (d)(2). (See Note 1 to paragraph (d)(3) of this section for additional guidance on intangible exports, reexports, and transfers (in-country), including best practices). Paragraphs (d)(2)(i) through (vi) of this section are required for all transactions. In addition, paragraph (d)(2)(vii) is required for all transactions in "600 series" items and paragraph (viii) of this section is required for transactions in "600 series" items if the consignee is not the government of a country listed in Country Group A:5 (See supplement no. 1 to part 740 of the EAR). Paragraph (d)(2)(viii) is also

required for transactions including 9x515 items.

[INSERT NAME(S) OF CONSIGNEE(S)]:

(i) Is aware that [INSERT GENERAL DESCRIPTION AND APPLICABLE ECCN(S) OF ITEMS TO BE SHIPPED (*e.g.*, aircraft parts and components classified under ECCN 9A610)] will be shipped pursuant to License Exception Strategic Trade Authorization (STA) in § 740.20 of the United States Export Administration Regulations (15 CFR 740.20);

(ii) Has been informed of the ECCN(s) noted above by [INSERT NAME OF EXPORTER, REEXPORTER OR TRANSFEROR];

(iii) Understands that items shipped pursuant to License Exception STA may not subsequently be reexported pursuant to paragraphs (a) or (b) of License Exception APR (15 CFR 740.16(a) or (b));

(iv) Agrees to obtain a prior consignee statement when using License Exception STA for any reexport or transfer (in-country) of items previously received under License Exception STA;

(v) Agrees not to export, reexport, or transfer these items to any destination, use or user prohibited by the United States' Export Administration Regulations;

(vi) Agrees to provide copies of this document and all other export, reexport, or transfer records (*i.e.*, the documents described in 15 CFR part 762) relevant to the items referenced in this statement to the U.S. Government as set forth in 15 CFR 762.7;

(vii) Understands that License Exception STA may be used to export, reexport, and transfer (in-country) "600 series" items to persons, whether nongovernmental or governmental, only if they are in and, for natural persons, nationals of a country listed in Country Group A:5 (See supplement no. 1 to part 740 of the EAR) or the United States and if:

(A) The *ultimate* end user for such items is the armed forces, police, paramilitary, law enforcement, customs, correctional, fire, or a search and rescue agency of a government of one of the countries listed in Country Group A:5 or the United States Government;

(B) For the "development," "production," operation, installation, maintenance, repair, overhaul, or refurbishing of an item in one of the countries listed in Country Group A:5 or the United States that will be for one, or more, of the following purposes:

(1) Ultimately to be used by any such government agencies in one of the countries listed in Country Group A:5 or the United States Government; or (2) Sent to a person in the United States and not for subsequent export under § 740.9(b)(1) (License Exception TMP for items moving in transit through the United States); or

(C) The United States Government has otherwise authorized the ultimate end use, the license or other authorization is in effect, and the consignee verifies in writing that such authorization exists and has provided the license or other approval identifier to the exporter, reexporter or transferor (as applicable).

(viii) Agrees to permit a U.S. Government end-use check with respect to the items.

[INSERT NAME(S) AND TITLE(S) OF PERSON(S) SIGNING THS DOCUMENT, AND DATE(S) DOCUMENT IS SIGNED].

Note 5 to paragraph (d)(2): When multiple consignees who form a network engaged in a production process (or other type of collaborative activity, such as joint development) will be receiving items under License Exception STA, a single prior consignee statement for multiple consignees may be used for any item eligible for export, reexport, or transfer (in-country) under License Exception STA, provided all of the applicable requirements of License Exception STA are met, including those specified in paragraph (d)(2).

Note 6 to paragraph (d)(2): Country Group A:5 and A:6 government consignees are not required to sign or provide a prior consignee statement.

(3) Notification to consignee of STA shipment. With each shipment under License Exception STA, the exporter (or reexporter or transferor as applicable). must notify the consignee in writing that the shipment is made pursuant to License Exception STA. The notice must either specify which items are subject to License Exception STA or state that the entire shipment is made pursuant to License Exception STA. The notice must clearly identify the shipment to which it applies. The written notice may be conveyed by paper documents or by electronic methods such as facsimile or email.

Note 7 to paragraph (d)(3): While the exporter, reexporter, and transferor must furnish the applicable ECCN and obtain a consignee statement prior to export, reexport or transfer (in-country) made under License Exception STA in accordance with the requirements of paragraphs (d)(1) and (d)(2) of this section, intangible (i.e., electronic or in an otherwise intangible form) exports, reexports, and transfers (in-country) made under License Exception STA are not subject to the notification requirements of paragraph (d)(3) of this section. However, any export, reexport, or transfer (in-country) made under STA must stay within the scope of the original authorization.

(4) Requirements for releases of software source code or technology within a single country. Instead of the requirement of paragraphs (d)(1) through (d)(3) of this section, the party releasing software source code or technology to a national of a country listed in Country Group A:5 or A:6 (See supplement no. 1 to this part) must notify the recipient of the software source code or technology of the restrictions upon further release of the software source code or technology. The notification must either expressly inform the recipient that the EAR impose limits on further disclosure or must be in the form of an agreement in which the recipient agrees to limits on further disclosure. Any such agreement must impose limits that are equivalent to or more restrictive than all limits on further disclosure that are imposed by the EAR. The notification must be in writing and a copy of it must be retained by the party making the release and the recipient of the release. The notification may be in a separate document or included in a document such as a contract or a nondisclosure agreement. If the document has an expiration date, it must provide that the restrictions on disclosure do not expire.

(e) *Limitation on subsequent reexports.* If a commodity has been exported, reexported or transferred incountry pursuant to this section, it may not be subsequently reexported pursuant to paragraphs (a) or (b) of License Exception APR (§ 740.16(a) or (b) of the EAR), except for reexports between and among destinations identified in both Country Group A:5 in supplement no. 1 to this part and supplement no. 3 to part 746 of the EAR. Paragraphs (a) and (b) of License Exception APR do not authorize reexports of software or technology.

(f) Applicability of Wassenaar Arrangement reporting requirements. See § 743.1 of the EAR for special reporting requirements that apply to some exports made pursuant to this section.

(g) License Exception STA eligibility requests for 9x515 and "600 series" items—(1) Applicability. Any person may request License Exception STA eligibility for end items described in ECCN 0A606.a, ECCN 8A609.a, ECCNs 8A620.a or .b, "spacecraft" in ECCNs 9A515.a.1, .a.2, .a.3, or .a.4, "sub-orbital craft," or items in 9A515.g, 9A610.a, or technology ECCNs 9E515.b, .d, .e, or .f.

(2) Required information and manner of requests. Requests for License Exception STA eligibility must be made via the BIS Simplified Network Application Process–Redesign (SNAP– R) system unless BIS authorizes submission via the paper BIS–748–P Multipurpose Application form. For situations in which BIS 748–P submissions may be authorized, see § 748.1(d)(1). For required information specific to License Exception STA eligibility requests, see supplement no. 1 to part 748, Blocks 5 and 6 and supplement no. 2 to part 748, paragraph (w). In SNAP–R the work type for these applications is "Export." (3) *Timeline for USG review.* The

(3) *Timeline for USG review.* The Departments of Commerce, Defense and State will review License Exception STA eligibility requests in accordance with the timelines set forth in Executive Order 12981 and § 750.4. If the License Exception STA request is approved, the process outlined in paragraph (g)(5)(i) of this section is followed.

(4) *Review criteria*. The Departments of Commerce, Defense and State will determine whether the "end item" is eligible for this license exception based on an assessment of whether it provides a critical military or intelligence advantage to the United States or is otherwise available in countries that are not regime partners or close allies. If the "end item" does not provide a critical military or intelligence advantage to the United States or is otherwise available in countries that are not regime partners or close allies, the Departments will determine that License Exception STA is available unless an overarching foreign policy rationale for restricting STA availability can be articulated. Consensus among the Departments is required in order for an "end item" to be eligible for License Exception STA. Such determinations are made by the departments' representatives to the Advisory Committee on Export Policy (ACEP), or their designees.

(5) Disposition of License Exception STA eligibility requests —(i) Approvals. If the request for STA eligibility is approved, the applicant will receive notification from BIS authorizing the use of the additional License Exception STA for the specific end items requested. This will be in the form of a notice generated by SNAP-R to the applicant. Applicants who receive an approval notification may share it with companies affiliated with them, such as a branch or distributor, and may also take steps to make it public (e.g., on their website) if the applicants so wish. In addition, BIS will add a description of the approved end item in the relevant ECCN and in an online table posted on the BIS website, which removes the restriction on the use of License Exception STA for the end item identified in the approved request. BIS will publish, as needed, a final rule adding this license exception eligibility

to the EAR for that ECCN entry or end item.

(ii) *Denials.* If the STA eligibility request is not approved, the applicant will receive written notification from BIS. This will be in the form of a notice generated by SNAP–R to the applicant. Applicants may re-submit STA eligibility requests at any time.

PART 774—THE COMMERCE CONTROL LIST

■ 4. The authority citation for part 774 continues to read as follows:

Authority: 50 U.S.C. 4801–4852; 50 U.S.C. 4601 et seq.; 50 U.S.C. 1701 et seq.; 10 U.S.C. 8720; 10 U.S.C. 8730(e); 22 U.S.C. 287c, 22 U.S.C. 3201 et seq.; 22 U.S.C. 6004; 42 U.S.C. 2139a; 15 U.S.C. 1824; 50 U.S.C. 4305; 22 U.S.C. 7201 et seq.; 22 U.S.C. 7210; E.O. 13026, 61 FR 58767, 3 CFR, 1996 Comp., p. 228; E.O. 13222, 66 FR 44025, 3 CFR, 2001 Comp., p. 783.

■ 5. Supplement No. 1 to part 774 is amended by revising ECCNs 0A501, 0A502, 0A503, 0A981, 0A982, 0A983, 0E504, 0E982, 1C353, 1C354, 1E001, 1E351, 2E003, 3E001, 6A002, 6D002, 6D003, 6D991, 6E001, 6E002, 7D004, 9B001, 9D001, 9D002, 9D004, 9E001, 9E002, and 9E003, to read as follows:

Supplement No. 1 to Part 774—The Commerce Control List

0A501 Firearms (except 0A502 shotguns) and related commodities as follows (see List of Items controlled).

License Requirements

Reason for Control: NS, RS, FC, UN, AT

Control(s)	Country chart (see supp. No. 1 to part 738)
NS applies to entire entry except 0A501.y.	NS Column 1
RS applies to entire entry except 0A501.y.	RS Column 1
FC applies to entire entry except 0A501.y.	FC Column 1
UN applies to entire entry.	See § 746.1 of the EAR for UN con- trols
AT applies to entire	AT Column 1

entry.

License Requirement Note: In addition to using the Commerce Country Chart to determine license requirements, a license is required for exports and reexports of ECCN 0A501.y.7 firearms to the People's Republic of China.

List Based License Exceptions (See Part 740 for a Description of All License Exceptions)

LVS: \$500 for 0A501.c, .d, and .x.

\$500 for 0A501.c, .d, .e, and .x if the ultimate destination is Canada.

GBS: N/A

Special Conditions for STA

STA: License Exception STA may not be used for ECCN 0A501.a, .b, .c, .d, or .e, to any of the destinations listed in Country Group A:5 or A:6 (See supplement no.1 to part 740 of the EAR). License Exception STA may not be used for any item in this entry to any of the destinations listed in Country Group A:6 (See Supplement No.1 to part 740 of the EAR).

List of Items Controlled

Related Controls: (1) Firearms that are fully automatic, and magazines with a capacity of greater than 50 rounds, are "subject to the ITAR." (2) See ECCN 0A502 for shotguns and their "parts" and "components" that are subject to the EAR. Also see ECCN 0A502 for shot-pistols. (3) See ECCN 0A504 and USML Category XII for controls on optical sighting devices. Related Definitions: N/A Items:

a. Non-automatic and semi-automatic firearms equal to .50 caliber (12.7 mm) or less.

Note 1 to paragraph 0A501.a:

'Combination pistols' are controlled under ECCN 0A501.a. A 'combination pistol' (a.k.a., a combination gun) has at least one rifled barrel and at least one smoothbore barrel (generally a shotgun style barrel).

Technical Note to 0Å501.a: Firearms described in 0A501.a includes those chambered for the .50 BMG cartridge.

b. Non-automatic and non-semi-automatic rifles, carbines, revolvers or pistols with a caliber greater than .50 inches (12.7 mm) but less than or equal to .72 inches (18.0 mm).

c. The following types of "parts" and "components" if "specially designed" for a commodity controlled by paragraph .a or .b of this entry, or USML Category I (unless listed in USML Category I(g) or (h)): Barrels, cylinders, barrel extensions, mounting blocks (trunnions), bolts, bolt carriers, operating rods, gas pistons, trigger housings, triggers, hammers/striker, sears, disconnectors, pistol grips that contain fire control "parts" or "components" (*e.g.*, triggers, hammers/ striker, sears, disconnectors) and buttstocks that contain fire control "parts" or "components."

Technical Note to 0A501.c: Barrel blanks that have reached a stage in manufacturing in which they are either chambered or rifled are controlled by 0A501.c.

d. Detachable magazines with a capacity of 17 to 50 rounds "specially designed" for a commodity controlled by paragraph .a or .b of this entry.

Note 2 to paragraph 0A501.d: Magazines with a capacity of 16 rounds or less are controlled under 0A501.x; for magazines with a capacity greater than 50 rounds, see USML Category I.

e. Receivers (frames) and "complete breech mechanisms," including castings, forgings, stampings, or machined items thereof, "specially designed" for a commodity controlled by paragraph .a or .b of this entry.

Note 3 to 0A501.e: Frames (receivers) under 0A501.e refers to any "part" or "component" of the firearm that has or is customarily marked with a serial number when required by law. This paragraph 0A501.e is synonymous with a "part" or "component" that is regulated by the Bureau of Alcohol, Tobacco, Firearms and Explosives (see 27 CFR parts 447, 478, and 479.) as a firearm.

f. through w. [Reserved]

x. "Parts" and "components" that are "specially designed" for a commodity classified under paragraphs .a through .c of this entry or the USML and not elsewhere specified on the USML or CCL.

y. Specific "parts," "components," "accessories" and "attachments" "specially designed" for a commodity subject to control in this ECCN or common to a defense article in USML Category I and not elsewhere specified in the USML or CCL as follows, and "parts," "components," "accessories," and "attachments" "specially designed" therefor.

y.1. Stocks (including adjustable, collapsible, blades and braces), grips, handguards, or forends, that do not contain any fire control "parts" or "components" (*e.g.*, triggers, hammers/striker, sears, disconnectors);

y.2 to y.5. [Reserved]

y.6. Bayonets; and

y.7. Firearms manufactured from 1890 to 1898 and reproductions thereof.

Technical Note 1 to 0A501: The controls on "parts" and "components" in ECCN 0A501 include those "parts" and "components" that are common to firearms described in ECCN 0A501 and to those firearms "subject to the ITAR."

Technical Note 2 to 0A501: A receiver with any other controlled "part" or "component" (e.g., a barrel (0A501.c), or trigger guard (0A501.x), or stock (0A501.y.1)) is still controlled under 0A501.e.

Note 4 to 0A501: Antique firearms (i.e., those manufactured before 1890) and reproductions thereof, muzzle loading and black powder firearms except those designs based on centerfire weapons of a post 1937 design, BB guns, pellet rifles, paint ball, and all other air rifles are EAR99 commodities.

Note 5 to 0Å501: Muzzle loading and black powder firearms with a caliber less than 20 mm that were manufactured post 1937 that are used for hunting or sporting purposes that were not "specially designed" for military use and are not "subject to the ITAR" nor controlled as shotguns under ECCN 0A502 are EAR99 commodities.

Note 6 to 0A501: Scope mounts or accessory rails, iron sights, sling swivels, and butt plates or recoil pads are designated as EAR99. These commodities have been determined to no longer warrant being "specially designed" for purposes of ECCN 0A501.

Note 7 to 0A501: A kit, including a replacement or repair kit, of firearms "parts" or "components" customarily sold and exported together takes on the classification of the most restrictive "part" or "component" that is included in the kit. For example, a kit containing 0A501.y and .x "parts," is controlled as a 0A501.x kit because the .x "part" is the most restrictive "part" included in the kit. A complete firearm disassembled in a kit form is controlled as a firearm under 0A501.a, .b, or .y.7. 0A502 Shotguns; shotguns "parts" and "components," consisting of complete trigger mechanisms; magazines and magazine extension tubes; "complete breech mechanisms;" except equipment used to slaughter domestic animals or used exclusively to treat or tranquilize animals, and except arms designed solely for signal, flare, or saluting use.

License Requirements

Reason for Control: RS, CC, FC, UN, AT, NS

Control(s)	Country chart (see supp. No. 1 to part 738)
NS applies to shot- guns with a barrel length less than 18 inches (45.72 cm).	NS Column 1
RS applies to shot- guns with a barrel length less than 18 inches (45.72 cm).	RS Column 1
FC applies to entire entry.	FC Column 1
CC applies to shot- guns with a barrel length less than 24 in. (60.96 cm) and shotgun "compo- nents" controlled by this entry re- gardless of end user.	CC Column 1
CC applies to shot- guns with a barrel length greater than or equal to 24 in. (60.96 cm), regard- less of end user.	CC Column 2
CC applies to shot- guns with a barrel length greater than or equal to 24 in. (60.96 cm) if for sale or resale to police or law en- forcement.	CC Column 3
UN applies to entire entry.	See §746.1(b) of the EAR for UN con- trols
AT applies to shot- guns with a barrel length less than 18 inches (45.72 cm).	AT Column 1

List Based License Exceptions (See Part 740 for a Description of All License Exceptions)

LVS: \$500 for 0A502 shotgun "parts" and "components," consisting of complete trigger mechanisms; magazines and magazine extension tubes. \$500 for 0A502 shotgun "parts" and "components," consisting of complete trigger mechanisms; magazines and magazine extension tubes, "complete breech mechanisms" if the ultimate destination is Canada. *GBS*: N/A

Special Conditions for STA

License Exception STA may not be used to ship any Shotguns with barrel length less than 18 inches controlled in 0A502, to any of the destinations listed in Country Group A:5 or A:6 (See supplement no.1 to part 740 of the EAR).

List of Items Controlled

Related Controls: Shotguns that are fully automatic are "subject to the ITAR." Related Definitions: N/A

Items: The list of items controlled is contained in the ECCN heading.

Note 1 to 0A502: Shotguns made in or before 1898 are considered antique shotguns and designated as EAR99.

Technical Note: Shot pistols or shotguns that have had the shoulder stock removed and a pistol grip attached are controlled by ECCN 0A502. Slug guns are also controlled under ECCN 0A502.

0A503 Discharge type arms; non-lethal or less-lethal grenades and projectiles, and "specially designed" "parts" and "components" of those projectiles; and devices to administer electric shock, for example, stun guns, shock batons, shock shields, electric cattle prods, immobilization guns and projectiles; except equipment used to slaughter domestic animals or used exclusively to treat or tranquilize animals, and except arms designed solely for signal, flare, or saluting use; and "specially designed" "parts" and "components," n.e.s.

License Requirements

Reason for Control: CC, UN

ımn 2	Control(s)	Country chart (see supp. No. 1 to part 738)
ımn 3	CC applies to entire entry.	A license is required for ALL destina- tions, except Can- ada, regardless of end use. Accord- ingly, a column specific to this con- trol does not ap- pear on the Com- merce Country Chart. (See part
46.1(b) of the or UN con-		742 of the EAR for additional informa- tion)
mn 1	UN applies to entire entry.	See § 746.1(b) of the EAR for UN con- trols

List Based License Exceptions (See Part 740 for a Description of All License Exceptions) LVS: N/A

GBS: N/A

Special Conditions for STA

License Exception STA may not be used to ship any items in 0A503, to any of the destinations listed in Country Group A:5 or A:6 (See supplement no.1 to part 740 of the EAR).

List of Items Controlled

Related Controls: Law enforcement restraint devices that administer an electric shock are controlled under ECCN 0A982. Electronic devices that monitor and report a person's location to enforce restrictions on movement for law enforcement or penal reasons are controlled under ECCN 3A981.

Related Definitions: N/A

Items: The list of items controlled is contained in the ECCN heading. * * *

0A981 Equipment designed for the execution of human beings as follows (see List of Items Controlled).

License Requirements

Reason for Control: CC

Control(s): CC applies to entire entry. A license is required for ALL destinations regardless of end-use. Accordingly, a column specific to this control does not appear on the Commerce Country Chart. (See § 742.7 of the EAR for additional information.)

List Based License Exceptions (See Part 740 for a Description of All License Exceptions)

LVS: N/A GBS: N/A

Special Conditions for STA

License Exception STA may not be used to ship any items in 0A981, to any of the destinations listed in Country Group A:5 or A:6 (See supplement no.1 to part 740 of the EAR).

List of Items Controlled

Related Controls: N/A Related Definitions: N/A Items:

a. Gallows and guillotines.

b. Electric chairs for the purpose of executing human beings.

c. Air tight vaults designed for the execution of human beings by the administration of a lethal gas or substance.

d. Automatic drug injection systems designed for the execution of human beings by administration of a lethal substance.

0A982 Law enforcement restraint devices, including leg irons, shackles, and handcuffs; straight jackets; stun cuffs; shock belts; shock sleeves; multipoint restraint devices such as restraint chairs; and "specially designed" "parts," "components" and "accessories," n.e.s.

License Requirements

Reason for Control: CC

Control(s): CC applies to entire entry. A license is required for ALL destinations, except Canada, regardless of end-use. Accordingly, a column specific to this control does not appear on the Commerce Country Chart. (See part 742 of the EAR for additional information.)

List Based License Exceptions (See Part 740 for a Description of All License Exceptions)

LVS: N/A GBS: N/A

Special Conditions for STA

License Exception STA may not be used to ship any items in 0A982, to any of the destinations listed in Country Group A:5 or A:6 (See supplement no.1 to part 740 of the EAR).

List of Items Controlled

Related Controls: Thumbcuffs and fingercuffs are classified under ECCN 0A983,

"specially designed" implements of torture. Restraint devices that electronically monitor or report the location of confined persons for law enforcement or penal reasons are controlled under ECCN 3A981. Related Definitions: N/A Items: The list of items controlled is contained in the ECCN heading.

Note to ECCN 0A982. This ECCN applies to restraint devices used in law enforcement activities. It does not apply to medical devices that are equipped to restrain patient movement during medical procedures. It does not apply to devices that confine memory impaired patients to appropriate medical facilities. It does not apply to safety equipment such as safety belts or child automobile safety seats.

0A983 "Specially designed" implements of torture, including thumbscrews, thumbcuffs, fingercuffs, spiked batons, and "specially designed" "parts," "components" and "accessories," n.e.s.

License Requirements

Reason for Control: CC

Control(s): CC applies to entire entry. A license is required for ALL destinations, regardless of end-use. Accordingly, a column specific to this control does not appear on the Commerce Country Chart. (See part 742 of the EAR for additional information.)

List Based License Exceptions (See Part 740 for a Description of All License Exceptions) LVS: N/A

GBS: N/A

Special Conditions for STA

License Exception STA may not be used to ship any items in 0A983, to any of the destinations listed in Country Group A:5 or A:6 (See supplement no.1 to part 740 of the EAR).

List of Items Controlled

Related Controls: N/A

Related Definitions: N/A

Items: The list of items controlled is contained in the ECCN heading.

Note to ECCN 0A983. In this ECCN, "torture" has the meaning set forth in Section 2340(1) of Title 18, United States Code. *

0E504 "Technology" "required" for the "development" or "production" of commodities controlled by 0A504 that incorporate a focal plane array or image intensifier tube.

License Requirements

Reason for Control: RS, UN, AT

Control(s)	Country chart (see Supp. No. 1 to part 738)
RS applies to entire entry.	RS Column 1
UN applies to entire entry.	See §746.1(b) of the EAR for UN con- trols
AT applies to entire entry.	AT Column 1

List Based License Exceptions (See Part 740 for a Description of All License Exceptions) TSR: N/A

Special Conditions for STA

License Exception STA may not be used to ship or transmit any "technology" in 0E504, to any of the destinations listed in Country Group A:5 or A:6 (See supplement no.1 to part 740 of the EAR).

List of Items Controlled

Related Controls: N/A Related Definitions: N/A *Items:* The list of items controlled is contained in the ECCN heading.

* * *

0E982 "Technology" exclusively for the "development" or "production" of equipment controlled by 0A982 or 0Â5Ô3.

License Requirements

Reason for Control: CC

Control(s): CC applies to ''technology'' for items controlled by 0A982 or 0A503. A license is required for ALL destinations, except Canada, regardless of end use. Accordingly, a column specific to this control does not appear on the Commerce Country Chart. (See part 742 of the EAR for additional information.)

List Based License Exceptions (See Part 740 for a Description of All License Exceptions) TSR: N/A

Special Conditions for STA

License Exception STA may not be used to ship or transmit any "technology" in 0E982, to any of the destinations listed in Country Group A:5 or A:6 (See supplement no.1 to part 740 of the EAR).

List of Items Controlled

Related Controls: N/A Related Definitions: N/A Items: The list of items controlled is

contained in the ECCN heading. *

1C353 Genetic elements and genetically modified organisms, as follows (see List of Items Controlled).

License Requirements

Reason for Control: CB, AT

	Control(s)	Country chart (see Supp. No. 1 to part 738)
•	CB applies to entire entry.	CB Column 1
	AT applies to entire entry.	AT Column 1

License Requirements Notes:

1. Vaccines that contain genetic elements or genetically modified organisms identified in this ECCN are controlled by ECCN 1C991.

2. Unless specified elsewhere in this ECCN 1C353 (e.g., in License Requirement Note 1), this ECCN controls genetic elements or genetically modified organisms for all biological agents and "toxins," regardless of quantity or attenuation, that are identified in the List of Items Controlled for this ECCN,

including genetic elements or genetically modified organisms for attenuated strains of select biological agents or "toxins" that are excluded from the lists of select biological agents or "toxins" by the Animal and Plant Health Inspection Service (APHIS), U.S. Department of Agriculture, or the Centers for Disease Control and Prevention (CDC), U.S. Department of Health and Human Services, in accordance with the APHIS regulations in 7 CFR part 331 and 9 CFR part 121 and the CDC regulations in 42 CFR part 73.

List Based License Exceptions (See Part 740 for a Description of All License Exceptions) *LVS*: N/A

GBS: N/A

Special Conditions for STA

License Exception STA may not be used to ship any items in ECCN 1C353, to any of the destinations listed in Country Group A:5 or A:6 (See supplement no.1 to part 740 of the EAR).

List of Items Controlled

Related Controls: (1) The Animal and Plant Health Inspection Service (APHIS), U.S. Department of Agriculture, and the Centers for Disease Control and Prevention (CDC), U.S. Department of Health and Human Services, maintain controls on the possession, use, and transfer within the United States of certain items controlled by this ECCN, including (but not limited to) certain genetic elements, recombinant nucleic acids, and recombinant organisms associated with the agents or toxins in ECCN 1C351 or 1C354 (for APHIS, see 7 CFR 331.3(c), 9 CFR 121.3(c), and 9 CFR 121.4(c); for CDC, see 42 CFR 73.3(c) and 42 CFR 73.4(c)). (2) See 22 CFR part 121, Category XIV(b), for modified biological agents and biologically derived substances that are subject to the export licensing jurisdiction of the U.S. Department of State, Directorate of Defense Trade Controls.

Related Definition: N/A Items:

a. Any genetically modified organism that contains, or any genetic element that codes for, any of the following:

a.1. Any gene, genes, translated product or translated products specific to any virus controlled by 1C351.a or .b or 1C354.c;

a.2. Any gene or genes specific to any bacterium controlled by 1C351.c or 1C354.a, or any fungus controlled by 1C351.e or 1C354.b, and which;

a.2.a. In itself or through its transcribed or translated products represents a significant hazard to human, animal or plant health; *or*

a.2.b. Could endow or enhance pathogenicity; *or*

- a.3. Any toxins, or their subunits, controlled by 1C351.d.
- b. [Reserved].
- **Technical Notes:**

1. Genetically modified organisms include organisms in which the nucleic acid sequences have been created or altered by deliberate molecular manipulation.

2. "Genetic elements" include, inter alia, chromosomes, genomes, plasmids, transposons, vectors, and inactivated organisms containing recoverable nucleic acid fragments, whether genetically modified or unmodified, or chemically synthesized in whole or in part. For the purposes of this ECCN 1C353, nucleic acids from an inactivated organism, virus, or sample are considered to be 'recoverable' if the inactivation and preparation of the material is intended or known to facilitate isolation, purification, amplification, detection, or identification of nucleic acids.

3. This ECCN does not control nucleic acid sequences of shiga toxin producing Escherichia coli of serogroups O26, O45, O103, O104, O111, O121, O145, O157, and other shiga toxin producing serogroups, other than those genetic elements coding for shiga toxin, or for its subunits.

4. 'Endow or enhance pathogenicity' is defined as when the insertion or integration of the nucleic acid sequence or sequences is/ are likely to enable or increase a recipient organism's ability to be used to deliberately cause disease or death. This might include alterations to, inter alia: virulence, transmissibility, stability, route of infection, host range, reproducibility, ability to evade or suppress host immunity, resistance to medical countermeasures, or detectability.

1C354 Plant pathogens, as follows (see List of Items Controlled).

*

License Requirements

*

Reason for Control: CB, AT

*

Control(s)	Country chart (see Supp. No. 1 to part 738)
CB applies to entire entry.	CB Column 1
AT applies to entire entry.	AT Column 1

License Requirements Notes:

1. All vaccines are excluded from the scope of this ECCN. See ECCN 1C991 for vaccines.

2. Unless specified elsewhere in this ECCN 1C354 (e.g., in License Requirement Note 1), this ECCN controls all biological agents, regardless of quantity or attenuation, that are identified in the List of Items Controlled for this ECCN, including small quantities or attenuated strains of select biological agents that are excluded from the list of PPQ select agents and "toxins" by the Animal and Plant Health Inspection Service (APHIS), U.S. Department of Agriculture, in accordance with their regulations in 7 CFR part 331.

List Based License Exceptions (See Part 740 for a Description of All License Exceptions) LVS: N/A

GBS: N/A

Special Conditions for STA

License Exception STA may not be used to ship any items in ECCN 1C354, to any of the destinations listed in Country Group A:5 or A:6 (See supplement no.1 to part 740 of the EAR).

List of Items Controlled

Related Controls: (1) The Animal and Plant Health Inspection Service (APHIS), U.S. Department of Agriculture, maintains controls on the possession, use, and transfer within the United States of certain items controlled by this ECCN (see 7 CFR 331.3(c), 9 CFR 121.3(c), and 9 CFR 121.4(c)). (2) See 22 CFR part 121, Category XIV(b), for modified biological agents and biologically derived substances that are subject to the export licensing jurisdiction of the U.S. Department of State, Directorate of Defense Trade Controls. *Related Definitions:* N/A *Items:*

a. Bacteria, as follows:

- a.1. Xanthomonas albilineans;
- a.2. Xanthomonas citri pv. citri

(Xanthomonas axonopodis pv. citri, Xanthomonas campestris pv. citri);

a.3. Xanthomonas oryzae [this species of proteobacteria is identified on the APHIS "select agents" list (see Related Controls paragraph for this ECCN), but only the pathovar Xanthomonas oryzae pv. oryzae (syn. Pseudomonas campestris pv. oryzae) is identified on the Australia Group (AG) "List of Plant Pathogens for Export Control"];

a.4. Clavibacter michiganensis subsp. sepedonicus (Clavibacter sepedonicus, Clavibacter michiganense subsp. sepedonicus, Corynebacterium michiganensis subsp. sepedonicum, Corynebacterium sepedonicum);

a.5. *Ralstonia solanacearum,* race 3, biovar 2;

a.6. *Raythayibactor toxicus* [this bacterium is identified on the APHIS "select agents" list (see the Related Controls paragraph for this ECCN), but is not identified on the Australia Group (AG) "List of Plant Pathogens for Export Control"].

b. Fungi, as follows:

- b.1. Bipolaris oryzae (Cochliobolus
- miyabeanus, Helminthosporium oryzae); b.2. Colletotrichum kahawae

(Colletotrichum coffeanum var. virulans); b.3. Pseudocercospora ulei (Microcyclus

- ulei, Dothidella ulei);
- b.4. Puccinnia graminis ssp. graminis var. graminis/Puccinia graminis ssp. graminis var. stakmanii (Puccinia graminis [syn.
- Puccinia graminis f. sp. tritici]); b.5. Puccinia striiformis (syn. Puccinia glumarum);

b.6. *Magnaporthe oryzae* (Pyricularia oryzae);

- b.7. Peronosclerospora philippinensis (Peronosclerospora sacchari);
- b.8. Sclerophthora rayssiae var. zeae;
- b.9. Synchytrium endobioticum;
- b.10. *Tilletia indica;*
- b.11. Thecaphora solani;

b.12. *Phoma glycinicola* (formerly *Pyrenochaeta glycines*) [this fungus is identified on the APHIS "select agents" list (see the Related Controls paragraph for this ECCN), but is not identified on the Australia Group (AG) "List of Plant Pathogens for Export Control"].

c. Viruses, as follows:

- c.1. Andean potato latent virus (Potato Andean latent tymovirus);
- c.2. Potato spindle tuber viroid.
- 1E001 "Technology" according to the General Technology Note for the "development" or "production" of items controlled by 1A002, 1A003, 1A004, 1A005, 1A006.b, 1A007, 1A008, 1A101,

1A231, 1B (except 1B608, 1B613 or 1B999), or 1C (except 1C355, 1C608, 1C980 to 1C984, 1C988, 1C990, 1C991, 1C995 to 1C999).

License Requirements

Reason for Control: NS, MT, NP, CB, RS, AT

Control(s)	Country chart (see supp. No. 1 to part 738)
NS applies to "tech- nology" for items controlled by 1A002, 1A003, 1A005, 1A006.b, 1A007, 1B001 to 1B003, 1B018, 1C001 to 1C011, or 1C018.	NS Column 1
NS applies to "tech- nology" for items controlled by 1A004.	NS Column 2
MT applies to "tech- nology" for items controlled by 1A101, 1B001, 1B101, 1B102, 1B115 to 1B119, 1C001, 1C007, 1C011, 1C101, 1C102, 1C107, 1C111, 1C116, 1C117, or 1C118 for MT reasons.	MT Column 1
NP applies to "tech- nology" for items controlled by 1A002, 1A007, 1A231, 1B001, 1B101, 1B201, 1B225, 1B226, 1B228 to 1B234, 1C002, 1C010, 1C111, 1C116, 1C202, 1C210, 1C216, 1C225 to 1C237, or 1C239 to 1C241 for NP reasons.	NP Column 1
CB applies to "tech- nology" for items controlled by 1C351, 1C353, or 1C354.	CB Column 1
CB applies to "tech- nology" for mate- rials controlled by 1C350 and for chemical detection systems and dedi- cated detectors therefor, in 1A004.c, that also have the technical characteristics de- scribed in 2B351.a.	CB Column 2
RS applies to tech- nology for equip- ment controlled in 1A004.d.	RS Column 2
AT applies to entire entry.	AT Column 1

Reporting Requirements

See § 743.1 of the EAR for reporting requirements for exports under License Exceptions, and Validated End-User authorizations.

List Based License Exceptions (See Part 740 for a Description of All License Exceptions)

- *TSR:* Yes, except for the following:
 - Items controlled for MT reasons; or
 Exports and reexports to destinations outside of those countries listed in Country Group A:5 (See Supplement No. 1 to part 740 of the EAR) of "technology" for the "development" or production" of the following:
 - (a) Items controlled by 1C001; or
 (b) Items controlled by 1A002.a which are composite structures or laminates having an organic "matrix" and being made from materials listed under 1C010.c or 1C010.d.

Special Conditions for STA

License Exception STA may not be used to ship or transmit ECCN 1E001 "technology" for the "development" or "production" of items specified in ECCNs 1A002; 1C001; 1C007.c or .d; 1C008.a.1; 1C009.b; 1C010.b, .c or .d; 1C351.a, .b, .c, .d.11, .d.12, .d.14, .d.15, or .e; 1C353; or 1C354, to any of the destinations listed in Country Group A:5 or A:6 (See supplement no.1 to part 740 of the EAR). License Exception STA may not be used to ship or transmit "technology" according to the General Technology Note for the "development" or "production" of equipment and materials specified by ECCN 1C012 to any of the destinations listed in Country Group A:6 (See Supplement No.1 to part 740 of the EAR).

List of Items Controlled

Related Controls (1) Also see ECCNs 1E101, 1E201, and 1E202. (2) See ECCN 1E608 for "technology" for items classified under ECCN 1B608 or 1C608 that, immediately prior to July 1, 2014, were classified under ECCN 1B018.a or 1C018.b through .m (note that ECCN 1E001 controls "development" and "production" "technology" for chlorine trifluoride controlled by ECCN 1C111.a.3.f-see ECCN 1E101 for controls on "use" "technology" for chlorine trifluoride). (3) See ECCN 1E002.g for control libraries (parametric technical databases) "specially designed" or modified to enable equipment to perform the functions of equipment controlled under ECCN 1A004.c (Nuclear, biological and chemical (NBC) detection systems) or ECCN 1A004.d (Equipment for detecting or identifying explosives residues). (4) "Technology" for lithium isotope separation (see related ECCN 1B233) and "technology" for items described in ECCN 1C012 are subject to the export licensing authority of the Department of Energy (see 10 CFR part 810). (5) "Technology" for items described in ECCN 1A102 is "subject to the ITAR" (see 22 CFR parts 120 through 130). Related Definitions: N/A

Items: The list of items controlled is contained in the ECCN heading.

* * * * *

1E351 "Technology" according to the General Technology Note for the disposal of chemicals or microbiological materials controlled by 1C350, 1C351, 1C353, or 1C354.

License Requirements

Reason for Control: CB, AT

Control(s)	Country chart (see Supp. No. 1 to part 738)
CB applies to "tech- nology" for items controlled by 1C351, 1C353, or 1C354.	CB Column 1
CB applies to "tech- nology" for the dis- posal of items con- trolled by 1C350.	CB Column 2
AT applies to entire entry.	AT Column 1

List Based License Exceptions (See Part 740 for a Description of All License Exceptions) *TSB*: N/A

License Exception STA may not be used to ship or transmit "technology," as specified in ECCN 1E351, to any of the destinations listed in Country Group A:5 or A:6 (See supplement no.1 to part 740 of the EAR).

List of Items Controlled

Related Controls: N/A Related Definitions: N/A Items: The list of items controlled is

contained in the ECCN heading.

* * * * * * * 2E003 Other "technology", as follows (see

List of Items Controlled).

License Requirements

Reason for Control: NS, AT

Control(s)	Country chart (see supp. No. 1 to part 738)
NS applies to entire entry.	NS Column 1
AT applies to entire entry.	AT Column 1

List Based License Exceptions (See Part 740 for a Description of All License Exceptions)

TSR: Yes, except 2E003.b, .e and .f

Special Conditions for STA

License Exception STA may not be used to ship or transmit any "technology" according to the General Technology Note for 2E003.f when used for the application of inorganic overlay coatings on gas turbine engine combustors, or turbine blades, vanes or "tip shrouds," to any of the destinations listed in Country Group A:5 or A:6 (See supplement no.1 to part 740 of the EAR).

List of Items Controlled

Related Controls: See 2E001, 2E002, and 2E101 for "development" and "use" technology for equipment that are designed or modified for densification of carboncarbon composites, structural composite

Country chart

rocket nozzles and reentry vehicle nose tips

Related Definitions: N/A

Items:

a. [Reserved]

b. "Technology" for metal-working manufacturing processes, as follows:

b.1. "Technology" for the design of tools, dies or fixtures "specially designed" for any of the following processes:

- b.1.a. "Superplastic forming";
- b.1.b. "Diffusion bonding"; or

b.1.c. 'Direct-acting hydraulic pressing'; b.2. [Reserved]

N.B.: For "technology" for metal-working manufacturing processes for gas turbine engines and components, see 9E003 and USML Category XIX

Technical Note: For the purposes of 2E003.b.1.c, 'direct-acting hydraulic pressing' is a deformation process which uses a fluidfilled flexible bladder in direct contact with the workpiece.

c. "Technology" for the "development" or "production" of hydraulic stretch-forming machines and dies therefor, for the manufacture of airframe structures;

d. [Reserved]

e. "Technology" for the "development" of integration "software" for incorporation of expert systems for advanced decision support of shop floor operations into "numerical control" units;

f. "Technology" for the application of inorganic overlay coatings or inorganic surface modification coatings (specified in column 3 of the following table) to nonelectronic substrates (specified in column 2 of the following table), by processes specified in column 1 of the following table and defined in the Technical Note.

N.B. This table should be read to control the technology of a particular 'Coating Process' only when the resultant coating in column 3 is in a paragraph directly across from the relevant 'Substrate' under column 2. For example, Chemical Vapor Deposition (CVD) 'coating process' control the "technology" for a particular application of 'silicides' to 'Carbon-carbon, Ceramic and Metal "matrix" "composites" substrates, but are not controlled for the application of 'silicides' to 'Cemented tungsten carbide (16), Silicon carbide (18)' substrates. In the second case, the resultant coating is not listed in the paragraph under column 3 directly across from the paragraph under column 2 listing 'Cemented tungsten carbide (16), Silicon carbide (18)'.

*

3E001 "Technology" according to the General Technology Note for the "development" or "production" of commodities controlled by 3A (except 3A980, 3A981, 3A991, 3A992, or 3A999), 3B (except 3B991 or 3B992) or 3C (except 3C992).

License Requirements

Reason for Control: NS, MT, NP, RS, AT

Control(s)	(see Supp. No. 1 to part 738)
NS applies to "tech- nology" for com- modities controlled by 3A001, 3A002, 3A003, 3B001, 3B002, or 3C001 to 3C006.	NS Column 1
MT applies to "tech- nology" for com- modities controlled by 3A001 or 3A101 for MT reasons.	MT Column 1
NP applies to "tech- nology" for com- modities controlled by 3A001, 3A201, or 3A225 to 3A234 for NP reasons.	NP Column 1
RS applies to "tech- nology" for com- modities controlled by 3A090 or 3B090 or "software" spec- ified by 3D001 (for 3A090 or 3B090 commodities)	China and Macau (See §742.6(a)(6))
commodities). RS applies to "tech- nology" for com- modities controlled in 3A090, when ex- ported from China or Macau.	Worldwide (See § 742.6(a)(6))
AT applies to entire entry.	AT Column 1

License Requirements Note: See § 744.17 of the EAR for additional license requirements for microprocessors having a processing speed of 5 GFLOPS or more and an arithmetic logic unit with an access width of 32 bit or more, including those incorporating "information security" functionality, and associated "software" and "technology" for the "production" or "development" of such microprocessors.

Reporting Requirements

See §743.1 of the EAR for reporting requirements for exports under License Exceptions, Special Comprehensive Licenses, and Validated End-User authorizations.

List Based License Exceptions (See Part 740 for a Description of All License Exceptions)

TSR: Yes, except N/A for MT, and "technology" for the "development" or "production" of: (a) vacuum electronic device amplifiers described in 3A001.b.8, having operating frequencies exceeding 19 GHz; (b) solar cells, coverglassinterconnect-cells or covered-interconnectcells (CIC) "assemblies", solar arrays and/ or solar panels described in 3A001.e.4; (c) "Monolithic Microwave Integrated Circuit" ("MMIC") amplifiers in 3A001.b.2; and (d) discrete microwave transistors in 3A001.b.3.

Special Conditions for STA

STA: License Exception STA may not be used to ship or transmit "technology," as specified in ECCN 3E001 for the

"production" or "development" of commodities controlled by 3A001.b.2 or b.3, to any of the destinations listed in Country Group A:5 or A:6 (See supplement no.1 to part 740 of the EAR). License Exception STA may not be used to ship or transmit "technology" according to the General Technology Note for the "development" or "production" of equipment specified by ECCNs 3A002.g.1 or 3B001.a.2 to any of the destinations listed in Country Group A:6 (See Supplement No. 1 to part 740 of the EAR).

List of Items Controlled

Related Controls: (1) "Technology" according to the General Technology Note for the "development" or "production" of certain "space-qualified" atomic frequency standards described in Category XV(e)(9), MMICs described in Category XV(e)(14), and oscillators described in Category XV(e)(15) of the USML are "subject to the ITAR" (see 22 CFR parts 120 through 130). See also 3E101, 3E201 and 9E515. (2) "Technology" for "development" or "production" of "Microwave Monolithic Integrated Circuits" ("MMIC") amplifiers in 3A001.b.2 is controlled in this ECCN 3E001; 5E001.d refers only to that additional "technology" "required" for telecommunications. Related Definition: N/A

Items: The list of items controlled is contained in the ECCN heading.

Note 1: 3E001 does not control "technology" for equipment or "components" controlled by 3A003.

- Note 2: 3E001 does not control
- "technology" for integrated circuits controlled by 3A001.a.3 to a.14, having all of the following:

(a) Using "technology" at or above 0.130 μ; and

(b) Incorporating multi-layer structures with three or fewer metal layers.

Note 3: 3E001 does not apply to 'Process Design Kits' ('PDKs') unless they include libraries implementing functions or technologies for items specified by 3A001.

Technical Note: A 'Process Design Kit ('PDK') is a software tool provided by a semiconductor manufacturer to ensure that the required design practices and rules are taken into account in order to successfully produce a specific integrated circuit design in a specific semiconductor process, in accordance with technological and manufacturing constraints (each semiconductor manufacturing process has its particular 'PDK').

6A002 Optical Sensors and Equipment, and "Components" Therefor, as Follows (see List of Items Controlled).

License Requirements

*

entry.

Reason for Control: NS, MT, CC, RS, AT, UN

	Control(s)	Country chart (see Supp. No. 1 to part 738)
as	NS applies to entire	NS Column 2

Control(s)	Country chart (see Supp. No. 1 to part 738)
MT applies to optical	MT Column 1

detectors in	
6A002.a.1, or a.3	
that are "specially	
designed" or modi-	
fied to protect	
"missiles" against	
nuclear effects	
(<i>e.g.,</i> Electro-	
magnetic Pulse	
(EMP), X-rays,	
combined blast and	
thermal effects),	
and usable for	
"missiles".	
RS applies to	RS Column 1
6A002.a.1, a.2, a.3	
(except a.3.d.2.a	
and a.3.e for lead	
selenide based	
focal plane arrays	
(FPAs)), .c, and .f.	
CC applies to police-	CC Column 1
model infrared	
viewers in 6A002.c.	
AT applies to entire	AT Column 1
entry.	
UN applies to	See § 746.1(b) for
6A002.a.1, a.2, a.3	controls
and .c.	

Reporting Requirements

See § 743.1 of the EAR for reporting requirements for exports under License Exceptions, and Validated End-User authorizations.

List Based License Exceptions (See Part 740 for a Description of All License Exceptions)

LVS: \$500 for 6A002.f. \$3,000; except N/A for MT and for 6A002.a.1, a.2, a.3, .c, and .f.

GBS: N/A

Special Conditions for STA

License Exception STA may not be used to ship any items in ECCN 6A002, to any of the destinations listed in Country Group A:5 or A:6 (See supplement no.1 to part 740 of the EAR).

List of Items Controlled

Related Controls: (1) See USML Category XII(e) for infrared focal plane arrays, image intensifier tubes, and related parts and components, subject to the ITAR. (2) See USML Category XV(e) for space-qualified focal plane arrays subject to the ITAR. (3) See also ECCNs 6A102, 6A202, and 6A992. (4) See ECCN 0A919 for foreign-made military commodities that incorporate commodities described in 6A002. (5) Section 744.9 imposes a license requirement on commodities described in ECCN 6A002 if being exported, reexported, or transferred (in-country) for use by a military end-user or for incorporation into an item controlled by ECCN 0A919. (6) See USML Categories XII(e) and XV(e)(3) for read-out integrated circuits "subject to the ITAR." (7) See 6B002 for masks and reticles, "specially designed" for optical

sensors specified by 6A002.a.1.b or 6A002.a.1.d. Related Definitions: N/A Items:

a. Optical detectors as follows:

a.1. "Space-qualified" solid-state detectors as follows:

Note: For the purpose of 6A002.a.1, solidstate detectors include "focal plane arrays".

a.1.a. "Space-qualified" solid-state detectors having all of the following:

a.1.a.1. A peak response in the wavelength range exceeding 10 nm but not exceeding 300 nm; and

a.1.a.2. A response of less than 0.1% relative to the peak response at a wavelength exceeding 400 nm;

a.1.b. ''Space-qualified'' solid-state detectors having all of the following:

a.1.b.1. A peak response in the wavelength range exceeding 900 nm but not exceeding 1,200 nm; *and*

a.1.b.2. A response "time constant" of 95 ns or less;

a.1.c. "Space-qualified" solid-state detectors having a peak response in the wavelength range exceeding 1,200 nm but not exceeding 30,000 nm;

a.1.d. "Space-qualified" "focal plane arrays" having more than 2,048 elements per array and having a peak response in the wavelength range exceeding 300 nm but not exceeding 900 nm;

a.2. Image intensifier tubes and "specially designed" "components" therefor, as follows:

Note: 6A002.a.2 does not control nonimaging photomultiplier tubes having an electron sensing device in the vacuum space limited solely to any of the following:

a. A single metal anode; or

UN

b. Metal anodes with a center to center spacing greater than 500 μ m.

Technical Note: 'Charge multiplication' is a form of electronic image amplification and is defined as the generation of charge carriers as a result of an impact ionization gain process. 'Charge multiplication' sensors may take the form of an image intensifier tube, solid state detector or "focal plane array".

a.2.a. Image intensifier tubes having all of the following:

a.2.a.1. A peak response in the wavelength range exceeding 400 nm but not exceeding 1,050 nm;

a.2.a.2. Electron image amplification using any of the following:

a.2.a.2.a. A microchannel plate with a hole pitch (center-to-center spacing) of 12 μm or less; *or*

a.2.a.2.b. An electron sensing device with a non-binned pixel pitch of $500 \ \mu m$ or less,

"specially designed" or modified to achieve 'charge multiplication' other than by a

microchannel plate; and

a.2.a.3. Any of the following

photocathodes:

a.2.a.3.a. Multialkali photocathodes (*e.g.,* S–20 and S–25) having a luminous

sensitivity exceeding 350 µA/lm;

a.2.a.3.b. GaAs or GaInAs photocathodes; or

a.2.a.3.c. Other "III–V compound" semiconductor photocathodes having a maximum "radiant sensitivity" exceeding 10 mA/W;

a.2.b. Image intensifier tubes having all of the following:

a.2.b.1. A peak response in the wavelength range exceeding 1,050 nm but not exceeding 1,800 nm;

a.2.b.2. Electron image amplification using any of the following:

a.2.b.2.a. A microchannel plate with a hole pitch (center-to-center spacing) of 12 µm or less; *or*

a.2.b.2.b. An electron sensing device with a non-binned pixel pitch of 500 µm or less, "specially designed" or modified to achieve 'charge multiplication' other than by a microchannel plate; *and* a.2.b.3. "III/V compound" semiconductor

a.2.b.3. "III/V compound" semiconductor (*e.g.*, GaAs or GaInAs) photocathodes and transferred electron photocathodes, having a maximum "radiant sensitivity" exceeding 15 mA/W;

a.2.c. "Specially designed" "components" as follows:

a.2.c.1. Microchannel plates having a hole pitch (center-to-center spacing) of 12 μm or less;

a.2.c.2. An electron sensing device with a non-binned pixel pitch of $500 \ \mu m$ or less, "specially designed" or modified to achieve 'charge multiplication' other than by a microchannel plate;

a.2.c.3. "III–V compound" semiconductor (*e.g.*, GaAs or GaInAs) photocathodes and transferred electron photocathodes;

Note: 6A002.a.2.c.3 does not control compound semiconductor photocathodes designed to achieve a maximum "radiant sensitivity" of any of the following:

a. 10 ${\rm m}{\rm A}/{\rm W}$ or less at the peak response in the wavelength range exceeding 400 nm but not exceeding 1,050 nm; or

b. 15 mA/W or less at the peak response in the wavelength range exceeding 1,050 nm but not exceeding 1,800 nm.

a.3. Non-"space-qualified" "focal plane arrays" as follows:

N.B.: 'Microbolometer' non-"spacequalified'' "focal plane arrays" are only specified by 6A002.a.3.f.

Technical Note: Linear or two-dimensional multi-element detector arrays are referred to

as ''focal plane arrays'';

Note 1: 6A002.a.3 includes photoconductive arrays and photovoltaic arrays.

Note 2: 6A002.a.3 does not control: a. Multi-element (not to exceed 16 elements) encapsulated photoconductive cells using either lead sulphide or lead

selenide; b. Pyroelectric detectors using any of the

following:

b.1. Triglycine sulphate and variants;

b.2. Lead-lanthanum-zirconium titanate and variants;

b.3. Lithium tantalate:

b.4. Polyvinylidene fluoride and variants; or

b.5. Strontium barium niobate and variants.

c. "Focal plane arrays" "specially designed" or modified to achieve 'charge multiplication' and limited by design to have a maximum "radiant sensitivity" of 10 mA/ W or less for wavelengths exceeding 760 nm, having all of the following:

c.1. Incorporating a response limiting mechanism designed not to be removed or modified; and

c.2. Any of the following:

c.2.a. The response limiting mechanism is integral to or combined with the detector element; or

c.2.b. The "focal plane array" is only operable with the response limiting mechanism in place.

d. Thermopile arrays having less than 5,130 elements;

Technical Note: A response limiting mechanism integral to the detector element is designed not to be removed or modified without rendering the detector inoperable.

without rendering the detector inoperable. a.3.a. Non-"space-qualified" "focal plane arrays" having all of the following:

a.3.a.1. Individual elements with a peak response within the wavelength range exceeding 900 nm but not exceeding 1,050 nm; *and*

a.3.a.2. Any of the following:

a.3.a.2.a. A response "time constant" of less than 0.5 ns; or

a.3.a.2.b. "Specially designed" or modified to achieve 'charge multiplication' and having a maximum "radiant sensitivity" exceeding 10 mA/W;

a.3.b. Non-"space-qualified" "focal plane arrays" having all of the following:

a.3.b.1. Individual elements with a peak response in the wavelength range exceeding 1,050 nm but not exceeding 1,200 nm; *and*

a.3.b.2. Any of the following:

a.3.b.2.a. A response "time constant" of 95 ns or less; *or*

a.3.b.2.b. "Specially designed" or modified to achieve 'charge multiplication' and having a maximum "radiant sensitivity" exceeding 10 mA/W;

a.3.c. Non-"space-qualified" non-linear (2dimensional) "focal plane arrays" having individual elements with a peak response in the wavelength range exceeding 1,200 nm but not exceeding 30,000 nm;

N.B.: Silicon and other material based 'microbolometer' non-"space-qualified" "focal plane arrays" are only specified by 6A002.a.3.f.

a.3.d. Non-"space-qualified" linear (1dimensional) "focal plane arrays" having all of the following:

a.3.d.1. Individual elements with a peak response in the wavelength range exceeding 1,200 nm but not exceeding 3,000 nm; *and*

a.3.d.2. Any of the following:

a.3.d.2.a. A ratio of 'scan direction' dimension of the detector element to the 'cross-scan direction' dimension of the detector element of less than 3.8; or

a.3.d.2.b. Signal processing in the detector elements;

Note: 6A002.a.3.d does not control "focal plane arrays" (not to exceed 32 elements) having detector elements limited solely to germanium material.

Technical Note: For the purposes of 6A002.a.3.d, 'cross-scan direction' is defined as the axis parallel to the linear array of detector elements and the 'scan direction' is defined as the axis perpendicular to the linear array of detector elements.

a.3.e. Non-"space-qualified" linear (1dimensional) "focal plane arrays" having individual elements with a peak response in the wavelength range exceeding 3,000 nm but not exceeding 30,000 nm;

a.3.f. Non-''space-qualified'' non-linear (2dimensional) infrared ''focal plane arrays'' based on 'microbolometer' material having individual elements with an unfiltered response in the wavelength range equal to or exceeding 8,000 nm but not exceeding 14,000 nm:

Technical Note: For the purposes of 6A002.a.3.f, 'microbolometer' is defined as a thermal imaging detector that, as a result of a temperature change in the detector caused by the absorption of infrared radiation, is used to generate any usable signal.

a.3.g. Non-"space-qualified" "focal plane arrays" having all of the following:

a.3.g.1. Individual detector elements with a peak response in the wavelength range exceeding 400 nm but not exceeding 900 nm;

a.3.g.2. "Specially designed" or modified to achieve 'charge multiplication' and having a maximum "radiant sensitivity" exceeding 10 mA/W for wavelengths exceeding 760 nm; and

a.3.g.3. Greater than 32 elements;

b. "Monospectral imaging sensors" and "multispectral imaging sensors", designed for remote sensing applications and having any of the following:

b.1. An Instantaneous-Field-Of-View (IFOV) of less than 200 μrad (microradians); or

b.2. Specified for operation in the wavelength range exceeding 400 nm but not exceeding 30,000 nm and having all the following:

b.2.a. Providing output imaging data in digital format; *and*

b.2.b. Having any of the following characteristics:

b.2.b.1. "Space-qualified"; or

b.2.b.2. Designed for airborne operation, using other than silicon detectors, and having an IFOV of less than 2.5 mrad (milliradians);

Note: 6A002.b.1 does not control "monospectral imaging sensors" with a peak response in the wavelength range exceeding 300 nm but not exceeding 900 nm and only incorporating any of the following non-"space-qualified" detectors or non-"spacequalified" "focal plane arrays":

a. Charge Coupled Devices (CCD) not designed or modified to achieve 'charge multiplication'; or

b. Complementary Metal Oxide Semiconductor (CMOS) devices not designed or modified to achieve 'charge multiplication'.

c. 'Direct view' imaging equipment incorporating any of the following:

c.1. Image intensifier tubes having the characteristics listed in 6A002.a.2.a or 6A002.a.2.b;

c.2. "Focal plane arrays" having the characteristics listed in 6A002.a.3; *or* c.3. Solid state detectors specified by

6A002.a.1;

Technical Note: 'Direct view' refers to imaging equipment that presents a visual image to a human observer without converting the image into an electronic signal for television display, and that cannot record or store the image photographically, electronically or by any other means.

Note: 6A002.c does not control equipment as follows, when incorporating other than GaAs or GaInAs photocathodes:

a. Industrial or civilian intrusion alarm, traffic or industrial movement control or counting systems; b. Medical equipment;

c. Industrial equipment used for inspection, sorting or analysis of the properties of materials;

d. Flame detectors for industrial furnaces; e. Equipment "specially designed" for laboratory use.

d. Special support "components" for optical sensors, as follows:

d.1. "Space-qualified" cryocoolers;

d.2. Non-"space-qualified" cryocoolers having a cooling source temperature below 218 K (-55 °C), as follows:

d.2.a. Closed cycle type with a specified Mean-Time-To-Failure (MTTF) or Mean-Time-Between-Failures (MTBF), exceeding 2,500 hours;

d.2.b. Joule-Thomson (JT) self-regulating minicoolers having bore (outside) diameters of less than 8 mm;

d.3. Optical sensing fibers specially fabricated either compositionally or structurally, or modified by coating, to be acoustically, thermally, inertially, electromagnetically or nuclear radiation sensitive.

Note: 6A002.d.3 does not apply to encapsulated optical sensing fibers "specially designed" for bore hole sensing applications.

e. [Reserved]

f. 'Read-Out Integrated Circuits' ('ROIC') "specially designed" for "focal plane arrays" specified by 6A002.a.3.

Note: 6A002.f does not apply to read-out integrated circuits "specially designed" for civil automotive applications.

Technical Note: A 'Read-Out Integrated Circuit' ('ROIC') is an integrated circuit designed to underlie or be bonded to a "focal plane array" ("FPA") and used to read-out (i.e., extract and register) signals produced by the detector elements. At a minimum the 'ROIC' reads the charge from the detector elements by extracting the charge and applying a multiplexing function in a manner that retains the relative spatial position and orientation information of the detector elements for processing inside or outside the 'ROIC'.

6D002 "Software" "specially designed" for the "use" of equipment controlled by 6A002.b, 6A008, or 6B008.

License Requirements

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Reason for Control: NS, MT, RS, AT

Control(s)	Country chart (see Supp. No. 1 to part 738)
NS applies to entire entry.	NS Column 1.
MT applies to "soft- ware" for equip- ment controlled by 6A008 or 6B008 for MT reasons.	MT Column 1.
RS applies to "soft- ware" for equip- ment controlled by 6A008.j.1.	RS Column 1.
AT applies to entire entry.	AT Column 1.

List Based License Exceptions (See Part 740 for a Description of All License Exceptions)

TSR: Yes, except N/A for the following: (1) Items controlled for MT reasons; (2) "Software" "specially designed" for the "use" of "space qualified" "laser" radar or Light Detection and Ranging (LIDAR) equipment defined in 6A008.j.1; or (3) "Software" "specially designed" for the "use" of commodities controlled by 6A002.b.

Special Conditions for STA

License Exception STA may not be used to ship or transmit any software under 6D002, to any of the destinations listed in Country Group A:5 or A:6 (See supplement no.1 to part 740 of the EAR).

List of Items Controlled

Related Controls: (1) "Software" "specially designed" for the "use" of "spacequalified" LIDAR "equipment" "specially designed" for surveying or for meteorological observation, released from control under the note in 6A008.j, is controlled in 6D991. (2) See also ECCNs 6D102, 6D991, and 6D992. Related Definitions: N/A

Items: The list of items controlled is contained in the ECCN heading.

6D003 Other "software" as follows (see List of Items Controlled).

License Requirements

Reason for Control: NS, RS, AT

Control(s)	Country chart (see Supp. No. 1 to part 738)
NS applies to entire entry.	NS Column 1.
RS applies to para- graph c.	RS Column 1.
AT applies to entire entry.	AT Column 1.

Reporting Requirements

See § 743.1 of the EAR for reporting requirements for exports under License Exceptions, and Validated End-User authorizations.

List Based License Exceptions (See Part 740 for a Description of All License Exceptions)

TSR: Yes, except for 6D003.c and exports or reexports to destinations outside of those countries listed in Country Group A:5 (See Supplement No. 1 to part 740 of the EAR) of "software" for items controlled by 6D003.a.

Special Conditions for STA

STA: License Exception STA may not be used to ship or transmit any software in ECCN 6D003.c, to any of the destinations listed in Country Group A:5 or A:6 (See supplement no.1 to part 740 of the EAR). License Exception STA may not be used to ship or transmit software in 6D003.a to any of the destinations listed in Country Group A:6 (See Supplement No. 1 to part 740 of the EAR).

List of Items Controlled

Related Controls: See also ECCNs 6D103, 6D991, and 6D993.

Related Definitions: N/A Items:

Acoustics

a. "Software" as follows:

a.1. "Software" "specially designed" for acoustic beam forming for the "real-time processing" of acoustic data for passive reception using towed hydrophone arrays;

a.2. "Source code" for the "real-time processing" of acoustic data for passive reception using towed hydrophone arrays;

a.3. "Software" "specially designed" for acoustic beam forming for the "real-time processing" of acoustic data for passive reception using bottom or bay cable systems;

a.4. "Source code" for the "real-time processing" of acoustic data for passive reception using bottom or bay cable systems;

a.5. "Software" or "source code", "specially designed" for all of the following: a.5.a. "Real-time processing" of acoustic data from sonar systems controlled by

6A001.a.1.e; *and* a.5.b. Automatically detecting, classifying

and determining the location of divers or swimmers;

N.B.: For diver detection "software" or "source code", "specially designed" or modified for military use, see the U.S. Munitions List of the International Traffic in Arms Regulations (ITAR) (22 CFR part 121).

b. Optical sensors. None.

Cameras

c. "Software" designed or modified for cameras incorporating "focal plane arrays" specified by 6A002.a.3.f and designed or modified to remove a frame rate restriction and allow the camera to exceed the frame rate specified in 6A003.b.4 Note 3.a;

Optics d. "Software" specially designed to maintain the alignment and phasing of segmented mirror systems consisting of mirror segments having a diameter or major axis length equal to or larger than 1 m; e. Lasers. None.

Magnetic and Electric Field Sensors f. "Software" as follows:

f.1. "Software" "specially designed" for magnetic and electric field "compensation systems" for magnetic sensors designed to

operate on mobile platforms; f.2. "Software" "specially designed" for magnetic and electric field anomaly detection

on mobile platforms; f.3. "Software" "specially designed" for "real-time processing" of electromagnetic data using underwater electromagnetic receivers specified by 6A006.e;

f.4. "Source code" for "real-time processing" of electromagnetic data using underwater electromagnetic receivers specified by 6A006.e;

Gravimeters

g. "Software" "specially designed" to correct motional influences of gravity meters or gravity gradiometers; Radar

h. "Software" as follows:

h.1. Air Traffic Control (ATC) "software" designed to be hosted on general purpose computers located at Air Traffic Control centers and capable of accepting radar target data from more than four primary radars;

h.2. "Software" for the design or "production" of radomes having all of the following:

h.2.a. "Specially designed" to protect the "electronically scanned array antennae" specified by 6A008.e; *and*

h.2.b. Resulting in an antenna pattern having an 'average side lobe level' more than

40 dB below the peak of the main beam level. **Technical Note:** 'Average side lobe level' in 6D003.h.2.b is measured over the entire array excluding the angular extent of the main beam and the first two side lobes on either side of the main beam.

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6D991 "Software," n.e.s., "specially designed" for the "development", "production", or "use" of commodities controlled by 6A002, 6A003, 6A991, 6A996, 6A997, or 6A998.

License Requirements

Reason for Control: RS, AT

Control(s)	Country chart (see Supp. No. 1 to part 738)
RS applies to "soft- ware" for commod- ities controlled by 6A002, 6A003, or 6A998 b.	RS Column 1.
RS applies to "soft- ware" for commod- ities controlled by 6A998.c.	RS Column 2.
AT applies to entire entry, except "soft- ware" for commod- ities controlled by 6A991	AT Column 1.
AT applies to "soft- ware" for commod- ities controlled by 6A991.	AT Column 2.

List Based License Exceptions (See Part 740 for a Description of All License Exceptions) *TSB*: N/A

Special Conditions for STA

License Exception STA may not be used to ship or transmit any "software" in ECCN 6D991 "specially designed" for the "development," "production," or "use" of commodities controlled under 6A002 or 6A003, to any of the destinations listed in Country Group A:5 or A:6 (See supplement no.1 to part 740 of the EAR).

List of Items Controlled

Related Controls: (1) See ECCN 6D002 for "software" "specially designed" for the "use" of commodities controlled under ECCN 6A002.b. (2) See ECCN 6D003.c for "software" "specially designed" for cameras incorporating "focal plane arrays" specified by 6A002.a.3.f and "specially designed" to remove a frame rate restriction and allow the camera to exceed the frame rate specified in 6A003.b.4 Note 3.a.

Related Definitions: N/A

Items: The list of items controlled is contained in the ECCN heading. *

6E001 "Technology" According to the General Technology Note for the "Development" of Equipment, Materials or "Software" Controlled by 6A (Except 6A991, 6A992, 6A994, 6A995, 6A996, 6A997, 6A998, or 6A999.c), 6B (Except 6B995), 6C (Except 6C992 or 6C994), or 6D (Except 6D991, 6D992, or 6D993).

License Requirements

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Reason for Control: NS, MT, NP, RS, CC, AT, UN

Control(s)	Country chart (see Supp. No. 1 to part 738)
NS applies to "tech- nology" for items controlled by 6A001 to 6A008, 6B002 to 6B008, 6C002 to 6C005, or 6D001 to 6D003.	NS Column 1.
MT applies to "tech- nology" for items controlled by 6A002, 6A007, 6A008, 6A102, 6A107, 6A108, 6B008, 6B108, 6D001, 6D002, 6D102 or 6D103 for MT reasons.	MT Column 1.
NP applies to "tech- nology" for items controlled by 6A003, 6A005, 6A202, 6A203, 6A205, 6A225, 6A226, 6D001, or 6D201 for NP rea- sons.	NP Column 1.
RS applies to "tech- nology" for items controlled by 6A002.a.1, .a.2, .a.3, .c, or .f, 6A003.b.3 or .b.4, or 6A008.j.1.	RS Column 1.
CC applies to "tech- nology" for equip- ment controlled by 6A002 for CC rea- sons.	CC Column 1.
AT applies to entire entry.	AT Column 1.
UN applies to "tech- nology" for equip- ment controlled by 6A002 or 6A003 for UN reasons.	See §746.1(b) for UN controls

Reporting Requirements

See §743.1 of the EAR for reporting requirements for exports under License Exceptions, and Validated End-User authorizations.

List Based License Exceptions (See Part 740 for a Description of All License Exceptions)

TSR: Yes, except for the following: (1) Items controlled for MT reasons; (2)

"Technology" for commodities controlled bv 6A002, 6A004.e or 6A008.j.1; (3) "Technology" for 6A003 cameras, unless for "technology" for the integration of 6A003 cameras into camera systems "specially designed" for civil automotive applications; (4) "Technology" for "software" "specially designed" for "space qualified" "laser" radar or Light Detection and Ranging (LIDAR) equipment defined in 6A008.j.1 and controlled by 6D001 or 6D002; or (5) Exports or reexports to destinations outside of those countries listed in Country Group A:5 (See Supplement No. 1 to part 740 of the EAR) of "technology" for the "development" of the following: (a) Items controlled by 6A001.a.1.b, 6A001.a.1.e, 6A001.a.2.a.1, 6A001.a.2.a.2, 6A001.a.2.a.3, 6A001.a.2.a.5, 6A001.a.2.a.6, 6A001.a.2.b, 6A001.a.2.d, 6A001.a.2.e., 6A004.c, 6A004.d, 6A006.a.2, 6A006.c.1, 6A006.d, 6A006.e, 6A008.d, 6A008.h, 6A008.k, 6B008, or 6D003.a; (b) Equipment controlled by 6A001.a.2.c or 6A001.a.2.f when "specially designed" for real time applications; or (c) "Software" controlled by 6D001 and "specially designed" for the "development" or "production" of equipment controlled by 6B008, or 6D003.a.

Special Conditions for STA

STA: License Exception STA may not be used to ship or transmit any "technology" in ECCN 6E001 for the "development" of commodities controlled under ECCNs 6A002 or 6A003, to any of the destinations listed in Country Group A:5 or A:6 (See supplement no.1 to part 740 of the EAR). License Exception STA may not be used to ship or transmit any technology in this entry to any of the destinations listed in Country Group A:6 (See Supplement No.1 to part 740 of the EAR).

List of Items Controlled

Related Controls: (1) Technical data directly related to satellites and all other items described in USML Category XV are subject to the ITAR under USML Category XV(f). (2) Technical data directly related to laser systems, infrared imaging systems, and all other items described in USML Category XII are subject to the ITAR under USML Category XII(f). (3) Technical data directly related to read-out integrated circuits described in USML Categories XII(e) or XV(e)(3) is subject to the ITAR under USML Categories XII(f) or XV(f), respectively. (4) See also 6E101, 6E201, and 6E991.

Related Definitions: N/A Items: The list of items controlled is contained in the ECCN heading.

6E002 "Technology" According to the General Technology Note for the "Production" of Equipment or Materials Controlled by 6A (Except 6A991, 6A992, 6A994, 6A995, 6A996, 6A997, 6A998 or 6A999.c), 6B (Except 6B995) or 6C (except 6C992 or 6C994).

License Requirements

Reason for Control: NS, MT, NP, RS, CC, AT, UN

Control(s)	Country chart (see Supp. No. 1 to part 738)
NS applies to "tech- nology" for equip- ment controlled by 6A001 to 6A008, 6B002 to 6B008, or 6C002 to 6C005.	NS Column 1
MT applies to "tech- nology" for equip- ment controlled by 6A002, 6A007, 6A008, 6A102, 6A107, 6A108, 6B008, or 6B108 for MT reasons.	MT Column 1
NP applies to "tech- nology" for items controlled by 6A003, 6A005, 6A202, 6A203, 6A205, 6A225 or 6A226 for NP rea- sons.	NP Column 1
RS applies to "tech- nology" for items controlled by 6A002.a.1, .a.2, .a.3, .c, or .f, 6A003.b.3 or .b.4, or 6A008.j.1.	RS Column 1
CC applies to "tech- nology" for equip- ment controlled by 6A002 for CC rea- sons.	CC Column 1
AT applies to entire entry.	AT Column 1
UN applies to "tech- nology" for equip- ment controlled by	See § 746.1(b) for UN controls
6A002 or 6A003 for	

Reporting Requirements

UN reasons.

See §743.1 of the EAR for reporting requirements for exports under License Exceptions, and Validated End-User authorizations.

List Based License Exceptions (See Part 740 for a Description of All License Exceptions)

- TSR: Yes, except for the following:
- (1) Items controlled for MT reasons;

(2) "Technology" for commodities

controlled by 6A002, 6A004.e, or 6A008.j.1; (3) "Technology" for 6A003 cameras,

unless for "technology" for the integration of 6A003 cameras into camera systems "specially designed" for civil automotive applications; or

(4) Exports or reexports to destinations outside of those countries listed in Country Group A:5 (See Supplement No. 1 to part 740 of the EAR) of "technology" for the "production" of the following: (a) Items controlled by 6A001.a.1.b, 6A001.a.1.e, 6A001.a.2.a.1, 6A001.a.2.a.2, 6A001.a.2.a.3, 6A001.a.2.a.5, 6A001.a.2.a.6, 6A001.a.2.b, 6A004.c, 6A004.d, 6A006.a.2, 6A006.c.1, 6A006.d, 6A006.e, 6A008.d, 6A008.h, 6A008.k, or 6B008; and (b) Items controlled by 6A001.a.2.c or 6A001.a.2.f when

"specially designed" for real time applications.

Special Conditions for STA

STA: License Exception STA may not be used to ship or transmit any "technology" in ECCN 6Ê002 for the ''production'' of commodities controlled under ECCNs 6A002 or 6A003, to any of the destinations listed in Country Group A:5 or A:6 (See supplement no.1 to part 740 of the EAR). License Exception STA may not be used to ship or transmit "technology" according to the General Technology Note for the "production" of equipment specified in the STA exclusion paragraphs found in the License Exception sections of by ECCNs 6A001, 6A002, 6A003, 6A004, 6A006, 6A008, or 6B008 to any of the destinations listed in Country Group A:6 (See Supplement No.1 to part 740 of the EAR).

List of Items Controlled

Related Controls: (1) Technical data directly related to satellites and all other items described in USML Category XV are subject to the ITAR under USML Category XV(f). (2) Technical data directly related to laser systems, infrared imaging systems, and all other items described in USML Category XII are subject to the ITAR under USML Category XII(f). (3) Technical data directly related to read-out integrated circuits described in USML Categories XII(e) or XV(e)(3) is subject to the ITAR under USML Categories XII(f) or XV(f), respectively. (4) See also 6E992. Related Definitions: N/A

Items: The list of items controlled is contained in the ECCN heading.

7D004 "Source code" incorporating "development" "technology" specified by 7E004.a.2, a.3, a.5, a.6 or 7E004.b, for any of the following: (see List of Items

Controlled). License Requirements

Reason for Control: NS, AT

Control(s)	Country chart (see Supp. No. 1 to part 738)
NS applies to entire entry.	NS Column 1
AT applies to entire entry.	AT Column 1

List Based License Exceptions (See Part 740 for a Description of All License Exceptions) *TSR*: N/A

Special Conditions for STA

STA: License Exception STA may not be used to ship or transmit "software" in 7D004.a to .d and .g to any of the destinations listed in Country Groups A:5 and A:6 (See Supplement No.1 to part 740 of the EAR).

List of Items Controlled

Related Controls: See 7D103 and 7D994 Related Definitions: N/A Items:

nems:

a. Digital flight management systems for "total control of flight"; b. Integrated propulsion and flight control systems;

c. "Fly-by-wire systems" or "fly-by-light systems";

d. Fault-tolerant or self-reconfiguring "active flight control systems";

e. [Reserved];

f. Air data systems based on surface static data; \boldsymbol{or}

g. Three dimensional displays.

Note: 7D004 does not apply to "source code" associated with common computer elements and utilities (*e.g.*, input signal acquisition, output signal transmission, computer "program" and data loading, built-in test, task scheduling mechanisms) not providing a specific flight control system function.

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9B001 Manufacturing equipment, tooling or fixtures, as follows (See List of Items Controlled).

Reason for Control: NS, AT

Control(s)	Country chart (see Supp. No. 1 to part 738)
NS applies to entire entry.	NS Column 1
MT applies to equip- ment for engines controlled under 9A001 for MT rea- sons and for en- gines controlled under 9A101.	MT column 1
AT applies to entire entry.	AT Column 1

Reporting Requirements

See § 743.1 of the EAR for reporting requirements for exports under License Exceptions, and Validated End-User authorizations.

List Based License Exceptions (See Part 740 for a Description of All License Exceptions)

LVS: \$5000, except N/A for MT GBS: Yes, except N/A for MT

Special Conditions for STA

STA: License Exception STA may not be used to ship commodities in 9B001 to any of the destinations listed in Country Group A:5 or A:6 (See supplement no.1 to part 740 of the EAR).

List of Items Controlled

Related Controls: For "specially designed" production equipment of systems, subsystems, "parts" and "components" controlled by 9A005 to 9A009, 9A011, 9A101, 9A105 to 9A109, 9A111, and 9A116 to 9A119 usable in "missiles" see 9B115. See also 9B991.

Related Definitions: N/A

Items:

a. Directional solidification or single crystal casting equipment designed for "superalloys";

b. Casting tooling, "specially designed" for manufacturing gas turbine engine blades, vanes or "tip shrouds", manufactured from refractory metals or ceramics, as follows: b.1. Cores; b.2. Shells (moulds);

b.3. Combined core and shell (mould) units;

c. Directional-solidification or singlecrystal additive-manufacturing equipment designed for "superalloys". * * * * * *

9D001 "Software", not specified in 9D003 or 9D004, "specially designed" or modified for the "development" of equipment or "technology" controlled by ECCN 9A001 to 9A004, 9A012, 9A101 (except for items in 9A101.b that are "subject to the ITAR", see 22 CFR part 121), 9A106.d. or .e, 9A110, or 9A120, 9B (except for ECCNs 9B604, 9B610, 9B619, 9B990, and 9B991), or ECCN 9E003.

License Requirements

Reason for Control: NS, MT, AT

Control(s)	Country chart (see Supp. No. 1 to part 738)
NS applies to "soft- ware" for equip- ment controlled by 9A001 to 9A004, 9A012, 9B001 to 9B010, and tech- nology controlled by 9E003.	NS Column 1
MT applies to "soft- ware" for equip- ment controlled by 9B116 for MT rea- sons.	MT Column 1
AT applies to entire entry.	AT Column 1

Reporting Requirements

See § 743.1 of the EAR for reporting requirements for exports under License Exceptions, and Validated End-User authorizations.

List Based License Exceptions (See Part 740 for a Description of All License Exceptions) *TSR*: N/A

Special Conditions for STA

STA: License Exception STA may not be used to ship or transmit any software controlled by ECCN 9D001 that is (1)(a) "software" that is "specially designed" or modified for the "development" or "production" of components of engines controlled by ECCN 9A001 if such components incorporate any of the "technologies" controlled by 9E003.a.1, 9E003.a.2, 9E003.a.3, 9E003.a.4, 9E003.a.5, 9E003.c, 9E003.h, or 9E003.i (other than technology for fan or power turbines), ; or (b) equipment controlled by 9B001, or (2) "specially designed" or modified for the "development" of "technology" controlled by 9E003.a.1, 9E003.a.2, 9E003.a.3, 9E003.a.4, 9E003.a.5, 9E003.c, 9E003.h, or 9E003.i (other than technology for fan or power turbines).to any of the destinations listed in Country Group A:5 or A:6 (See Supplement No.1 to part 740 of the EAR). License Exception STA may not be used to ship or transmit "software" "specially designed" or modified for the "development" of equipment or

"technology", specified by ECCNs 9B001.b. or 9E003.a.1, 9E003.a.2 to a.5, 9E003.a.8, or 9E003.hto any of the destinations listed in Country Group A:6 (See Supplement No.1 to part 740 of the EAR).

List of Items Controlled

Related Controls: "Software" that is 'required" for the "development" of items specified in ECCNs 9A005 to 9A011, 9A101.b (except for items that are subject to the EAR), 9A103 to 9A105, 9A106.a, .b, and .c, 9A107 to 9A109, 9A110 (for items that are "specially designed" for use in missile systems and subsystems), and 9A111 to 9A119 is "subject to the ITAR". Related Definitions: N/A

Items: The list of items controlled is contained in the ECCN heading.

9D002 "Software", not specified in 9D003 or 9D004, "specially designed" or modified for the "production" of equipment controlled by ECCN 9A001 to 9A004, 9A012, 9A101 (except for items in 9A101.b that are "subject to the ITAR", see 22 CFR part 121), 9A106.d or .e, 9A110, or 9A120, 9B (except for ECCNs 9B604, 9B610, 9B619, 9B990, and 9B991).

License Requirements

Reason for Control: NS, MT, AT

Control(s)	Country chart (see Supp. No. 1 to part 738)
NS applies to "soft- ware" for equip- ment controlled by 9A001 to 9A004, 9A012, 9B001 to 9B010.	NS Column 1
MT applies to "soft- ware" for equip- ment controlled by 9B116 for MT rea-	MT Column 1
sons. AT applies to entire entry.	AT Column 1

Reporting Requirements

See §743.1 of the EAR for reporting requirements for exports under License Exceptions, and Validated End-User authorizations.

List Based License Exceptions (See Part 740 for a Description of All License Exceptions) TSR: N/A

Special Conditions for STA

STA: License Exception STA may not be used for 9D002 software that is "specially designed" or modified for the "production" of components of engines controlled by ECCN 9A001 if such components incorporate any of the "technologies" controlled by 9E003.a.1, 9E003.a.2, 9E003.a.3, 9E003.a.4, 9E003.a.5, 9E003.c, 9E003.h or 9E003.i (other than technology for fan or power turbines); or equipment controlled by 9B001.

License Exception STA may not be used to ship or transmit "software" "specially designed" or modified for the 'production" of equipment specified by 9B001.b to any of the destinations listed in

Country Group A:6 (See Supplement No.1 to part 740 of the EAR).

List of Items Controlled

Related Controls: "Software" that is "required" for the "production" of items specified in ECCNs 9A005 to 9A011, 9A101.b (except for items that are subject to the EAR), 9A103 to 9A105, 9A106.a, .b, and .c, 9A107 to 9A109, 9A110 (for items that are "specially designed" for use in missile systems and subsystems), and 9A111 to 9A119 is "subject to the ITAR". Related Definitions: N/A *Items:* The list of items controlled is

contained in the ECCN heading. * * ÷

9D004 Other "software" as follows (see List of Items Controlled).

License Requirements

Reason for Control: NS, AT

Control(s)	Country chart (see Supp. No. to part 738)
NS applies to entire entry.	NS Column 1
AT applies to entire entry.	AT Column 1

List Based License Exceptions (See Part 740 for a Description of All License Exceptions) TSR: N/A

Special Conditions for STA

STA: License Exception STA may not be used to ship or transmit any software controlled by ECCN 9D004.f or .g, to any of the destinations listed in Country Group A:5 or A:6 (See supplement no.1 to part 740 of the EAR). License Exception STA may not be used to ship or transmit software in 9D004.a and 9D004.c to any of the destinations listed in Country Group A:6 (See supplement no. 1 to part 740 of the EAR)

List of Items Controlled

Related Controls: See also 9D104. Related Definitions: N/A Items:

a. 2D or 3D viscous "software", validated with wind tunnel or flight test data required for detailed engine flow modelling;

b. "Software" for testing aero gas turbine engines, assemblies, "parts" or

"components", having all of the following: b.1. "Specially designed" for testing any of the following:

b.1.a. Aero gas turbine engines, assemblies or components, incorporating "technology" specified by 9E003.a, 9E003.h or 9E003.i; or

b.1.b. Multi-stage compressors providing either bypass or core flow, specially designed for aero gas turbine engines incorporating "technology" specified by 9E003.a or 9E003.h; and

b.2. "Specially designed" for all of the following:

b.2.a. Acquisition and processing of data, in real time; and

b.2.b. Feedback control of the test article or test conditions (e.g., temperature, pressure, flow rate) while the test is in progress;

Note: 9D004.b does not specify software for operation of the test facility or operator safety (e.g., overspeed shutdown, fire detection and suppression), or production, repair or maintenance acceptance-testing limited to determining if the item has been properly assembled or repaired. c. "Software" "specially designed" to

control directional solidification or single crystal material growth in equipment specified by 9B001.a or 9B001.c;

d. [Reserved]

1

"Software" "specially designed" or e. modified for the operation of items specified by 9A012;

f. "Software" "specially designed" to design the internal cooling passages of aero gas turbine engine blades, vanes and "tip shrouds'';

g. "Software" having all of the following: g.1. "Specially designed" to predict aero thermal, aeromechanical and combustion conditions in aero gas turbine engines; and

g.2. Theoretical modeling predictions of the aero thermal, aeromechanical and combustion conditions, which have been validated with actual turbine engine (experimental or production) performance data.

9E001 "Technology" according to the General Technology Note for the "development" of equipment or "software", controlled by 9A004, 9A012, 9B (except for ECCNs 9B604, 9B610, 9B619, 9B990 and 9B991), or ECCN 9D001 to 9D004, 9D101, or 9D104.

License Requirements

Reason for Control: NS, MT, AT

Control(s)	Country chart (see Supp. No. to part 738)
NS applies to "tech- nology" for items controlled by 9A004, 9A012, 9B001 to 9B010, 9D001 to 9D004 for NS reasons.	NS Column 1
MT applies to "tech- nology" for items controlled by 9A012, 9B001, 9B002, 9B003, 9B004, 9B005, 9B007, 9B104, 9B105, 9B106, 9B115, 9B116, 9B115, 9B116, 9B117, 9D001, 9D002, 9D003, or 9D004 for MT rea-	MT Column 1
sons. AT applies to entire entry.	AT Column 1

Reporting Requirements

See §743.1 of the EAR for reporting requirements for exports under License Exceptions, and Validated End-User authorizations

List Based License Exceptions (See Part 740 for a Description of All License Exceptions) TSR: N/A

1

Special Conditions for STA

- STA: License Exception STA may not be used to ship or transmit any'' technology'' in this entry for the ''development'' of equipment under 9B001, to any of the destinations listed in Country Group A:5 or A:6 (See supplement no. 1 to part 740 of the EAR).
- License Exception STA may not be used to ship or transmit any technology in this entry to any of the destinations listed in Country Group A:6 (See Supplement No. 1 to part 740 of the EAR).

List of Items Controlled

Related Controls: (1) See also 9E101 and 1E002.f (for controls on "technology" for the repair of controlled structures, laminates or materials). (2) "Technology" required for the "development" of equipment described in ECCNs 9A005 to 9A011 or "software" described in ECCNs 9D103 and 9D105 is "subject to the ITAR." Related Definitions: N/A

Items: The list of items controlled is contained in the ECCN heading.

9E002 "Technology" according to the General Technology Note for the "production" of "equipment" controlled by ECCN 9A004 or 9B (except for ECCNs 9B117, 9B604, 9B610, 9B619, 9B990, and 9B991).

License Requirements

Reason for Control: NS, MT, AT

Control(s)	Country chart (see Supp. No. 1 to part 738)
NS applies to entire entry.	NS Column 1
MT applies to "tech- nology" for equip- ment controlled by 9B001, 9B002, 9B003, 9B004, 9B005, 9B007, 9B104, 9B105, 9B106, 9B115 or 9B116 for MT rea-	MT Column 1
sons. AT applies to entire entry.	AT Column 1

Reporting Requirements

See § 743.1 of the EAR for reporting requirements for exports under License Exceptions, and Validated End-User authorizations

List Based License Exceptions (See Part 740 for a Description of All License Exceptions) *TSR*: N/A

Special Conditions for STA

- STA: License Exception STA may not be used to ship or transmit any "technology" in this entry for the "production" of equipment under 9B001, to any of the destinations listed in Country Group A:5 or A:6 (See supplement no.1 to part 740 of the EAR).
- License Exception STA may not be used to ship or transmit any technology in this entry to any of the destinations listed in Country Group A:6 (See supplement no. 1 to part 740 of the EAR).

List of Items Controlled

Related Controls: (1) See also 9E102. (2) See also 1E002.f for "technology" for the repair of controlled structures, laminates or materials. (3) "Technology" that is required for the "production" of equipment described in ECCNs 9A005 to 9A011 is "subject to the ITAR." Related Definitions: N/A

Items: The list of items controlled is contained in the ECCN heading.

9E003 Other "technology" as follows (see List of Items Controlled).

License Requirements

Reason for Control: NS, SI, AT

Control(s)	Country chart (see Supp. No. 1 to part 738)
NS applies to entire entry.	NS Column 1
SI applies to 9E003.a.1 through a.8, .h, .i, and .l. AT applies to entire entry.	See § 742.14 of the EAR for additional information AT Column 1

Reporting Requirements

See § 743.1 of the EAR for reporting requirements for exports under License Exceptions, and Validated End-User authorizations.

List Based License Exceptions (See Part 740 for a Description of All License Exceptions) *TSR*: N/A

Special Conditions for STA

- STA: License Exception STA may not be used to ship or transmit any "technology" controlled by ECCN 9E003.a.1 to a.5, 9E003.c, 9E003.h, or 9E003.i (other than technology for fan or power turbines), to any of the destinations listed in Country Group A:5 or A:6 (See supplement no.1 to part 740 of the EAR).
- License Exception STA may not be used to ship or transmit any technology in 9E003.k to any of the destinations listed in Country Group A:6 (See Supplement No.1 to part 740 of the EAR).

List of Items Controlled

Related Controls: (1) Hot section "technology" specifically designed, modified, or equipped for military uses or purposes, or developed principally with U.S. Department of Defense funding, is "subject to the ITAR" (see 22 CFR parts 120 through 130). (2) "Technology" is subject to the EAR when actually applied to a commercial "aircraft" engine program. Exporters may seek to establish commercial application either on a caseby-case basis through submission of documentation demonstrating application to a commercial program in requesting an export license from the Department of Commerce in respect to a specific export, or in the case of use for broad categories of "aircraft," engines, "parts" or "components," a commodity jurisdiction determination from the Department of State

Related Definitions: N/A

Items:

a. "Technology" "required" for the "development" or "production" of any of the following gas turbine engine "parts," "components" or systems:

a.1. Gas turbine blades, vanes or "tip shrouds", made from Directionally Solidified (DS) or Single Crystal (SC) alloys and having (in the 001 Miller Index Direction) a stressrupture life exceeding 400 hours at 1,273 K (1,000 °C) at a stress of 200 MPa, based on the average property values;

Technical Note: For the purposes of 9E003.a.1, stress-rupture life testing is typically conducted on a test specimen. a.2. Combustors having any of the

following: a.2.a. 'Thermally decoupled liners' designed to operate at 'combustor exit temperature' exceeding 1,883 K (1,610 °C);

a.2.b. Non-metallic liners;

a.2.c. Non-metallic shells; or

a.2.d. Liners designed to operate at 'combustor exit temperature' exceeding 1,883 K (1,610 $^{\circ}$ C) and having holes that meet the parameters specified by 9E003.c;

a.2.e. Utilizing 'pressure gain combustion'; **Technical Note:** For the purposes of 9E003.a.2.e, in 'pressure gain combustion' the bulk average stagnation pressure at the combustor outlet is greater than the bulk average stagnation pressure at the combustor inlet due primarily to the combustion process, when the engine is running in a "steady state mode" of operation. **Note:** The "required" "technology" for

Note: The "required" "technology" for holes in 9E003.a.2 is limited to the derivation of the geometry and location of the holes. Technical Notes:

1. For the purposes of 9E003.a.2.a, 'thermally decoupled liners' are liners that feature at least a support structure designed to carry mechanical loads and a combustion facing structure designed to protect the support structure from the heat of combustion. The combustion facing structure and support structure have independent thermal displacement (mechanical displacement due to thermal load) with respect to one another, i.e., they are thermally decoupled.

2. For the purposes of 9E003.a.2.d, 'combustor exit temperature' is the bulk average gas path total (stagnation) temperature between the combustor exit plane and the leading edge of the turbine inlet guide vane (i.e., measured at engine station T40 as defined in SAE ARP 755A) when the engine is running in a "steady state mode" of operation at the certificated maximum continuous operating temperature.

N.B.: See 9E003.c for "technology" "required" for manufacturing cooling

holes.

a.3. "Parts" or "components," that are any of the following:

a.3.a. Manufactured from organic

"composite" materials designed to operate above 588 K (315 °C);

a.3.b. Manufactured from any of the following:

- a.3.b.1. Metal "matrix" "composites" reinforced by any of the following:
- a.3.b.1.a. Materials controlled by 1C007; a.3.b.1.b. "Fibrous or filamentary
- materials" specified by 1C010; or

a.3.b.1.c. Aluminides specified by 1C002.a; or

a.3.b.2. Ceramic "matrix" "composites" specified by 1C007; or

a.3.c. Stators, vanes, blades, tip seals (shrouds), rotating blings, rotating blisks or

'splitter ducts', that are all of the following: a.3.c.1. Not specified in 9E003.a.3.a;

a.3.c.2. Designed for compressors or fans; and

a.3.c.3. Manufactured from material controlled by 1C010.e with resins controlled by 1C008;

Technical Note: For the purposes of 9E003.a.3.c, a 'splitter duct' performs the initial separation of the air-mass flow between the bypass and core sections of the engine.

a.4. Uncooled turbine blades, vanes or "tip shrouds" designed to operate at a "gas path temperature" of 1,373 \overline{K} (1,100 °C) or more;

a.5. Cooled turbine blades, vanes or "tip shrouds", other than those described in 9E003.a.1, designed to operate at a 'gas path temperature' of 1,693 K (1,420 °C) or more;

Technical Note: For the purposes of 9E003.a.5, "gas path temperature" is the bulk average gas path total (stagnation) temperature at the leading-edge plane of the turbine component when the engine is running in a "steady state mode" of operation at the certificated or specified maximum continuous operating temperature.

a.6. Airfoil-to-disk blade combinations using solid state joining;

a.7. [Reserved]

a.8. 'Damage tolerant' gas turbine engine rotor "parts" or "components" using powder metallurgy materials controlled by 1C002.b; or

Technical Note: For the purposes of 9E003.a.8, "damage tolerant", "parts" and "components" are designed using methodology and substantiation to predict and limit crack growth.

a.9. [Reserved]

N.B.: For "FADEC systems", see 9E003.h. a.10. [Reserved]

N.B.: For adjustable flow path geometry, see 9E003.i.

a.11. 'Fan blades' having all of the following:

a.11.a. 20% or more of the total volume being one or more closed cavities containing vacuum or gas only: and

a.11.b. One or more closed cavities having a volume of 5 cm³ or larger;

Technical Note: For the purposes of 9E003.a.11, a 'fan blade' is the aerofoil portion of the rotating stage or stages, which provide both compressor and bypass flow in a gas turbine engine.

b. ''Technology'' ''required'' for the "development" or "production" of any of the following:

b.1. Wind tunnel aero-models equipped with non-intrusive sensors capable of transmitting data from the sensors to the data acquisition system; or

b.2. "Composite" propeller blades or propfans, capable of absorbing more than 2,000 kW at flight speeds exceeding Mach 0.55;

c. "Technology" "required" for manufacturing cooling holes, in gas turbine engine "parts" or "components" incorporating any of the "technologies"

specified by 9E003.a.1, 9E003.a.2, or 9E003.a.5, and having any of the following:

c.1. Having all of the following:

c.1.a. Minimum "cross-sectional area" less than 0.45 mm²;

c.1.b. "Hole shape ratio" greater than 4.52; and

c.1.c. "Incidence angle" equal to or less than 25°; or

c.2. Having all of the following:

c.2.a. Minimum "cross-sectional area" less than 0.12 mm²;

c.2.b. "Hole shape ratio" greater than 5.65; and

c.2.c. "Incidence angle" more than 25°; Note: 9E003.c does not apply to

"technology" for manufacturing constant radius cylindrical holes that are straight through and enter and exit on the external surfaces of the component.

Technical Notes:

1. For the purposes of 9E003.c, the "crosssectional area" is the area of the hole in the plane perpendicular to the hole axis.

2. For the purposes of 9E003.c, "hole shape ratio" is the nominal length of the axis of the hole divided by the square root of its minimum 'cross-sectional area'.

3. For the purposes of 9E003.c, "incidence angle" is the acute angle measured between the plane tangential to the airfoil surface and the hole axis at the point where the hole axis enters the airfoil surface.

4. For the purposes of 9E003.c, methods for manufacturing holes include "laser" beam machining, water jet machining, Electro-Chemical Machining (ECM) or Electrical Discharge Machining (EDM).

d. "Technology" "required" for the "development" or "production" of helicopter power transfer systems or tilt rotor or tilt wing "aircraft" power transfer systems; e. "Technology" for the "development" or

"production" of reciprocating diesel engine ground vehicle propulsion systems having all of the following:

e.1. 'Box volume' of 1.2 m³ or less;

e.2. An overall power output of more than 750 kW based on 80/1269/EEC, ISO 2534 or national equivalents; and

e.3. Power density of more than 700 kW/ m³ of 'box volume';

Technical Note: For the purposes of 9E003.e.1, "box volume" is the product of three perpendicular dimensions measured in the following way:

Length: The length of the crankshaft from front flange to flywheel face;

Width: The widest of any of the following: a. The outside dimension from valve cover to valve cover;

b. The dimensions of the outside edges of the cylinder heads; or

c. The diameter of the flywheel housing; Height: The largest of any of the following:

a. The dimension of the crankshaft centerline to the top plane of the valve cover (or cylinder head) plus twice the stroke; or

b. The diameter of the flywheel housing. f. "Technology" "required" for the "production" of "specially designed" "parts" or "components" for high output diesel engines, as follows:

f.1. "Technology" "required" for the 'production'' of engine systems having all of the following "parts" and "components"

employing ceramics materials controlled by 1C007:

f.1.a. Cylinder liners;

- f.1.b. Pistons:
- f.1.c. Cylinder heads; and

f.1.d. One or more other "part" or

'component'' (including exhaust ports, turbochargers, valve guides, valve assemblies or insulated fuel injectors);

f.2. "Technology" "required" for the 'production'' of turbocharger systems with single-stage compressors and having all of the following:

f.2.a. Operating at pressure ratios of 4:1 or higher;

f.2.b. Mass flow in the range from 30 to 130 kg per minute; and

f.2.c. Variable flow area capability within the compressor or turbine sections;

f.3. "Technology" "required" for the "production" of fuel injection systems with a "specially designed" multifuel (e.g., diesel or jet fuel) capability covering a viscosity range from diesel fuel (2.5 cSt at 310.8 K (37.8 °C)) down to gasoline fuel (0.5 cSt at 310.8 K (37.8 °C)) and having all of the following:

f.3.a. Injection amount in excess of 230 mm³ per injection per cylinder; and

f.3.b. Electronic control features "specially designed" for switching governor characteristics automatically depending on fuel property to provide the same torque characteristics by using the appropriate sensors:

g. "Technology" "required" for the "development" or "production" of 'high output diesel engines' for solid, gas phase or liquid film (or combinations thereof) cylinder wall lubrication and permitting operation to temperatures exceeding 723 K (450 °C), measured on the cylinder wall at the top limit of travel of the top ring of the piston;

Technical Note: For the purposes of 9E003.g, "high output diesel engines" are diesel engines with a specified brake mean effective pressure of 1.8 MPa or more at a speed of 2,300 r.p.m., provided the rated speed is 2,300 r.p.m. or more

h. "Technology" for gas turbine engine "FADEC systems" as follows:

h.1. "Development" "technology" for deriving the functional requirements for the 'parts" or "components" necessary for the "FADEC system" to regulate engine thrust or shaft power (e.g., feedback sensor time constants and accuracies, fuel valve slew rate);

h.2. "Development" or "production" "technology" for control and diagnostic 'parts" or "components" unique to the "FADEC system" and used to regulate engine thrust or shaft power;

h.3. "Development" "technology" for the control law algorithms, including "source code", unique to the "FADEC system" and used to regulate engine thrust or shaft power;

Note: 9E003.h does not apply to technology related to engine-"aircraft" integration required by civil aviation authorities of one or more Wassenaar Arrangement Participating States (See Supplement No. 1 to part 743 of the EAR) to be published for general airline use e.g., installation manuals, operating instructions, instructions for continued airworthiness) or interface

functions e.g., input/output processing, airframe thrust or shaft power demand).

i. ''Technology'' for adjustable flow path systems designed to maintain engine stability for gas generator turbines, fan or power

turbines, or propelling nozzles, as follows: i.1. "Development" "technology" for deriving the functional requirements for the "parts" or "components" that maintain engine stability;

i.2. "Development" or "production" "technology" for "parts" or "components" unique to the adjustable flow path system and that maintain engine stability;

i.3. "Development" "technology" for the control law algorithms, including "source code'', unique to the adjustable flow path system and that maintain engine stability;

Note: 9E003.i does not apply to "technology" for any of the following:

a. Inlet guide vanes;

b. Variable pitch fans or prop-fans;

c. Variable compressor vanes;

d. Compressor bleed valves; or

e. Adjustable flow path geometry for reverse thrust.

j. "Technology" "required" for the "development" of wing-folding systems designed for fixed-wing "aircraft" powered by gas turbine engines.

N.B.: For "technology" "required" for the "development" of wing-folding systems designed for fixed-wing "aircraft" specified in USML Category VIII (a), see USML Category VIII (i).

k. "Technology", not specified in 9E003.a, 9E003.h, or 9E003.i, "required" for the ''development'' of any of the following components or systems, "specially designed" for aero gas turbine engines to enable "aircraft" to cruise at Mach 1 or greater for more than 30 minutes:

k.1. Propulsion inlet systems;

k.2. Propulsion exhaust systems;

k.3. 'Reheat systems';

k.4. 'Active thermal management systems' to condition fluids used to lubricate or cool 'engine rotor supports';

k.5. Oil-free 'engine rotor supports'; or k.6. Systems to remove heat from

'compression system' core gas path flow. Technical Notes: For the purposes of 9E003.k:

1. Propulsion inlet systems include core flow pre-coolers.

2. 'Reheat systems' provide additional thrust by combusting fuel in exhaust and/or bypass flow downstream of the last turbomachinery stage. 'Reheat systems' are also referred to as afterburners.

3. 'Active thermal management systems' employ methods other than passive oil-to-air cooling or oil-to-fuel cooling, such as vapor cycle systems.

4. 'Compression system' is any stage or combination of stages between the engine inlet face and the combustor that increases gas path pressure through mechanical work.

5. An 'engine rotor support' is the bearing supporting the main engine shaft that drives the compression system or turbine rotors.

N.B. 1. See 9E003.h for engine control technology.

N.B. 2. See 9E003.i for adjustable flow path

systems technology. l. "Technology" not otherwise controlled in 9E003.a.1 through a.8, a.10, and .h and used in the "development", "production", or overhaul of hot section "parts" or "components" of civil derivatives of military engines controlled on the U.S. Munitions List.

*

Thea D. Rozman Kendler,

Assistant Secretary for Export Administration. [FR Doc. 2023-26681 Filed 12-7-23; 8:45 am] BILLING CODE 3510-33-P

PUBLIC SUBMISSION

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Docket: BIS-2023-0019 Proposed Enhancements and Simplification of License Exception Strategic Trade Authorization (STA)

Comment On: BIS-2023-0019-0001 Enhancements and Simplification of License Exception Strategic Trade Authorization

Document: BIS-2023-0019-DRAFT-0001 Public comment 1 on STA NPRM. Anonymous. 1-9-24

Submitter Information

Name: Anonymous Anonymous

General Comment

Many of the more informed non-US companies do not want to receive items under STA is because BIS prohibits the use of de minimis principals in relation to 600 Series items received under STA (see 740.20(b) Note 1 to paragraphs (b)(2) and (b)(3)). When Export Control Reform (ECR) was proposed under Kevin Wolfe's leadership, BIS often touted an ECR benefit that the EAR allowed for de minimis use in contrast to the far more restrictive ITAR see-through rule. Yet when publishing STA, BIS effectively gutted use of de minimis for former ITAR items, so to informed reexporters this was a bit of an ECR benefit bait and switch (unless you luckily happened to be in Canada where "600 Series" items are NLR). The overwhelming majority of former ITAR items shipped to destinations other than Canada must be exported either under either a license or STA. BIS has not clearly prohibited use of de minimis for "600 Series" items shipped under a license, but it has under STA. Indeed, after ECR the Munitions Team advised that one would have to seek a license to be able to have a "600 series" incorporated into a foreign product be eligible for de minimis status -- and only as long as the license didn't specifically exclude use of de minimis. So informed companies outside of Canada who would at least like the option of relying on de minimis principals to ship items with US "600 Series" content onward to non-A:5 destinations are thus forced into asking their suppliers to obtain licenses instead. One very easy way to encourage expanded use of STA is to allow for de minimis. I would note that this would still keep "600 Series" items out of D:5 countries, since for the D:5 BIS effectively has a "0%" de minimis rule, i.e. any 600 Series content would cause the foreign made item to be subject to the EAR under de minimis principals if intended for the D:5. Indeed the fact that BIS even developed specific de minimis rules for "600 Series" items underscores that there was a clear original ECR intent to allow "600 Series" items to be eligible for de minimis. So it's not clear why this was ultimately disallowed for STA, which was supposed to be the primary vehicle for exporting "600 Series" items.



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February 2, 2024

Regulatory Policy Division Bureau of Industry and Security U.S. Department of Commerce 14th Street and Pennsylvania Avenue NW Room 2099B Washington, DC 20230

Subject: RIN 0694–AJ32 - Proposed Enhancements and Simplification of License Exception Strategic Trade Authorization (STA)

Reference: Federal Register / Vol. 88, No. 235 / Friday, December 8, 2023 / Proposed Rules

Dear Sir/Madam:

General Electric Company ("GE"), on behalf of its GE Gas Power business unit, appreciates the opportunity to submit the following comments on the Bureau of Industry and Security ("BIS") proposed rule to exclude Export Control Classification Number ("ECCN") 2E003.f from the scope of License Exception Strategic Trade Authorization ("STA") when used for the application of inorganic overlay coatings on gas turbine engine combustors, or turbine blades, vanes or tip shrouds. While we understand that the proposed rule is intended reduce inconsistencies among similar technology, we respectfully submit that in most circumstances, implementation of such rule, as drafted, would create additional licensing complexities without the desired improvement to the controls on exports. As described in further detail below, GE first proposes that the current eligibility for STA on ECCN 2E003.f technology remain in existence, without modification. In the alternative, GE proposes continuation of STA eligibility for entities previously in receipt of lawfully exported ECCN 2E003.f technology.

Background

GE Gas Power is a world leader in the design, manufacture, and servicing of gas turbines used for power generation. Such activity utilizes Vapor Plasma Spray ("VPS") technology, classified as ECCN 2E003.f, to produce coatings on various components inside its gas turbines. GE Gas Power develops its VPS technology in the United States ("US") and due to the global nature of its supply chain, exports this technology to GE Gas Power sites and suppliers in non-US countries. These sites and suppliers perform coating applications on hardware being manufactured or repaired for use in GE Gas Power's gas turbines.

Prior to ECCN 2E003.f being added to the scope of License Exception STA in 2011, GE Gas Power requested licenses from BIS to allow for exports of VPS technology to its foreign sites and suppliers performing VPS coating operations. For the past thirteen (13) years since ECCN 2E003.f was added to the scope of the STA, GE Gas Power has been exporting its VPS technology utilizing such exception in lieu of requesting and exporting against licenses.

Due to the nature of its operations, GE Gas Power maintains this technology in the US with strict intellectual property access controls. Authorized foreign sites or entities may access the technology from the US as required and in accordance with STA requirements, creating multiple exports of the same or similar technology to the same foreign entity.

Comments

1. Considerations regarding Current Foreign Sites and Suppliers

GE expects that if implemented as drafted, the proposed rule would significantly increase administrative efforts while only providing a nominal enhancement to export controls for such technology.

GE Gas Power has continuously and lawfully exported VPS technology to its foreign sites and suppliers under STA since 2011. Therefore, such sites and suppliers are already in possession of the same or similar ECCN 2E003.f technology that is now proposed as requiring licenses approved by BIS. Therefore, if implemented, the vast majority of new licenses would only allow for the continued export of the same or similar technology previously exported to these same foreign sites and entities.

Further, GE Gas Power would now be required to request, receive approval for, and manage licenses for a new category of technology that has historically been, and continues to be, critical to its business. This requires the administrative effort to develop the license request in coordination with GE's foreign sites and entities, on a recurring basis, notwithstanding the fact that such parties have already received such technology.

Therefore, GE respectfully submits that implementation of the proposed rule may not achieve the intended results of enhancing export controls given the long history of License Exception STA allowance and lawful usage.

2. Considerations regarding European Export Controls

GE notes that other jurisdictions have general export authorizations available for the export of ECCN 2E003.f technologies to certain countries. More specifically, the following United Kingdom ("UK") or European Union ("EU") authorizations allow for the export of dual-use items, to include the technology described in ECCN 2E003.f:

- Union General Export Authorization No EU001 ("EU001"), issued by the EU, authorizes exports to Australia, Canada, Iceland, Japan, New Zealand, Norway, Switzerland (including Liechtenstein), the United Kingdom, and the United States;
- Retained General Export Authorisation 001 ("GEA001"), issued by the United Kingdom, authorizes exports to Australia, Canada, Japan, New Zealand, Norway, Switzerland (including Liechtenstein), and the United States;
- Open General Export Licence Export of Dual-Use items to EU Member States ("EU OGEL"), issued by the United Kingdom, authorizes exports to European Union Member States as follows: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, and Sweden.

These general export authorizations simplify and streamline the export process for businesses by removing the need to apply for, receive, and manage specific licenses for export transactions. In the examples of EU001 and GEA001, exporters must only register with the appropriate authorities, as opposed to applying for and managing a specific license for each transaction type. Further, such general authorizations have no expiration dates and are active until revoked, as opposed to specific licenses which expire and require renewal on a continuous basis. BIS license exceptions, such as STA, operate similarly to general export authorizations issued by the EU and UK. The current eligibility for STA relative to ECCN 2E003.f technology is aligned with the EU and UK controls as described in the licenses and authorizations above.

Based upon the global its operations, GE submits that export controls are most effective when there is multilateral alignment to ensure a fair and consistent business framework. Due to the increased burden, the requirement to obtain a license to export ECCN 2E003.f technology may disadvantage US companies compared to foreign companies in jurisdictions with available general authorizations. Alignment, therefore, mitigates the risk of U.S. entities being disadvantaged due to different or more onerous licensing requirements.

Recommendation

GE recognizes BIS's desire to control coating technologies controlled under ECCN 2E003.f in a manner consistent with the controls for related casting and cooling technologies controlled under ECCN 9E003 and ECCN 9E001, respectively.

Given the history of ECCN 2E003.f export control requirements and allowance for License Exception STA, as well as the general authorizations or licenses in place in the United Kingdom and EU, we first respectfully recommend that BIS continue the current STA eligibility for ECCN 2E003.f technology.

In the alternative, we respectfully recommend that STA may be used to export, reexport, and

RIN 0694–AJ32 Page 4 of 4

transfer (in-country) ECCN 2E003.f technology to entities in, or nationals of, a country listed in Country Group A:5 under Supplement No. 1 to part 740 of the EAR or the United States previously on an authorization approved by BIS or the Directorate of Defense Trade Controls at U.S. Department of State or that have otherwise previously lawfully received ECCN 2E003.f technology under License Exception STA. This would allow continued exports of ECCN 2E003.f technology utilizing STA to foreign sites and entities that have already received such technology, thereby focusing the requirement for an export license, and the opportunity for BIS review, for new foreign parties. This increases scrutiny for exports of ECCN 2E003.f technology to new foreign sites and entities, while simultaneously retaining STA eligibility for exports where the benefit of licensing would be minimal given the intended parties' previous possession of such technology.

Thank you for your review of this submission. Should you have any questions, please contact the undersigned by telephone at (518) 542-7894 or by e-mail at kevin.fuller@@ge.com. You may also contact Jay Scott, Senior Specialist – Compliance & Regulatory, by phone at (864) 283-4823 or by e-mail at james.a.scott@ge.com.

Sincerely,

Min R Fill

Kevin Fuller Senior Specialist – Compliance & Regulatory International Trade Compliance

cc: Jay Scott, Senior Specialist – Compliance & Regulatory



Operating under the joint auspices of:





Society of Maritime Industries



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6th February 2024

Federal Rulemaking Portal www.regulations.gov

<u>RIN 0694–AJ32: Proposed Enhancements and Simplification of License Exception Strategic Trade</u> <u>Authorization (STA)</u>

Dear Sir,

Introduction

The Export Group for Aerospace, Defence and Dual-Use (EGADD), is a not-for-profit special interest industry group, focusing exclusively on all aspects of export and trade control compliance. It is one of the only dedicated national industrial bodies in the UK dealing exclusively with export and trade control issues. EGADD operates under the joint auspices of the ADS Group Ltd (ADS), British Marine, the Society of Maritime Industries (SMI), and techUK.

EGADD welcomes this opportunity to contribute thoughts and ideas to assist the future development of BIS' Strategic Trade Authorization (STA), under the Export Administration Regulations (EAR), as outlined in the Federal Register, of Friday 8th December 2023, and welcomes, as a non-US party, the ability to provide comments and contributions to BIS' on-going consultations. Overall, EGADD is immensely keen to the promote greater use of the STA. We have a diverse Membership with companies headquartered in the UK, the US and the EU.

Many of our comments here reflect a real need for greater clarity, borne out by our Members' experience, and the challenges, of concurrent compliance with multiple national approaches.

The areas where EGADD would like to provide comment are as follows:

• The goal of enhancing and simplifying the STA License Exception is extremely welcome, as is the opportunity afforded to comment on BIS' approach to achieving this goal.

• UK industry does use STA, but we strongly believe that its complexity remains a barrier to uptake. Reducing this complexity would help drive a shared understanding between U.S.-based users of the STA exception and the potential non-U.S. users of the STA exception.

• We agree that it feels more logical for STA <u>NOT</u> to be a list-based exception because it would be clearer if industry could do their own checks and start with "I can use STA unless there is an exclusion", and all those exclusions were to be found in one place, such that it would be possible to run through them

as a checklist. Having to do "can I use STA?" checks in more than one place in the EAR greatly increases the potential risk of confusion in companies' minds, which may mean that industry defaults to a more conservative approach of simply applying for a BIS license. If extra text to explain STA (and whether it can be used or not) under the specific ECCN entries runs the risk of becoming lengthy, how about two additional paragraphs after § 740.20(b)(2) ("Limitations on use of License Exception STA"), one of which is called "ECCNs and Items excluded from License Exception STA for Country Group A:5" and the other "ECCNs and Items Excluded from License Exception STA for Country Group A:6". Again, from a point of departure that STA is NOT a list-based exception, this would allow someone to look in one place for all the reasons why STA would not be applicable.

• We appreciate the attempt to clarify that STA is eligible for deemed exports and deemed reexports. We agree that it would be helpful to use the language of "deemed exports and deemed reexports" and to be explicit on where these are permitted under all applicable exceptions (e.g. TSR per the example in the Federal Register Proposed Rule text, as well as for STA), and to explain as clearly as possible the exclusion of the requirement for the recipient to have been approved on a prior USG Authorization where a deemed export or deemed reexport is contemplated.

• Is there any intent to review the STA for potential eligibility where an item is controlled for Encryption Items ("EI") reasons, particularly if the intended recipients are all located within A:5 countries?

• For 600 series items, in a scenario where a BIS license is sought and obtained for an end-user outside of an A:5 or A:6 country, can any consideration be given to using STA for the interactions within and between A:5 countries that precede the reexport to the non-A:5 or A:6 country? The nature of these interactions would be the same as for a scenario where the ultimate end user is in an A:5 country.

• If a project is still in development wholly within A:5 countries and therefore a government ultimate end-user in A:5 country has yet to be determined, can consideration be given to making the STA Exception available for use?

Thank you in advance for your consideration of these comments. If you have any questions about this correspondence, please do not hesitate to contact me.

Brinley Salzmann - Secretary, EGADD



February 6, 2024

VIA PORTAL (www.regulations.gov; ID BIS-2023-0019)

Regulatory Policy Division Office of Exporter Services Bureau of Industry and Security United States Department of Commerce 1401 Constitution Avenue, NW Washington, DC 20023

RE: Comments on "Proposed Enhancements and Simplification of License Exception Strategic Trade Authorization (STA)" under the Export Administration Regulations (15 CFR Parts 740 and 774), in opposition to proposed restrictions on STA eligibility for ECCN 2E003.f technology to the destinations listed in Country Group A:5 or A:6

RIN 0694-AJ32

Ref: Federal Register / Vol. 88, No. 235 / Friday, December 8, 2023 / Proposed Rules

Ladies and Gentlemen:

Linde Advanced Material Technologies Inc. ("Linde AMT") appreciates the opportunity to submit comments in response to the Bureau of Industry and Security's ("BIS") proposed rule to restrict Strategic Trade Authorization ("STA") eligibility for Export Control Classification Number ("ECCN") 2E003.f technology when used for the application of inorganic overlay coatings on gas turbine engine combustors, or turbine blades, vanes or tip shrouds, to any of the destinations listed in Country Group A:5 or A:6. As set forth below, Linde AMT respectfully requests that BIS retain STA eligibility for ECCN 2E003.f technology to the destinations listed in Country Group A:5 or A:6 without scope limitations.

1. Background on Linde AMT

Linde AMT, a wholly-owned subsidiary of Linde Inc., is an established coatings manufacturer with technical and business information, know-how and proprietary methods of applying thermal spray surface coatings to items to provide wear resistance, friction control, corrosion resistance, thermal protection, and other attributes for such items, usually intended to enhance the durability and service life of the item in its normal working environment. Linde's expertise lies in proprietary methods of applying these surface coatings to customer supplied goods (including electron-beam physical vapor deposition (EB-PVD), chemical vapor deposition (CVD), low pressure plasma spray (LPPS), and Vapor Phase Aluminide (VPA) coating processes), which

may include Linde AMT technology under the 2E003.f classification. Linde AMT has a broad array of customers worldwide in a variety of different industries, such as aviation, automotive and transportation, bakeware, food and beverage, glass, metal production, paper, plastics, power generation, printing and converting, and textiles.

The coating process is the same regardless of whether the part is intended for a civil or military application. Typically, a customer supplied part is received by Linde AMT and coated according to a customer provided specification. In this regard, Linde AMT may seek to transfer certain technology necessary for the application and use of coating materials, coating processes, spraying techniques and coating finishing to its non-US affiliates performing services on customer supplied parts or to its customers or others in the supply chain who have supplied these parts and to which the coating services by Linde AMT for production of these parts would apply. This technology transfer could include narratives and instructions on coating processes and manufacturing know-how, coating materials, preparation of the parts for coating, how to perform the coating, spraying techniques and coating finishing on the parts, and communications and consultation related thereto, as well as site visits, customer audits and the like that would be involved in supplier qualification, quality control and other matters related thereto.

2. Impact of Proposed Changes

As a multinational company, we work closely with our affiliates in Europe and other potentially impacted country groups. We have export management programs and processes in place to ensure awareness of export controlled information and compliance by all company personnel. It is our view that the proposed restriction of the STA license exception for 2E003.f technology would place an unwarranted administrative burden on our business without any added increase in protection of technology affecting any identified concerns. We, therefore, respectfully request that BIS retain STA eligibility for ECCN 2E003.f technology to any of the destinations listed in Country Group A:5 or A:6 without scope limitations, or, in the alternative, consider other changes, for the reasons set forth below.

Linde AMT respectfully notes that the proposed rule does not seem to justify the removal of STA eligibility for ECCN 2E003.f technology and will unnecessarily increase licensing burdens on both BIS and industry, as noted therein. If this were to go through as proposed, we could see double digit numbers of license applications that would have to be filed. Further to that, if retained, the proposed restriction on the use of STA for ECCN 2E003.f is overbroad and should be narrowed; indeed, modernizing ECCN 2E003.f may be an alternative to implementing new restrictions on STA eligibility. We agree that, as noted in earlier comments, in most circumstances, implementation of such a rule, as drafted, would create additional licensing complexities without the desired improvement to export controls, and does not seem to align with general export authorizations available under European export controls for the export of dual-use items, including the described technology under ECCN 2E003.f. This is particularly hard to understand in light of the matters discussed in the overall rulemaking itself – that it is intended as an enhancement and simplification of STA – and recent efforts to work more closely at export control coordination and enforcement, including with respect to our allies.

License Exception STA was adopted in 2011, in part, to reduce regulatory burdens on trade among allies when there was a low risk of diversion. The proposed rule does not identify how national or economic security would be enhanced by changing controls for 2E003.f technology in the proposed manner and seems to capture parts in areas like industrial and power generation gas turbines, which may not carry the same concerns. Furthermore, as the STA exception has been in place since 2011, U.S. companies have already lawfully exported this technology to foreign affiliates so that many of these sites have been in possession of this same or similar ECCN 2E003.f technology for several years and that would now be proposed as requiring a license to continue that communication, which may not achieve the intended results. Further, Linde AMT would now be required to obtain and manage licenses for more of its core coating services business, with the potential to cause supply chain disruption and delays, administrative costs to develop various license requests in coordination with its foreign affiliates and customers, on a recurring basis, notwithstanding the fact that such parties may already have received this technology. In sum, implementation of the proposed rule change may not achieve the intended results of enhancing export controls given the long history of STA allowance and lawful usage.

3. Proposed Modifications

We respectfully request that BIS retain STA eligibility for ECCN 2E003.f technology to the destinations listed in Country Group A:5 or A:6 without scope limitations, for the reasons set forth herein. We further request, in the alternative, that should proposed restrictions go forward, the proposed rule be changed and, to the extent necessary, that ECCN 2E003.f be modernized, so that:

- (i) any new restrictions are limited to parts incorporating specific areas of concern, such as 9E003.a.1, a.2 and a.5 technology, to the extent such hot section parts operate above the base metal melting point (to avoid unnecessarily capturing parts to be coated without such specific concern);
- (ii) there be a one year delayed implementation period to allow the industry time to obtain licensing and reduce supply chain and service disruptions;
- (iii) that it not apply to exports, re-exports, and transfers of ECCN 2E003.f technology to and among corporate affiliates of U.S. companies that are located in, and employees thereof that are nationals of, the Country Groups A:5 and A:6 (i.e., to allow multinational companies to continue working closely with affiliate companies in these country groups, including in Europe); and
- (iv) that there be a policy of approval for ultimate consignees/end users in these country groups that have already received 2E003.f technology under STA or existing licenses, many of which have had the technology for several years.

4. Comments in Prior Rulemaking Regarding STA are Relevant

As mentioned in the Federal Register note captioned "Note for proposed changes to 1E001 and 2E003," BIS earlier requested public comment regarding STA eligibility of 2E003.f in the October 2021 rule (BIS 2020-0023), and received public comments at the time that were

generally not supportive of the same proposed restrictions on STA eligibility for ECCN 2E003.f. We hereby reference the comments made by industry leaders in a prior rulemaking regarding STA, which we have obtained from public sources, and which contain important consideration of the issues raised by the proposed rule change including, among other things, suggesting modernization of the parameters within ECCN 2E003.f, and that there be some consideration of transfers among corporate affiliates of U.S. companies in the Country Groups A:5 and A:6. We believe these points raised by industry, which may again be raised, remain relevant given the proposed changes now seem to be about the same in substance.

5. Recommended Action

As noted above, we respectfully request that BIS retain STA eligibility for ECCN 2E003.f technology to any of the destinations listed in Country Group A:5 or A:6 without scope limitations. We further request, in the alternative, that should proposed restrictions go forward, the proposed rule be changed and, to the extent necessary, that ECCN 2E003.f be modernized, so that (i) any new restrictions are limited to parts incorporating 9E003.a.1, a.2 and a.5 technology, if that is the concern, (ii) there be a one year delayed implementation period to allow industry time to obtain licensing and reduce supply chain and service disruptions, (iii) it not apply to exports, re-exports, and transfers of ECCN 2E003.f technology to and among corporate affiliates of U.S. companies that are located in, and employees thereof that are nationals of, the Country Groups A:5 and A:6, and (iv) there be a policy of approval for ultimate consignees/end users in these country groups that have already received 2E003.f technology under STA or existing licenses, many of which have had it for several years.

Thank you for your attention to this matter. If you require additional information, please contact James McNamara, Global Trade Compliance Manager, at 716-879-2389 or by email at Jim.McNamara@Linde.com.

Sincerely,

Linde Advanced Material Technologies Inc., c/o Linde Inc.

By: Jenne c Mchanar

Name: James McNamara Title: Global Trade Compliance Manager Street Address: 175 East Park Drive Tonawanda, NY 14050

Via Federal eRulemaking Portal Federal Register Number 2023-0019

Regulatory Policy Division Bureau of Industry and Security, U.S. Department of Commerce, Room 2099B 14th Street and Pennsylvania Avenue NW Washington, DC 20230

Subject:RTX Corporation Comments on Proposed Enhancements and Simplification
of License Exception Strategic Trade Authorization (STA)

RIN 0694-AJ32 (Ref.: 88 Fed. Reg. 85734)

RTX Corporation ("RTX") appreciates the opportunity to submit comments in response to the Bureau of Industry and Security's ("BIS") December 8, 2023, proposed rule (88 FR 85734) amending the Export Administration Regulations ("EAR") to revise License Exception Strategic Trade Authorization ("STA") ("Proposed Rule").

RTX supports and applauds BIS's effort to encourage use of STA for allied and partner countries while considering improvements to STA that account for the current export control environment, strengthen cooperation with allies and partners, and preserve national security. Broadly, RTX supports the proposed changes that seek to clarify STA eligibility for deemed exports and deemed reexports, modify the requirement that deemed exports and deemed reexports appear on an approved license or other approval for 600-series technology, clarify and maintain STA as a non-list-based exception, simplify identification of STA-eligible Export Control Classification Numbers ("ECCNs"), and remove the limitation on the use of License Exception APR for reexports between and among certain partner and ally countries.

RTX believes, however, that other proposed changes may not accomplish the intended goal and may inadvertently hinder ongoing cooperation with our closest allies and partners. With this concern in mind, RTX respectfully offers BIS the following comments and recommendations.

1. Industry is unable to assess or comment on the true impact of the removal of items from STA eligibility without information regarding BIS's anticipated approach to licensing. Imposing a licensing requirement on items that have been exported or reexported to or between the U.S.'s closest allies and partners since STA was added to the EAR in 2011 indicates that BIS intends to deny or condition approvals for these items. Although the Proposed Rule explains that changes to the items eligible for STA are part of a broad effort to liberalize controls for allied and partner countries and emphasizes the reliance on multilateral regimes, without information regarding BIS's national security objectives or expected licensing impact, industry is unable to fully anticipate the impact of the removals. This creates uncertainty for existing supply chains and partner relationships, and it may encourage existing partners (all of which are members of the

Wassenaar Arrangement) to design out or minimize U.S. content, contrary to BIS's stated goal for the changes.

- 2. Restrictions on 7D004 STA eligibility to A:5 countries will impede aircraft certification activities and promote "design-out" of U.S. content. In addition to this data being STA-eligible for over twelve years, the two most common scenarios for its export or reexport today are (1) civil aircraft design and integration, and (2) civil aircraft certification and airworthiness investigations. ECCN 7D004.c controls software for "fly-by-wire systems," which have been in commercial service since the last century, and which were introduced by Airbus (based in A:5 countries). Additionally, the three-dimensional displays described in ECCN 7D004.g currently exist in consumer televisions developed and produced outside the United States. As such, it is not clear what the proposed restriction aims to achieve.
- 3. Limits on using STA for ECCN 1E001 "development" or "production" "technology" for additional ECCNs, and to A:5 countries, will result in licenses being required to support some otherwise NLR (no license required) transactions. Two points underpin this concern. First, with the limited exceptions of ECCNs 1C001 and 1C3XX, all other proposed commodity ECCNs are currently controlled for National Security ("NS") Column 2 reasons, and therefore do not currently require a license for export to A:5 countries. Second, when exporting a commodity, it is often necessary to include 1E001 data to facilitate end user acceptance inspections, performance certifications, and other basic testing. The proposed modifications will, therefore, create logically inconsistent situations where parts can be exported NLR, but basic supporting information cannot. For example, imagine a company in the United Kingdom orders an ECCN 1A002 part (a composite inlet case) from a U.S. company. The U.S. company can export the part to the buyer NLR because it is controlled for NS2. However, the buyer also needs ECCN 1E001 supporting information (inspection reports, technical certification documents, etc.) necessary to show the part was manufactured properly and demonstrate to local aviation authorities that it's safe for use on civil aircraft. Under the proposed amendments to STA this data would require a license, even though the part itself can be exported NLR.
- 4. RTX recommends removal from ECCN 1E001 of the references to ECCN 1C007.d, as it has been "reserved" since 2017 (and is controlled in 1C007.c.2), and ECCN 1C012, as there is no such entry in the CCL.
- 5. RTX recommends BIS rationalize and modernize ECCN 2E003.f in conjunction with industry and other stakeholder agencies (e.g., Department of Defense) as an alternative to implementing new restrictions on STA eligibility. Given the concerns addressed herein, RTX believes that BIS could accomplish its regulatory goals more directly by revising ECCN 2E003.f., which is outdated (essentially unchanged since 1996) and the product of a very different global technology landscape. (Note that RTX initially raised this point in our response to BIS's October 22, 2021, proposed rule, RIN 0694-AI58. The relevant comments are excerpted at items 8 and 9, below.) Specifically, many aspects of ECCN 2E003.f are out of date in terms of foreign (and non-Wassenaar Arrangement Participating State) availability and do not accurately reflect critical

technologies. Further, the most effective CCL entries target the performance parameters and capabilities that enable military use, but are common to commercial applications (i.e., "dual use" items). ECCN 2E003.f should be rewritten to control coating technology based on the resultant performance of the coating, as the present entry that controls combinations of coating process, substrate, and resultant coating unnecessarily controls low-performing coatings available worldwide, while missing coating systems that did not exist when the control was drafted decades ago. We submit that only after ECCN 2E003.f has been modernized to properly control critical technologies, should BIS seek to revisit authorization policy.

6. The proposed change to 6D002 will have no practical effect but will generate more license requests. ECCN 6D002 exists on the CCL for conformity with the Wassenaar Arrangement regime, but due to the U.S. interpretation of the term "use," is effectively an empty box. Almost no software meets all six elements of "use," and the addition of prohibited ECCNs may cause confusion as to the scope of ECCN 6D002 under the EAR. By restricting 6D002 for "use" in 6A008 and 6B008 items, more companies may apply for licenses for software that is not actually controlled.

7. The Proposed Rule does not justify the removal of STA eligibility for ECCN 9B001 commodities and associated ECCN 9E001 and 9E002 technology and will unnecessarily increase licensing burdens on both BIS and industry.

ECCN 9B001 controls equipment to produce gas turbine engine parts regardless of the parts' performance capability. The cores and shells described in ECCN 9B001.b are part-specific; a core used in the casting of a low temperature industrial gas turbine engine blade is controlled for NS Column 1, even though both the blade and its "development" and "production" technology are EAR99. The technology to "produce" many aero gas turbine engine blades, vanes, or "tip-shrouds" is no higher than ECCN 9E991 and controlled only for Anti-Terrorism (AT) reasons. Controlling cores and shells used to cast blades, vanes, and "tip-shrouds" that do not incorporate 9E003.a technology is an overcontrol. This is somewhat mitigated by allowing STA eligibility for ECCN 9B001 equipment to A:5 countries. Because the cores and shells are part-specific, they can only be used to make parts for the specific civil engine and cannot reasonably be diverted to other applications.

Similarly, ECCNs 9E001 and 9E002 impose an NS Column 1 control on the "development" and "production" technology for equipment used to make blades, vanes, or "tip-shrouds" that only incorporate EAR99 or 9E991 technology, mitigated by the STA eligibility to our closest allies and partners. The technology for production of higher performing blades, vanes, or "tip-shrouds" is already controlled in 9E003.a.1, a.4, and a.5, which are not STA eligible. Because a license is required for the 9E003.a.1, a.4, or a.5 data to produce the turbine part, the 9E001 or 9E002 data associated with the 9B001 equipment can be covered by the same license.

Cores and shells used to make 600-series blades, vanes, or "tip-shrouds" are controlled in 9B619.a, with technology controlled in 9E619.a, both of which are STA eligible to A:5

countries, resulting in a lower control for equipment for production of military components than common commercial components. The primary manufacturers of casting equipment in 9B001.a and .c are located in A:5 countries, so it is not clear how restricting exports from the U.S. will enhance national security.

RTX recommends making no changes to the STA eligibility of ECCNs 9B001, 9E001, and 9E002. If the eligibility must be restricted for valid policy reasons, to avoid requiring a license for ECCN 9B001 equipment and associated 9E001 and 9E002 technology associated with EAR99 or 9A991 parts, RTX suggests the following:

a) For 9B001:

STA: License Exception STA may not be used to ship commodities in 9B001 to any of the destinations listed in Country Group A:6, or for commodities in 9B001 for the "production" of "parts" and "components" incorporating 9E003.a.1, a.4, or a.5 technology to any of the destinations listed in Country Group A:5. (See Supplement No.1 to Part 740 of the EAR).

b) For 9E001:

STA: License Exception STA may not be used to ship or transmit any "technology" in this entry for the "development" of equipment under 9B001 for the "production" of "parts" and "components" incorporating 9E003.a.1, a.4, or a.5 technology, to any of the destinations listed in Country Group A:5 (See Supplement No. 1 to Part 740 of the EAR).

c) For 9E002:

STA: License Exception STA may not be used to ship or transmit any "technology" in this entry for the "production of equipment under 9B001 for the "production" of "parts" and "components" incorporating 9E003.a.1, a.4, or a.5 technology, to any of the destinations listed in Country Group A:5 (See Supplement No. 1 to Part 740 of the EAR).

(Note: It is not necessary to list A:6 because each entry includes a blanket prohibition on the use of STA for ECCNs 9E001 or 9E002 to Country Group A:6.)

With respect to the proposed changes to STA, and in addition to the comments above, RTX wishes to reiterate two comments submitted originally in response RIN 0694-AI58 (Ref: 86 Fed. Reg. 58615).

8. The Proposed Rule does not justify the removal of STA eligibility for ECCN 2E003.f technology and will unnecessarily increase licensing burdens on both BIS and industry. Prior to the introduction of STA via the June 16, 2011, rule, BIS routinely approved licenses for ECCN 2E003.f technology to A:5 and A:6 countries, a factor that contributed to the inclusion of ECCN 2E003.f technology in STA. ECCN 2E003.f technology has been exported via STA to end users in country groups A:5 and A:6 for over a decade. The Proposed Rule does not adequately address either aspect of this history, either by explaining why licenses for A:5 and A:6 countries are less likely to be

approved today, or by explaining why the increased licensing burden on both BIS and industry will serve U.S. interests when the technology already has been widely exported. To address this, RTX recommends BIS provide its rationale for removing ECCN 2E003.f in the context of both its pre-STA licensing practice and the exports that have occurred under STA in the last decade. If there is no reason to believe the number of licenses granted for ECCN 2E003.f technologies to A:5 and A:6 countries would be meaningfully reduced today, the proposed limit on STA for ECCN 2E003.f technology is unnecessary.

Demonstrating the likelihood of a meaningful change in licensing outcomes is critical with respect to the Proposed Rule because it will increase the burden associated with exporting ECCN 2E003.f technology and have significant supply chain impacts. As an example, the repair of gas turbine engine parts is highly specialized, requiring certification from both the Original Equipment Manufacturer and civil aviation authorities. It normally takes an existing repair shop 18-24 months to be certified for a new part line (and longer for a new shop), requiring substantial investments of time and resources even before export authorizations are obtained. Removing ECCN 2E003.f's eligibility for STA will add licensing to an already arduous process, while simultaneously introducing the uncertainty associated with potential restrictive license conditions or license denials. Either outcome will result in significant disruptions associated with engine repair work.

9. If retained, the proposed restriction on the use of STA for ECCN 2E003.f is overbroad and should be narrowed. In addition to our concern about the licensing impact of limiting STA for ECCN 2E003.f technology, RTX believes that the preamble to the 2021 Proposed Rule offers a flawed justification for limiting the availability of STA to ECCN 2E003.f for coating technology used for "the application of inorganic overlay coatings on gas turbine engine combustors, or turbine blades, vanes or "tip shrouds[.]" Specifically, the 2021 Proposed Rule preamble notes that ECCN 2E003.f coating technology (in combination with casting and cooling technologies controlled in ECCNs 9E003 and 9E001/9E002, respectively) allows engine hot section parts and components to operate above the melting point of the base metal. In seeking to prevent the use of STA for application of coatings on combustors, or turbine blades, vanes, or "tip-shrouds," the Proposed Rule does not address the fact that only a small subset of combustor and turbine components actually operate above the base metal melting point. As an example, the combustors and turbine blades, vanes, or "tip-shrouds" utilizing ECCN 2E003.f technology coatings include both uncooled turbine components utilizing technology controlled in ECCN subparagraph 9E003.a.4 and lower temperature combustor and turbine components that incorporate only ECCN 9E991 and EAR99 technology. Critically, the coatings that enable the highest performing combustor and turbine engine parts to operate above their base metal melting point are not the same as those used on the more prevalent uncooled or lower temperature combustor and turbine components. As such, an overbroad end use control on ECCN 2E003.f technologies will result in technology for lower performing coatings being ineligible for export under STA.

In addition to catching too many ECCN 2E003.f technologies, the Proposed Rule, if implemented in its current form, would create regulatory inconsistencies that undermine

the apparent intent. For example, coatings incorporating ECCN 2E003 technology are used for repair of both commercial and military parts. Coating restoration (i.e., repair) of military combustors and turbine blades, vanes, and "tip-shrouds" currently falls under ECCN 9E619.a, which is STA eligible to A:5 countries. The same coating repair technology, when applied to a commercial engine part, would fall under ECCN 2E003.f and – if the Proposed Rule is implemented – require a license for the same repair shops that are able to restore military combustors and turbine blades under STA. As another example, an aluminide oxidation coating would be STA eligible if it were to be applied to a gas turbine rotor hub by a maintenance shop, but if the same shop sought to apply the coating to a turbine blade the use would have to be licensed by BIS.

(The above point is repeated, verbatim, from our earlier submission. RTX wishes to add, however, that if the rationale for the proposed restriction is concern over cooled parts that operate above the base metal melting point (as stated in the 2021 Proposed Rule), then the restriction should be changed from "turbine blades, vanes, and "tip-shrouds"" to "turbine blades, vanes, and "tip-shrouds" incorporating 9E003.a.1 or a.5 technology" to limit the scope to just those parts.)

* * *

In addition to inviting comment on proposed changes to the EAR, BIS requested feedback from the public on several specific topics. RTX's comments in response to select BIS prompts are as follows.

A. What factors contribute to the apparent reluctance of certain exporters, reexporters, and transferors to use License Exception STA or certain consignees to receive items under License Exception STA?

RTX believes that reluctance to use STA stems from (1) greater familiarity with licenses versus license exceptions, and (2) the increased paperwork burden associated with obtaining signed Prior Consignee Statements ("PCS") from consignees and end-users. RTX submits that the administrative burden of using STA should not be more restrictive than what is required for a license pursuant to the EAR. Applying for a BIS license only requires listing the ultimate consignee ("UC") and end-users and does not require such parties to sign paperwork, other than in the case of a Letter of Assurance, which is only required of the UC without the need for additional assurances from the other end-users identified on the license. In our experience, non-U.S. entities may not be familiar with the PCS, and UC and/or end-user resistance to signing the PCS can stem from this lack of familiarity, a desire not to take additional action, or a combination thereof. Obtaining a license can therefore ultimately be easier for exporters than using STA.

B. What changes should be made to the EAR to encourage greater usage of License Exception STA?

Further to our response to question A (above), RTX recommends that BIS either: (1) amend EAR § 740.20 to reduce the administrative load by eliminating the requirement that all end

users sign a PCS in favor of only requiring the UC to sign; or (2) require the use of STA through a published policy statement (see RTX response to question E, below).

E. What are the anticipated effects of requiring use of License Exception STA under the EAR when eligible, like other EAR license exceptions?

Requiring the use of STA in the proper circumstances, via either regulatory amendment or policy guidance, will increase its usage. As noted in the comments above, there is often pushback from non-U.S. parties, as they prefer the more familiar route of a license. If a licensing option isn't available in certain circumstances, it will force industry to become more comfortable with STA.

RTX submits that requiring use of license exceptions under the EAR will only create a favorable outcome only if both of the two following recommendations are adopted:

- It is not stated in the EAR that use of available license exceptions is required. Yet, except for use of STA, this appears to be BIS's policy. We believe this position could be more clearly communicated to industry in a policy statement stipulating when use of license exceptions (including STA) is required. In the case of STA, such guidance will eliminate the need to convince UCs and end users of the value of using STA, because it will be required.
- 2) BIS should only require use of license exceptions when the *entire* transaction is license exception eligible; otherwise, usage should be optional. This eliminates the need to manage two different authorizations and mitigates the compliance risk of sending items under the incorrect authorization. In the case where a portion of the transaction is not eligible for an exception, the exception-eligible aspects can be folded into the license application. It behooves the applicant to indicate those aspects that are exception eligible, as they should not be subject to denial or restrictive conditions during the license review process, but that indication should not be required. An example would be if the exporter needs to provide both ECCN 2E003.f and 9E003.a.4 technology to entities in country group A:5 to manufacture turbine vanes; the 9E003.a.4 is not STA eligible, but the 2E003.f technology is.

F. Should License Exception STA be a list-based license exception?

Please refer to RTX's response provided above at item 1.

G. What type of additional BIS outreach materials or outreach activities could encourage greater usage of License Exception STA?

Because of the complexity of STA's limitations, RTX recommends providing the restrictions in tabular form, in addition to the text-based regulatory language. Alternatively, RTX believes the same purpose could be accomplished by updating and publicizing the existing STA Interactive Compliance Tool.

* * *

In addition to the prompts above, BIS's proposed rule invited comments regarding the addition of a general statement to EAR Part 740 about the use of EAR license exceptions for deemed exports and reexports. The alternative would be to review applicable license exception sections in part 740 to add reference to deemed exports and deemed reexports. RTX supports the inclusion of a sentence addressing deemed exports in EAR § 740.1, as proposed by BIS. We believe this approach is preferable for clarity and efficiency. RTX also supports BIS's proposal to add a sentence to the end of the Note to paragraph (c)(1) in EAR § 740.20 that will specify that it does not apply to deemed exports or deemed reexports authorized under STA under EAR § 740.20(c)(1).

RTX recommends the changes to EAR Part 740, discussed above, be accompanied by a further modification to EAR § 740.20(b)(2)(iii) removing the current prohibition on use of STA for Missile Technology ("MT") controlled items. This change is reasonable because the original basis for the prohibition was eliminated by the Export Control Reform Act of 2018. Further, in the event certain, specific, MT-controlled items are deemed too sensitive for export to U.S. allies and partners, those items could be addressed via targeted carve-outs from STA. Using targeted carve-outs, instead of an across-the-board prohibition, would allow BIS to preserve limitations on items of concern while simultaneously providing a substantial reduction in the licensing burden associated with the export of MT items.

* * *

RTX thanks BIS for its consideration of these comments and welcomes the opportunity for further engagement on the modernization of ECCN 2E003.f and license exception STA.



February 6th, 2024

Timothy Mooney Regulatory Policy Division Bureau of Industry and Security 1401 Constitution Avenue Washington, D.C. 20230

Re: RIN 0694-AJ32 GE Aerospace Comments

Ref: General Electric Company comments for RIN 0694–AI58 dated December 6th, 2021

Dear Mr. Mooney:

GE Aerospace appreciates the opportunity to comment on this proposed rule to exclude ECCN 2E003.f from the scope of license exception STA, which was previously proposed under "Clarifications of Availability and Expansion of Restrictions on Availability of License Exception Strategic Trade Authorization Under the Export Administration Regulations" (October 2021 rule) (see 86 FR 58615 (October 22, 2021)). General Electric Company ("GE") provided feedback on the original proposed rule on December 6th, 2021, and hereby re-submits those comments which remain relevant for the subject proposed rule.

As described in the attached, GE proposes that eligibility for STA for ECCN 2E003.f remain unchanged. Should BIS move forward with the proposed rule, GE proposes continuation of STA eligibility for entities previously in receipt of lawfully exported ECCN 2E003.f technology.

Should you have any questions regarding this submission, you may contact me at scott.jackson1@ge.com or +1 704-280-2109.

Sincerely,

Scott W. Jackson International Trade Compliance Executive Leader GE Aerospace

Attachment: General Electric Company comments for RIN 0694–AI58 dated December 6th, 2021



General Electric Company

Jennifer Martin Senior Counsel International Trade Compliance GE Corporate 1299 Pennsylvania Avenue NW Suite 900, 9th Floor Washington, DC 20004

December 6, 2021

Regulatory Policy Division Bureau of Industry and Security U.S. Department of Commerce 14th Street and Pennsylvania Avenue NW Room 2099B Washington, DC 20230

Subject: RIN 0694-AI58 (BIS- 2020-0023) - Clarifications of Availability and Expansion of Restrictions on Availability of License Exception Strategic Trade Authorization under the Export Administration Regulations

Reference: Federal Register / Vol. 86, No. 202 / Friday, October 22, 2021 / Proposed Rules

Dear Sir/Madam:

General Electric Company ("GE"), on behalf of its GE Gas Power business unit, appreciates the opportunity to submit the following comments on the Bureau of Industry and Security ("BIS") proposed rule to exclude Export Control Classification Number ("ECCN") 2E003.f from the scope of License Exception Strategic Trade Authorization ("STA") when used for the application of inorganic overlay coatings on gas turbine engine combustors, or turbine blades, vanes or tip shrouds. While we understand that the proposed rule is intended reduce inconsistencies among similar technology, we respectfully submit that in most circumstances, implementation of such rule, as drafted, would create additional licensing complexities without the desired improvement to the controls on exports. As described in further detail below, GE first proposes that the current eligibility for STA on ECCN 2E003.f technology remain in existence, without modification. In the alternative, GE proposes continuation of STA eligibility for entities previously in receipt of lawfully exported ECCN 2E003.f technology.

Background

GE Gas Power is a world leader in the design, manufacture, and servicing of gas turbines used for power generation. Such activity utilizes Vapor Plasma Spray ("VPS") technology, classified as ECCN 2E003.f, to produce coatings on various components inside its gas turbines. GE Gas Power develops its VPS technology in the United States ("US") and due to the global nature of its supply chain, exports this technology to GE Gas Power sites and suppliers in non-US countries. These sites and suppliers perform coating applications on hardware being manufactured or repaired for use in GE Gas Power's gas turbines.

Prior to ECCN 2E003.f being added to the scope of License Exception STA in 2011, GE Gas Power requested licenses from BIS to allow for exports of VPS technology to its foreign sites and suppliers performing VPS coating operations. For the past ten (10) years since ECCN 2E003.f was added to the scope of the STA, GE Gas Power has been exporting its VPS technology utilizing such exception in lieu of requesting and exporting against licenses.

Due to the nature of its operations, GE Gas Power maintains this technology in the US with strict intellectual property access controls. Authorized foreign sites or entities may access the technology from the US as required and in accordance with STA requirements, creating multiple exports of the same or similar technology to the same foreign entity.

Comments

1. Considerations regarding Current Foreign Sites and Suppliers

GE expects that if implemented as drafted, the proposed rule would significantly increase administrative efforts while only providing a nominal enhancement to export controls for such technology.

GE Gas Power has continuously and lawfully exported VPS technology to its foreign sites and suppliers under STA since 2011. Therefore, such sites and suppliers are already in possession of the same or similar ECCN 2E003.f technology that is now proposed as requiring licenses approved by BIS. Therefore, if implemented, the vast majority of new licenses would only allow for the continued export of the same or similar technology previously exported to these same foreign sites and entities.

Further, GE Gas Power would now be required to request, receive approval for, and manage licenses for a new category of technology that has historically been, and continues to be, critical to its business. This requires the administrative effort to develop the license request in coordination with GE's foreign sites and entities, on a recurring basis, notwithstanding the fact that such parties have already received such technology.

Therefore, GE respectfully submits that implementation of the proposed rule may not achieve the intended results of enhancing export controls given the long history of License Exception STA allowance and lawful usage.

2. Considerations regarding European Export Controls

GE notes that other jurisdictions have general export authorizations available for the export of ECCN 2E003.f technologies to certain countries. More specifically, the following United Kingdom ("UK") or European Union ("EU") authorizations allow for the export of dual-use items, to include the technology described in ECCN 2E003.f:

- Union General Export Authorization No EU001 ("EU001"), issued by the EU, authorizes exports to Australia, Canada, Iceland, Japan, New Zealand, Norway, Switzerland (including Liechtenstein), the United Kingdom, and the United States;
- Retained General Export Authorisation 001 ("GEA001"), issued by the United Kingdom, authorizes exports to Australia, Canada, Japan, New Zealand, Norway, Switzerland (including Liechtenstein), and the United States;
- Open General Export Licence Export of Dual-Use items to EU Member States ("EU OGEL"), issued by the United Kingdom, authorizes exports to European Union Member States as follows: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, and Sweden.

These general export authorizations simplify and streamline the export process for businesses by removing the need to apply for, receive, and manage specific licenses for export transactions. In the examples of EU001 and GEA001, exporters must only register with the appropriate authorities, as opposed to applying for and managing a specific license for each transaction type. Further, such general authorizations have no expiration dates and are active until revoked, as opposed to specific licenses which expire and require renewal on a continuous basis. BIS license exceptions, such as STA, operate similarly to general export authorizations issued by the EU and UK. The current eligibility for STA relative to ECCN 2E003.f technology is aligned with the EU and UK controls as described in the licenses and authorizations above.

Based upon the global its operations, GE submits that export controls are most effective when there is multilateral alignment to ensure a fair and consistent business framework. Due to the increased burden, the requirement to obtain a license to export ECCN 2E003.f technology may disadvantage US companies compared to foreign companies in jurisdictions with available general authorizations. Alignment, therefore, mitigates the risk of U.S. entities being disadvantaged due to different or more onerous licensing requirements.

Recommendation

GE recognizes the BIS desire to control coating technologies controlled under ECCN 2E003.f in a manner consistent with the controls for related casting and cooling technologies controlled under ECCN 9E003 and ECCN 9E001, respectively.

Given the history of ECCN 2E003.f export control requirements and allowance for License Exception STA, as well as the general authorizations or licenses in place in the United Kingdom and EU, we first respectfully recommend that BIS continue the current STA eligibility for ECCN 2E003.f technology.

In the alternative, we respectfully recommend that STA may be used to export, reexport, and transfer (in-country) ECCN 2E003.f technology to entities in, or nationals of, a country listed in

RIN 0694–AI58 Page 4 of 4

Country Group A:5 under Supplement No. 1 to part 740 of the EAR or the United States previously on an authorization approved by BIS or the Directorate of Defense Trade Controls at U.S. Department of State or that have otherwise previously lawfully received ECCN 2E003.f technology under License Exception STA. This would allow continued exports of ECCN 2E003.f technology utilizing STA to foreign sites and entities that have already received such technology, thereby focusing the requirement for an export license, and the opportunity for BIS review, for new foreign parties. This increases scrutiny for exports of ECCN 2E003.f technology to new foreign sites and entities, while simultaneously retaining STA eligibility for exports where the benefit of licensing would be minimal given the intended parties' previous possession of such technology.

Thank you for your review of this submission. Should you have any questions, please contact the undersigned by telephone at (401) 266-6906 or by e-mail at jennifer.martin2@@ge.com. You may also contact Diego Marquez, Executive Counsel, GE Corporate International Trade Compliance, by phone at (202) 794-0550 or by e-mail at diego.marquez@ge.com.

Sincerely,

Jennifer Martin Senior Counsel International Trade Compliance General Electric Company

cc: Diego Marquez, Executive Counsel, GE Corporate



The Boeing Company 929 Long Bridge Drive MC 7949-5929 Arlington, VA 22202

February 6, 2024

Regulatory Policy Division Bureau of Industry and Security U.S. Department of Commerce

Subject: Proposed Enhancements and Simplification of License Exception Strategic Trade Authorization (STA)

Reference: Federal Register / Vol. 88, No. 235 / Friday, December 8, 2023 *RIN-0694-AJ32*

The Boeing Company (Boeing) appreciates the opportunity to comment on the Bureau of Industry (BIS) proposal to enhance license exception Strategic Trade Authorization (STA) as discussed in the above referenced Proposed Rule (PR).

The creation of license exception STA was a valued and sensible undertaking during Export Control Reform. STA use has been widely adopted across Boeing businesses. The underlying STA concept of streamlining and harmonizing exports between the United States and close allies has been validated by the alignment of export controls in 39 countries in response to Russian aggression in Ukraine. We applaud BIS for seeking to clarify regulatory text and processes to promote further use of STA.

Proposed Changes to STA Use

Boeing supports clarifying that STA is not a list-based exception. We agree with explicitly stating that deemed exports and reexports are eligible for STA. Eliminating the requirement in deemed export/reexport cases to have been listed on a previous license is welcome. The proposal to place all STA exclusions in the ECCN listings, rather than navigating between 740.20(b)(2) and ECCN text is an important improvement and will simplify STA analysis.

STA Challenges

STA is used in different Boeing business environments.

In our Boeing Commercial Airplanes (BCA) business, the availability of STA is an important and embedded element of our work at Boeing engineering centers overseas. The proposed restrictions on ECCN 1E001 for example would be a significant setback. Recipients of this technology already have it, both indigenously and from other commercial airplane manufacturers.

In our Distribution business, which consists of part and component exports for all airframes to manufacturers, airlines, operators, maintenance, repair and overhaul (MRO) entities, etc., STA is largely used for 600-series commodities. Distribution is a fast paced, high volume, low touch



business. Customers frequently object to signing a Prior Consignee Statement due to the requirement to agree to U.S. Government end-use checks for the items. Non-U.S. parties generally do not understand that the USG is entitled to conduct end use checks under licenses as well. There is only so much export control education we can undertake in this business environment. We urge BIS to explain USG rights to conduct end use checks under STA and under licenses to its foreign regulator counterparts and encourage them to flow this to their industry sectors.

In our Defense business we find the same resistance to end use checks as relayed in the Prior Consignee Statement. Additionally, exports in this space often involve multiple parties and reexports or in-country transfers. It is difficult to ensure that all parties have been previously approved on another authorization. Given that STA exports are restricted to U.S. allies and partners, *i.e.* A:5 countries, this requirement should be eliminated; exporters should instead be able to rely on restricted party list screening. Finally, we see resistance by Department of Defense stakeholders to the use of STA that we encourage BIS to investigate and address.

Proposed Changes to STA Eligibility

Regarding whether additional items should be STA eligible, BIS should consider expanding STA eligibility to additional ECCNs including MT-controlled 600 series items in cases where all parties to the transaction or natural persons are nationals of the so-called Five Eyes countries, *e.g.* Australia, Canada, New Zealand, and the United Kingdom.

Boeing strongly objects to removing STA eligibility for ECCNs that are currently covered, including the seven cited in this Proposed Rule (PR) for the following reasons.

- In the PR section titled "Liberalizing Controls for Allies and Partners" BIS affirms the importance of "deeper ally and partner country relationships" citing work done in the U.S.-European Union Trade and Technology Council and the Japan Commercial and Industrial Partnership. Restricting STA exports to allies and partners is contrary to those goals and affirmations;
- The items proposed for rollback have been exported under STA for over 12 years, changing the rules at this point is disruptive to existing export processes and to ongoing work with allies and partners;
- For example, ECCN 2E003 is exported to allies and partners for metal working tool design and manufacturing processes that support commercial aircraft production in the U.S. ECCN 7D004 is exported for civil aircraft design and integration activities and also in support of civil aircraft certification and airworthiness investigations. The latter two activities are typically time sensitive;
- The items proposed for restrictions are already available in A:5 countries either indigenously or via exports since 2011;
- No national security justification is provided for this proposed change; does BIS now feel that our allies and partners present a diversion risk?



- Shifting from an exception posture to licensing burdens US technical leadership; STA is an important mechanism to enable smooth collaboration, during which US companies both export and receive technology;
- The European Union and the United Kingdom have general export authorizations in place for these items that align with STA.

This is now the third time BIS has proposed rolling back STA eligibility for specific ECCNs; each attempt prompts exporters to consider whether STA is a stable license exception and whether a license would be better.

Thank you for considering our input. Please contact me if with questions or if additional information is needed at 703-517-0971 or at janelle.f.gamble@boeing.com.

Sincerely,

Jemelle & . Hamlle

Manager Global Trade Controls

February 6, 2024



Regulatory Policy Division Bureau of Industry and Security U.S. Department of Commerce 14th Street and Pennsylvania Avenue NW Room 2099B Washington, DC 20230

Comments on Proposed Enhancements and Simplification of License Exception Strategic Trade Authorization (STA)

Ref.: RIN 0694–AJ32, Docket No. 231117-0272, 88 FR 85734 (Dec. 8, 2023)

Dear Mr. Mooney:

The Association for Uncrewed Vehicle Systems International (AUVSI), appreciates the opportunity to submit comments on the Bureau of Industry and Security ("BIS") proposed rule for *Proposed Enhancements and Simplification of License Exception Strategic Trade Authorization (STA)*, 88 Fed. Reg. 85,734 (Dec. 8, 2023) (the "Proposed Rule").

AUVSI is the world's largest non-profit organization dedicated to the advancement of uncrewed systems, autonomy, and robotics. We represent corporations and professionals from more than 60 countries that are involved in industry, government, and academia. AUVSI's primary markets span the defense, civil, and commercial industries. AUVSI's membership also includes many of the leading companies in the AAM industry. Uncrewed systems of all sizes and missions represent an expansive market within the transportation system, and it is our mission to ensure all types of uncrewed systems, autonomy, and robotics companies that work with us have access to the resources they need to be successful in such a highly competitive industry.

We support BIS's efforts to encourage additional use of License Exception STA ("STA") by providing clarifications regarding the availability of and requirements for STA and to adopt a simpler and more consistent approach to identifying the ECCNs that are STA-eligible. As STA is only available for a limited group of partner and ally countries that closely coordinate with the United States on export controls and other foreign policy matters, we agree that expanded use of STA is consistent with our national and economic security objectives.

1. Removal of STA Eligibility for ECCN 7D004

Contrary to the overarching purpose of the Proposed Rule, BIS also stated that it intends to further restrict STA eligibility for certain ECCNs, including ECCN 7D004. The Proposed Rule states that:

The current STA Special condition [in ECCN 7D004] states that "License Exception STA may not be used to ship or transmit "software" in 7D004.a to .d and .g to any of the destinations listed in Country Groups A:6." The proposed revisions to the regulatory text in 7D004 would extend the STA eligibility restriction to Country Group A:5.



BIS therefore proposes that, going forward, any shipment or transfer of 7D004 software to Country Group A:5 will require a license issued by BIS.

BIS provides no justification for the removal of STA eligibility for ECCN 7D004. Historically our members, commercial delivery drone operators and others, have used STA in the following scenarios:

- Release of ECCN 7D004 technology to non-U.S. persons from A:5 countries who are employed full-time by our member companies in the United States; and
- Release of ECCN 7D004 technology to non-U.S. persons located in A:5 countries who are employed full-time by our member companies.

If BIS makes the proposed change, we anticipate that BIS will receive a significant volume of licenses to authorize the types of exports described above, all of which we would expect to be approved. Also, rescission is counter to the goal of deeper ally and partner country relationships

Applying this license requirement to Country Group A:5 has no apparent benefit and significant costs for both industry and BIS, as well as the potential to cause delays or disruptions to services involving to our closest allies and partners. It will also delay, impede, and reduce our member companies' ability to hire and retain top engineering talent, as the license requirement process will make it more difficult, time consuming, and costly to hire non-U.S. persons from A:5 countries to work on ECCN 7D004 technology, which will inhibit US technical leadership. This risks making our member companies, mainly U.S.-based, less competitive and increases their compliance burden unnecessarily.

Technology covered by ECCN 7D004 is widely available in A:5 countries and others, which mitigates against removing STA eligibility. For example:

- Commercially available UAVs with obstacle detection and autonomous maneuvering capabilities. *See, e.g.,*
 - Skydio R1 flying camera that autonomously follows and avoid objects using visual sensors. <u>https://support.skydio.com/hc/en-us/articles/360000593334-How-does-R1-work</u>.
 - Parrot Anafi Ai 4G LTE capable flying camera that uses Ai to detect and avoid obstacles. <u>https://www.parrot.com/en/drones/anafi-ai</u>
- Open-source flight control software that enables hobbyists to implement autonomous obstacle avoidance in UAVs.
 - PX4 Autopilot autonomous obstacle avoidance with visual detection with "full control" of the UAV. <u>https://docs.px4.io/v1.9.0/en/computer_vision/obstacle_avoidance.html</u>.
 - PX4 Autopilot autonomous collision prevention using visual or other sensors to detect objects. <u>https://docs.px4.io/v1.9.0/en/computer_vision/collision_prevention.html</u>
 - ROS Navigation open source code to enable autonomous obstacle avoidance. <u>https://github.com/ros-planning/navigation</u>.



- Publicly filed patents and scientific papers show that ECCN 7E004 technology is widely available outside the U.S. in both commercial and military uses. *See, e.g.,*
 - The Eurodrone, a European collaborative project, which can use a variety of sensors to detect obstacles and autonomously execute evasive maneuvers. <u>https://www.uasvision.com/2023/06/02/hensoldt-equips-eurodrone-with-detect-and-avoid-radar/</u>. UAS Vision (June 2023).
 - The Autonomous Air Collision Avoidance System intended to autonomously prevent air-to-air collisions, developed by a collaboration between U.S. and Swedish organizations. *Autonomous Collision Avoidance for Air-to-Air Operations*. Donald E. Swihart (Oct. 2003).
 - Patent for Israeli company's remotely controlled unmanned ground and air device with autonomous obstacle detection and avoidance. U.S. Patent No. 6,588,701 (Jul. 8, 2003).
- 2. Addition of STA Eligibility for ECCN 7E004

A similar rationale applies to transfers of technology in ECCN 7E004. See Section 1, above.

As with ECCN 7D004, applying this license requirement to Country Group A:5 has no apparent benefit and significant costs for both industry and BIS, as well as the potential to cause delays or disruptions to services to our closest allies and partners, and to hinder our member companies' operation by making it harder and more costly to hire top talent.

3. Requested Actions

For the reasons stated above, we therefore request that BIS take the following actions in response to our comments:

- 1. Maintain the existing STA eligibility for ECCN 7D004 for Country Group A:5.
- 2. Add STA eligibility for ECCN 7E004 for Country Group A:5.

Thank you for your review of this submission. If you have any questions or would like to discuss, please contact me at sshtofman@auvsi.org.

Sincerely,

Scott Shtofman Director Government Affairs AUVSI



February 6, 2024

Hon. Alan F. Estevez Under Secretary of Commerce for Industry and Security U.S. Department of Commerce 1401 Constitution Avenue NW Washington, DC 20230

<u>Subject:</u> Aerospace Industries Associations Comments: License Exception Strategic Trade Authorization

Submission: Electronically on http://www.regulations.gov

Reference: BIS-2023-0019, RIN 0624-AJ32

Dear Under Secretary Estevez,

The Aerospace Industries Association (AIA) and its more than 320 member companies welcome the opportunity to provide comments on the Bureau of Industry and Security (BIS) proposed amendments to the License Exception Strategic Trade Authorization (STA).

AIA represents companies in the aerospace and defense (A&D) industry, ranging from small suppliers to large original equipment manufacturers (OEMs). Our industry exported \$104.8 billion of goods in 2022 and serves as a symbol of U.S. global leadership. While AIA is supportive of BIS' efforts to revise the STA, our members are concerned that some of the proposed changes will have a negative effect on the A&D industry's ability to cooperate with allies and partners.

Increased alignment between the regulatory structure of the U.S. and foreign partners is needed to facilitate cooperation, particularly as new and advanced commercial and dual-use technologies reach the global market. However, the perceived complexity and inconsistency of STA regulations by U.S. industry and foreign partners may increase compliance burdens and discourage utilization of the license exemption. Overall, AIA welcomes proposed changes to simplify language on deemed exports and reexports, exclude the requirement to list approvals when using STA for "600 series" technology, and adopt clearer processes on identification of ineligible Export Control Classification Numbers (ECCNs).

While U.S. industry remains eager to leverage STA exemption authority, a clear and progressive regulatory and licensing process is necessary to ensure that STA enhances cooperation and does not burden the A&D industry. AIA members are concerned that some proposed changes to ECCNs in the STA may be disruptive to the A&D industry during a time where strong collaboration with ally and partner countries is vital for national security.

The A&D industry relies on the STA to export ECCN 7D004 data technology in support of civil aircraft design and integration activities, certifications, and airworthiness investigations. STA license exception for ECCN 7D004 has been available to U.S. industry for over a decade and is widely available on the global market to non-U.S. manufacturers. The proposed regulation to



remove STA for ECCN 7D004 introduces unnecessary hurdles for the A&D industry and incentivizes partners to consider non-U.S. suppliers for their aerospace needs.

Similarly, our members regularly use STA for ECCN 1E001 with existing ECCNs to export data critical to supporting customers' completion of item performance certifications and other essential testing. This data is vital in demonstrating to aviation authorities that exported items are suitable for use on civil aircraft. The proposed restrictions to STA for ECCN 1E001 to A:5 countries may create an undesirable scenario where an item for use in civil aviation can be exported without a license, but the critical data needed to support the intended end use will require a license. AIA members are concerned this may an obstacle to procurement that decrease U.S. competitiveness.

Additionally, our members do not support proposed changes to ECCN 6D002 and STA eligibility for ECCN 9B001 commodities and ECCN 9E001 and 9E002 technology. These proposed changes will add undue licensing burdens on U.S. industry and processing burdens on BIS without benefiting U.S. objectives.

Restricting ECCN 6D002 for "use" in 6A008 and 6B008 items may result in companies mistakenly applying for licenses for software that is not actually controlled (i.e., does not meet all the "use" criteria). Additionally, the removal of STA eligibility for ECCN 9B001 commodities and associated ECCN 9E001 and 9E002 technologies will not meaningfully improve the ability of the U.S. to protect capabilities related to production blades, vanes, or "tip-shrouds" because technology for production of more sensitive, higher performing versions are already controlled in 9E003.a.1, a.4, and a.5, which are not STA eligible.

AIA appreciates BIS guidance regarding its future licensing policies towards ECCNs that are currently eligible for STA but requests further clarity. Companies are concerned that activities in progress, or being contemplated, could unexpectedly be delayed by the need to obtain licensing for exports currently authorized by STA. Thus, our members require clarity around U.S. national security policies as they directly correlate to items that are no longer eligible for STA. U.S. regulatory uncertainty may also push partners and allies to consider non-U.S. suppliers.

The U.S. A&D industry depends on smart and flexible controls. The STA license exception is a useful tool that enables the A&D industry to better collaborate with ally and partner countries; however, uncertainty on eligibility and licensing disincentivizes industry to utilize STA and foreign customers to work with U.S. manufacturers.

Our members are encouraged by BIS' efforts to inject clarity into exemption eligibility; however, proposed regulations must not roll back recent advancements made in easing exports to partner countries. BIS should consider expanding STA eligibility to items controlled for missile technology reasons when exporting to Five Eyes countries. Additionally, requirements should be streamlined, including eliminating the prior consignee statement, and where past recipients have already been authorized. These additional changes merit consideration given STA is limited to close allies and partners.

AIA appreciates the attention placed on improving STA license exception processes that provide incentivizes for U.S. industry to work more closely with ally and partner countries. Reviewing this important regulatory and licensing process ensures the A&D sector can continue to support U.S. national security and economic objectives while remaining competitive in the global



market. As you consider further changes, we encourage BIS to consult with industry to determine best practices to promote STA utilization.

Thank you again for the opportunity to provide public comments to the notice. AIA and its members look forward to continuing close collaboration with BIS on this matter. If you have any questions or require additional information, please contact my staff lead for this matter, Lizzie Patterson (<u>lizzie.patterson@aia-aerospace.org</u>).

Sincerely,

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Derek "Dak" Hardwick Vice President, International Affairs Aerospace Industries Association

Before the BUREAU OF INDUSTRY AND SECURITY Washington, D.C. 20230

In the Matter of)	
)	
Proposed Enhancements and)	RIN 0694-AJ32
Simplification of License Exception)	
Strategic Trade Authorization (STA))	

COMMENTS OF ASTROSCALE U.S. INC.

Astroscale U.S. Inc. ("Astroscale U.S.") hereby submits comments to the Bureau of Industry and Security's ("BIS") Proposed Rule in the above-reference proceeding.¹ Astroscale U.S. thanks BIS for the opportunity to provide feedback on clarifications and guidance that can support increased use of License Exception Strategic Trade Authorization ("STA"). In addition to clarifying changes for License Exception STA, Astroscale U.S. urges BIS to act expeditiously in partnership with the Department of State to reexamine controls for space-related commodities.

I. Introduction

Minimizing continued proliferation of space debris and preserving assured access to space is in the national security interest of the United States.² Space debris decreases available launch windows, requires operators to expend costly fuel to avoid collisions, and can damage or destroy U.S. space objects. Significantly, collaboration with allies and partners to facilitate deployment of innovative debris mitigation and remediation technologies, like active debris removal, is in line with U.S. national security and industrial interests.³

Astroscale U.S. is a leading provider of in-space servicing solutions – including inspection, transportation, life extension, debris removal, and refueling – for the U.S. Government, partner

¹ Proposed Enhancements and Simplification of License Exception Strategic Trade Authorization (STA), Proposed Rule, 88 Fed. Reg. 85734 (Dec. 8, 2023) [*hereinafter* BIS Proposed Rule].

² See, e.g. Fact Sheet: Vice President Harris Advances National Security Norms in Space, EXEC. OFF. OF THE PRESIDENT (Apr. 18, 2022), https://www.whitehouse.gov/briefing-room/statements-releases/2022/04/18/fact-sheet-vice-president-harris-advances-national-security-norms-in-space/ ("Meaningfully reducing ASAT testing and debris generation advances U.S. national security interests and protects long-term U.S. interests in space exploration, space science, and space-enabled economic development."); Space Policy Directive 3: National Space Traffic Management Policy, 83 Fed. Reg. 28969 at § 3(c) (June 18, 2018) ("Orbital debris presents a growing threat to space operations.").

³ See National Space Policy, 85 Fed. Reg. 81755 at § 4(2) (Dec. 16, 2020).

governments, and commercial operators around the world.⁴ As the U.S. branch of a global corporation, Astroscale U.S. understands that an evolved export regime is critical to ensuring continued U.S. and allied leadership in space technologies and responsible space behavior.

II. Astroscale U.S. Supports Clarifying Changes to License Exception STA.

Within this proposed rule, BIS proposes several clarifying changes to License Exception STA with the aim of expanding its use. Astroscale U.S. is generally supportive of several of these changes, including replacing unclear phrasing to specify License Exception STA may be used to authorize deemed exports and deemed reexports, as well as adding a new note to clarify how § 740.20(b)(2) relates to Special Conditions for STA section in ECCNs.⁵

Additionally, Astroscale U.S. supports adding language to clarify that any license exception authorizing exports and reexports of technology also authorizes deemed exports and deemed reexports, provided underlying license exception conditions are met.⁶ Astroscale U.S. is generally agnostic as to how this change is reflected, but notes that many license exception sections begin with a "scope" statement;⁷ modifying only § 740.1(a), and not the scope of discrete license exceptions, may generate confusion or errors in understanding the applicability for deemed exports and deemed reexports.

Finally, Astroscale U.S. supports the proposal to delete all § 740.20(b)(2) ECCN exclusions and instead move them into the Special Conditions for STA section of the twenty-nine respective ECCNs.⁸ Overall, Astroscale U.S. believes that the above proposed changes will improve the clarity of intent of License Exception STA and reduce barriers to its use.

III. BIS Should Release Updated Guidance While Pursing Wholistic Export Review for Space-Related Commodities.

In addition to proposing target regulatory changes, BIS asks general questions about clarifications or guidance that can facilitate use of License Exception STA.⁹ First, Astroscale U.S. suggests that BIS highlight the existence of the STA Interactive Compliance Tool, either by

⁴ See, e.g., Sandra Erwin, Astroscale Reveals Concept of Operations for Its In-Orbit Refueling Vehicle, SPACENEWS (Jan. 17, 2024), https://spacenews.com/astroscale-reveals-concept-of-operations-for-its-in-orbit-refueling-vehicle/ (concept of operations for the Astroscale Prototype Servicer for Refueling (APS-R) that Astroscale U.S. is developing under a public-private partnership agreement with the U.S. Space Force).

⁵ BIS Proposed Rule, *supra* note 1, at III.A, V.B.

⁶ Id. at III.B.

⁷ See, e.g., 15 C.F.R. §§ 740.3(a) (scope of License Exception LVS), § 740.6 (scope of License Exception TSR), § 740.7(a) (scope of License Exception APP).

⁸ As noted by the Proposed Rule, this excludes existing § 740.20(b)(2)(i), (iii), which would be redesignated. BIS Proposed Rule, *supra* note 1, at V.A.

⁹ *Id.* at VIII.

reference in the EAR or in the CCL.¹⁰ Beyond a click-through tool, additional visual aids, such as a flow chart of the steps for understanding STA eligibility, could be developed and deployed. Second, Astroscale U.S. encourages BIS to update existing guidance, noting that the document listing 9x515 and "600 series" items determined eligible for License Exception STA has not been updated in since January of 2021.¹¹

While highlighting outreach materials and updating guidance may marginally increase use of License Exception STA, it does not address a significant underlying problem – export review of space-related commodities is urgently needed. A substantive and comprehensive export review for spacecraft commodities has not been conducted since January of 2017.¹² Rather than supporting U.S. industry and the growing commercial space economy, this Proposed Rule contains a time-consuming, piecemeal approach to export reform, asking industry to identify one-off ECCNS that could have STA eligibility added.¹³

BIS and the State Department should act expediently to fulfill the Vice President's direction to "conduct a review of space export controls to enable a globally competitive U.S. industrial base while protecting our national security and foreign policy interests."¹⁴ Specifically, Astroscale U.S. urges BIS and the State Department to release the Notice of Proposed Rulemaking to examine controls of USML Categories IV and XV, and related CCL items and controls, that has been desired since 2019.¹⁵ Releasing the NPRM would be aligned with Executive direction to conduct a comprehensive export review of space-related commodities and support industry seeking to promote U.S. leadership and international partnerships in this new space age.

¹⁰ See Strategic Trade Authorization (STA) Interactive Compliance Tool, BIS (2020), https://www.bis.doc.gov/index.php/statool.

¹¹ 9x515 and "600 series" Items Determined to be License Exception STA Eligible Pursuant § 740.20(g) of the EAR, BIS (Jan. 6, 2021), https://www.bis.doc.gov/index.php/documents/policy-guidance/2369-license-exception-sta-740-20-g-determinations/file.

¹² Requests for Comments Regarding Review of United States Munitions List Categories IV and XV, 84 Fed. Reg. 8486, 8487 (Mar. 8, 2019) (noting USML Category IV was most recently fully revised almost *ten years ago*, in 2014, and USML Category XV was most recently revised in January 2017, over seven years ago).

¹³ BIS Proposed Rule, *supra* note 1, at VII.

¹⁴ *Fact Sheet: Strengthening U.S. International Space Partnerships,* Exec. Off. Of the President (Dec. 20, 2023), https://www.whitehouse.gov/briefing-room/statements-releases/2023/12/20/fact-sheet-strengthening-u-s-international-space-partnerships/ (noting the Vice President directed the U.S. Government to conduct a review of space export controls at the December 2023 National Space Council meeting).

¹⁵ The Regulatory Agenda, RIN 0694-AH66, lists a DOC/BIS NPRM for "Review of Commerce Control List for Items Transferred from United States Munitions List Categories IV and XV," with a publication date of January 2024. Additionally, RIN 1400-AE73 lists a related DOS NPRM for "International Traffic in Arms Regulations: USML Categories IV and XV" with a publication date of January 2024. Astroscale U.S. notes that this NRPM was additionally on the Unified Regulatory Agenda for release since at least spring of 2023, and industry is still waiting. *See Fall 2023 Unified Agenda of Regulatory and Deregulatory Actions*, Reginfo.gov, https://www.reginfo.gov/public/do/eAgendaMain (last visited Feb. 1, 2024).

IV. Conclusion

Reviewing and promoting use of License Exception STA is a positive step in expanding cooperation with allies and partners and protecting U.S. national security, industry, and foreign policy interests. Astroscale U.S. supports several common-sense changes proposed by BIS to improve the License Exception STA regime, including clarifying language and updating existing guidance. Moreover, as the U.S. looks to a future of increased strategic cooperation with partners and allies, it is imperative that BIS and the State Department take bold steps to comprehensively review export controls of space-related commodities. Astroscale U.S. emphatically urges BIS to release an NPRM to wholistically review CCL for items transferred from USML IV and XV.

Astroscale U.S. thanks BIS for this opportunity to comment on License Exception STA reforms and highlight the need for wholistic export review of space-related commodities.

Sincerely,

/s/ Laura Cummings

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