



**Billing Code: 3510-33-P**

**DEPARTMENT OF COMMERCE**

**Bureau of Industry and Security**

**[Docket No. 170106032-7037-01]**

**RIN 0694-XC035**

**Increase of Controls: Infrared Detection Items**

**AGENCY:** Bureau of Industry and Security, Commerce.

**ACTION:** Notice of inquiry with request for comments.

**SUMMARY:** On October 12, 2016, the Bureau of Industry and Security (BIS) published a final rule entitled “Revisions to the Export Administration Regulations (EAR): Control of Fire Control, Laser, Imaging, and Guidance Equipment the President Determines No Longer Warrant Control Under the United States Munitions List (USML).” This notice of inquiry is published to request comments from the public on the impact of further increasing certain controls implemented by that final rule.

**DATES:** Comments must be received by BIS no later than [INSERT DATE IN FEDERAL REGISTER 60 DAYS FROM DATE OF PUBLICATION].

**ADDRESSES:** Comments on this rule may be submitted to the Federal rulemaking portal ([www.regulations.gov](http://www.regulations.gov)). The regulations.gov ID for this rule is: BIS-2017-0001. Please refer to RIN 0694-XC035 in all comments.

**FOR FURTHER INFORMATION CONTACT:** For questions regarding the ECCNs included in this rule, contact Christopher Costanzo at 202-482-0718 or E-mail [Christopher.Costanzo@bis.doc.gov](mailto:Christopher.Costanzo@bis.doc.gov).

**SUPPLEMENTARY INFORMATION:**

**Background**

On October 12, 2016, the Bureau of Industry and Security (BIS) published a final rule entitled “Revisions to the Export Administration Regulations (EAR): Control of Fire Control, Laser, Imaging, and Guidance Equipment the President Determines No Longer Warrant Control Under the United States Munitions List (USML)” (81 FR 70320), hereafter referred to as the “October 12 final rule.” This final rule was preceded by two proposed rules published on May 5, 2015 (80 FR 25798) (“May 5, 2015 proposed rule”) and February 19, 2016 (81 FR 8421) (“February 19, 2016 proposed rule”). Revisions made by the October 12 final rule became effective on December 31, 2016. During the course of public comment and interagency discussion on the rule that became effective at the end of 2016, several ideas for new types of controls under the ITAR arose. Because these controls were not proposed earlier and not subject to public comment, they were not included in the October 12 final rule. Thus, the Department of State is publishing a notice of inquiry addressing those controls. Along with those possible new controls under the ITAR, this notice of inquiry requests comments from the public on the potential impact of increasing certain EAR controls established in the October 12 final rule. Items controlled in certain Export Control Classification Numbers (ECCNs) in Category 6 of the Commerce Control List (CCL) can be incorporated into foreign military commodities. To provide greater visibility into exports, reexports, and in-country transfers of such items, the October 12 final rule increased the scope of controls described in § 744.9

(Restrictions on exports, reexports, and transfers of certain cameras, systems, or related components) and the scope of Export Control Classification Number (ECCN) 0A919 (“Military Commodities” Located and Produced Outside the United States . . . .). This Notice of Inquiry seeks public comment on the impact of imposing additional license requirements for certain transactions, including the effect such controls would have on: the national security or foreign policy interests of the United States; the export performance of the United States; the competitive position of the United States in the international economy; the international reputation of the United States as a supplier of goods and technology; or the economic well-being of individual United States companies. This includes comments addressing the competitive advantage of U.S. companies vis-à-vis non-U.S. companies, any impacts to the technological edge of U.S. companies, and whether these changes would influence assembly and integration activities inside and outside of the United States. Public comments should also state whether or not foreign availability exists for items subject to potential additional controls and, to the extent such foreign availability exists, describe such foreign availability in detail.

#### **Section 734.4 “*De Minimis* U.S. Content” for 0A919 Foreign Military Commodities**

*Prior to December 31, 2016.* Section 734.4(a)(5) of the EAR provided that there is no *de minimis* level for non-U.S. made military commodities, as described in ECCN 0A919, that incorporate uncooled thermal imaging cameras controlled in 6A003.b.4.b. The May 5, 2015 proposed rule maintained that standard in § 734.4(a)(5), but proposed to increase the scope of incorporated infrared detection items in ECCN 0A919 to include ECCNs 6A002, 6A003, 6A990, or 6A993.a (having a maximum frame rate equal to or less than 9 Hz and thus meeting the criterion of Note 3.a to 6A003.b.4). The February 19, 2016 proposed rule maintained the

change in scope to ECCN 0A919 but narrowed the destinations subject to the no *de minimis* provision in § 734.4(a)(5) to Group D:5 countries. This was done to treat foreign-made products using such dual-use items the same as foreign-made products using items previously subject to the ITAR (i.e., 600 series and 9x515 items)

*As of December 31, 2016.* Consistent with the February 19, 2016 proposed rule, the October 12 final rule broadened the scope of ECCN 0A919 to include incorporated infrared detection items in ECCNs 6A002, 6A003, 6A990, or 6A993.a (having a maximum frame rate equal to or less than 9 Hz and thus meeting the criterion of Note 3.a to 6A003.b.4) and limited the destinations subject to the no *de minimis* provision to Group D:5 countries.

*Potential Revision.* Expand the destinations subject to the no *de minimis* provision to “any destination, except Canada,” for non-U.S. military commodities (0A919) to those that incorporate any of the following: 1) image intensifier tubes having a figure of merit (FOM) exceeding 1,400 lp/mm (line pairs per millimeter); 2) an infrared focal plane array (FPA) with format exceeding 75,000 detector elements, or 3) related infrared focal plane array read-out integrated circuit having more than 75,000 unit cells. FOM would be defined as the product of the tube’s signal to noise ratio (SNR) and limiting resolution ( $FOM = SNR \text{ (unitless)} \times \text{Limiting Resolution (lp/mm)}$ ) and is a term of art regularly associated with exports of image intensifier tubes and related devices subject to the ITAR.

*Rationale.* With no *de minimis* control level for commodities controlled by ECCN 0A919.a.1 only for countries listed in Country Group D:5 of Supplement No. 1 to part 740 of the EAR, there could be reexports, without U.S. Government review, of certain foreign-made military commodities incorporating items subject to the EAR to countries not in Country Group D:5. Examples of military commodities that would not reach the generally applicable

25 percent *de minimis* level, absent other controlled EAR content, and thus would not require a U.S. reexport license to countries outside of Country Group D:5, include: 1) Thermal Weapon Sights (320x256 bolometer (VOx or alpha Si)): Approximate cost: >\$4000. Incorporated microbolometer core camera: Approximate cost: \$400-\$700; 2) Multi-sensor targeting turrets (640x480 InSb): Approximate cost: >\$250,000. Incorporated Integrated Detector Cooler Assembly: Approximate cost: \$25,000. 3) Airborne Targeting Pods (640x480 MW HgCdTe): Approximate cost: >\$1,000,000. Incorporated Integrated Detector Cooler Assembly: Approximate cost: \$25,000. 4) Airborne Infrared Search and Track (640x480 InSb): Approximate cost: >\$1,000,000. Incorporated Integrated Detector Cooler Assembly: Approximate cost: \$25,000.

The absence of U.S. controls over the reexport of such military commodities could result in potentially high performance systems incorporating U.S. components being exported to a wide range of destinations outside of Country Group D:5 without U.S. Government review.

**Section 740.20, License Exception Strategic Trade Authorization (STA) for certain night vision equipment to be embedded**

*Prior to December 31, 2016.* Section 740.20(b)(2)(x) restricted the use of License Exception STA for specific commodities controlled by ECCN 6A002, as well as related technology controlled by 6E001 or 6E002. The May 5, 2015 proposed rule expanded that restriction to also include ECCNs 0E987; 6A002; 6A990; 6D002 (for the use of commodities controlled under ECCN 6A002.b); 6D003.c; 6D991 (for the development, production, or use of commodities controlled under ECCNs 6A002, 6A003, or 6A990); 6E001 (for the development

of commodities controlled under ECCNs 6A002 or 6A003); 6E002 (for the production of commodities controlled under ECCNs 6A002 or 6A003); 6E990; and 6E994. The February 19, 2016 proposed rule maintained those restrictions, but did not include the restriction for ECCN 6E994 since that proposed ECCN was removed.

*As of December 31, 2016.* Consistent with the February 19, 2016 proposed rule, the October 12 final rule expanded that restriction to include all items in the following ECCNs: 0E987; 6A002; 6A990; 6D002 (for the use of commodities controlled under ECCN 6A002.b); 6D003.c; 6D991 (for the development, production, or use of commodities controlled under ECCNs 6A002, 6A003, or 6A990); 6E001 (for the development of commodities controlled under ECCNs 6A002 or 6A003); 6E002 (for the production of commodities controlled under ECCNs 6A002 or 6A003); and 6E990.

*Potential Revision.* Remove STA eligibility for infrared imaging cameras controlled in ECCN 6A003.b.4 that:

i) are being exported to be embedded into a higher level assembly, system or equipment;  
and

ii) incorporate two dimensional FPAs specified in either ECCN 6A002.a.3.c or ECCN 6A002.a.3.f , and that have more than 328,000 detector elements.

*Rationale.* Removing STA eligibility for such items will ensure that those infrared imaging cameras to be embedded (e.g., kits, cores, modules) that could exceed the size of those incorporated in military fielded systems, receive U.S. Government review when exported for incorporation into commercial/civil equipment and systems.

## **ECCN 6A993**

*Prior to December 31, 2016.* The export, reexport or in-country transfer of cameras in ECCN 6A993.a (meeting the criteria of Note 3 to ECCN 6A003.b.4) require a license if destined to a country designated as a state sponsor of terrorism (Country Group E:1). The May 5, 2015 and February 19, 2016 proposed rules expanded the license requirement in § 744.9 to include those cameras when destined to a military end-user or to be incorporated into a military commodity.

*As of December 31, 2016.* Consistent with those proposed rules, the October 12 final rule expanded the license requirement to those cameras when destined to a military end-user or to be incorporated into a military commodity.

*Potential Revision.* Require a license for the export, reexport or in-country transfer, to or in a D:5 country, of cameras that meet the criteria of Note 3 to ECCN 6A003.b.4 and incorporate a microbolometer FPA with greater than 75,000 detector elements and that are being exported to be incorporated into a higher level assembly, equipment or system.

*Rationale:* Section 744.9 does not cover camera cores to be incorporated in imaging cameras for civil end-users or civil commodities. These cores could be incorporated into night vision thermal monoculars that are not regarded as weapon sights but that could be used as such. These cores can also be incorporated into civil UAVs that could provide day and night surveillance of U.S. and coalition forces.

## **Supplement No. 1 to part 774 (Commerce Control List)**

### **ECCN 3C001**

*Current control status.* ECCN 3C001 has NS Column 2 and AT Column 1 controls. ECCN 3C001 is not eligible for License Exceptions GBS and CIV. Neither the May 5, 2015

nor the February 19, 2016 proposed rules included changes to the control status of ECCN 3C001.

*Potential Revision.* Add RS Column 1 controls (worldwide except Canada) to items in 3C001 that are III-V compounds of gallium or indium, and aluminum, antimony, or arsenic, forming a strained layer superlattice having a photoluminescence signal maxima originating from the superlattice in the wavelength range exceeding 3,000 nm but not exceeding 15,000 nm at a temperature less than 200 K. License review policy for RS:1 controls are found in § 742.6 of the EAR.

*Rationale:* Materials meeting these parameters are necessary for the production of FPAs controlled in ECCN 6A002, which are subject to an RS:1 control.

### **ECCN 3E001**

*Current control status.* ECCN 3E001 has the following controls: NS Column 1 applies to “technology” for items controlled by 3A001, 3A002, 3A003, 3B001, 3B002, or 3C001 to 3C006; MT Column 1 applies to “technology” for equipment controlled by 3A001 or 3A101 for MT Reasons; NP Column 1 applies to “technology” for equipment controlled by 3A001, 3A201, or 3A225 to 3A234 for NP reasons; and AT Column 1 applies to the entire entry.

*Potential Revision.* Add RS Column 1 to "technology" for items in 3C001 that are III-V compounds of gallium or indium, and aluminum, antimony, or arsenic forming a strained layer superlattice having a photoluminescence signal maxima originating from the superlattice in the wavelength range exceeding 3,000 nm but not exceeding 15,000 nm at a temperature less than 200 K. RS Column 1 controls apply to all destinations except Canada. License review policy

for RS:1 controls are found in § 742.6 of the EAR. Note that License Exceptions CIV and TSR would no longer be eligible for these specified items in ECCN 3E001, because of the addition of RS Column 1 controls.

*Rationale:* Technology for the production of materials meeting these parameters is necessary for the production of FPAs controlled in ECCN 6A002, which are subject to an RS:1 control.

### **ECCNs 6E001, 6E002 and 6E990**

*Prior to December 31, 2016 and current control status.* The May 5, 2015 proposed rule included a new worldwide RS control for commodities controlled under ECCNs 6A002 and 6A990, as well as for related software and technology controlled under 6D002, 6D003.c, 6D991, 6E001, and 6E002. The proposed worldwide RS control would have introduced a new license requirement for such items for exports or reexports to Canada. After receiving extensive public comments opposing the inclusion of the worldwide RS control, the February 19, 2016 proposed rule did not retain that proposal, and as such, the final rule maintained the current controls in place for such items.

*Proposed Revision.* Add a worldwide RS control for specific technology related to components controlled under ECCN 6A002 or 6A990, as follows:

i) 6E001 development technology or 6E002 production technology for image intensifier tubes controlled in 6A002.a.2.a or 6A002.a.2.b and their specially designed components controlled in 6A002.a.2.c, except those tubes having a multialkali photocathode.

ii) 6E001 development technology or 6E002 production technology for microbolometer infrared focal plane arrays controlled in 6A002.a.3.f and two-dimensional infrared focal plane arrays controlled in 6A002.a.3.c.

iii) 6E990 development and production technology for read-out integrated circuits specially designed for those focal plane arrays specified in ii, above (i.e., microbolometer infrared focal plane arrays controlled in 6A002.a.3.f and two-dimensional infrared focal plane arrays controlled in 6A002.a.3.c).

*Rationale.* This proposed revision, while similar to proposals from the May 5, 2015 proposed rule, would add new license requirements for Canada for a narrower range of items than those previously proposed. Thus, this one potential revision would be limited to that development or production technology required for the most sensitive items controlled in ECCNs 6A002 or 6A990. Given the close relationship between the U.S. and Canadian industrial bases and the very limited license requirements for exports of dual-use items to Canada in the EAR, BIS also requests comments on how this potential change would affect the U.S.-Canada trade and defense relationship and whether this potential revision would further the collective North American security.

### **Request for comments**

BIS is seeking comments on foreign availability, as well as the impact these potential revisions may have on: the national security or foreign policy interests of the United States; the export performance of the United States; the competitive position of the United States in the international economy; the international reputation of the United States as a supplier of goods

and technology; or on the economic well-being of individual United States companies. As stated under the DATES caption to this notice, comments should be received no later than [INSERT DATE 60 DAYS AFTER PUBLICATION OF THIS NOTICE].

Dated: January 9, 2017

Kevin J. Wolf

Assistant Secretary for Export Administration

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