

**DEPARTMENT OF COMMERCE****Bureau of Industry and Security****15 CFR Parts 734, 740, 772, and 774**

[Docket No. 110818512-2136-01]

RIN 0694-AF37

**Revisions to the Export Administration Regulations (EAR) To Make the Commerce Control List (CCL) Clearer****AGENCY:** Bureau of Industry and Security, Commerce.**ACTION:** Proposed rule.

**SUMMARY:** On December 9, 2010, the Bureau of Industry and Security (BIS) published an advance notice of proposed rulemaking entitled *Commerce Control List: Revising Descriptions of Items and Foreign Availability* as part of the President's Export Control Reform (ECR) Initiative. The December 9, 2010 notice sought, among other things, public comments on how descriptions of items controlled on the Commerce Control List (CCL) could be made clearer. This proposed rule would implement changes identified by BIS and the public that would make the CCL clearer. This rule would only implement changes that can be made to the CCL without requiring changes to multilateral export control regime guidelines or lists. However, BIS has identified changes that would require a decision of a multilateral regime to implement. For those changes, the U.S. Government is developing regime change proposals for consideration by members of those multilateral export control regimes. BIS will implement those changes in separate rulemakings, if approved by the respective multilateral export control regimes.

**DATES:** Comments must be received by BIS no later than January 28, 2013.**ADDRESSES:** You may submit comments by any of the following methods:

- Federal eRulemaking Portal: <http://www.regulations.gov>. The identification number for this rulemaking is BIS-2012-0044.

- By email directly to [publiccomments@bis.doc.gov](mailto:publiccomments@bis.doc.gov). Include RIN 0694-AF37 in the subject line.

- By mail or delivery to Regulatory Policy Division, Bureau of Industry and Security, U.S. Department of Commerce, Room 2099B, 14th Street and Pennsylvania Avenue NW., Washington, DC 20230. Refer to RIN 0694-AF37.

The Department of Commerce's Plan for Retrospective Analysis of Existing Rules may be found at: [http://open.commerce.gov/news/2011/08/23/](http://open.commerce.gov/news/2011/08/23/commerce-plan-retrospective-analysis-existing-rules)

[commerce-plan-retrospective-analysis-existing-rules](http://open.commerce.gov/news/2011/08/23/commerce-plan-retrospective-analysis-existing-rules).

**FOR FURTHER INFORMATION CONTACT:**

Timothy Mooney or Robert Monjay, Regulatory Policy Division, Bureau of Industry and Security, Department of Commerce, Phone: (202) 482-2440, Fax: (202) 482-3355, Email: [rp22@bis.doc.gov](mailto:rp22@bis.doc.gov).

**SUPPLEMENTARY INFORMATION****Background**

On December 9, 2010 (75 FR 76664), the Bureau of Industry and Security (BIS) published an advance notice of proposed rulemaking entitled *Commerce Control List: Revising Descriptions of Items and Foreign Availability* as part of the President's Export Control Reform (ECR) Initiative. The December 9 notice sought, among other things, public comments on how descriptions of items controlled on the Commerce Control List (CCL) could be made clearer. Although these revisions originated with the ECR initiative, this proposed rule is entirely consistent in spirit and substance with Executive Order 13563, under which agencies are to conduct retrospective analyses of their regulations to identify and remedy any unnecessary compliance burden caused by rules that are unduly complex, outmoded, inconsistent, or overlapping. In Executive Order 13563, the President directed each agency to review its "existing significant regulations, and consider how best to promote retrospective analysis of rules that may be outmoded, ineffective, insufficient, or excessively burdensome, and to modify, streamline, expand, or repeal them in accordance with what has been learned." In response to this directive, Commerce released on August 23, 2011 a plan for the review of its regulations. This proposed rule was identified by the Department as part of its plan for the retrospective analysis of regulations. The Department's plan may be found at: <http://open.commerce.gov/news/2011/08/23/commerce-plan-retrospective-analysis-existing-rules>.

This proposed rule would implement changes identified by BIS and the public that would make the CCL clearer. This rule would only implement changes that can be made to the CCL without requiring a multilateral regime change. However, BIS has identified changes that would make the CCL clearer, but would require a multilateral export control regime change to implement. The U.S. Government is developing some of those changes into regime change proposals for consideration by members of those multilateral export control regimes. BIS will implement

those changes in separate rulemakings, if approved by the respective multilateral export control regimes.

This proposed rule will identify new phrases or headings within double quotations. The EAR identifies terms defined in part 772 with double quotations as well. Please note that not all of the terms set forth within quotations in this proposed rule are defined in part 772. The additional double quotations around new phrases, headings, or commonly used words, are used in the Background section of this proposed rule to assist in the readability of the text.

*This proposed rule includes changes described under four headings:*

- (1) Clarifications to existing CCL controls, including the use of the terms "parts" and "components" on the CCL;
- (2) Changes to conform the CCL to the multilateral export control regime control lists and previous amendments to the EAR;
- (3) Structural changes to improve the clarity of the CCL; and
- (4) Removal of fourteen ECCNs subject to the exclusive jurisdiction of the Nuclear Regulatory Commission.

**(1) Clarifications to Existing CCL Controls, Including the Use of the Terms "Parts" and "Components" on the CCL**

The majority of changes proposed in this rule would amend the CCL without changing the scope of the controls. However, this rule does propose changes that would affect the scope of one ECCN. Specifically, this rule proposes to remove ECCN 8A918 and add certain marine boilers to ECCN 8A992, where they would be controlled for AT and UN reasons. This change is described in more detail below under the heading "ECCN 8A918."

The bulk of the changes this rule would make to the CCL are non-substantive and would provide additional regulatory guidance to people classifying items subject to the EAR. One proposed change would be to clarify the scope of ECCNs by providing clearer definitions of the terms "parts" and "components," which is discussed below. The changes BIS proposes in this rule in this section are limited to aligning with the definitions of "part" and "component" included in a proposed rule published on July 15, 2011 (76 FR 41958) entitled "Proposed Revisions to the Export Administration Regulations (EAR): Control of Items the President Determines No Longer Warrant Control Under the United States Munitions List (USML)." (hereinafter "the July 15, 2011 rule") These proposed changes include adding

additional references to “part” and “component” where needed in certain ECCNs to clarify that the scope of those ECCNs also extends to “parts” and “components” even if previously those ECCNs may have only referenced part or component, but not referenced both part and component together. The proposed definitions of “part” and “component” are provided below, along with a discussion of the context for the need to make certain conforming changes proposed in this rule. The proposed conforming changes included in this rule would not be published in final form until the revised definitions of “part” and “component” are published in final form in a separate rule.

BIS is not attempting, with the proposed changes adding additional references to “parts” and “components,” to change the scope of what the affected ECCNs control. If, however, the public believes any such changes would change the present scope of the affected ECCNs, then the public should submit comments that identify such changes and explain how the changes would cause the ECCNs to deviate from their present scope. In addition, the public is encouraged to review the entire CCL to identify and comment on any other ECCN that uses the terms “parts” or “components” where additional changes may be warranted to conform to the intended scope of those ECCNs.

The proposed clarifying changes are as follows:

(A) *Revisions to ECCN headings to clarify meaning.*

*Revision to the headings of twenty-four ECCNs.* In Supplement No. 1 to part 774—The Commerce Control List, this rule would revise, to enhance clarity, the headings of the following twenty-four ECCNs: 1A995, 1B115, 2A291, 2B005, 2B109, 2B352, 2B991, 2B992, 3B991, 4A994, 5A991, 5D992, 5E992, 6A006, 6A996, 6A997, 6A998, 6B995, 6D993, 7A103, 7A107, 8A992, 9A106 and 9B991. This rule would also clarify the relationship between the headings and the “items” paragraph in the List of Items Controlled section of these twenty-four ECCNs. For example, in certain ECCNs, the entries include an “items” paragraph, but the ECCN heading does not direct people to review the “items” paragraph. This rule would add the phrase “(see List of Items Controlled)” to these ECCN headings. For other ECCNs listed above, the heading includes the phrase “(see List of Items Controlled),” but the placement of the phrase is not correct in terms of what BIS intended to control in the ECCN. If the phrase appears at the end of the heading, then that means the

“items” paragraph in the List of Items Controlled section is the exclusive, complete list of the items the ECCN controls. If, however, the phrase appears in the middle of the heading, then that means only that portion of the heading prior to the phrase “(see List of Items Controlled)” is specifically identified in the “items” paragraph in the List of Items Controlled section, and that the remaining part of the heading (i.e., the rest of the heading after the phrase “(see List of Items Controlled)”) is an exclusive, complete description.

The placement of the phrase “(see List of Items Controlled)” is important for “parts” and “components” referred to in ECCN headings. If “parts” and “components” references appear before the phrase, then that means the entry only controls “parts” and “components” specifically identified in the “items” paragraph in the List of Items Controlled section. If, however, the phrase is in the middle of the heading and the reference to “parts” and “components” appears after the phrase—such as “and specially designed ‘parts’ and ‘components’ therefor”—that means the ECCN would control specially designed “parts” and “components” for any item identified in the “items” paragraph in the List of Items Controlled section. This rule does not address the definition of “specially designed,” which was proposed in a separate **Federal Register** notice on June 19, 2012 (77 FR 36409), but rather the relationship between these headings and the “items” paragraph in each of these respective ECCNs.

BIS is not attempting, with the proposed changes to the headings, to change the scope of what the affected ECCNs control. If, however, the public believes any such changes would alter the present scope of these ECCNs, then the public should submit comments that identify such changes and explain how the changes would cause the ECCNs to deviate from their present scope. In addition, the public is encouraged to review the entire CCL to identify and comment on any other ECCN headings that could be made clearer.

*Revisions to thirteen ECCNs.* In addition, this rule would add the phrase “as follows” to the headings of the following thirteen ECCNs: 0A981, 5D991, 5D992, 5E992, 6A992, 6A994, 6A995, 6A997, 6A998, 6B995, 6C994, 6D993 and 9B991, for consistency with the structure of other ECCNs on the CCL. The phrase “as follows” is used on some of the multilateral export control regime control lists, which is why the phrase is used on the CCL, including in some unilateral ECCNs to conform to the structure of the regime-based

ECCNs. The multilateral export control regimes do not use the phrase “(see List of Items Controlled),” but this phrase is used in many of the multilateral-based ECCNs on the CCL. BIS seeks greater consistency in how CCL headings are constructed, in particular how these two phrases are used in the ECCN headings. BIS welcomes additional suggestions for how these two phrases can be used more consistently on the CCL and whether one term or another should be used instead of using these two phrases together in many ECCN entries.

*ECCN 1D993.* This rule would revise the heading of 1D993 to remove the term “equipment” for consistency with the definition of “equipment” proposed in the July 15, 2011 rule. This ECCN currently refers to equipment or materials, but the only ECCNs cross referenced in the heading are for controls on materials, so the term equipment is not needed in 1D993.

*ECCNs 0D001, 3D980, 3E980, 4D980 and 4E980.* This rule would revise the headings of ECCNs 0D001, 3D980, 3E980, 4D980 and 4E980, by removing the term “items” and adding the term “commodities” in its place. This rule would make this change because in the context of these five ECCN headings, the term “commodities” is more accurate and specific regarding the scope of these entries.

*ECCN 2B998.* The heading of 2B998 uses the undefined term “units.” To add greater specificity regarding what the term “unit” is intended to cover in this ECCN, this rule proposes to modify the heading by removing the term “units” and adding the term “circuit boards.” This change would clarify that “circuit boards” are the items covered under the heading of 2B998.

*ECCNs 3A980 and 3A981.* This rule would add the term “therefor” immediately before the term “n.e.s.” to the headings of ECCNs 3A980 and 3A981. This rule would make this change to emphasize that these ECCNs refer only to components of the subject voice print equipment and polygraph equipment.

*ECCNs 5A001 and 5A991.* This rule would correct the spelling of the word “antennae” in the “unit” paragraph of 5A001 and the “items” paragraph (f) of 5A991. This word should be spelled as “antennas” to reflect the intended meaning in these two ECCNs.

*ECCN 6C992.* This rule would correct a grammatical error in 6C992 by removing the word “which” and adding in its place the word “that.”

*ECCN 9B002.* This rule would correct a capitalization error in the heading of 9B002 by making the uppercase “S” in the phrase (See List of Items Controlled)

lower case. This rule would make this change for consistency with other references to this phrase on the CCL.

*(B) Clarifying the use of the terms “parts” and “components” on the CCL.*

The July 15, 2011 rule included proposed definitions for the terms “parts” and “components.” The July 15, 2011 rule proposed defining “parts” as “any single unassembled element of a component, accessory, or attachment which is not normally subject to disassembly without the destruction or the impairment of design use. Examples include threaded fasteners (e.g., screws, bolts, nuts, nut plates, studs, inserts), other fasteners (e.g., clips, rivets, pins), common hardware (e.g., washers, spacers, insulators, grommets, bushings), springs and wire.”

The July 15, 2011 rule proposed defining “components” as an item that is useful only when used in conjunction with an “end item.” Components are also commonly referred to as assemblies. For purposes of this definition, an assembly and a component are the same. There are two types of “components”: “Major components” and “minor components.” A “major component” includes any assembled element which forms a portion of an “end item” without which the end item is inoperable. For example, for an automobile, components include the engine, transmission, and battery. If you do not have all those items, the automobile will not function, or function as effectively. A “minor component” includes any assembled element of a “major component.” “Components” consist of “parts.” References in the CCL to “components” include both “major components” and “minor components.”

Another example for applying the definition of “components” in the automobile context would be a fuel pump and the engine. Under this additional example, the fuel pump is a minor component of an automobile, as it is an assembled element of a “major component,” the engine. While the car will not function without the fuel pump, it is not a “major component” because it is integrated into a “major component,” the engine.

The July 15, 2011 rule indicated BIS would review the use of these two terms on the CCL and would likely make clarifications to CCL entries to conform to the proposed definitions included in the July 15, 2011 rule under a separate rulemaking. This proposed rule addresses the use of the terms “parts” and “components” on the CCL to ensure these terms would be used in a manner consistent with the proposed definitions included in the July 15, 2011 rule.

The terms “parts” and “components” have sometimes been used interchangeably in various ECCNs. The proposed definitions included in the July 15, 2011 rule were developed to provide clear, distinct definitions for each of these terms and other terms such as “end item,” “system,” and “accessories and attachments,” to align with the definitions of these terms in the International Traffic in Arms Regulations (ITAR). See 22 CFR § 121.8. Such distinctions are significant for purposes of determining whether an ECCN applies to an item to be exported.

Under the July 15, 2011, construct for the definitions of “parts” and “components,” if an ECCN does not include a control on “parts” or “components,” then that ECCN would not, by definition, apply to the export of any particular “parts” or “components” meeting the respective definitions. However, as referenced above, the terms “parts” and “components” have sometimes been used interchangeably, so to ensure that once these definitions of “parts” and “components” are added to the EAR that the scope of existing controls are not narrowed, this rule proposes to add in additional references to “part” or “component,” in particular for ECCNs that are based on the multilateral export control regime control lists. Under the current EAR many of these ECCNs based on the multilateral control lists only list “components,” but not “parts.” However, the U.S. Government and other multilateral regime members have interpreted these ECCNs as also including “parts.” BIS proposes in this rule to add additional references to “parts” in these ECCNs, so the U.S. Government can ensure that it is meeting its multilateral export control regime commitments. Over the mid- to long-term, BIS will reach out to the respective multilateral regimes and discuss whether certain ECCNs should be limited to “components” or “parts” or some other subset of “components,” such as major components or minor components.

Many of the unilateral-based ECCNs on the CCL reference “parts,” but not “components.” For unilateral-based ECCNs, BIS has more discretion in whether these ECCNs should control “parts” and “components.” However, for consistency with the approach proposed for the multilateral based ECCNs in this rule and to ensure the scope of the unilateral ECCNs is not changed, this rule proposes adding additional references to “parts” and “components” as needed in the unilateral ECCNs to conform to how BIS

has interpreted the scope of these ECCNs in the past.

To conform to the proposed definitions of “parts” and “components,” BIS is proposing a number of changes to the CCL to incorporate the terms “parts” and “components” in specific ECCNs. The primary purpose of these ECCN changes is to conform to those proposed definitions and to ensure that no changes are made to the current U.S. Government interpretation of these ECCN entries. The public should keep in mind the overall purpose is not to change the current scope of controls, but rather to clarify the scope of these ECCNs consistent with the July 15, 2011 rule definitions and how items are currently classified under these ECCNs.

These proposed changes would revise the following one hundred fifty eight ECCNs on the CCL where the term “parts” or “components” is used, as identified and described below in more detail:

*“Parts” is used, but “specially designed” “components” or “components” as follows” is intended or “specially designed” “parts” and “components” is intended.* In three ECCNs, the term “parts” is used, but the term “specially designed” “components” is intended. This rule would remove the term “parts” and replace it with the terms “specially designed” “components” in the following three ECCNs: 0A979, 3A980 and 3A981. This rule would remove the term “part” and replace it with the terms “specially designed” “parts” and “components” to the following four ECCNs: 0A982, 0A983, 0A985, 0A986. In ECCNs 0A984 and 0A987, the term “parts” is used, but the term “components” or “components” as follows” is intended. This rule would remove the term “parts” and replace it with the term “components” or “components” as follows” in these ECCNs.

*“The hybrid “component parts” is used, but “parts” and “components” is intended.* In certain ECCNs the hybrid undefined term “component parts” is used, but the intent is “parts” and “components.” This rule would change ECCN 3A201 to bring its meaning into alignment with this intent by changing “component parts” to “parts” and “components.” This same issue appears in some of the “xY018” ECCNs on the CCL, but given those ECCNs will be addressed in the ongoing USML to CCL process as those items in the “xY018” ECCNs are moved to the “600 series” ECCNs, this rule does not propose making changes to those “xY018” entries.

The term “spare parts” is used, but “parts” is intended. In ECCN 5A002, the term spare parts is used in the “LVS” (License Exception “shipments of limited value”) paragraph, but the intent is “parts.” The inclusion of the non-standard, undefined term “spare parts” could cause confusion about the scope of the LVS authorization. This rule removes the word “spare” to clarify the applicability of this license exception to this ECCN.

“Parts” or “accessories” is included, but is not within scope of the ECCN. In ECCNs 2B201, 2B206, 2B209, 2B290, 6A225, 6A226, 6A992, 6A994, 6A995, 6C992, 6C994, and 9A120, the terms “parts” and “accessories” are used in the “unit” paragraph in the List of Items Controlled section, but the ECCN does not include “parts” or “accessories” in the list of what that ECCN controls. The inclusion of references to “parts” or “accessories” in these “unit” paragraphs may cause confusion regarding the scope of those ECCNs. This rule would remove such references to “parts” and “accessories” in these ECCNs.

“Accessories” is included, but is not within scope of the ECCN. In ECCNs 2A292, 6A203, 6A992 and 9A106, the terms “parts” and “accessories” are used in the “unit” paragraph in the List of Items Controlled section, but the ECCN does not include “accessories” in the list of items that the ECCN controls. The inclusion of a reference to accessories in these “unit” paragraphs may cause confusion regarding the scope of those ECCNs. In these same ECCNs, the term “components” is included in the “unit” paragraph, but with a different unit of measurement than “parts.” The references to “parts” and “components” with different units of measurement is inconsistent with the interchangeable use of these terms. This rule would remove such “parts” and “accessories” references and insert “parts” before the “components” reference in these ECCNs.

“Parts” or “components” is used, and BIS intends the ECCN to mean “parts” and “components.” As the terms “parts” and “components” are currently used interchangeably in many entries, maintaining current controls while adopting definitions for these words requires the use of both words in each of the one hundred forty-eight (148) ECCNs where one of those terms is currently used and intended. This will ensure that existing ECCNs maintain the same controls as exist under the prior undefined interchangeable use of the terms parts and components that encompass all subsidiary elements of a complete system. BIS, in consultation

with the other agencies and multilateral export control regimes, intends to revise these entries in the future to further refine the CCL controls.

This rule would insert “parts” and add quotation marks in the following 127 ECCNs and Notes:

1A001, 1A002, 1A004, 1A005, 1A006, 1A008, 1A102, 1A995, 1B001, 1B003, 1B101, 1B102, 1B115, 1B117, 1B118, 1B119, 1C007, 1C117, 1C230, 1C350, 1C355, 2A001, 2A991, 2B001, 2B003, 2B004, 2B005, 2B109, 2B116, 2B229, 2B351, 2B352, 2B992, 2B998, 2D351, 3A001, 3A003, 3A101, 3A201, 3A233, 3A292, 3A982, 3A991, 3A999, 3B001, 3B002, 3B991, 3B992, 3D982, 3D991, 3E001, 3E003, 3E982, 3E991, 4A001, 4A003, 4A004, 4A101, 4A994, 5A001, 5A991, 5B001, 5E001, 5A002, 5A992, 6A001, 6A002, 6A003, 6A004, 6A005, 6A006, 6A008, 6A102, 6A107, 6A205, 6A991, 6A992, 6A995, 6A996, 6A998, 6B008, 6B995, 6D001, 6E001, 6E002, 6E993, 7A001, 7A002, 7A003, 7A005, 7A008, 7A101, 7A102, 7A103, 7A104, 7A105, 7A107, 7D001, 7D101, 7E001, 7E002, 7E101, 8A002, 8A992, 9A002, 9A003, 9A004, 9A005, 9A006, 9A008, 9A010, 9A011, 9A012, 9A106, 9A108, 9A109, 9A111, 9A120, 9B001, 9B002, 9B003, 9B009, 9B010, 9B115, 9B116, 9D004 and 9E003.

In addition to the 127 ECCNs identified in the previous paragraph, this rule would also insert “parts” and add quotation marks in the Note to the Table on Deposition Techniques in the introductory portion of Category 2, Product Group E, and the introductory Notes to Category 5, Parts I and II.

This rule would insert “components” and add quotation marks in the following 12 ECCNs:

2A292, 2A994, 2B001, 2B201, 5A980, 6A203, 6B995, 8A992, 9A012, 9A106, 9A991 and 9B010.

This rule would reposition the term “parts” before “components” and add quotation marks to the existing terms “parts” and “components” in the following 12 ECCNs:

1A004, 1C002, 2A983, 2A984, 3A001, 4A994, 6A992, 7A994, 9A106, 9A991, 9B990 and 9E003.

(C) *Clarifying the use of the term “assemblies” on the CCL as components.*

In the July 15, 2011 rule, BIS proposed to define the term “components” to mean “components are also commonly referred to as assemblies. For purposes of this definition, an assembly and a component are the same.” BIS has reviewed the CCL to ensure the term “assemblies” is not being used redundantly on the CCL. This review has identified five ECCNs (5A991,

9A002, 9A003, 9B002 and 9D004) where the terms “assemblies” and “components” are being used in the same ECCN, but the term “assemblies” should be removed to avoid the incorrect interpretation that assemblies are different from components. This rule would add the term “electronic” before the term “assemblies” in 5A991 under “items” paragraphs (c.1) and (g) to distinguish the particular type of assembly that is intended to be controlled under this entry. With regard to ECCNs 9A002, 9A003, 9B002 and 9D004, the U.S. Government intends to develop a proposal to submit to the Wassenaar Arrangement that would propose the removal of the term “assemblies” from these ECCNs or propose adding more descriptive terms, such as “electronic” to clarify the scope of those other multilateral-based ECCNs.

This rule would remove reference to the term “assemblies” in ECCN 6A998, and add the term “components” in its place. As described above, this rule also proposes adding the term “parts” to 6A998.

(D) *This rule would also revise the following ECCNs:*

*ECCN 1C996.* This rule would amend 1C996 by revising the heading to add the phrase “not controlled by 1C006,” to clarify the scope of 1C996 as it relates to 1C006.

*ECCN 2B350.* This rule would amend 2B350 by revising the “Related Definitions” paragraph in the List of Items Controlled section to indicate for purposes of this entry that the term ‘chemical warfare agents’ includes those agents “subject to the ITAR” (see 22 CFR parts 120 through 130). In addition, this rule would add a note at the end of the “items” paragraph in the List of Items Controlled section to provide a reminder and cross reference to the Note for exporters, reexporters and transferors, stating the following: “See Categories V and XIV of the United States Munitions List for all chemicals that are “subject to the ITAR” (see 22 CFR parts 120 through 130).”

*ECCN 2B996.* This rule would amend 2B996 by revising the heading to clarify that dimensional inspection or measuring systems or equipment not controlled by 2B006 or 2B206 are controlled under this ECCN. Certain dimensional inspection or measuring systems or equipment controlled under 2B206 would also be controlled under 2B996. To clarify the relationship between 2B996 and 2B206, this rule would add 2B206 to the exclusion from 2B996.

*ECCN 6A002.* This rule would revise the STA (License Exception “Strategic Trade Authorization”) paragraph in the

License Exceptions section, which as proposed in this rule would now be in its own section called Special Conditions for License Exception STA. This rule would remove the phrase, “to any of the eight destinations listed in § 740.20(c)(2) of the EAR” from the end of the current STA paragraph and would add it to the introductory text of the STA paragraph. BIS makes this change to clarify the 6A002 “items” paragraphs that are not eligible for License Exception STA to any of the eight destinations listed in § 740.20(c)(2).

**ECCN 8A918.** This rule would remove the marine boilers from 8A918 and would move these items to two new “items” paragraphs that would be added in the List of Items Controlled section of 8A992. This rule would add a new “items” paragraph (l) to 8A992 for marine boilers designed to have any of the characteristics in the new 8A992.l.1 or .l.2. This rule would add “items” paragraph (m) to 8A992 for components, parts, accessories, and attachments for marine boilers that would be described in 8A992.l. This rule’s proposed movement of these commodities from 8A918 to 8A992.l and .m would remove the Regional Stability (RS) Column 2 control on these commodities. The Anti-Terrorism (AT) and United Nations (UN) controls would be retained for the commodities moved to 8A992.l and .m. BIS proposes this change because these marine boilers do not warrant an RS control or a separate ECCN entry and can therefore be added under ECCN 8A992 to be controlled with other types of marine commodities warranting an AT control.

**ECCN 9A980.** This rule would revise 9A980 by removing the term “parts” from the heading of the ECCN and adding a new heading note to clarify the scope of the ECCN. The Crime Control (CC) parts that would have been classified under this entry if exported alone are already accounted for on the CCL and controlled for CC reasons. The new heading note that this rule would add clarifies that in order for a vehicle to be classified as a nonmilitary mobile crime scene laboratory under ECCN 9A980, the vehicle must contain one or more analytical or laboratory items controlled for Crime Control (CC) reasons on the CCL, such as items controlled under ECCNs 3A980 and 3A981. This new heading note does not change the scope of the ECCN, but would make the scope of this ECCN and the relationship to other CC ECCNs on the CCL clearer.

(E) *Addition of “Related Controls” to aid in classification.*

Most ECCNs on the CCL contain a “related controls” paragraph in the List

of Items Controlled section. The “related controls” paragraph provides cross references to related ECCNs to assist the public in classifying items that are subject to the EAR. In some ECCNs, the “related controls” paragraph also includes cross-references to the export controls other U.S. Government agencies administer.

This rule proposes adding a number of additional “related controls” paragraphs or revising existing “related controls” paragraph to assist the public in classifying items. In responding to this proposed rule, the public may also provide suggestions for additional “related controls” that would assist the public in classifying items. This rule proposes revising the “related controls” paragraphs in the following twelve ECCNs: 1A985, 1B117, 1B118, 1B119, 1B225, 1C117, 1C233, 2B105, 2B116, 3A230, 7A103 and 9B009.

Lastly, this rule would revise the “related controls” paragraphs in ECCN 7A005 and 7A994 and include the substance of the amended related control paragraph as a new “license requirement note” in 7A994. This rule change would clarify the relationship between 7A005 and 7A994 and provide guidance on the appropriate classification for GPS equipment. The added text in 7A005 and 7A994 would alert persons classifying GPS items that “typically commercially available GPS do not employ encryption or adaptive antenna and are classified as 7A994.”

(F) *Addition of the term “subject to the ITAR” to the EAR.*

This rule would add the term “subject to the ITAR” to § 772.1 (Definitions of terms as used in the Export Administration Regulations (EAR)). This defined term would be added to parallel the use of the term “subject to the EAR” that is commonly used in the EAR, along with simplifying many of the references to the export jurisdiction of the Department of State that are included in the EAR. The vast majority of these references to the export control jurisdiction of the Department of State are on the CCL. This rule would also add the following definition of “subject to the ITAR” in § 772.1:

A term used in the EAR to describe those commodities, software, technology (e.g., technical data) and defense services over which the U.S. Department of State, Directorate of Defense Trade Controls (DDTC) exercises regulatory jurisdiction under the International Traffic in Arms Regulations (ITAR) (see 22 CFR 120–130).

This rule would make conforming changes to the rest of the EAR, including several ECCNs and §§ 734.4 (*De minimis* U.S. content), 734.6 (Assistance available from BIS for

determining licensing and other requirements), and 740.6 (Technology and software under restriction (TSR)), by adding “subject to the ITAR” where the export control jurisdiction of the Department of State is referenced. In addition to making the conforming change in § 734.6, this rule would revise the language that refers to the ITAR to clarify that in order to determine whether an item is “subject to the ITAR,” you should review the ITAR’s United States Munitions List (see 22 CFR §§ 120.6 and 121.1). The revised text would also clarify you may also submit a request to the Department of State, Directorate of Defense Trade Controls, for a formal jurisdictional determination regarding the commodity, software, technology, or activity at issue (see 22 CFR § 120.4).

## **(2) Changes to Conform the CCL to the Multilateral Export Control Regime Control Lists and Previous Amendments to the EAR**

This rule also proposes making the following changes to conform the CCL to the multilateral export control regime control lists and to conform the CCL to the intent of past amendments to the EAR. These are cases where a previous amendment to the EAR was intended to effect a change, but the change was not implemented as intended or where a conforming change should have been made to the CCL, but was inadvertently not made in a past rulemaking. This rule proposes to make the following conforming changes:

(A) *Conforming changes for TSR limitations of Wassenaar Very Sensitive List Items.*

In implementing its commitment to exercise vigilance for the licensing of items listed on the Wassenaar Very Sensitive List, the United States has limited the use of License Exception TSR to a list of specifically identified countries for certain ECCNs. These limitations are contained in the TSR paragraph in the License Exception section of nine ECCNs (i.e., ECCNs 1E001, 5D001, 5E001, 6D001, 6D003, 6E001, 6E002, 8D001 and 8E001) that contain items on the Wassenaar Very Sensitive List and for which TSR has been authorized for some, or all of the ECCN.

The TSR paragraph limitation was introduced in 1998, upon implementation of the Wassenaar Arrangement (63 FR 2452), with a list of sixteen destinations eligible for TSR for Wassenaar Very Sensitive List items. Approximately one-year later Japan was added to the TSR paragraph limitation (64 FR 10852). In 2008, Australia and Norway were added to the TSR

paragraph in ECCN 1E001, with the explanation that their original exclusion had been an oversight. Australia and Norway were not added to the other TSR paragraphs with Wassenaar Very Sensitive List limitations, creating an inconsistency.

This rule proposes to adopt a standardized list of countries under the EAR for the nine ECCNs. The use of this standardized list of countries would simplify the use of the TSR License Exception for these nine ECCNs and aid the public's understanding regarding what countries are eligible and not eligible to receive National Security (NS) controlled technology under these nine ECCNs. BIS has recently determined that the thirty six (36) countries listed in License Exception Strategic Trade Authorization, Section 740.20(c)(2) of the EAR, are eligible for License Exception authorization for Wassenaar Very Sensitive List items. These 36 countries are: Argentina, Australia, Austria, Belgium, Bulgaria, Canada, Croatia, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Japan, Latvia, Lithuania, Luxembourg, Netherlands, New Zealand, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, South Korea, Spain, Sweden, Switzerland, Turkey, or the United Kingdom. This rule proposes to revise the list of countries in the TSR paragraph for these nine ECCNs to state "those 36 countries listed in § 740.20(c)(1) (License Exception STA)." The 17 countries (19 countries in 1E001) that were previously identified as being eligible for License Exception TSR under these ECCNs were a subset of the 36 STA-eligible countries. Therefore, this proposed rule would add the remaining 19 countries, except for 1E001 where this proposed rule would add the remaining 17 countries, as eligible countries to receive this type of technology through application of License Exception TSR under these ECCNs.

(B) *ECCN changes to conform to the multilateral export control regimes.*

**ECCNs 1A101.** This rule would amend 1A101 by replacing the defined term "missiles" with the phrase "rockets, missiles, or unmanned aerial vehicles capable of achieving a "range" equal to or greater than 300 km" to conform to the Missile Technology Control Regime (MTCR) Annex.

**ECCNs 1D103.** This rule would amend 1D103 by replacing the defined term "missiles" with the phrase "rockets, missiles, or unmanned aerial vehicles capable of delivering at least a 500 kg payload to a "range" equal to or

greater than 300 km" to conform to the MTCR Annex.

**ECCN 5D101.** This rule would amend 5D101 by removing the term "items" and adding the term "equipment" in its place. This rule would make this change to be consistent with the MTCR Annex.

**ECCN 6A203.** This rule would amend 6A203 by removing "accessories in \$ value" from the "unit" paragraph in the List of Items Controlled section. This change would be made to conform to the Nuclear Suppliers Group (NSG) control list, which does not include controls on "accessories" under NSG 1.A.2, 5.B.3, and 5.B.4.

**ECCN 6D102.** This rule would amend 6D102 by removing the term "goods" from the heading and adding the term "equipment" in its place. This rule would make this change to be consistent with the MTCR Annex.

**ECCN 6D994.** This rule would remove 6D994 to conform to a previous amendment to the EAR that imposed a control for these same items under 6D003.c. BIS's intention when 6D994 was added to the CCL was to impose a control on this software until such time as a control could be approved at the Wassenaar Arrangement and implemented in the EAR. At the time when the final rule to add this software to 6D003.c was published, the intention was to remove 6D994. However, this entry was inadvertently retained at the time 6D003.c was added to the CCL, which may have caused confusion for exporters trying to classify this type of software because the software meets the description of two software ECCNs. To address this scenario, this rule would remove 6D994 from the CCL, leaving 6D003.c as the control ECCN.

**ECCN 7D101.** This rule would amend 7D101 by revising the heading to include 7A117 in the list of ECCNs for which 7D101 controls the software. 7A117 is a reference to a USML control based on the MTCR Annex. 7D101 controls the software of certain commodities controlled for MT reasons. This change is made to conform to the MTCR Annex.

**ECCN 7E104.** This rule would amend 7E104 by replacing the defined term "missiles" with the phrase "rockets or missiles capable of achieving a "range" equal to or greater than 300km" to conform to the MTCR Annex.

**ECCN 9A107.** This rule would amend 9A107 by revising the heading to replace the word "engines" with the word "motors." This change is made to conform to the MTCR Annex.

**ECCN 9A110.** This rule would amend 9A110 by revising the heading to include 9A109 in the list of ECCNs for which 9A110 controls the composite

structures, laminates and manufactures thereof. 9A109 is a reference to a USML control based on the MTCR Annex. 9A110 controls the software of certain commodities controlled for MT reasons. This rule would further amend 9A110 by replacing the defined term "missiles" with the phrase "rockets, missiles, or unmanned aerial vehicles capable of achieving a "range" equal to or greater than 300 km." These changes are made to conform to the MTCR Annex.

**ECCN 9A118.** This rule would amend 9A118 by inserting the phrase "missiles, and unmanned aerial vehicles capable of achieving a "range" equal with a range capability of 300 Km or greater" into the heading to conform to the MTCR Annex.

**ECCN 9B115.** This rule would amend 9B115 by revising the heading to include 9A103 in the list of ECCNs for which 9B115 controls the "production equipment." 9A103 is a reference to a USML control based on the MTCR Annex. 9B115 controls the "production equipment" of certain commodities controlled for MT reasons. This change is made to conform to the MTCR Annex.

**ECCN 9B116.** This rule would amend 9B116 by revising the heading to include 9A103 in the list of ECCNs for which 9B116 controls the "production equipment." 9A103 is a reference to a USML control based on the MTCR Annex. 9B116 controls the "production equipment" of certain commodities controlled for MT reasons. This change is made to conform to the MTCR Annex.

**ECCN 9D103.** This rule would amend 9D103 by revising the heading to include ECCNs 9A009, 9A107 and 9A109, and to expand the reference to 9A105 from 9A105.a to the entire ECCN in the list of ECCNs for which 9D103 controls certain "software." ECCNs 9A009, 9A105, 9A107 and 9A109 are references to USML controls based on the MTCR Annex. 9D103 is a reference to USML control based on the MTCR Annex. This change is made to conform to the MTCR Annex.

**ECCN 9D104.** This rule would amend 9D104 by revising the heading to include all of ECCNs 9A006, 9A007, 9A008, 9A009, 9A010, 9A115 and 9A116 and 9A106.e in the list of ECCNs for which 9D104 controls the "software." 9A006, 9A007, 9A008, 9A009, 9A010, 9A115 and 9A116 are references to USML controls based on the MTCR Annex. 9A106.e is controlled on the CCL for MT reasons. 9D104 controls the "software" of certain commodities controlled for MT reasons. This change is made to conform to the MTCR Annex.

**ECCN 9D105.** This rule would amend 9D105 by replacing the defined term

“missiles” with the phrase “rockets, missiles, or unmanned aerial vehicles capable of achieving a “range” equal to or greater than 300 km” to conform to the MTCR Annex.

### (3) Structural Changes To Improve the Clarity of the CCL

ECCNs on the CCL follow the same basic paragraph structure, although not all ECCNs contain the same paragraphs. The common paragraph structure is intended to allow the public to quickly review ECCNs and to identify relevant paragraphs in each ECCN. This rule proposes changes to the standard section headings that are used in most ECCNs on the CCL. These proposed changes would affect most of the ECCNs on the CCL, but would be implemented through instructions instead of setting out each proposed revision in the regulatory text. BIS is proposing the changes in the format to save on the cost of implementing these structural changes. BIS's decision also took into account that the proposed changes are not ECCN specific and are more focused on how the ECCN information is being communicated to the public. Each of the proposed structural changes this rule would implement improves the clarity of the CCL and is further described below.

#### (A) Revision of License Exceptions section heading.

This rule would revise the License Exceptions section heading to add greater specificity. This rule would revise the section heading by changing it from “License Exceptions” to the more specific section heading of “List-Based License Exceptions (See Part 740 for a complete listing of license exceptions and requirements).” This rule would also add a parenthetical after the revised section heading to provide a cross reference to the license exceptions part of the EAR. This rule would add this cross reference because a definitive determination regarding whether a license exception may be used for a specific ECCN can only be made after also reviewing the applicable license exceptions provisions in part 740 of the EAR.

#### (B) Removal of the License Exception STA paragraphs.

In order to implement the changes described above under (A) Revision of License Exceptions section heading, this rule also proposes removing the License Exception STA paragraph in the License Exceptions section of the following forty-nine ECCNs: 1A002, 1C001, 1C007, 1C010, 1C012, 1D002, 1E001, 1E002, 2D001, 2E001, 2E002, 3A002, 3B001, 3D001, 3E001, 4A001, 4D001, 4E001, 5A001, 5B001, 5D001, 5E001,

6A001, 6A002, 6A003, 6A004, 6A006, 6A008, 6B008, 6D001, 6D003, 6E001, 6E002, 7D003, 7E001, 7E002, 8A001, 8A002, 8D001, 8D002, 8E001, 8E002, 9B001, 9D001, 9D002, 9D004, 9E001, 9E002 and 9E003. This rule would move the text of those License Exception STA paragraphs to a new section titled “Special Conditions for STA.” This rule proposes creating this new section immediately following the proposed “List-Based License Exceptions (See Part 740 for a complete listing of license exceptions and requirements)” instruction, because the License Exception STA paragraphs do not perform the same function as the other list-based license exception paragraphs. This rule does not propose any changes to the regulatory text included in the current License Exception STA paragraphs of these ECCNs. The changes proposed in this rule are limited to proposing a new section heading and then moving the existing License Exception STA paragraphs in these forty-nine ECCNs to the new STA section heading.

#### (C) Adding a cross-reference after Country Chart.

This rule proposes revising the “Country Chart” paragraph heading in the License Requirements section to add a parenthetical to indicate where the public can find the Country Chart. The revised Country Chart paragraph heading would now read “Country Chart (See Supp. No. 1 to part 738).” Not all ECCNs include a Country Chart paragraph and a small number of ECCNs do not rely on the Commerce Country Chart for determining destination-based license requirements. Most ECCNs, however, are structured to refer to the information contained in the Country Chart paragraph in Supplement No. 1 to part 738 to identify destination-based license requirements. The changes in this rule would clarify that for the ECCNs that use this structure, exporters, reexporters and transferors need to refer to the Country Chart in Supplement No. 1 to part 738 to determine destination-based license requirements. For experienced exporters, reexporters, and transferors, this structure is well understood. The new cross references would be primarily intended for those exporters, reexporters, and transferors who are new to the EAR and who may not as readily understand the relationship between this standard ECCN paragraph and Supplement No. 1 to part 738. The new parenthetical phrase at the end of the Country Chart paragraph would make the relationship explicit.

#### (D) Adding a new “Reporting Requirements” section to certain ECCNs.

Some ECCNs include references to reporting requirements. They are typically found either in License Requirement notes or in notes to the “items” paragraphs in the List of Items Controlled section. BIS has adopted a standardized paragraph structure for ECCNs, as much as possible, to assist the public in classifying items. A standardized paragraph structure helps the public classify items by putting the information contained in an ECCN into a useable and easily recognizable format. The current reporting requirements, which are found in various sections and paragraphs of the ECCN, deviate from this type of standardized structure. This rule proposes to add a new section heading called Reporting Requirements where the existing reporting requirements found in ECCNs would be consolidated to address this issue. This rule does not propose any changes to the scope of current reporting requirements. This proposed standardized structure would aid in compliance with the reporting requirements and assist exporters in more quickly and easily identifying ECCNs subject to reporting requirements. The rule proposes adding the new Reporting Requirements section heading immediately before the License Exceptions section, which, as proposed above, would now be revised to read “List-Based License Exceptions (See Part 740 for a complete listing of license exceptions and requirements).”

To implement this change in Supplement No. 1 to part 774 (the Commerce Control List), this rule would remove the “License Requirements Notes” paragraphs in the License Requirements section in the following thirty-nine Export Control Classification Numbers (ECCNs): 1A002, 1C007, 1C010, 1D002, 1E001, 1E002, 2D001, 2E001, 2E002, 3A002, 3D001, 3E001, 4A001, 4E001, 5A001, 5B001, 5D001, 5E001, 6A001, 6A002, 6A004, 6A006, 6A008, 6D001, 6D003, 6E001, 6E002, 8A001, 8A002, 8D001, 8D002, 8E001, 8E002, 9B001, 9D001, 9D002, 9E001, 9E002 and 9E003. In these thirty-nine ECCNs, this rule would add the new section entitled “REPORTING REQUIREMENTS See § 743.1 of the EAR for reporting requirements for exports under License Exceptions, Special Comprehensive Licenses, and Validated End-User authorizations” after the License Requirements section in each of these respective ECCNs. This proposed rule would also make changes to the new Reporting Requirements section to ensure the text conforms to the listing



of authorizations in § 743.1 that require reporting to BIS.

**(4) Removal of Fourteen ECCNs Subject to the Exclusive Jurisdiction of the Nuclear Regulatory Commission**

*(A) Removal of fourteen ECCNs.*

The CCL includes forty-nine ECCNs that refer to items that are subject to the exclusive jurisdiction of the Department of Energy, the Nuclear Regulatory Commission, or the Department of State. They constitute approximately 10% of the total number of ECCNs on the CCL. Of the forty-nine ECCNs, fourteen ECCNs are subject to the export licensing authority of the Nuclear Regulatory Commission at 10 CFR part 110. This rule proposes removing these fourteen ECCNs from the CCL. The fourteen ECCNs are 0A001, 0B001, 0B002, 0B003, 0B004, 0B005, 0B006, 0C001, 0C002, 0C004, 0C005, 0C006, 0C201 and 1C012. The ECCNs that BIS proposes to remove are Nuclear Trigger List items, so the jurisdiction of these items is already established under U.S. export controls and, as explained below, there is no need to include this additional cross reference from the CCL to the controls maintained by the Nuclear Regulatory Commission.

BIS's original purpose for including these ECCNs on the CCL was to supplement § 734.3 (Items subject to the EAR) under paragraph (b)(1), which describes items that are not subject to the EAR because they are subject to the exclusive jurisdiction of another agency of the U.S. Government, and to supplement the jurisdiction information for the other U.S. Government agencies found in Supplement No. 3 to part 730 (Other U.S. Government Departments and Agencies with Export Control Responsibilities). BIS also included these ECCNs to better align the CCL with the European Union's control lists that are primarily based on the multilateral export control regimes. However, by including references to other agencies' controls in specific ECCNs there is the potential that such ECCN references will become out of date if the other agencies update their respective regulations and the corresponding changes are not made in the EAR cross reference in a timely manner.

For example, on September 7, 2011 (76 FR 55278), the National Nuclear Security Administration, Department of Energy (DOE) published a notice of proposed rulemaking that proposed various amendments to regulations concerning unclassified assistance to foreign atomic energy activities. These proposed revisions were intended to reduce uncertainties for industry users

concerning which foreign nuclear related activities by U.S. persons are "generally authorized" under the regulation and which activities require a "specific authorization" from the Secretary of Energy. However, if the ECCNs on the CCL that currently refer to DOE and NRC controls are not updated, the uncertainties for exporters, reexporters and transferors would increase because of inconsistencies in the different regulations. Given that the DOE and NRC respective regulations are controlling in this area and these ECCNs are only acting as a cross reference, BIS is proposing the removal of these ECCNs.

BIS has determined there still is utility in including general cross references to other agencies' controls. Thus, this rule proposes to include a general cross reference at the beginning of the CCL in a revised § 774.1 (Introduction) that would contain those ECCNs that have been reserved and are subject to the exclusive jurisdiction of another agency of the U.S. Government. In addition, the related control paragraphs of ECCNs would contain cross references to controls of other agencies to the extent that such controls are similar to or related to the controls of certain ECCNs.

The remaining thirty-five of the forty-nine ECCNs refer to items that are "subject to the ITAR," which is maintained by the Department of State. Given the ongoing review of the United States Munitions List (USML) that is being conducted under the ECR Initiative, it is premature to propose removing or revising these thirty-five ECCNs. In addition, given the number of cross references, in particular in Categories 7 and 9 of the CCL, to these thirty-five ECCNs, BIS determined that removing the ECCNs that are "subject to the ITAR" should be addressed at a later time once the review of the USML is completed.

*(B) Changes to the CCL to conform to the removal of these fourteen ECCNs.* In addition to removing the fourteen ECCNs, this rule would also make conforming changes to eleven ECCNs that would be retained on the CCL. The ECCNs that would be revised by this rule contain references to one or more of the fourteen ECCNs that would be removed.

The removal of the fourteen ECCNs should not impact the existing controls for items subject to the EAR. However, given the interrelationship between the fourteen ECCNs removed and the eleven ECCNs where conforming changes would be required, BIS is particularly interested in any comments regarding whether the proposed changes

accurately capture the intent of the previous references (i.e., the references to the fourteen ECCNs that would be removed in the eleven ECCNs that are retained on the CCL).

The rule would make conforming changes to the following eleven ECCNs: 1A290, 1C107, 1C240, 1C298, 3A225, 3A226, 3A227, 3A233, 3A999, 6A005 and 6A205. This rule's proposed revisions consist of the following:

*ECCNs 3A225, 3A226, 3A227, 3A233, 6A005 and 6A205.* This rule would revise six ECCN headings (3A225, 3A226, 3A227, 3A233, 6A005 and 6A205). This rule would take this approach to minimize the number of changes that would need to be made, while still ensuring the headings would reflect the intended scope of these six ECCNs.

On the CCL, these six ECCN headings include references to some of the fourteen ECCNs that would be removed as a shorthand way of communicating the scope of items controlled. Therefore, the removal of these fourteen ECCNs would require that a broader description be added to the headings of the ECCNs that would be retained. If only one of the fourteen ECCNs that would be removed is referenced, then BIS believes that in most cases it is easy to incorporate the text of the removed ECCN into the heading of the ECCN that would be retained. However, there are certain ECCNs that contain multiple references to the ECCNs that would be removed. In the cases where multiple ECCNs are referenced, an effort to insert all the text into the headings as a conforming change would not be feasible. To address this issue, this rule would add heading notes, which would provide more space to describe the substance of the ECCNs that would be removed from the respective headings. The end of the revised headings would include a reference to the heading notes to alert persons classifying their items to review the heading notes as they determine whether their item in question was classified under the removed ECCN.

*ECCNs 1A290, 1C107 and 1E001.* This rule would revise three "related controls" paragraphs in ECCNs 1A290, 1C107 and 1E001. These changes would revise references to one or more of the fourteen removed ECCNs in each of the three remaining ECCNs and replace them with more descriptive explanations in the related controls. These changes would reduce the need for cross-referencing in the CCL to the fourteen removed ECCNs. Another alternative would be to take the opposite approach and instead simply use very broad descriptors for the types



of items that are subject to the exclusive jurisdiction of another export control agency of the U.S. Government. BIS would welcome comments from the public regarding whether this alternative approach of simply using broad descriptors or some other approach not yet considered by BIS would be better than what is proposed.

**ECCN 1E001.** This rule would also revise 1E001 by removing the reference to 1C012 in the License Exception STA paragraph in the License Exceptions section. This ECCN is subject to the exclusive jurisdiction of another agency. Thus, License Exception STA could never be used as the authority to export an item described in 1C012.

**ECCN 1C298.** This rule would revise one CCL note in ECCN 1C298 to remove references to one or more of the fourteen ECCNs that would be removed by this rule.

(C) *Adding a general cross reference to the fourteen ECCNs that would be removed.*

In § 774.1 (Introduction), this rule would redesignate the introductory text of the section as paragraph (a) with the heading “Scope of the control list,” and would add a paragraph (b) with the heading “ECCN cross-references for items subject to the exclusive jurisdiction of another agency.” The introductory text of paragraph (b) would indicate that prior to the date of publication in the **Federal Register** of the final rule that would remove these fourteen ECCNs, the CCL contained fourteen ECCNs that were included as cross references on the CCL to the export control regulations administered by the Nuclear Regulatory Commission. Paragraph (b) would identify ECCNs formerly listed on the CCL that were subject to the jurisdiction of the Nuclear Regulatory Commission at 10 CFR part 110. This rule would add a note to paragraph (b) to indicate that ECCNs 0D001 and 0E001 (ECCNs that are proposed to be retained on the CCL) were subject to the jurisdiction of the Nuclear Regulatory Commission at 10 CFR part 110 or jurisdiction of the Department of the Energy at 10 CFR part 810, but also have certain portions that, as of the date of publication of this rule, were “subject to the ITAR.” These ECCNs would be retained on the CCL as a cross reference.

Although the Export Administration Act expired on August 20, 2001, the President, through Executive Order 13222 of August 17, 2001, 3 CFR, 2001 Comp., p. 783 (2002), as extended by the Notice of August 15, 2012, 77 FR 49699 (August 16, 2012), has continued the Export Administration Regulations in effect under the International

Emergency Economic Powers Act. BIS continues to carry out the provisions of the Export Administration Act, as appropriate and to the extent permitted by law, pursuant to Executive Order 13222.

#### Rulemaking Requirements

1. Executive Orders 13563 and 12866 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, distribute impacts, and equity). Executive Order 13563 emphasizes the importance of quantifying both costs and benefits, of reducing costs, of harmonizing rules, and of promoting flexibility. This rule has been designated a “significant regulatory action,” although not economically significant, under section 3(f) of Executive Order 12866. Accordingly, the rule has been reviewed by the Office of Management and Budget (OMB).

2. Notwithstanding any other provision of law, no person is required to respond to nor 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 regulation involves collections previously approved by OMB under control numbers 0694–0088, “Multi-Purpose Application,” which carries a burden hour estimate of 43.8 minutes for a manual or electronic submission. Total burden hours associated with the PRA and OMB control number 0694–0088 are expected to decrease slightly as a result of this rule because of the proposed removal of ECCN 8A918. You may send comments regarding the collection of information associated with this rule, including suggestions for reducing the burden, to Jasmeet K. Seehra, Office of Management and Budget (OMB), by email to [Jasmeet.K.Seehra@omb.eop.gov](mailto:Jasmeet.K.Seehra@omb.eop.gov), or by fax to (202) 395–7285.

3. This rule does not contain policies with Federalism implications as that term is defined under E.O. 13132.

4. The Regulatory Flexibility Act (RFA), as amended by the Small Business Regulatory Enforcement Fairness Act of 1996 (SBREFA), 5 U.S.C. 601 *et seq.*, generally requires an agency to prepare a regulatory flexibility analysis for any rule subject to the notice and comment rulemaking

requirements under the Administrative Procedure Act (5 U.S.C. 553) or any other statute, unless the agency certifies that the rule will not have a significant economic impact on a substantial number of small entities. Under section 605(b) of the RFA, however, if the head of an agency certifies that a rule will not have a significant economic impact on a substantial number of small entities, the statute does not require the agency to prepare a regulatory flexibility analysis. Pursuant to section 605(b), the Chief Counsel for Regulation, Department of Commerce, submitted a memorandum to the Chief Counsel for Advocacy, Small Business Administration, certifying that this proposed rule will not have a significant economic impact on a substantial number of small entities.

#### Number of Small Entities

The Bureau of Industry and Security (BIS) does not collect data on the size of entities that apply for and are issued export licenses. Although BIS is unable to estimate the exact number of small entities that would be impacted by this rule, it does acknowledge that this rule will impact some unknown number.

#### Economic Impact

This proposed rule is part of the Administration’s Export Control Reform (ECR) Initiative. As part of the ECR Initiative, BIS published an advance notice of proposed rulemaking on December 9, 2010 seeking, among other things, public comments on how descriptions of items controlled on the CCL could be made clearer. The December 9, 2010 notice solicited public suggestions on ways to improve the descriptions of items on the CCL to better reflect internationally accepted standards and use industry standard terms and references. Where objective criteria are missing from ECCNs, BIS sought specific suggestions on what technical parameters, characteristics, thresholds, and capabilities should be used to describe the item. BIS requested that all suggestions in this area should include proposed revisions to the text of ECCNs or proposed Technical Notes to ECCNs that explain terms or phrases used in the ECCN.

Fifty public comments were received totaling over 1400 pages in suggestions for how the CCL could be improved. The vast majority of suggested changes that can be implemented unilaterally by the U.S. Government involve improvements to the clarity of the CCL. These changes are included in this proposed rule. BIS also solicited in the December 9, 2010 notice comments on how the CCL could be made more

“positive,” but given the CCL is already primarily a “positive” control list, most of the comments in this area focused on ways to improve the overall use of the CCL and public understanding of the CCL.

This rule focuses on implementing a large number of changes that would make the CCL clearer. The significance of any particular change, when taken by itself, may not appear to make a dramatic improvement to the clarity of the CCL, but the cumulative impact of these various proposed changes would make a significant improvement to the CCL. BIS believes this improved clarity would also make the control list easier to use, in particular for those reviewing the CCL for the first time.

Improving the clarity of the CCL as described in this rule would reduce the burden on small entities (and other entities as well) by increasing the public's confidence in self-classifying items on the CCL thereby reducing the amount of time it takes for the public to classify items using the CCL. The CCL, as noted in the December 9, 2010 notice, should be written in a clear way that allows someone who knows the technical parameters and capabilities of an item to review the CCL, even if it is their first time reviewing the CCL, and consistently and easily come to the right classification determination.

Defining and using terms consistently, clarifying control parameters to better reflect the intent of the controls, removing references on the CCL that do not serve a clear purpose, and ensuring that the controls are consistent with U.S. Government commitments to the multilateral export control regimes, would make the CCL clearer and improve the ease of use of the CCL. This would reduce the burden on small entities (and all other entities as well). Ambiguity on the CCL creates a burden for small entities (and all other entities as well), so changes that make the CCL clearer would result in less burden on these entities.

One of the comments submitted in response to the December 9, 2010 notice indicated that the overall consistency of how the CCL is structured was an area where the CCL could be improved. The current CCL does have many common structural elements, such as the ECCNs, Product Groups (A–E) and Categories (0–9) following the same basic structure, but in reviewing this comment and other public comments, BIS determined that additional changes could be made to create greater consistency in how the ECCN information was being communicated to the public, such as creating a new “Reporting Requirements” paragraph to make it

easier for exporters classifying items to quickly determine whether a particular item was subject to reporting requirements. Other structural changes, such as the proposed changes to the License Exceptions section of the ECCNs would assist the public in more easily understanding the relationship between the License Exceptions section in ECCNs and part 740. These structural changes will reduce the burden for small entities (and all other entities as well) by making the CCL easier to use and more clearly communicating the relationship between the CCL and other key provisions of the EAR, such as parts 738 and 740.

In practice, the greatest impact of this rule on small entities would likely be reduced administrative costs and reduced delay for exports of items. Without this rule, a company or person may have submitted a classification to BIS because the CCL was not clear from their perspective regarding the scope of items controlled. BIS supports and encourages the public to submit classification requests when a person is unsure of an item's classification, but the CCL should be written in a clear fashion whereby a person who understands the technical parameters and capabilities of their item does not feel a need to submit a classification request in order to classify an item subject to the EAR. In addition, for small entities (and all other entities), if the CCL is clear and easy to use, a company or person may find it easier and less expensive to train others to use the CCL. If there is perceived ambiguity on the CCL that requires some degree of interpretation to understand what is controlled, such ambiguity makes it more difficult to train an entity's personnel to use the CCL. This is not the type of control list BIS seeks. Creating control lists that clearly communicate the scope of items controlled on the CCL and the USML are one of the objectives of the ongoing ECR Initiative, as was referenced in the December 9, 2010 notice. This proposed rule is not meant to create any substantive changes. Therefore, this proposed rule would not cause any economic impact and would result in no additional compliance costs.

#### Conclusion

BIS is unable to determine the precise number of small entities that would be affected by this rule. Based on the facts and conclusions set forth above, BIS believes that any burdens imposed by this rule would be offset by the improvements made to the clarity of the CCL and the reduction in time and cost required for small entities to classify

their items using the CCL, along with understanding how the CCL relates to other provisions of the EAR.

For these reasons, the Chief Counsel for Regulation of the Department of Commerce certified to the Chief Counsel for Advocacy of the Small Business Administration that this rule, if adopted in final form, would not have a significant economic impact on a substantial number of small entities.

#### List of Subjects

##### 15 CFR Part 734

Administrative practice and procedure, Exports, Inventions and patents, Research Science and technology.

##### 15 CFR Part 740

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

##### 15 CFR Part 772

Exports.

##### 15 CFR Part 774

Exports, Reporting and recordkeeping requirements.

Accordingly, parts 734, 740, 772, and 774 of the Export Administration Regulations (15 CFR parts 730–774) are proposed to be amended as follows:

#### PART 734—[AMENDED]

1. The authority citation for 15 CFR part 734 continues to read as follows:

**Authority:** 50 U.S.C. app. 2401 *et seq.*; 50 U.S.C. 1701 *et seq.*; E.O. 12938, 59 FR 59099, 3 CFR, 1994 Comp., p. 950; E.O. 13020, 61 FR 54079, 3 CFR, 1996 Comp., p. 219; E.O. 13026, 61 FR 58767, 3 CFR, 1996 Comp., p. 228; E.O. 13222, 66 FR 44025, 3 CFR, 2001 Comp., p. 783; Notice of November 9, 2011, 76 FR 70319 (November 10, 2011) Notice of August 15, 2012, 77 FR 49699 (August 16, 2012).

2. Section 734.4 is amended by revising the Note to paragraph (a)(3) to read as follows:

#### § 734.4 *De minimis* U.S. content.

\* \* \* \* \*

**Note to Paragraph (a)(3):** QRS11 Micromachined Angular Rate Sensors are “subject to the ITAR,” (see 22 CFR parts 120 through 130) except when the QRS11–00100–100/101 version of the sensor is integrated into and included as an integral part of a commercial primary or standby instrument system of the type described in ECCN 7A994, or aircraft of the type described in ECCN 9A991 that incorporates a commercial primary or standby instrument that has such a sensor integrated, or is exported solely for integration into such systems; or when the QRS11–00050–443/569 is integrated into a commercial automatic flight control system of the type described in

ECCN 7A994, or aircraft of the type described in ECCN 9A991 that incorporates an automatic flight control system that has such a sensor integrated, or is exported solely for integration into such a system.

\* \* \* \* \*

3. Section 734.6 is amended by revising paragraph (a) to read as follows:

**§ 734.6 Assistance available from BIS for determining licensing and other requirements.**

(a) If you are not sure whether a commodity, software, technology, or activity “subject to the EAR” is subject to licensing or other requirements under the EAR, you may ask BIS for an advisory opinion or a commodity classification determination. In order to determine whether an item is “subject to the ITAR,” you should review the ITAR’s United States Munitions List (see 22 CFR 120.6 and 121.1). You may also submit a request to the Department of State, Directorate of Defense Trade Controls, for a formal jurisdictional determination regarding the commodity, software, technology, or activity at issue (see 22 CFR 120.4).

\* \* \* \* \*

**PART 740—[AMENDED]**

4. The authority citation for 15 CFR part 740 continues to read as follows:

**Authority:** 50 U.S.C. app. 2401 *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; Notice of August 15, 2012, 77 FR 49699 (August 16, 2012).

5. Section 740.6 is amended by revising paragraph (a)(1)(iii) to read as follows:

**§ 740.6 Technology and software under restriction (TSR).**

(a) \* \* \*

(1) \* \* \*

(iii) If the direct product of the technology is a complete plant or any major components of a plant, export to Country Groups D:1 or E:1 the direct product of the plant or major components thereof, if such foreign produced direct product is subject to national security controls as identified on the CCL or is “subject to the ITAR” (see 22 CFR parts 120 through 130).

\* \* \* \* \*

**PART 772—[AMENDED]**

6. The authority citation for 15 CFR part 772 continues to read as follows:

**Authority:** 50 U.S.C. app. 2401 *et seq.*; 50 U.S.C. 1701 *et seq.*; E.O. 13222, 66 FR 44025, 3 CFR, 2001 Comp., p. 783; Notice of August 15, 2012, 77 FR 49699 (August 16, 2012).

7. Section 772.1 is amended by adding a definition for the term “subject to the ITAR” to read as follows:

**§ 772.1 Definitions of terms as used in the Export Administration Regulations (EAR).**

\* \* \* \* \*

*Subject to the ITAR.* A term used in the EAR to describe those commodities, software, technology (e.g., technical data) and defense services over which the U.S. Department of State, Directorate of Defense Trade Controls (DDTC) exercises regulatory jurisdiction under the International Traffic in Arms Regulations (ITAR) (see 22 CFR parts 120 through 130).

\* \* \* \* \*

**PART 774—[AMENDED]**

8. The authority citation for 15 CFR part 774 continues to read as follows:

**Authority:** 50 U.S.C. app. 2401 *et seq.*; 50 U.S.C. 1701 *et seq.*; 10 U.S.C. 7420; 10 U.S.C. 7430(e); 22 U.S.C. 287c, 22 U.S.C. 3201 *et seq.*; 22 U.S.C. 6004; 30 U.S.C. 185(s), 185(u); 42 U.S.C. 2139a; 42 U.S.C. 6212; 43 U.S.C. 1354; 15 U.S.C. 1824a; 50 U.S.C. app. 5; 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; Notice of August 15, 2012, 77 FR 49699 (August 16, 2012).

9. Revise § 774.1 to read as follows:

**§ 774.1 Introduction.**

(a) *Scope of the control list.* In this part, references to the EAR are references to 15 CFR chapter VII, subchapter C. The Bureau of Industry and Security (BIS) maintains the Commerce Control List (CCL) that includes “items”—i.e., “commodities,” “software,” and “technology”—subject to the authority of BIS. The CCL does not include items exclusively controlled for export by another department or agency of the U.S. Government. In instances where other agencies administer controls over related items, entries in the CCL will often contain a reference to these controls. In addition, those items “subject to the EAR” but not identified on the CCL are identified by the designator “EAR99.” See § 734.2(a) of the EAR for items that are “subject to the EAR.” EAR Part 738 contains an explanation of the organization of the CCL and its relationship to the Country Chart.

(b) *ECCN cross-references for items subject to exclusive jurisdiction of another agency.* Prior to November 29, 2012, the CCL contained certain ECCNs that were only included as cross references to items subject to the export control regulations administered by the Nuclear Regulatory Commission.

ECCNs formerly listed on the CCL that, as of November 29, 2012 were subject to the export licensing authority of the Nuclear Regulatory Commission at 10 CFR part 110 are: 0A001, 0B001, 0B002, 0B003, 0B004, 0B005, 0B006, 0C001, 0C002, 0C004, 0C005, 0C006, 0C201 and 1C012.

Note to paragraph (b): As of November 29, 2012 ECCN 0D001 is subject to the export licensing authority of the Nuclear Regulatory Commission (see 10 CFR part 110), and ECCN 0E001 is subject to the export licensing authority of the Department of Energy (see 10 CFR part 810), but certain portions of these entries are also “subject to the ITAR” (see 22 CFR parts 120 through 130). These ECCNs are retained on the CCL as a cross reference.

(c) *Where to find the CCL?* The CCL is contained in Supplement No. 1 to this part, and Supplement No. 2 to this part contains the General Technology and Software Notes relevant to entries contained in the CCL.

**Supplement No. 1 to Part 774—[Amended]**

10. Supplement No. 1 to part 774 (the Commerce Control List) is amended by removing the following Export Control Classification Numbers (ECCNs): 0A001, 0B001, 0B002, 0B003, 0B004, 0B005, 0B006, 0C001, 0C002, 0C004, 0C005, 0C006, 0C201 and 1C012.

11. Supplement No. 1 to part 774 (the Commerce Control List) is amended:

a. By removing the License Exception STA paragraph under the License Exceptions section of the following Export Control Classification Numbers (ECCNs): 1A002, 1C001, 1C007, 1C010, 1C012, 1D002, 1E001, 1E002, 2D001, 2E001, 2E002, 3A002, 3B001, 3D001, 3E001, 4A001, 4D001, 4E001, 5A001, 5B001, 5D001, 5E001, 6A001, 6A002, 6A003, 6A004, 6A006, 6A008, 6B008, 6D001, 6D003, 6E001, 6E002, 7D003, 7E001, 7E002, 8A001, 8A002, 8D001, 8D002, 8E001, 8E002, 9B001, 9D001, 9D002, 9D004, 9E001, 9E002, and 9E003;

b. By adding the new section heading “Special Conditions for STA” after the License Exceptions sections in the ECCNs identified under instruction 18.a; and

c. By adding the License Exception STA paragraphs removed from instruction 18.a to the new section heading “Special Conditions for STA” added under instruction 18.b.

12. Supplement No. 1 to part 774 (the Commerce Control List) is amended by removing the section headings “License Exceptions” from Export Control Classification Numbers (ECCNs) and replacing those headings with “List

Based License Exceptions (See Part 740 for a complete listing of license exceptions and requirements)."

13. Supplement No. 1 to part 774 (the Commerce Control List) is amended by removing the "Country Chart" paragraph heading in the License Requirements section in Export Control Classification Numbers (ECCNs) and adding in its place the heading "Country Chart (See Supp. No. 1 to part 738)."

14. Supplement No. 1 to part 774 (the Commerce Control List) is amended:

a. By removing the "License Requirements Notes" paragraphs in the License Requirements section in the following Export Control Classification Numbers (ECCNs): 1A002, 1C007, 1C010, 1D002, 1E001, 1E002, 2D001, 2E001, 2E002, 3A002, 3B001, 3D001, 3E001, 4A001, 4E001, 5A001, 5B001, 5D001, 5E001, 6A001, 6A002, 6A004, 6A006, 6A008, 6D001, 6D003, 6E001, 6E002, 8A001, 8A002, 8D001, 8D002, 8E001, 8E002, 9B001, 9D001, 9D002, 9E001, 9E002 and 9E003; and

b. By adding the new section "REPORTING REQUIREMENTS See § 743.1 of the EAR for reporting requirements for exports under License Exceptions, Special Comprehensive Licenses, and Validated End-User authorizations" after the License Requirements section in the following Export Control Classification Numbers (ECCNs): 1A002, 1C007, 1C010, 1D002, 1E001, 1E002, 2D001, 2E001, 2E002, 3A002, 3D001, 3E001, 4A001, 4E001, 5A001, 5B001, 5D001, 5E001, 6A001, 6A002, 6A004, 6A006, 6A008, 6D001, 6D003, 6E001, 6E002, 8A001, 8A002, 8D001, 8D002, 8E001, 8E002, 9B001, 9D001, 9D002, 9E001, 9E002 and 9E003.

15. In Supplement No. 1 to part 774 (the Commerce Control List), Category 0—Nuclear Materials, Facilities & Equipment (and Miscellaneous Items), Export Control Classification Number (ECCN) 0A002 is amended by revising the heading to read as follows:

**0A002 Power generating or propulsion equipment specially designed for use with space, marine or mobile "nuclear reactors".** (These items are "subject to the ITAR." See 22 CFR parts 120 through 130.)

\* \* \* \* \*

16. In Supplement No. 1 to part 774 (the Commerce Control List), Category 0—Nuclear Materials, Facilities & Equipment (and Miscellaneous Items), Export Control Classification Number (ECCN) 0A979 is amended by revising the heading to read as follows:

**0A979 Police helmets and shields; and "specially designed" "components," n.e.s.**

\* \* \* \* \*

17. In Supplement No. 1 to part 774 (the Commerce Control List), Category 0—Nuclear Materials, Facilities & Equipment (and Miscellaneous Items), Export Control Classification Number (ECCN) 0A981 is amended by revising the heading to read as follows:

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

\* \* \* \* \*

18. In Supplement No. 1 to part 774 (the Commerce Control List), Category 0—Nuclear Materials, Facilities & Equipment (and Miscellaneous Items), Export Control Classification Number (ECCN) 0A982 is amended by revising the heading to read as follows:

**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.**

\* \* \* \* \*

19. In Supplement No. 1 to part 774 (the Commerce Control List), Category 0—Nuclear Materials, Facilities & Equipment (and Miscellaneous Items), Export Control Classification Number (ECCN) 0A983 is amended by revising the heading to read as follows:

**0A983 Specially designed implements of torture, including thumb screws, thumbcuffs, finger cuffs, spiked batons, and "specially designed" "parts," "components" and accessories, n.e.s.**

\* \* \* \* \*

20. In Supplement No. 1 to part 774 (the Commerce Control List), Category 0—Nuclear Materials, Facilities & Equipment (and Miscellaneous Items), Export Control Classification Number (ECCN) 0A984 is amended:

a. By revising the first "CC" paragraph in the License Requirements section; and

b. By revising the "Related Controls" paragraph in the List of Items Controlled section to read as follows:

**0A984 Shotguns with barrel length 18 inches (45.72 cm) or over; receivers; barrels of 18 inches (45.72 cm) or longer but not longer than 24 inches (60.96 cm); complete trigger mechanisms; magazines and magazine extension tubes; complete breech mechanisms; buckshot shotgun shells; except equipment used exclusively to treat or tranquilize animals, and except arms designed solely for signal, flare, or saluting use.**

## License Requirements

*Reason for Control:* \* \* \*

<i>Control(s)</i>	<i>Country chart</i>
* * * * *	* * * * *
CC applies to shotguns with a barrel length greater than or equal to 18 in. (45.72 cm), but less than 24 in. (60.96 cm), shotgun "components" controlled by this entry, and buckshot shotgun shells controlled by this entry, regardless of end-user	CC Column 1
* * * * *	* * * * *
* * * * *	* * * * *
<b>List of Items Controlled</b>	
* * * * *	
<i>Related Controls:</i> This entry does not control shotguns with a barrel length of less than 18 inches (45.72 cm). These items are "subject to the ITAR" (see 22 CFR parts 120 through 130).	
* * * * *	
21. In Supplement No. 1 to part 774 (the Commerce Control List), Category 0—Nuclear Materials, Facilities & Equipment (and Miscellaneous Items), Export Control Classification Number (ECCN) 0A985 is amended by revising the heading to read as follows:	
<b>0A985 Discharge type arms and devices to administer electric shock, for example, stun guns, shock batons, shock shields, electric cattle prods, immobilization guns and projectiles; except equipment 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.</b>	
* * * * *	
22. In Supplement No. 1 to part 774 (the Commerce Control List), Category 0—Nuclear Materials, Facilities & Equipment (and Miscellaneous Items), Export Control Classification Number (ECCN) 0A986 is amended by revising the heading to read as follows:	
<b>0A986 Shotgun shells, except buckshot shotgun shells, "specially designed" "parts" and "components."</b>	
* * * * *	
23. In Supplement No. 1 to part 774 (the Commerce Control List), Category 0—Nuclear Materials, Facilities & Equipment (and Miscellaneous Items), Export Control Classification Number (ECCN) 0A987 is amended by revising the heading to read as follows:	

**0A987 Optical sighting devices for firearms (including shotguns controlled by 0A984); and “components” as follows (see list of items controlled).**

\* \* \* \* \*

24. In Supplement No. 1 to part 774 (the Commerce Control List), Category 0—Nuclear Materials, Facilities & Equipment (and Miscellaneous Items), Export Control Classification Number (ECCN) 0D001 is amended:

- a. By revising the heading; and
- b. By revising the second Control(s) paragraph in the License Requirements section to read as follows:

**0D001 “Software” specially designed or modified for the “development,” “production” or “use” of commodities described in 0A001, 0A002, 0B (except 0B986 and 0B999), or 0C.**

**License Requirements**

*Reason for Control:*  
Control(s)

\* \* \* \* \*

“Software” for items described in 0A002 is “subject to the ITAR” (see 22 CFR parts 120 through 130).

\* \* \* \* \*

25. In Supplement No. 1 to part 774 (the Commerce Control List), Category 1—Special Materials and Related Equipment, Chemicals, “Microorganisms” and “Toxins,” Export Control Classification Number (ECCN) 1A001 is amended:

- a. By revising the heading; and
- b. By revising the “Related Controls” paragraph (1) in the List of Items Controlled section to read as follows:

**1A001 “Parts” and “components” made from fluorinated compounds, as follows (see List of Items Controlled).**

\* \* \* \* \*

**List of Items Controlled**

\* \* \* \* \*

*Related Controls:* (1) Items specially designed or modified for missiles or for items on the U.S. Munitions List are “subject to the ITAR” (see 22 CFR parts 120 through 130, including USML Category XXI).

\* \* \* \* \*

26. In Supplement No. 1 to part 774 (the Commerce Control List), Category 1—Special Materials and Related Equipment, Chemicals, “Microorganisms” and “Toxins,” Export Control Classification Number (ECCN) 1A002 is amended by revising the “Related Controls” paragraph (3) in the List of Items Controlled section to read as follows:

**1A002 “Composite” structures or laminates, having any of the following (see List of Items Controlled).**

\* \* \* \* \*

**List of Items Controlled**

\* \* \* \* \*

*Related Controls:* \* \* \* (3) “Composite” structures specially designed for missile applications (including specially designed subsystems, and “parts” and “components”) are controlled by ECCN 9A110.

\* \* \* \* \*

27. In Supplement No. 1 to part 774 (the Commerce Control List), Category 1—Special Materials and Related Equipment, Chemicals, “Microorganisms” and “Toxins,” Export Control Classification Number (ECCN) 1A004 is amended:

- a. By revising the heading;
- b. By revising “Related Controls” paragraph (4);
- c. By revising the introductory text of “items” paragraphs a and c; and
- d. By revising Technical Notes “1” in the List of Items Controlled section to read as follows:

**1A004 Protective and detection equipment and “parts” and “components,” not specially designed for military use, as follows (see List of Items Controlled).**

\* \* \* \* \*

**List of Items Controlled**

\* \* \* \* \*

*Related Controls:* \* \* \* (4) Chemical and biological protective and detection equipment specifically designed, developed, modified, configured, or adapted for military applications is “subject to the ITAR” (see 22 CFR parts 120 through 130, including USML Category XIV(f)), as is commercial equipment that incorporates “parts” or “components” controlled under that category except for domestic preparedness devices for individual protection that integrate “components” and “parts” identified in USML Category XIV(f)(4) when such “parts” or “components” are: (1) Integral to the device; (2) inseparable from the device; and (3) incapable of replacement without compromising the effectiveness of the device, in which case the equipment is “subject to the EAR” under ECCN 1A004.

*Related Definitions:* \* \* \*

*Items:*

\* \* \* \* \*

a. Gas masks, filter canisters and decontamination equipment therefor, designed or modified for defense against any of the following, and specially designed “parts” and “components” therefor:

\* \* \* \* \*

c. Detection systems, specially designed or modified for detection or identification of any of the following, and specially designed “parts” and “components” therefor:

\* \* \* \* \*

**Technical Notes:**

1. 1A004 includes equipment, “parts” and “components” that have been ‘identified,’ successfully tested to national standards or otherwise proven effective, for the detection of or defense

against radioactive materials “adapted for use in war,” biological agents “adapted for use in war,” chemical warfare agent, ‘simulants’ or “riot control agents,” even if such equipment, “parts” or “components” are used in civil industries such as mining, quarrying, agriculture, pharmaceuticals, medical, veterinary, environmental, waste management, or the food industry.

\* \* \* \* \*

28. In Supplement No. 1 to part 774 (the Commerce Control List), Category 1—Special Materials and Related Equipment, Chemicals, “Microorganisms” and “Toxins,” Export Control Classification Number (ECCN) 1A005 is amended:

- a. By revising the heading;
- b. By revising the “Related Controls” paragraph (1) in the List of Items Controlled section; and
- c. By revising “items” paragraph a to read as follows:

**1A005 Body armor, and specially designed “parts” and “components” therefor, as follows (see List of Items Controlled).**

\* \* \* \* \*

**List of Items Controlled**

\* \* \* \* \*

*Related Controls:* (1) Bulletproof and bullet resistant vests (body armor) NIJ levels III and IV, are “subject to the ITAR” (see 22 CFR parts 120 through 130, including USML Categories X(a) and XIII(e)). \* \* \*

*Related Definitions:* \* \* \*

*Items:*

a. Soft body armor not manufactured to military standards or specifications, or to their equivalents, and specially designed “parts” and “components” therefor;

\* \* \* \* \*

29. In Supplement No. 1 to part 774 (the Commerce Control List), Category 1—Special Materials and Related Equipment, Chemicals, “Microorganisms” and “Toxins,” Export Control Classification Number (ECCN) 1A006 is amended:

- a. By revising the heading; and
- b. By revising the “Related Controls” paragraph to read as follows:

**1A006 Equipment, specially designed or modified for the disposal of improvised explosive devices, as follows (see List of Items Controlled), and specially designed “parts,” “components” and accessories therefor.**

\* \* \* \* \*

**List of Items Controlled**

\* \* \* \* \*

*Related Controls:* Equipment specially designed for military use for the disposal of improvised explosive devices is “subject to the ITAR” (see 22 CFR parts 120 through 130, including USML Category IV).

\* \* \* \* \*

30. In Supplement No. 1 to part 774 (the Commerce Control List), Category

1—Special Materials and Related Equipment, Chemicals, “Microorganisms” and “Toxins,” Export Control Classification Number (ECCN) 1A007 is amended by revising the “Related Controls” paragraph in the List of Items Controlled section to read as follows:

**1A007 Equipment and devices, specially designed to initiate charges and devices containing energetic materials, by electrical means, as follows (see List of Items Controlled).**

\* \* \* \* \*

**List of Items Controlled**

\* \* \* \* \*

*Related Controls:* (1) Equipment and devices specially designed for military use are “subject to the ITAR” (see 22 CFR parts 120 through 130). (2) This entry does not control detonators using only primary explosives, such as lead azide. (3) See also 3A229. (4) See 1E001 for “development” and “production” technology controls, and 1E201 for “use” technology controls.

\* \* \* \* \*

31. In Supplement No. 1 to part 774 (the Commerce Control List), Category 1—Special Materials and Related Equipment, Chemicals, “Microorganisms” and “Toxins,” Export Control Classification Number (ECCN) 1A008 is amended:

- By revising the heading;
- By revising the introductory text of “Related Controls” paragraph (1) and the “Related Controls” paragraph (2) in the List of Items Controlled section; and
- By revising the introductory text of “items” paragraph b to read as follows:

**1A008 Charges, devices and “parts” and “components,” as follows (see List of Items Controlled).**

\* \* \* \* \*

**List of Items Controlled**

\* \* \* \* \*

*Related Controls:* (1) All of the following are “subject to the ITAR” (see 22 CFR parts 120 through 130): \* \* \* (2) See also ECCNs 1C011, 1C018, 1C111, and 1C239 for additional controlled energetic materials. See ECCN 1E001 for the “development” or “production” “technology” for the commodities controlled by ECCN 1A008, but not for explosives or commodities that are “subject to the ITAR.”

\* \* \* \* \*

**Items:**

\* \* \* \* \*

b. Linear shaped cutting charges having all of the following, and specially designed “parts” and “components” therefor:

\* \* \* \* \*

32. In Supplement No. 1 to part 774 (the Commerce Control List), Category 1—Special Materials and Related Equipment, Chemicals,

“Microorganisms” and “Toxins,” Export Control Classification Number (ECCN)

1A101 is amended:

- By revising the heading; and
- By revising the “Related Controls” paragraph in the List of Items Controlled to read as follows:

**1A101 Devices for reduced observables such as radar reflectivity, ultraviolet/infrared signatures and acoustic signatures, for applications usable in rockets, missiles, or unmanned aerial vehicles capable of achieving a “range” equal to or greater than 300 km or their complete subsystems.**

\* \* \* \* \*

**List of Items Controlled**

\* \* \* \* \*

*Related Controls:* (1) See also 1C101. (2) For commodities that meet the definition of defense articles under 22 CFR 120.3 of the International Traffic in Arms Regulations (ITAR), which describes similar commodities “subject to the ITAR” (See 22 CFR parts 120 through 130, including USML Category XIII).

\* \* \* \* \*

33. In Supplement No. 1 to part 774 (the Commerce Control List), Category 1—Special Materials and Related Equipment, Chemicals, “Microorganisms” and “Toxins,” Export Control Classification Number (ECCN) 1A102 is amended by revising the heading to read as follows:

**1A102 Resaturated pyrolyzed carbon-carbon “parts” and “components” designed for rockets, missiles, or unmanned aerial vehicles capable of achieving a “range” equal to or greater than 300km. (These items are “subject to the ITAR.” See 22 CFR parts 120 through 130.)**

\* \* \* \* \*

34. In Supplement No. 1 to part 774 (the Commerce Control List), Category 1—Special Materials and Related Equipment, Chemicals, “Microorganisms” and “Toxins,” Export Control Classification Number (ECCN) 1A290 is amended by revising the “Related Controls” paragraphs (1) and (3) in the List of Items Controlled section to read as follows:

**1A290 Depleted uranium (any uranium containing less than 0.711% of the isotope U-235) in shipments of more than 1,000 kilograms in the form of shielding contained in X-ray units, radiographic exposure or teletherapy devices, radioactive thermoelectric generators, or packaging for the transportation of radioactive materials.**

\* \* \* \* \*

**List of Items Controlled**

\* \* \* \* \*

*Related Controls:* (1) This entry does not control depleted uranium in fabricated

forms for use in munitions. See 22 CFR part 121 for depleted uranium “subject to the ITAR” \* \* \* (3) “Natural uranium” or “depleted uranium” or thorium in the form of metal, alloy, chemical compound or concentrate and any other material containing one or more of the foregoing are subject to the export licensing authority of the Nuclear Regulatory Commission (see 10 CFR part 110).

\* \* \* \* \*

35. In Supplement No. 1 to part 774 (the Commerce Control List), Category 1—Special Materials and Related Equipment, Chemicals, “Microorganisms” and “Toxins,” Export Control Classification Number (ECCN) 1A985 is amended by revising the “Related Controls” paragraph in the List of Items Controlled section to read as follows:

**1A985 Fingerprinting powders, dyes, and inks.**

\* \* \* \* \*

**List of Items Controlled**

\* \* \* \* \*

*Related Controls:* See 3A981.

\* \* \* \* \*

36. In Supplement No. 1 to part 774 (the Commerce Control List), Category 1—Special Materials and Related Equipment, Chemicals, “Microorganisms” and “Toxins,” Export Control Classification Number (ECCN) 1A995 is amended by revising the heading to read as follows:

**1A995 Protective and detection equipment not specially designed for military use and not controlled by ECCN 1A004 or ECCN 2B351, as follows (see List of Items Controlled), and “parts” and “components” not specially designed for military use and not controlled by ECCN 1A004 or ECCN 2B351 therefor.**

\* \* \* \* \*

37. In Supplement No. 1 to part 774 (the Commerce Control List), Category 1—Special Materials and Related Equipment, Chemicals, “Microorganisms” and “Toxins,” Export Control Classification Number (ECCN) 1B001 is amended:

- By revising the heading; and
- By revising “items” paragraph f.2 in the List of Items Controlled section to read as follows:

**1B001 Equipment for the production or inspection of “composite” structures or laminates controlled by 1A002 or “fibrous or filamentary materials” controlled by 1C010, as follows (see List of Items Controlled), and specially designed “parts,” “components” and accessories therefor.**

**List of Items Controlled**

\* \* \* \* \*

**Items:**

\* \* \* \* \*

f.2. Numerically controlled ultrasonic testing machines of which the motions for positioning transmitters or receivers are simultaneously coordinated and programmed in four or more axes to follow the three dimensional contours of the “part” or “component” under inspection;

\* \* \* \* \*

38. In Supplement No. 1 to part 774 (the Commerce Control List), Category 1—Special Materials and Related Equipment, Chemicals, “Microorganisms” and “Toxins,” Export Control Classification Number (ECCN) 1B003 is amended:

a. By revising “Related Controls” paragraph in the List of Items Controlled section; and

b. By revising “items” paragraph c to read as follows:

**1B003 Tools, dies, molds or fixtures, for “superplastic forming” or “diffusion bonding” titanium, aluminum or their alloys, specially designed for the manufacture of any of the following (see List of Items Controlled).**

\* \* \* \* \*

#### List of Items Controlled

\* \* \* \* \*

*Related Controls:* For specially designed production equipment of systems, sub-systems, and “parts” and “components” controlled by 9A005 to 9A009, 9A011, 9A101, 9A105 to 9A109, 9A111, and 9A116 to 9A120 usable in “missiles,” see 9B115.

\* \* \* \* \*

#### Items:

\* \* \* \* \*

c. Specially designed “parts” and “components” for structures specified by 1B003.a or for engines specified by 1B003.b.

\* \* \* \* \*

39. In Supplement No. 1 to part 774 (the Commerce Control List), Category 1—Special Materials and Related Equipment, Chemicals, “Microorganisms” and “Toxins,” Export Control Classification Number (ECCN) 1B101 is amended:

a. By revising the heading; and  
b. By revising “Related Definitions” paragraph in the List of Items Controlled section to read as follows:

**1B101 Equipment, other than that controlled by 1B001, for the “production” of structural composites, fibers, prepregs or preforms, usable for rockets, missiles, or unmanned aerial vehicles capable of achieving a “range” equal to or greater than 300 km and their subsystems, as follows (see List of Items Controlled); and specially designed “parts,” “components” and accessories therefor.**

\* \* \* \* \*

#### List of Items Controlled

\* \* \* \* \*

*Related Definitions:* Examples of “parts,” “components” and accessories for the machines controlled by this entry are molds, mandrels, dies, fixtures and tooling for the preform pressing, curing, casting, sintering or bonding of composite structures, laminates and manufactures thereof.

\* \* \* \* \*

40. In Supplement No. 1 to part 774 (the Commerce Control List), Category 1—Special Materials and Related Equipment, Chemicals, “Microorganisms” and “Toxins,” Export Control Classification Number (ECCN) 1B102 is amended:

a. By revising the heading;  
b. By revising the “Unit” paragraph in the List of Items Controlled section; and  
c. By revising the introductory text of “items” paragraph b to read as follows:

**1B102 Metal powder “production equipment,” other than that specified in 1B002, and “parts” and “components” as follows (see List of Items Controlled).**

\* \* \* \* \*

#### List of Items Controlled

*Unit:* Equipment in number; “parts” and “components” in \$ value

\* \* \* \* \*

#### Items:

\* \* \* \* \*

b. Specially designed “parts” and “components” for “production equipment” specified in 1B002 or 1B102.a.

\* \* \* \* \*

41. In Supplement No. 1 to part 774 (the Commerce Control List), Category 1—Special Materials and Related Equipment, Chemicals, “Microorganisms” and “Toxins,” Export Control Classification Number (ECCN) 1B115 is amended:

a. By revising the heading; and  
b. By revising the “Unit” paragraph in the List of Items Controlled section to read as follows:

**1B115 Equipment, other than that controlled in 1B002 or 1B102, for the “production” of propellant or propellant constituents (see List of Items Controlled), and specially designed “parts” and “components” therefor.**

\* \* \* \* \*

#### List of Items Controlled

*Unit:* Equipment in number; “parts” and “components” in \$ value

\* \* \* \* \*

42. In Supplement No. 1 to part 774 (the Commerce Control List), Category 1—Special Materials and Related Equipment, Chemicals, “Microorganisms” and “Toxins,” Export Control Classification Number (ECCN) 1B117 is amended:

a. By revising the heading;

b. By revising the “Unit” paragraph in the List of Items Controlled section; and  
c. By revising the “Related Controls” paragraph in the List of Items Controlled section to read as follows:

**1B117 Batch mixers with provision for mixing under vacuum in the range from zero to 13.326 kPa and with temperature control capability of the mixing chamber and having all of the following characteristics (see List of Items Controlled), and specially designed “parts” and “components” therefor.**

\* \* \* \* \*

#### List of Items Controlled

*Unit:* Equipment in number; “parts” and “components” in \$ value

*Related Controls:* See 1B115, 1B118, and 1B119.

\* \* \* \* \*

43. In Supplement No. 1 to part 774 (the Commerce Control List), Category 1—Special Materials and Related Equipment, Chemicals, “Microorganisms” and “Toxins,” Export Control Classification Number (ECCN) 1B118 is amended:

a. By revising the heading;  
b. By revising “Unit” paragraph in the List of Items Controlled section; and  
c. By revising the “Related Controls” paragraph in the List of Items Controlled section to read as follows:

**1B118 Continuous mixers with provision for mixing under vacuum in the range from zero to 13.326 kPa and with temperature control capability of the mixing chamber and having any of the following characteristics (see List of Items Controlled), and specially designed “parts” and “components” therefor.**

\* \* \* \* \*

#### List of Items Controlled

*Unit:* Equipment in number; “parts” and “components” in \$ value

*Related Controls:* See 1B115, 1B117, and 1B119.

\* \* \* \* \*

44. In Supplement No. 1 to part 774 (the Commerce Control List), Category 1—Special Materials and Related Equipment, Chemicals, “Microorganisms” and “Toxins,” Export Control Classification Number (ECCN) 1B119 is amended:

a. By revising the heading;  
b. By revising the “Unit” paragraph in the List of Items Controlled section; and  
c. By revising the “Related Controls” paragraph in the List of Items Controlled section to read as follows:

**1B119 Fluid energy mills usable for grinding or milling propellant or propellant constituents specified in 1C011.a, 1C011.b or 1C111, or on the U.S. Munitions List, and specially**



designed “parts” and “components” therefor.

\* \* \* \*

#### List of Items Controlled

*Unit:* Equipment in number; “parts” and “components” in \$ value

*Related Controls:* See 1B115, 1B117 and 1B118.

\* \* \* \*

45. In Supplement No. 1 to part 774 (the Commerce Control List), Category 1—Special Materials and Related Equipment, Chemicals, “Microorganisms” and “Toxins,” Export Control Classification Number (ECCN) 1B225 is amended by revising the “Related Controls” paragraph in the List of Items Controlled section to read as follows:

**1B225 Electrolytic cells for fluorine production with a production capacity greater than 250 g of fluorine per hour.**

\* \* \* \*

#### List of Items Controlled

\* \* \* \*

*Related Controls:* (1) See ECCNs 1E001 (“development” and “production”) and 1E201 (“use”) for technology for items controlled by this entry. (2) See ECCN 1B999 for specific processing equipment, n.e.s.

\* \* \* \*

46. In Supplement No. 1 to part 774 (the Commerce Control List), Category 1—Special Materials and Related Equipment, Chemicals, “Microorganisms” and “Toxins,” Export Control Classification Number (ECCN) 1C002 is amended by revising “items” paragraph c.1.a to read as follows:

**1C002 Metal alloys, metal alloy powder and alloyed materials, as follows (see List of Items Controlled).**

\* \* \* \*

#### List of Items Controlled

\* \* \* \*

*Items:*

\* \* \* \*

c.1.a. Nickel alloys (Ni-Al-X, Ni-X-Al) qualified for turbine engine “parts” or “components,” i.e. with less than 3 non-metallic particles (introduced during the manufacturing process) larger than 100 µm in 109 alloy particles;

\* \* \* \*

47. In Supplement No. 1 to part 774 (the Commerce Control List), Category 1—Special Materials and Related Equipment, Chemicals, “Microorganisms” and “Toxins,” Export Control Classification Number (ECCN) 1C007 is amended by revising “items” paragraph e.3 to read as follows:

**1C007 Ceramic base materials, non-“composite” ceramic materials, ceramic-“matrix” “composite”**

materials and precursor materials, as follows (see List of Items Controlled).

\* \* \* \*

#### List of Items Controlled

\* \* \* \*

*Items:*

\* \* \* \*

e.3. Polycarbosilazanes (for producing ceramics with silicon, carbon and nitrogen “parts” and “components”);

\* \* \* \*

48. In Supplement No. 1 to part 774 (the Commerce Control List), Category 1—Special Materials and Related Equipment, Chemicals, “Microorganisms” and “Toxins,” Export Control Classification Number (ECCN) 1C011 is amended by revising the introductory text of the “Related Controls” paragraph (2) in the List of Items Controlled to read as follows:

**1C011 Metals and compounds, as follows (see List of Items Controlled).**

\* \* \* \*

#### List of Items Controlled

\* \* \* \*

*Related Controls:* \* \* \* (2) All of the following are “subject to the ITAR” (see 22 CFR parts 120 through 130): \* \* \*

\* \* \* \*

49. In Supplement No. 1 to part 774 (the Commerce Control List), Category 1—Special Materials and Related Equipment, Chemicals, “Microorganisms” and “Toxins,” Export Control Classification Number (ECCN) 1C101 is amended by revising the “Related Controls” paragraph (3) in the List of Items Controlled to read as follows:

**1C101 Materials for Reduced Observables such as Radar Reflectivity, Ultraviolet/Infrared Signatures and Acoustic Signatures (i.e., Stealth Technology), Other than Those Controlled by 1C001, for applications usable in rockets, missiles, or unmanned aerial vehicles capable of achieving a “range” equal to or greater than 300km, and their subsystems.**

\* \* \* \*

#### List of Items Controlled

\* \* \* \*

*Related Controls:* \* \* \* (3) For commodities that meet the definition of defense articles under 22 CFR 120.3 of the International Traffic in Arms Regulations (ITAR), which describes similar commodities “subject to the ITAR” (See 22 CFR parts 120 through 130, including USML Category XIII).

\* \* \* \*

50. In Supplement No. 1 to part 774 (the Commerce Control List), Category 1—Special Materials and Related Equipment, Chemicals, “Microorganisms” and “Toxins,” Export

Control Classification Number (ECCN) 1C102 is amended by revising the heading to read as follows:

**1C102 Resaturated pyrolyzed carbon-carbon materials designed for space launch vehicles specified in 9A004 or sounding rockets specified in 9A104. (These items are “subject to the ITAR.” See 22 CFR parts 120 through 130.)**

\* \* \* \*

51. In Supplement No. 1 to part 774 (the Commerce Control List), Category 1—Special Materials and Related Equipment, Chemicals, “Microorganisms” and “Toxins,” Export Control Classification Number (ECCN) 1C107 is amended by revising the “Related Controls” paragraph in the List of Items Controlled section to read as follows:

**1C107 Graphite and ceramic materials, other than those controlled by 1C007, which can be machined to any of the following products as follows (see List of Items Controlled).**

\* \* \* \*

#### List of Items Controlled

\* \* \* \*

*Related Controls:* (1) See also 1C004, 1C007, and 1C298. (2) For commodities that meet the definition of defense articles under 22 CFR 120.3 of the ITAR, which describes similar commodities “subject to the ITAR” (See 22 CFR parts 120 through 130, including USML Category XIII). (3) “Special fissile materials” and “other fissile materials”; except, four “effective grams” or less when contained in a sensing component in instruments are subject to the export licensing authority of the Nuclear Regulatory Commission (see 10 CFR part 110).

\* \* \* \*

52. In Supplement No. 1 to part 774 (the Commerce Control List), Category 1—Special Materials and Related Equipment, Chemicals, “Microorganisms” and “Toxins,” Export Control Classification Number (ECCN) 1C111 is amended by revising the “Related Controls” paragraphs (1) and (2) in the List of Items Controlled to read as follows:

**1C111 Propellants and constituent chemicals for propellants, other than those specified in 1C011, as follows (see List of Items Controlled).**

\* \* \* \*

#### List of Items Controlled

\* \* \* \*

*Related Controls:* (1) Butacene, as defined by 1C111.c.1, and some HTPB are “subject to the ITAR.” (See 22 CFR parts 120 through 130, including USML Category V, other ferrocene derivatives). (2) See 1C018 for controls on oxidizers that are composed of fluorine and one or more of the following—other halogens, oxygen, or nitrogen. Solid

oxidizer substances are “subject to the ITAR” (see 22 CFR parts 120 through 130, including USML Category V). \* \* \*

\* \* \* \* \*

53. In Supplement No. 1 to part 774 (the Commerce Control List), Category 1—Special Materials and Related Equipment, Chemicals, “Microorganisms” and “Toxins,” Export Control Classification Number (ECCN) 1C117 is amended:

- By revising the heading; and
- By revising the “Related Controls” paragraph in the List of Items Controlled section to read as follows:

**1C117 Materials for the fabrication of missile “parts” or “components” for rockets or missiles capable of achieving a “range” equal to or greater than 300 km, as follows (see List of Items Controlled).**

\* \* \* \* \*

**List of Items Controlled**

\* \* \* \* \*

*Related Controls:* See 1C226.

\* \* \* \* \*

54. In Supplement No. 1 to part 774 (the Commerce Control List), Category 1—Special Materials and Related Equipment, Chemicals, “Microorganisms” and “Toxins,” Export Control Classification Number (ECCN) 1C233 is amended by revising the “Related Controls” paragraph in the List of Items Controlled section to read as follows:

**1C233 Lithium enriched in the lithium-6 (<sup>6</sup>Li) isotope to greater than its natural isotopic abundance, and products or devices containing enriched lithium, as follows: elemental lithium, alloys, compounds, mixtures containing lithium, manufactures thereof, and waste or scrap of any of the foregoing.**

\* \* \* \* \*

**List of Items Controlled**

\* \* \* \* \*

*Related Controls:* (1) See ECCNs 1E001 (“development” and “production”) and 1E201 (“use”) for technology for items controlled by this entry. (2) See ECCN 1B233 for lithium isotope separation facilities or plants, and equipment therefor. (3) Facilities or plants specially designed or prepared for the separation of lithium isotopes are subject to the export licensing authority of the Nuclear Regulatory Commission (see 10 CFR part 110).

55. In Supplement No. 1 to part 774 (the Commerce Control List), Category 1—Special Materials and Related Equipment, Chemicals, “Microorganisms” and “Toxins,” Export Control Classification Number (ECCN) 1C239 is amended by revising the “Related Controls” paragraph (3) in the List of Items Controlled to read as follows:

**1C239 High explosives, other than those controlled by the U.S. Munitions List, or substances or mixtures containing more than 2% by weight thereof, with a crystal density greater than 1.8 g/cm<sup>3</sup> and having a detonation velocity greater than 8,000 m/s.**

\* \* \* \* \*

**List of Items Controlled**

\* \* \* \* \*

*Related Controls:* \* \* \* (3) High explosives for military use are “subject to the ITAR” (see 22 CFR part 121.12).

\* \* \* \* \*

56. In Supplement No. 1 to part 774 (the Commerce Control List), Category 1—Special Materials and Related Equipment, Chemicals, “Microorganisms” and “Toxins,” Export Control Classification Number (ECCN) 1C240 is amended by revising the heading to read as follows:

**1C240 Nickel powder or porous nickel metal, other than nickel powder or porous nickel metal, specially prepared for the manufacture of gaseous diffusion barriers subject to the export licensing authority of the Nuclear Regulatory Commission (see 10 CFR part 110), as follows (see List of Items Controlled).**

\* \* \* \* \*

57. In Supplement No. 1 to part 774 (the Commerce Control List), Category 1—Special Materials and Related Equipment, Chemicals, “Microorganisms” and “Toxins,” Export Control Classification Number (ECCN) 1C298 is amended:

- By revising the License Requirement Note paragraph in the License Requirements section; and
- By revising the Related Controls paragraph in the List of Items Controlled section to read as follows:

**1C298 Graphite with a boron content of less than 5 parts per million and a density greater than 1.5 grams per cubic centimeter that is intended for use other than in a nuclear reactor.**

**License Requirements**

\* \* \* \* \*

**License Requirement Note:** Some graphite intended for use in a nuclear reactor is subject to the export licensing authority of the Nuclear Regulatory Commission (see 10 CFR part 110).

\* \* \* \* \*

**List of Items Controlled**

\* \* \* \* \*

*Related Controls:* (1) See also 1C107. (2) Graphite having a purity level of less than 5 parts per million “boron equivalent” as measured according to ASTM standard C-1233-98 and intended for use in a nuclear reactor is subject to the export licensing authority of the Nuclear Regulatory Commission (see 10 CFR part 110).

\* \* \* \* \*

58. In Supplement No. 1 to part 774 (the Commerce Control List), Category 1—Special Materials and Related Equipment, Chemicals, “Microorganisms” and “Toxins,” Export Control Classification Number (ECCN) 1C350 is amended:

- By revising “Note to Mixtures” paragraph b and “Technical Notes” paragraph 1 in the License Requirements section; and
- By revising the “Related Controls” paragraph in the List of Items Controlled to read as follows:

**1C350 Chemicals that may be used as precursors for toxic chemical agents.**

**License Requirements**

\* \* \* \* \*

**Licenses Requirements Notes:**

\* \* \* \* \*

2. \* \* \*

\* \* \* \* \*

**Notes to Mixtures:** \* \* \*

\* \* \* \* \*

- Percent Weight Calculation. When calculating the percentage, by weight, of “parts” or “components” in a chemical mixture, include all “parts” and “components” of the mixture, including those that act as solvents.

\* \* \* \* \*

**Technical Notes:** \* \* \*

- For purposes of this entry, a “mixture” is defined as a solid, liquid or gaseous product made up of two or more “parts” or “components” that do not react together under normal storage conditions.

\* \* \* \* \*

**List of Items Controlled**

\* \* \* \* \*

*Related Controls:* See USML Category XIV(c) for related chemicals “subject to the ITAR” (see 22 CFR parts 120 through 130).

\* \* \* \* \*

59. In Supplement No. 1 to part 774 (the Commerce Control List), Category 1—Special Materials and Related Equipment, Chemicals, “Microorganisms” and “Toxins,” Export Control Classification Number (ECCN) 1C351 is amended by revising the “Related Controls” paragraph (1) in the List of Items Controlled to read as follows:

**1C351 Human and zoonotic pathogens and “toxins,” as follows (see List of Items Controlled).**

\* \* \* \* \*

**List of Items Controlled**

*Related Controls:* (1) Certain forms of ricin and saxitoxin in 1C351.d.5. and d.6 are CWC Schedule 1 chemicals (see § 742.18 of the EAR). The U.S. Government must provide advance notification and annual reports to the OPCW of all exports of Schedule 1 chemicals. See § 745.1 of the EAR for notification procedures. See USML

Category XIV and § 121.7 for additional CWC Schedule 1 chemicals that are “subject to the ITAR” (see 22 CFR parts 120 through 130). \* \* \*

\* \* \* \* \*

60. In Supplement No. 1 to part 774 (the Commerce Control List), Category 1—Special Materials and Related Equipment, Chemicals, “Microorganisms” and “Toxins,” Export Control Classification Number (ECCN) 1C355 is amended;

- a. By revising the heading; and
- b. By revising “Note to Mixtures”

paragraph b and “Technical Notes” paragraph 1 in the License Requirements section to read as follows:

**1C355 Chemical Weapons Convention (CWC) Schedule 2 and 3 chemicals and families of chemicals not controlled by ECCN 1C350 or “subject to the ITAR” (see 22 CFR parts 120 through 130).**

#### License Requirements

\* \* \* \* \*

#### Licenses Requirements Notes:

\* \* \* \* \*

#### 2. \* \* \*

\* \* \* \* \*

#### Notes to Mixtures: \* \* \*

\* \* \* \* \*

b. Percent Weight Calculation. When calculating the percentage, by weight, of “parts” or “components” in a chemical mixture, include all “parts” and “components” of the mixture, including those that act as solvents.

\* \* \* \* \*

#### Technical Notes: \* \* \*

1. For purposes of this entry, a “mixture” is defined as a solid, liquid or gaseous product made up of two or more “parts” or “components” that do not react together under normal storage conditions.

\* \* \* \* \*

61. In Supplement No. 1 to part 774 (the Commerce Control List), Category 1—Special Materials and Related Equipment, Chemicals, “Microorganisms” and “Toxins,” Export Control Classification Number (ECCN) 1C992 is amended by revising the “Related Definitions” paragraphs (1), (3) and (4) in the List of Items Controlled to read as follows:

**1C992 Commercial charges and devices containing energetic materials, n.e.s. and nitrogen trifluoride in a gaseous state.**

\* \* \* \* \*

#### List of Items Controlled

\* \* \* \* \*

*Related Definitions:* (1) Items controlled by this entry 1C992 are those materials not “subject to the ITAR” (see 22 CFR parts 120 through 130) or controlled by ECCN 1C018. \* \* \* (3) The individual USML controlled energetic materials, even when compounded with other materials, remain

“subject to the ITAR” when not incorporated into explosive devices or charges controlled by this entry. (4) Commercial prefabricated slurries and emulsions containing greater than 35% of USML controlled energetic materials are “subject to the ITAR” (see 22 CFR parts 120 through 130).

\* \* \* \* \*

62. In Supplement No. 1 to part 774 (the Commerce Control List), Category 1—Special Materials and Related Equipment, Chemicals, “Microorganisms” and “Toxins,” Export Control Classification Number (ECCN) 1C996 is amended by revising the heading to read as follows:

**1C996 Hydraulic fluids containing synthetic hydrocarbon oils, not controlled by 1C006, having all the following characteristics (see List of Items Controlled).**

\* \* \* \* \*

63. In Supplement No. 1 to part 774 (the Commerce Control List), Category 1—Special Materials and Related Equipment, Chemicals, “Microorganisms” and “Toxins,” Export Control Classification Number (ECCN) 1D002 is amended by revising the “Related Controls” paragraph in the List of Items Controlled to read as follows:

**1D002 “Software” for the “development” of organic “matrix,” metal “matrix” or carbon “matrix” laminates or “composites”.**

\* \* \* \* \*

#### List of Items Controlled

\* \* \* \* \*

*Related Controls:* “Software” for items controlled by 1A102 are “subject to the ITAR” (see 22 CFR parts 120 through 130).

\* \* \* \* \*

64. In Supplement No. 1 to part 774 (the Commerce Control List), Category 1—Special Materials and Related Equipment, Chemicals, “Microorganisms” and “Toxins,” Export Control Classification Number (ECCN) 1D103 is amended:

- a. By revising the heading; and
- b. By revising the “Related Controls” paragraph (2) in the List of Items Controlled to read as follows:

**1D103 “Software” specially designed for reduced observables such as radar reflectivity, ultraviolet/infrared signatures and acoustic signatures, for applications usable in rockets, missiles, or unmanned aerial vehicles capable of delivering at least a 500 kg payload to a “range” equal to or greater than 300 km and their complete subsystems.**

\* \* \* \* \*

#### List of Items Controlled

*Unit:* \* \* \*

*Related Controls:* \* \* \* (2) For software that meets the definition of defense articles

under 22 CFR 120.3 of the International Traffic in Arms Regulations (ITAR), which describes similar software that are “subject to the ITAR” (see 22 CFR parts 120 through 130, including USML Category XIII).

\* \* \* \* \*

65. In Supplement No. 1 to part 774 (the Commerce Control List), Category 1—Special Materials and Related Equipment, Chemicals, “Microorganisms” and “Toxins,” Export Control Classification Number (ECCN) 1D993 is amended by revising the heading to read as follows:

**1D993 “Software” specially designed for the “development,” “production” or “use” of materials controlled by 1C210.b, or 1C990.**

\* \* \* \* \*

66. In Supplement No. 1 to part 774 (the Commerce Control List), Category 1—Special Materials and Related Equipment, Chemicals, “Microorganisms” and “Toxins,” Export Control Classification Number (ECCN) 1E001 is amended:

- a. By revising the License Exception TSR paragraph (2) introductory text in the License Exceptions section;

- b. By revising the Special Conditions for License Exception STA section; and

- c. By revising the “Related Controls” paragraph (4) in the List of Items Controlled section to read as follows:

**1E001 “Technology” according to the General Technology Note for the “development” or “production” of items controlled by 1A001.b, 1A001.c, 1A002, 1A003, 1A004, 1A005, 1A006.b, 1A007, 1A008, 1A101, 1B (except 1B999), or 1C (except 1C355, 1C980 to 1C984, 1C988, 1C990, 1C991, 1C995 to 1C999).**

\* \* \* \* \*

#### License Exceptions

\* \* \* \* \*

*TSR:* \* \* \*

(2) Exports and reexports to destinations outside of those 36 countries listed in § 740.20(c)(1) (License Exception STA) of “technology” for the “development” or “production” of the following:

\* \* \* \* \*

#### Special Conditions for License Exception STA

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 or d, or 1C010.c or d to any of the eight destinations listed in § 740.20(c)(2) of the EAR.

#### List of Items Controlled

\* \* \* \* \*

*Related Controls:* \* \* \* (4) “Technology” for items described in ECCN 1A102 is “subject

to the ITAR” (see 22 CFR parts 120 through 130).

67. In Supplement No. 1 to part 774 (the Commerce Control List), Category 1—Special Materials and Related Equipment, Chemicals, “Microorganisms” and “Toxins,” Export Control Classification Number (ECCN) 1E101 is amended by revising the “Related Controls” paragraph in the List of Items Controlled to read as follows:

**1E101 “Technology,” in accordance with the General Technology Note, for the “use” of commodities and software controlled by 1A101, 1A102, 1B001, 1B101, 1B102, 1B115 to 1B119, 1C001, 1C007, 1C011, 1C101, 1C107, 1C111, 1C116, 1C117, 1C118, 1D001, 1D101, or 1D103.**

#### List of Items Controlled

*Related Controls:* “Technology” for items controlled by 1A102 is “subject to the ITAR” (see 22 CFR parts 120 through 130).

68. In Supplement No. 1 to part 774 (the Commerce Control List), Category 2—Materials Processing, Export Control Classification Number (ECCN) 2A001 is amended:

a. By revising the heading; and  
b. By revising the “Related Controls” paragraph (2) in the List of Items Controlled section to read as follows:

**2A001 Anti-friction bearings and bearing systems, as follows, (see List of Items Controlled) and “parts” and “components” therefor.**

#### List of Items Controlled

*Related Controls:* \* \* \* (2) Quiet running bearings are “subject to the ITAR” (see 22 CFR parts 120 through 130).

69. In Supplement No. 1 to part 774 (the Commerce Control List), Category 2—Materials Processing, Export Control Classification Number (ECCN) 2A291 is amended:

a. By revising the heading;  
b. By revising the “Unit” paragraph in the List of Items Controlled section;  
c. By revising the “Related Controls” paragraph (5) in the List of Items Controlled; and  
d. By revising the “items” paragraph d in the List of Items Controlled section to read as follows:

**2A291 Equipment, except items controlled by 2A290, related to nuclear material handling and processing and to nuclear reactors, and “parts,” “components”**

**and accessories therefor (see List of Items Controlled).**

#### List of Items Controlled

*Unit:* Equipment in number; “parts,” “components” and accessories in \$ value  
*Related Controls:* \* \* \* (5) Nuclear radiation detection and measurement devices specially designed or modified for military purposes are “subject to the ITAR” (see 22 CFR parts 120 through 130).

#### Items:

d. Commodities, “parts,” “components” and accessories specially designed or prepared for use with nuclear plants (e.g., snubbers, airlocks, pumps, reactor fuel charging and discharging equipment, containment equipment such as hydrogen recombiner and penetration seals, and reactor and fuel inspection equipment, including ultrasonic or eddy current test equipment).

70. In Supplement No. 1 to part 774 (the Commerce Control List), Category 2—Materials Processing, Export Control Classification Number (ECCN) 2A292 is amended by revising the “Unit” paragraph in the List of Items Controlled section to read as follows:

**2A292 Piping, fittings and valves made of, or lined with, stainless steel, copper-nickel alloy or other alloy steel containing 10% or more nickel and/or chromium.**

#### List of Items Controlled

*Unit:* Pressure tubes, pipes, and fittings in kilograms; “parts,” “components” and valves in number

71. In Supplement No. 1 to part 774 (the Commerce Control List), Category 2—Materials Processing, Export Control Classification Number (ECCN) 2A983 is amended by revising the heading to read as follows:

**2A983 Explosives or detonator detection equipment, both bulk and trace based, consisting of an automated device, or combination of devices for automated decision making to detect the presence of different types of explosives, explosive residue, or detonators; and “parts” and “components,” n.e.s.**

72. In Supplement No. 1 to part 774 (the Commerce Control List), Category 2—Materials Processing, Export Control Classification Number (ECCN) 2A984 is amended:

a. By revising the heading; and  
b. By revising the “Related Controls” paragraph (1) in the List of Items Controlled section to read as follows:

**2A984 Concealed object detection equipment operating in the frequency**

**range from 30 GHz to 3000 GHz and having a spatial resolution of 0.5 milliradian up to and including 1 milliradian at a standoff distance of 100 meters; and “parts” and “components,” n.e.s.**

#### List of Items Controlled

*Related Controls:* (1) Concealed object detection equipment operating in the frequency range from 30 GHz to 3000 GHz and having a spatial resolution less than 0.5 milliradian (a lower milliradian number means a more accurate image resolution) at a standoff distance of 100 meters is “subject to the ITAR” (see 22 CFR parts 120 through 130).

73. In Supplement No. 1 to part 774 (the Commerce Control List), Category 2—Materials Processing, Export Control Classification Number (ECCN) 2A991 is amended:

a. By revising the “Related Controls” paragraph (2) in the List of Items Controlled section; and  
b. By revising the introductory text of paragraphs a, a.2, and b.1 of the “items” paragraph in the List of Items Controlled section to read as follows:

**2A991 Bearings and bearing systems not controlled by 2A001.**

#### List of Items Controlled

*Related Controls:* \* \* \* (2) Quiet running bearings are “subject to the ITAR” (see 22 CFR parts 120 through 130).

#### Items:

a. Ball bearings or Solid ball bearings, having tolerances specified by the manufacturer in accordance with ABEC 7, ABEC 7P, or ABEC 7T or ISO Standard Class 4 or better (or equivalents) and having any of the following characteristics.

a.2. With lubricating elements or “part” or “component” modifications that, according to the manufacturer’s specifications, are specially designed to enable the bearings to operate at speeds exceeding 2.3 million DN.

b. \* \* \*  
b.1. With lubricating elements or “part” or “component” modifications that, according to the manufacturer’s specifications, are specially designed to enable the bearings to operate at speeds exceeding 2.3 million DN; or

74. In Supplement No. 1 to part 774 (the Commerce Control List), Category 2—Materials Processing, Export Control Classification Number (ECCN) 2A994 is amended by revising the heading to read as follows:

**2A994 Portable electric generators and specially designed “parts” and “components.”**

\* \* \* \*

75. In Supplement No. 1 to part 774 (the Commerce Control List), Category 2—Materials Processing, Export Control Classification Number (ECCN) 2B001 is amended:

- a. By revising the heading;
- b. By revising the parenthetical phrase following sentence (2) of the NP paragraph in the License Requirements section;
- c. By revising the “Unit” paragraph in the List of Items Controlled section; and
- d. By revising Note 2 paragraph d and the introductory text to “items” paragraph f in the List of Items Controlled section to read as follows:

**2B001 Machine tools and any combination thereof, for removing (or cutting) metals, ceramics or “composites,” which, according to the manufacturer’s technical specifications, can be equipped with electronic devices for “numerical control”; and specially designed “parts” and “components” as follows (see List of Items Controlled).**

**License Requirements**

*Reason for Control:* \* \* \*

<i>Control(s)</i>	<i>Country chart</i>
* * *	* * *
NP applies to 2B001.a, .b, .c, and .d, EXCEPT: * * *	NP Column 1
(2) * * * (Machines may have drilling and/or milling capabilities for machining “parts” and “components” with diameters less than 42 mm); * * *	
* * *	* * *
* * *	* * *

**List of Items Controlled**

*Unit:* Machine tools in number; “parts” and “components” in \$ value

\* \* \* \*

*Items:*

\* \* \* \*

**Note 2:** \* \* \*

d. Engraved or faceted jewellery “parts” and “components.”

\* \* \* \*

f. Deep hole drilling machines and turning machines modified for deep hole drilling, having a maximum depth of bore capability exceeding 5 m and specially designed “parts” and “components” therefor.

\* \* \* \*

76. In Supplement No. 1 to part 774 (the Commerce Control List), Category 2—Materials Processing, Export Control

Classification Number (ECCN) 2B003 is amended:

- a. By revising the heading;
- b. By removing the License Requirement Notes section; and
- c. By revising the “Unit” paragraph in the List of Items Controlled section to read as follows:

**2B003 “Numerically controlled” or manual machine tools, and specially designed “parts,” “components,” controls and accessories therefor, specially designed for the shaving, finishing, grinding or honing of hardened ( $R_c = 40$  or more) spur, helical and double-helical gears with a pitch diameter exceeding 1,250 mm and a face width of 15% of pitch diameter or larger finished to a quality of AGMA 14 or better (equivalent to ISO 1328 class 3).**

\* \* \* \*

**List of Items Controlled**

*Unit:* Machine Tools in number; “parts,” “components,” controls and accessories in \$ value

\* \* \* \*

77. In Supplement No. 1 to part 774 (the Commerce Control List), Category 2—Materials Processing, Export Control Classification Number (ECCN) 2B004 is amended:

- a. By revising the heading; and
- b. By revising the “Unit” paragraph in the List of Items Controlled section to read as follows:

**2B004 Hot “isostatic presses” having all of the characteristics described in the List of Items Controlled, and specially designed “parts” and “components” and accessories therefor.**

\* \* \* \*

**List of Items Controlled**

*Unit:* Presses in number; “parts,” “components” and accessories in \$ value

\* \* \* \*

78. In Supplement No. 1 to part 774 (the Commerce Control List), Category 2—Materials Processing, Export Control Classification Number (ECCN) 2B005 is amended by revising the heading to read as follows:

**2B005 Equipment specially designed for the deposition, processing and in-process control of inorganic overlays, coatings and surface modifications, as follows, for non-electronic substrates, by processes shown in the Table and associated Notes following 2E003.f (see List of Items Controlled), and specially designed automated handling, positioning, manipulation and control “parts” and “components” therefor.**

\* \* \* \*

79. In Supplement No. 1 to part 774 (the Commerce Control List), Category 2—Materials Processing, Export Control Classification Number (ECCN) 2B105 is

amended by revising related controls (3) in the “Related Controls” paragraph in the List of Items Controlled section to read as follows:

**2B105 Chemical vapor deposition (CVD) furnaces, other than those controlled by 2B005.a, designed or modified for the densification of carbon-carbon composites.**

\* \* \* \*

**List of Items Controlled**

\* \* \* \*

*Related Controls:* \* \* \* (3) Also see ECCNs 2B005, 2B117, 2B226 and 2B227.

\* \* \* \*

80. In Supplement No. 1 to part 774 (the Commerce Control List), Category 2—Materials Processing, Export Control Classification Number (ECCN) 2B109 is amended:

- a. By revising the heading;
- b. By revising the “Unit” paragraph in the List of Items Controlled section; and
- c. By revising “Technical Notes” paragraph (2) to read as follows:

**2B109 Flow-forming machines, other than those controlled by 2B009, and specially designed “parts” and “components” therefor (see List of Items Controlled).**

\* \* \* \*

**List of Items Controlled**

*Unit:* Equipment in number; “parts” and “components” in \$ value

\* \* \* \*

*Items:*

\* \* \* \*

**Technical Notes:**

\* \* \* \*

2. 2B109 does not control machines that are not usable in the “production” of propulsion “parts,” “components” and equipment (e.g., motor cases) for systems in 9A005, 9A007.a, or 9A105.a.

81. In Supplement No. 1 to part 774 (the Commerce Control List), Category 2—Materials Processing, Export Control Classification Number (ECCN) 2B116 is amended:

- a. By revising the heading; and
- b. By revising related controls (3) in the “Related Controls” paragraph in the List of Items Controlled section to read as follows:

**2B116 Vibration test systems and equipment, usable for rockets, missiles, or unmanned aerial vehicles capable of achieving a “range” equal to or greater than 300 km and their subsystems, and “parts” and “components” therefor, as follows (see List of Items Controlled).**

\* \* \* \*

**List of Items Controlled**

\* \* \* \*

*Related Controls:* \* \* \* (3) Also see ECCNs 9B106 and 9B990.

\* \* \* \*

82. In Supplement No. 1 to part 774 (the Commerce Control List), Category 2—Materials Processing, Export Control Classification Number (ECCN) 2B201 is amended:

- a. By revising the heading;
- b. By revising the “Unit” paragraph in the List of Items Controlled section; and
- c. By revising the Note to paragraph a to read as follows:

**2B201 Machine tools, other than those controlled by 2B001, for removing or cutting metals, ceramics or “composites,” which, according to manufacturer’s technical specifications, can be equipped with electronic devices for simultaneous “contouring control” in two or more axes, as follows (see List of Items Controlled).**

\* \* \* \* \*

**List of Items Controlled**

*Unit:* Equipment in number.

\* \* \* \* \*

*Items:*

- a. \* \* \*

**Note:** Item 2B201.a. does not control bar machines (Swissturn), limited to machining only bar feed thru, if maximum bar diameter is equal to or less than 42 mm and there is no capability of mounting chucks. Machines may have drilling and/or milling capabilities for machining “parts” and “components” with diameters less than 42 mm.

\* \* \* \* \*

83. In Supplement No. 1 to part 774 (the Commerce Control List), Category 2—Materials Processing, Export Control Classification Number (ECCN) 2B206 is amended by revising the “Unit” paragraph in the List of Items Controlled section to read as follows:

**2B206 Dimensional inspection machines, instruments or systems, other than those described in 2B006, as follows (see List of Items Controlled).**

\* \* \* \* \*

**List of Items Controlled**

*Unit:* Equipment in number.

\* \* \* \* \*

84. In Supplement No. 1 to part 774 (the Commerce Control List), Category 2—Materials Processing, Export Control Classification Number (ECCN) 2B209 is amended by revising the “Unit” paragraph in the List of Items Controlled section to read as follows:

**2B209 Flow forming machines, spin forming machines capable of flow forming functions, other than those controlled by 2B009 or 2B109, and mandrels, as follows (see List of Items Controlled).**

\* \* \* \* \*

**List of Items Controlled**

*Unit:* Equipment in number

\* \* \* \* \*

85. In Supplement No. 1 to part 774 (the Commerce Control List), Category 2—Materials Processing, Export Control Classification Number (ECCN) 2B229 is amended by revising the introductory text to “items” paragraph b in the List of Items Controlled section to read as follows:

**2B229 Centrifugal multiplane balancing machines, fixed or portable, horizontal or vertical, as follows (see List of Items Controlled).**

\* \* \* \* \*

**List of Items Controlled**

\* \* \* \* \*

*Items:*

\* \* \* \* \*

- b. Centrifugal balancing machines designed for balancing hollow cylindrical rotor “parts” or “components” and having all of the following characteristics:

\* \* \* \* \*

86. In Supplement No. 1 to part 774 (the Commerce Control List), Category 2—Materials Processing, Export Control Classification Number (ECCN) 2B290 is amended by revising the “Unit” paragraph in the List of Items Controlled section to read as follows:

**2B290 “Numerically controlled” machine tools not controlled by 2B001 or 2B201.**

\* \* \* \* \*

**List of Items Controlled**

*Unit:* Equipment in number

\* \* \* \* \*

87. In Supplement No. 1 to part 774 (the Commerce Control List), Category 2—Materials Processing, Export Control Classification Number (ECCN) 2B350 is amended:

- a. By revising the “Related Definitions” paragraph in the List of Items Controlled section; and
- b. By adding a note at the end of the “items” paragraph, after the Technical Notes, in the List of Items Controlled section to read as follows:

**2B350 Chemical manufacturing facilities and equipment, except valves controlled by 2A226 or 2A292, as follows (see List of Items Controlled).**

\* \* \* \* \*

**List of Items Controlled**

\* \* \* \* \*

*Related Definitions:* For purposes of this entry the term ‘chemical warfare agents’ include those agents “subject to the ITAR” (see 22 CFR parts 120 through 130).

*Items:*

\* \* \* \* \*

**Note:** See Categories V and XIV of the United States Munitions List for all chemicals that are “subject to the ITAR” (see 22 CFR parts 120 through 130).

88. In Supplement No. 1 to part 774 (the Commerce Control List), Category

2—Materials Processing, Export Control Classification Number (ECCN) 2B351 is amended:

- a. By revising the heading; and
- b. By revising “Related Controls” paragraph in the List of Items Controlled section to read as follows:

**2B351 Toxic gas monitoring systems and their dedicated detecting “parts” and “components” (i.e., detectors, sensor devices, and replaceable sensor cartridges), as follows, except those systems and detectors controlled by ECCN 1A004.c (see List of Items Controlled).**

\* \* \* \* \*

**List of Items Controlled**

\* \* \* \* \*

*Related Controls:* See ECCN 2D351 for “software” for toxic gas monitoring systems and their dedicated detecting “parts” and “components” controlled by this ECCN. Also see ECCN 1A004, which controls chemical detection systems and specially designed “parts” and “components” therefor that are specially designed or modified for detection or identification of chemical warfare agents, but not specially designed for military use, and ECCN 1A995, which controls certain detection equipment, “parts” and “components” not controlled by ECCN 1A004 or by this ECCN.

\* \* \* \* \*

89. In Supplement No. 1 to part 774 (the Commerce Control List), Category 2—Materials Processing, Export Control Classification Number (ECCN) 2B352 is amended:

- a. By revising the heading;
- b. By revising “Related Controls” paragraph in the List of Items Controlled section;
- c. By revising “items” paragraphs c.3, d.1.b.2, d.2 and the introductory text of “items” paragraph h in the List of Items Controlled section; and
- d. By revising “Technical Notes” paragraph 2 at the end of the “items” paragraph to read as follows:

**2B352 Equipment capable of use in handling biological materials and “parts” and “components” therefor, as follows (see List of Items Controlled).**

\* \* \* \* \*

**List of Items Controlled**

\* \* \* \* \*

*Related Controls:* See ECCNs 1A004 and 1A995 for protective equipment that is not covered by this entry. Also see ECCN 9A120 for controls on certain “UAV” systems designed or modified to dispense an aerosol and capable of carrying elements of a payload in the form of a particulate or liquid, other than fuel “parts” or “components” of such vehicles, of a volume greater than 20 liters.

\* \* \* \* \*

*Items:*

\* \* \* \* \*

c.3. “Parts” or “components” of polished stainless steel or titanium; and

\* \* \* \* \*

d.1.b.2. Using disposable or single-use filtration “parts” or “components”.

\* \* \* \* \*

d.2. Cross (tangential) flow filtration “parts” or “components” (e.g., modules, elements, cassettes, cartridges, units or plates) with filtration area equal to or greater than 0.2 square meters (0.2 m<sup>2</sup>) for each “part” or “component” and designed for use in cross (tangential) flow filtration equipment controlled by 2B352.d.1.

\* \* \* \* \*

h. Spraying or fogging systems and “parts” and “components” therefor, as follows:

\* \* \* \* \*

#### Technical Notes:

\* \* \* \* \*

2. This ECCN does not control spraying or fogging systems, “parts” and “components,” as specified in 2B352.h., that are demonstrated not to be capable of delivering biological agents in the form of infectious aerosols.

\* \* \* \* \*

90. In Supplement No. 1 to part 774 (the Commerce Control List), Category 2—Materials Processing, Export Control Classification Number (ECCN) 2B991 is amended by revising the heading to read as follows:

**2B991 Numerical control units for machine tools and “numerically controlled” machine tools, n.e.s. (see List of Items Controlled).**

\* \* \* \* \*

91. In Supplement No. 1 to part 774 (the Commerce Control List), Category 2—Materials Processing, Export Control Classification Number (ECCN) 2B992 is amended by revising the heading to read as follows:

**2B992 Non-“numerically controlled” machine tools for generating optical quality surfaces, (see List of Items Controlled) and specially designed “parts” and “components” therefor.**

\* \* \* \* \*

92. In Supplement No. 1 to part 774 (the Commerce Control List), Category 2—Materials Processing, Export Control Classification Number (ECCN) 2B996 is amended by revising the heading to read as follows:

**2B996 Dimensional inspection or measuring systems or equipment not controlled by 2B006 or 2B206, as follows (see List of Items Controlled).**

\* \* \* \* \*

93. In Supplement No. 1 to part 774 (the Commerce Control List), Category 2—Materials Processing, Export Control Classification Number (ECCN) 2B998 is amended by revising “items” paragraph c in the List of Items Controlled Section to read as follows:

**2B998 Assemblies, circuit boards or inserts specially designed for machine tools controlled by 2B991, or for equipment controlled by 2B993, 2B996 or 2B997.**

\* \* \* \* \*

#### List of Items Controlled

\* \* \* \* \*

#### Items:

\* \* \* \* \*

c. Specially designed printed circuit boards with mounted “parts” or “components” capable of upgrading, according to the manufacturer’s specifications, “numerical control” units, machine tools or feed-back devices to or above the levels specified in ECCNs 2B991, 2B993, 2B996, 2B997, or 2B998.

\* \* \* \* \*

94. In Supplement No. 1 to part 774 (the Commerce Control List), Category 2—Materials Processing, Export Control Classification Number (ECCN) 2D351 is amended by revising the heading to read as follows:

**2D351 Dedicated “software” for toxic gas monitoring systems and their dedicated detecting “parts” and “components” controlled by ECCN 2B351.**

\* \* \* \* \*

95. In Supplement No. 1 to part 774 (the Commerce Control List), Category 2—Materials Processing, Export Control Classification Number (ECCN) 2D984 is amended by revising the “Related Controls” paragraph (1) in the List of Items Controlled section to read as follows:

**2D984 “Software” “required” for the “development,” “production” or “use” of concealed object detection equipment controlled by 2A984.**

\* \* \* \* \*

#### List of Items Controlled

Unit: \* \* \*

*Related Controls:* (1) “Software” “required” for the “development,” “production” or “use” of concealed object detection equipment operating in the frequency range from 30 GHz to 3000 GHz and having a spatial resolution less than 0.5 milliradian (a lower milliradian number means a more accurate image resolution) at a standoff distance of 100 meters is “subject to the ITAR” (see 22 CFR parts 120 through 130). \* \* \*

\* \* \* \* \*

96. In Supplement No. 1 to part 774 (the Commerce Control List), Category 2—Materials Processing, the Category 2E—Materials Processing Table; Deposition Techniques is amended:

a. By revising paragraph 17 of the Notes to Table on Deposition Techniques section; and

b. By revising paragraph 1.b of the Accompanying Technical Information to Table on Deposition Techniques section, to read as follows;

#### Category 2E—Materials Processing Table; Deposition Techniques

\* \* \* \* \*

#### Notes to Table on Deposition Techniques

\* \* \* \* \*

17. “Technology” specially designed to deposit diamond-like carbon on any of the following is not controlled: magnetic disk drives and heads, equipment for the manufacture of disposables, valves for faucets, acoustic diaphragms for speakers, engine “parts” and “components” for automobiles, cutting tools, punching-pressing dies, office automation equipment, microphones, medical devices or molds, for casting or molding of plastics, manufactured from alloys containing less than 5% beryllium.

\* \* \* \* \*

Accompanying Technical Information to Table on Deposition Techniques:

1. \* \* \*

b. Visual and macroscopic criteria for acceptance of the cleaned “part” or “component;”

97. In Supplement No. 1 to part 774 (the Commerce Control List), Category 2—Materials Processing, Export Control Classification Number (ECCN) 2E984 is amended by revising the “Related Controls” paragraph (1) in the List of Items Controlled section to read as follows:

**2E984 “Technology” “required” for the “development,” “production” or “use” of equipment controlled by 2A984 or “required” for the “development” of “software” controlled by 2D984.**

\* \* \* \* \*

#### List of Items Controlled

\* \* \* \* \*

*Related Controls:* (1) “Technology” “required” for the “development,” “production” or “use” of concealed object detection equipment operating in the frequency range from 30 GHz to 3000 GHz and having a spatial resolution less than 0.5 milliradian (a lower milliradian number means a more accurate image resolution) at a standoff distance of 100 meters or “required” for the “development” of “software” “required” for the “development,” “production” or “use” of concealed object detection equipment operating in the frequency range from 30 GHz to 3000 GHz and having a spatial resolution less than 0.5 milliradian at a standoff distance of 100 meters is “subject to the ITAR” (see 22 CFR parts 120 through 130). \* \* \*

\* \* \* \* \*

98. In Supplement No. 1 to part 774 (the Commerce Control List), Category 3—Electronics is amended by revising the “Note” that immediately follows the Category 3 (Systems, Equipment and Components) heading to read as follows:



## CATEGORY 3—ELECTRONICS

## A. SYSTEMS, EQUIPMENT, AND COMPONENTS

**Note 1:** The control status of equipment, “parts” and “components” described in 3A001 or 3A002, other than those described in 3A001.a.3 to 3A001.a.10, 3A001.a.12 or 3A001.a.13, which are specially designed for or which have the same functional characteristics as other equipment is determined by the control status of the other equipment.

\* \* \* \* \*

99. In Supplement No. 1 to part 774 (the Commerce Control List), Category 3—Electronics, Export Control Classification Number (ECCN) 3A001 is amended:

- a. By revising the heading;
- b. By revising the “Related Controls” paragraph (1), the introductory text of paragraph (2), and paragraph (2)(c) in the List of Items Controlled section; and
- c. By revising the introductory text to “items” paragraphs b, c, and d in the List of Items Controlled section to read as follows:

**3A001 Electronic “components” and specially designed “parts” and “components” therefor, as follows (see List of Items Controlled).**

\* \* \* \* \*

**List of Items Controlled**

\* \* \* \* \*

*Related Controls:* (1) The following commodities are “subject to the ITAR” when “space qualified” and operating at frequencies higher than 31.8 GHz: helix tubes (traveling wave tubes (TWT)) defined in 3A001.b.1.a.4.c; microwave solid state amplifiers defined in 3A001.b.4.b traveling wave tube amplifiers (TWTA) defined in 3A001.b.8; and derivatives thereof; (2) The following commodities are also “subject to the ITAR (see 22 CFR parts 120 through 130):” \* \* \* (c) All specifically designed or modified systems or subsystems, “parts,” “components,” accessories, attachments, and associated equipment controlled by Category XV (e) of the USML. See also 3A101, 3A201, and 3A991.

\* \* \* \* \*

**Items:**

\* \* \* \* \*

b. Microwave or millimeter wave “parts” or “components,” as follows:

\* \* \* \* \*

c. Acoustic wave devices as follows and specially designed “parts” and “components” therefor:

\* \* \* \* \*

d. Electronic devices and circuits containing “parts” or “components,” manufactured from “superconductive” materials, specially designed for operation at temperatures below the “critical temperature” of at least one of the “superconductive” constituents and having any of the following:

\* \* \* \* \*

100. In Supplement No. 1 to part 774 (the Commerce Control List), Category 3—Electronics, Export Control Classification Number (ECCN) 3A002 is amended by revising the first sentence in “Related Controls” paragraph in the List of Items Controlled section to read as follows:

**3A002 General purpose electronic equipment and accessories therefor, as follows (see List of Items Controlled).**

\* \* \* \* \*

**List of Items Controlled**

\* \* \* \* \*

*Related Controls:* “Space-qualified” atomic frequency standards defined in 3A002.g.1 are “subject to the ITAR” (see 22 CFR parts 120 through 130, including USML Category XV). \* \* \*

\* \* \* \* \*

101. In Supplement No. 1 to part 774 (the Commerce Control List), Category 3—Electronics, Export Control Classification Number (ECCN) 3A003 is amended by revising the heading to read as follows:

**3A003 Spray cooling thermal management systems employing closed loop fluid handling and reconditioning equipment in a sealed enclosure where a dielectric fluid is sprayed onto electronic “parts” or “components” using specially designed spray nozzles that are designed to maintain electronic “parts” or “components” within their operating temperature range, and specially designed “parts” and “components” therefor.**

\* \* \* \* \*

102. In Supplement No. 1 to part 774 (the Commerce Control List), Category 3—Electronics, Export Control Classification Number (ECCN) 3A101 is amended:

- a. By revising the heading; and
- b. By revising “Related Controls” paragraph in the List of Items Controlled section to read as follows:

**3A101 Electronic equipment, devices, “parts” and “components,” other than those controlled by 3A001, as follows (see List of Items Controlled).**

\* \* \* \* \*

**List of Items Controlled**

\* \* \* \* \*

*Related Controls:* Items controlled in 3A101.a are “subject to the ITAR” (see 22 CFR parts 120 through 130).

\* \* \* \* \*

103. In Supplement No. 1 to part 774 (the Commerce Control List), Category 3—Electronics, Export Control Classification Number (ECCN) 3A201 is amended:

- a. By revising the heading;

b. By revising the Note to “items” paragraph c in the List of Items Controlled section to read as follows:

**3A201 Electronic “parts” and “components,” other than those controlled by 3A001, as follows (see List of Items Controlled).**

\* \* \* \* \*

**List of Items Controlled**

\* \* \* \* \*

*Items:*

\* \* \* \* \*

c. \* \* \*

**Note:** 3A201.c does not control accelerators that are “parts” or “components” of devices designed for purposes other than electron beam or X-ray radiation (electron microscopy, for example) nor those designed for medical purposes.

104. In Supplement No. 1 to part 774 (the Commerce Control List), Category 3—Electronics, Export Control Classification Number (ECCN) 3A225 is amended:

- a. By revising the heading; and
- b. By adding a heading Note to read as follows:

**3A225 Frequency changers (also known as converters or inverters) or generators, other than those described in the Heading Note to this entry, having all of the following characteristics (see List of Items Controlled).**

**HEADING NOTE:** This entry does not include frequency changers (converters or inverters) specially designed or prepared to supply motor stators for gas centrifuge enrichment, having all of the following characteristics, and specially designed “parts” and “components” therefor: (1) multiphase output of 600 to 2000 Hz; (2) frequency control better than 0.1%; (3) harmonic distortion of less than 2%; and an efficiency greater than 80% that are subject to the export licensing authority of the Nuclear Regulatory Commission (see 10 CFR part 110).

\* \* \* \* \*

105. In Supplement No. 1 to part 774 (the Commerce Control List), Category 3—Electronics, Export Control Classification Number (ECCN) 3A226 is amended:

- a. By revising the heading; and
- b. By adding a heading Note to read as follows:

**3A226 High-power direct current power supplies, other than those described in the Heading Note to this entry, having both of the following characteristics (see List of Items Controlled).**

**HEADING NOTE:** This entry does not include magnet power supplies (high power, direct current), specially designed or prepared for electromagnetic separation process, having all of the following characteristics: (1) Capable of continuous operation with a current output of 500 A or greater at a voltage of 100 V or greater; and

(2) current or voltage regulation better than 0.01% over a period of 8 hours that are subject to the export licensing authority of the Nuclear Regulatory Commission (see 10 CFR part 110).

\* \* \* \* \*

106. In Supplement No. 1 to part 774 (the Commerce Control List), Category 3—Electronics, Export Control Classification Number (ECCN) 3A227 is amended:

- a. By revising the heading; and
- b. By adding a heading Note to read as follows:

**3A227 High-voltage direct current power supplies, other than those described in the Heading Note to this entry, having both of the following characteristics (see List of Items Controlled).**

**HEADING NOTE:** This entry does not include high voltage power supplies for ion sources, specially designed or prepared for electromagnetic separation process, having all of the following characteristics: (1) Capable of continuous operation; (2) output voltage of 20,000 V or greater; (3) output current of 1 A or greater; and (4) voltage regulation of better than 0.01% over a period of 8 hours that are subject to the export licensing authority of the Nuclear Regulatory Commission (see 10 CFR part 110).

\* \* \* \* \*

107. In Supplement No. 1 to part 774 (the Commerce Control List), Category 3—Electronics, Export Control Classification Number (ECCN) 3A229 is amended by revising the “Related Controls” paragraph (2) in the List of Items Controlled section to read as follows:

**3A229 Firing sets and equivalent high-current pulse generators (for detonators controlled by 3A232), as follows (see List of Items Controlled).**

\* \* \* \* \*

#### List of Items Controlled

\* \* \* \* \*

*Related Controls:* \* \* \* (2) High explosives and related equipment for military use are “subject to the ITAR” (see 22 CFR parts 120 through 130).

\* \* \* \* \*

108. In Supplement No. 1 to part 774 (the Commerce Control List), Category 3—Electronics, Export Control Classification Number (ECCN) 3A230 is amended by revising the “Related Controls” paragraph in the List of Items Controlled section to read as follows:

**3A230 High-speed pulse generators having both of the following characteristics (see List of Items Controlled).**

\* \* \* \* \*

#### List of Items Controlled

\* \* \* \* \*

*Related Controls:* (1) See ECCNs 3E001 (“development” and “production”) and

3E201 (“use”) for technology for items controlled under this entry. (2) See ECCNs 3A002.d.1, 3A992.a and 3A999.d.

\* \* \* \* \*

109. In Supplement No. 1 to part 774 (the Commerce Control List), Category 3—Electronics, Export Control Classification Number (ECCN) 3A231 is amended by revising the “Unit” paragraph in the List of Items Controlled section to read as follows:

**3A231 Neutron generator systems, including tubes, having both of the following characteristics (see List of Items Controlled).**

\* \* \* \* \*

#### List of Items Controlled

*Unit:* Number

\* \* \* \* \*

110. In Supplement No. 1 to part 774 (the Commerce Control List), Category 3—Electronics, Export Control Classification Number (ECCN) 3A232 is amended by revising the “Related Controls” paragraph (3) in the List of Items Controlled section to read as follows:

**3A232 Detonators and multipoint initiation systems, as follows (see List of Items Controlled).**

\* \* \* \* \*

#### List of Items Controlled

\* \* \* \* \*

*Related Controls:* \* \* \* (3) High explosives and related equipment for military use are “subject to the ITAR” (see 22 CFR parts 120 through 130).

\* \* \* \* \*

111. In Supplement No. 1 to part 774 (the Commerce Control List), Category 3—Electronics, Export Control Classification Number (ECCN) 3A233 is amended by revising the heading to read as follows:

**3A233 Mass spectrometers, other than specially designed or prepared auxiliary systems, equipment, “parts” and “components” for isotope separation plants, made of or protected by UF<sub>6</sub> resistant materials that are subject to the export licensing authority of the Nuclear Regulatory Commission (see 10 CFR part 110), capable of measuring ions of 230 atomic mass units or greater and having a resolution of better than 2 parts in 230, and ion sources therefor.**

\* \* \* \* \*

112. In Supplement No. 1 to part 774 (the Commerce Control List), Category 3—Electronics, Export Control Classification Number (ECCN) 3A292 is amended:

- a. By revising the heading; and
- b. By revising the introductory text to the Note at the end of the “items” paragraph in the List of Items Controlled section to read as follows:

**3A292 Oscilloscopes and transient recorders other than those controlled by 3A002.a.5, and specially designed “parts” and “components” therefor.**

\* \* \* \* \*

#### List of Items Controlled

\* \* \* \* \*

*Items:*

\* \* \* \* \*

**Note:** Specially designed “parts” and “components” controlled by this item are the following, for analog oscilloscopes:

\* \* \* \* \*

113. In Supplement No. 1 to part 774 (the Commerce Control List), Category 3—Electronics, Export Control Classification Number (ECCN) 3A980 is amended by revising the heading to read as follows:

**3A980 Voice print identification and analysis equipment and “specially designed” “components” therefor, n.e.s.**

\* \* \* \* \*

114. In Supplement No. 1 to part 774 (the Commerce Control List), Category 3—Electronics, Export Control Classification Number (ECCN) 3A981 is amended by revising the heading to read as follows:

**3A981 Polygraphs (except biomedical recorders designed for use in medical facilities for monitoring biological and neurophysiological responses); fingerprint analyzers, cameras and equipment, n.e.s.; automated fingerprint and identification retrieval systems, n.e.s.; psychological stress analysis equipment; electronic monitoring restraint devices; and “specially designed” “components” and accessories therefor, n.e.s.**

\* \* \* \* \*

115. In Supplement No. 1 to part 774 (the Commerce Control List), Category 3—Electronics, Export Control Classification Number (ECCN) 3A982 is amended by revising the heading to read as follows:

**3A982 Microwave or millimeter wave “parts” and “components” that operate at frequencies below those controlled by 3A001 as follows (See List of Items Controlled).**

\* \* \* \* \*

116. In Supplement No. 1 to part 774 (the Commerce Control List), Category 3—Electronics, Export Control Classification Number (ECCN) 3A991 is amended:

- a. By revising the heading; and
- b. By revising the introductory text “items” paragraph 1 in the List of Items Controlled section to read as follows:

**3A991 Electronic devices, and “parts” and “components” not controlled by 3A001.**

\* \* \* \* \*

#### List of Items Controlled

\* \* \* \* \*

*Items:*

\* \* \* \* \*

l. Circuits or systems for electromagnetic energy storage, containing “parts” or “components” manufactured from “superconductive” materials specially designed for operation at temperatures below the “critical temperature” of at least one of their “superconductive” constituents, having all of the following:

\* \* \* \* \*

117. In Supplement No. 1 to part 774 (the Commerce Control List), Category 3—Electronics, Export Control Classification Number (ECCN) 3A999 is amended:

a. By revising the “Related Controls” paragraph in the List of Items Controlled section; and

b. By revising “items” paragraph c in the List of Items Controls section to read as follows:

**3A999 Specific processing equipment, n.e.s., as follows (see List of Items Controlled).**

\* \* \* \* \*

**List of Items Controlled**

\* \* \* \* \*

*Related Controls:* (1) See also 3A225 (for frequency changers capable of operating in the frequency range of 600 Hz and above), and 3A233. (2) Specially designed or prepared auxiliary systems, equipment, “parts” and “components” for isotope separation plants, made of or protected by UF<sub>6</sub> resistant materials are subject to the export licensing authority of the Nuclear Regulatory Commission (see 10 CFR part 110).

\* \* \* \* \*

*Items:*

\* \* \* \* \*

c. All flash x-ray machines, and “parts” or “components” of pulsed power systems designed thereof, including Marx generators, high power pulse shaping networks, high voltage capacitors, and triggers;

\* \* \* \* \*

118. In Supplement No. 1 to part 774 (the Commerce Control List), Category 3—Electronics, Export Control Classification Number (ECCN) 3B001 is amended by revising the heading to read as follows:

**3B001 Equipment for the manufacturing of semiconductor devices or materials, as follows (see List of Items Controlled) and specially designed “parts,” “components” and accessories therefor.**

\* \* \* \* \*

119. In Supplement No. 1 to part 774 (the Commerce Control List), Category 3—Electronics, Export Control Classification Number (ECCN) 3B002 is amended by revising the heading to read as follows:

**3B002 Test equipment specially designed for testing finished or unfinished**

**semiconductor devices as follows (see List of Items Controlled) and specially designed “parts,” “components” and accessories therefor.**

\* \* \* \* \*

120. In Supplement No. 1 to part 774 (the Commerce Control List), Category 3—Electronics, Export Control Classification Number (ECCN) 3B991 is amended:

a. By revising the heading;

b. By revising the “Unit” paragraph in the List of Items Controlled section; and

c. By revising “items” paragraph a and the introductory text of “items” paragraphs b.1 and b.2 to read as follows:

**3B991 Equipment not controlled by 3B001 for the manufacture of electronic “parts,” “components” and materials (see List of Items Controlled), and specially designed “parts,” “components” and accessories therefor.**

\* \* \* \* \*

**List of Items Controlled**

*Unit:* Equipment in number; “parts,” “components” and accessories in \$ value

\* \* \* \* \*

*Items:*

\* \* \* \* \*

a. Equipment specially designed for the manufacture of electron tubes, optical elements and specially designed “parts” and “components” therefor controlled by 3A001 or 3A991;

\* \* \* \* \*

b.1. Equipment for the processing of materials for the manufacture of devices, “parts” and “components” as specified in the heading of 3B991.b, as follows:

\* \* \* \* \*

b.2. Masks, mask “substrates,” mask-making equipment and image transfer equipment for the manufacture of devices, “parts” and “components” as specified in the heading of 3B991, as follows:

\* \* \* \* \*

121. In Supplement No. 1 to part 774 (the Commerce Control List), Category 3—Electronics, Export Control Classification Number (ECCN) 3B992 is amended:

a. By revising the heading;

b. By revising “items” paragraph a; and

c. By revising paragraph 3 of the “Notes” to “items” paragraph b.4.b to read as follows:

**3B992 Equipment not controlled by 3B002 for the inspection or testing of electronic “components” and materials, and specially designed “parts,” “components” and accessories therefor.**

\* \* \* \* \*

**List of Items Controlled**

\* \* \* \* \*

*Items:*

\* \* \* \* \*

a. Equipment specially designed for the inspection or testing of electron tubes, optical elements and specially designed “parts” and “components” therefor controlled by 3A001 or 3A991;

\* \* \* \* \*

**Notes:**

\* \* \* \* \*

3. Electronic “parts,” “components,” “assemblies” and integrated circuits not controlled by 3A001 or 3A991 provided such test equipment does not incorporate computing facilities with “user accessible programmability”.

122. In Supplement No. 1 to part 774 (the Commerce Control List), Category 3—Electronics, Export Control Classification Number (ECCN) 3D001 is amended by revising the introductory text of “Related Controls” paragraph (1) in the List of Items Controlled section to read as follows:

**3D001 “Software” specially designed for the “development” or “production” of equipment controlled by 3A001.b to 3A002.g or 3B (except 3B991 and 3B992).**

\* \* \* \* \*

**List of Items Controlled**

\* \* \* \* \*

*Related Controls:* “Software” specially designed for the “development” or “production” of the following equipment is “subject to the ITAR” (see 22 CFR parts 120 through 130):

\* \* \* \* \*

123. In Supplement No. 1 to part 774 (the Commerce Control List), Category 3—Electronics, Export Control Classification Number (ECCN) 3D980 is amended by revising the heading to read as follows:

**3D980 “Software” specially designed for the “development,” “production” or “use” of commodities controlled by 3A980 and 3A981.**

\* \* \* \* \*

124. In Supplement No. 1 to part 774 (the Commerce Control List), Category 3—Electronics, Export Control Classification Number (ECCN) 3D982 is amended by revising the heading to read as follows:

**3D982 “Software” specially designed for the “development” or “production” of microwave or millimeter wave “parts” and “components” classified under ECCN 3A982.**

\* \* \* \* \*

125. In Supplement No. 1 to part 774 (the Commerce Control List), Category 3—Electronics, Export Control Classification Number (ECCN) 3D991 is amended by revising the heading to read as follows:

**3D991 “Software” specially designed for the “development,” “production” or**

“use” of electronic devices, “parts” or “components” controlled by 3A991, general purpose electronic equipment controlled by 3A992, or manufacturing and test equipment controlled by 3B991 and 3B992; or “software” specially designed for the “use” of equipment controlled by 3B001.g and .h.

\* \* \* \* \*

126. In Supplement No. 1 to part 774 (the Commerce Control List), Category 3—Electronics, Export Control Classification Number (ECCN) 3E001 is amended:

a. By revising the introductory text of “Related Controls” paragraph (2) in the List of Items Controlled section; and

b. By revising “Note 1” at the end of the List of Items Controlled to read as follows:

**3E001 “Technology” according to the General Technology Note for the “development” or “production” of equipment or materials controlled by 3A (except 3A292, 3A980, 3A981, 3A991 3A992, or 3A999), 3B (except 3B991 or 3B992) or 3C (except 3C992).**

\* \* \* \* \*

#### List of Items Controlled

\* \* \* \* \*

*Related Controls:* \*\*\* (2) “Technology” according to the General Technology Note for the “development” or “production” of the following commodities is “subject to the ITAR” (see 22 CFR parts 120 through 130):

\* \* \* \* \*

#### Items:

\* \* \* \* \*

**Note 1:** 3E001 does not control “technology” for the “production” of equipment, “parts” or “components” controlled by 3A003.

\* \* \* \* \*

127. In Supplement No. 1 to part 774 (the Commerce Control List), Category 3—Electronics, Export Control Classification Number (ECCN) 3E003 is amended:

a. By revising “Related Controls” paragraph (1) in the List of Items Controlled section; and

b. By revising “items” paragraphs d and f to read as follows:

**3E003 Other “technology” for the “development” or “production” of the following (see List of Items Controlled).**

\* \* \* \* \*

#### List of Items Controlled

\* \* \* \* \*

*Related Controls:* (1) Technology for the “development” or “production” of “space qualified” electronic vacuum tubes operating at frequencies of 31.8 GHz or higher, described in 3E003.g, is “subject to the ITAR” (see 22 CFR parts 120 through 130);

\* \* \* \* \*

#### Items:

\* \* \* \* \*

d. Substrates of films of diamond for electronic “parts” or “components;”

\* \* \* \* \*

f. Substrates of silicon carbide for electronic “parts” or “components;”

\* \* \* \* \*

128. In Supplement No. 1 to part 774 (the Commerce Control List), Category 3—Electronics, Export Control Classification Number (ECCN) 3E980 is amended by revising the heading to read as follows:

**3E980 “Technology” specially designed for “development,” “production” or “use” of commodities controlled by 3A980 and 3A981.**

\* \* \* \* \*

129. In Supplement No. 1 to part 774 (the Commerce Control List), Category 3—Electronics, Export Control Classification Number (ECCN) 3E982 is amended by revising the heading to read as follows:

**3E982 “Technology” “require” for the “development” or “production” of microwave or millimeter wave “parts” or “components” classified under ECCN 3A982.**

\* \* \* \* \*

130. In Supplement No. 1 to part 774 (the Commerce Control List), Category 3—Electronics, Export Control Classification Number (ECCN) 3E991 is amended by revising the heading to read as follows:

**3E991 “Technology” for the “development,” “production” or “use” of electronic devices, “parts” or “components” controlled by 3A991, general purpose electronic equipment controlled by 3A992, or manufacturing and test equipment controlled by 3B991 or 3B992, or materials controlled by 3C992.**

\* \* \* \* \*

131. In Supplement No. 1 to part 774 (the Commerce Control List), Category 4—Computers, Export Control Classification Number (ECCN) 4A001 is amended:

a. By revising the heading;

b. By revising “Unit” paragraph in the List of Items Controlled section; and

c. By revising “Related Controls” paragraph in the List of Items Controlled section to read as follows:

**4A001 Electronic computers and related equipment, having any of the following (see List of Items Controlled), and “electronic assemblies” and specially designed “parts” and “components” therefor.**

\* \* \* \* \*

#### List of Items Controlled

*Unit:* Computers and related equipment in number; “electronic assemblies,” “parts” and “components” in \$ value

*Related Controls:* See also 4A101 and 4A994. See Category 5—Part 2 for electronic computers and related equipment performing or incorporating “information security” functions as the primary function. Equipment designed or rated for transient ionizing radiation is “subject to the ITAR” (see 22 CFR parts 120 through 130).

\* \* \* \* \*

132. In Supplement No. 1 to part 774 (the Commerce Control List), Category 4—Computers, Export Control Classification Number (ECCN) 4A003 is amended:

a. By revising the heading;

b. By removing Note 2 in at the end of the License Requirements section;

c. By adding a Reporting Requirements section after the License Requirements section;

d. By revising the License Exception GBS paragraph in the License Exceptions section; and

e. By revising the “Unit” paragraph in the List of Items Controlled section to read as follows:

**4A003 “Digital computers,” “electronic assemblies” and related equipment therefor, as follows (see List of Items Controlled) and specially designed “parts” and “components” therefor.**

\* \* \* \* \*

#### Reporting Requirements

Special Post Shipment Verification reporting and recordkeeping requirements for exports of computers to destinations in Computer Tier 3 may be found in § 743.2 of the EAR.

#### License Exceptions

\* \* \* \* \*

GBS: Yes, for 4A003.e, and .g and specially designed “parts” and “components” therefor, exported separately or as part of a system.

\* \* \* \* \*

#### List of Items Controlled

*Unit:* Computers and related equipment in number; “electronic assemblies,” “parts” and “components” in \$ value

\* \* \* \* \*

133. In Supplement No. 1 to part 774 (the Commerce Control List), Category 4—Computers, Export Control Classification Number (ECCN) 4A004 is amended:

a. By revising the heading; and

b. By revising the “Unit” paragraph in the List of Items Controlled section to read as follows:

**4A004 Computers as follows (see List of Items Controlled) and specially designed related equipment, “electronic**

assemblies,” and “parts” and “components” therefor.

\* \* \* \* \*

#### List of Items Controlled

*Unit:* Computers and related equipment in number; “electronic assemblies,” “parts” and “components” in \$ value

\* \* \* \* \*

134. In Supplement No. 1 to part 774 (the Commerce Control List), Category 4—Computers, Export Control Classification Number (ECCN) 4A101 is amended by revising the “Note” to “items” paragraph b in the List of Items Controlled section to read as follows:

**4A101 Analog computers, “digital computers” or digital differential analyzers, other than those controlled by 4A001 designed or modified for use in “missiles,” having any of the following (see List of Items Controlled).**

\* \* \* \* \*

#### List of Items Controlled

\* \* \* \* \*

*Items:*

\* \* \* \* \*

b. \* \* \*

**Note:** ‘Radiation hardened’ means that the “part,” “component” or equipment is designed or rated to withstand radiation levels which meet or exceed a total irradiation dose of 5 X 10<sup>5</sup> rads (Si).

\* \* \* \* \*

135. In Supplement No. 1 to part 774 (the Commerce Control List), Category 4—Computers, Export Control Classification Number (ECCN) 4A102 is amended by revising the heading to read as follows:

**4A102 “Hybrid computers” specially designed for modelling, simulation or design integration of “missiles” or their subsystems. (These items are “subject to the ITAR.” See 22 CFR parts 120 through 130.)**

\* \* \* \* \*

136. In Supplement No. 1 to part 774 (the Commerce Control List), Category 4—Computers, Export Control Classification Number (ECCN) 4A994 is amended:

a. By revising the heading;

b. By revising the “Unit” paragraph in the List of Items Controlled section; and

c. By revising the introductory text to “items” paragraphs a and k to read as follows:

**4A994 Computers, “electronic assemblies” and related equipment not controlled by 4A001 or 4A003, and specially designed “parts” and “components” therefor (see List of Items Controlled).**

\* \* \* \* \*

#### List of Items Controlled

*Unit:* Equipment in number; “parts,” “components” and accessories in \$ value

\* \* \* \* \*

*Items:*

\* \* \* \* \*

a. Electronic computers and related equipment, and “electronic assemblies” and specially designed “parts” and “components” therefor, rated for operation at an ambient temperature above 343 K (70 °C);

\* \* \* \* \*

k. “Hybrid computers” and “electronic assemblies” and specially designed “parts” and “components” therefor containing analog-to-digital converters having all of the following characteristics:

\* \* \* \* \*

137. In Supplement No. 1 to part 774 (the Commerce Control List), Category 4—Computers, Export Control Classification Number (ECCN) 4D001 is amended by adding a Reporting Requirements section after the License Requirements section to read as follows:

**4D001 “Software” as follows (see List of Items Controlled).**

\* \* \* \* \*

#### Reporting Requirements

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

\* \* \* \* \*

138. In Supplement No. 1 to part 774 (the Commerce Control List), Category 4—Computers, Export Control Classification Number (ECCN) 4D980 is amended by revising the heading to read as follows:

**4D980 “Software” specially designed for the “development,” “production” or “use” of commodities controlled by 4A980.**

\* \* \* \* \*

139. In Supplement No. 1 to part 774 (the Commerce Control List), Category 4—Computers, Export Control Classification Number (ECCN) 4E980 is amended by revising the heading to read as follows:

**4E980 “Technology” for the “development,” “production” or “use” of commodities controlled by 4A980.**

\* \* \* \* \*

140. In Supplement No. 1 to part 774 (the Commerce Control List), Category 5—Telecommunications and “Information Security,” Part 1—Telecommunications is amended by revising the introductory text of Note 1, the N.B.2 and Note 2 that immediately follows the Category 5 Part 1—Telecommunications heading to read as follows:

#### CATEGORY 5—TELECOMMUNICATIONS AND “INFORMATION SECURITY”

##### Part I—TELECOMMUNICATIONS

##### Notes:

1. The control status of “parts,” “components,” test and “production” equipment, and “software” therefor which are specially designed for telecommunications equipment or systems is determined in Category 5, Part 1.

\* \* \* \* \*

**N.B.2.:** See also Category 5, Part 2 for equipment, “parts,” “components” and “software,” performing or incorporating “information security” functions.

2. “Digital computers,” related equipment or “software,” when essential for the operation and support of telecommunications equipment described in this Category, are regarded as specially designed “parts” and “components,” provided they are the standard models customarily supplied by the manufacturer. This includes operation, administration, maintenance, engineering or billing computer systems.

\* \* \* \* \*

141. In Supplement No. 1 to part 774 (the Commerce Control List), Category 5—Telecommunications and “Information Security,” Part 1—Telecommunications, Export Control Classification Number (ECCN) 5A001 is amended:

a. By revising the heading;

b. By revising “Unit” paragraph in the List of Items Controlled section;

c. By revising “Related Controls” paragraph in the List of Items Controlled section; and

d. By revising the introductory text to “items” paragraph b, e, and f to read as follows:

**5A001 Telecommunications systems, equipment, “parts,” “components” and accessories, as follows (see List of Items Controlled).**

\* \* \* \* \*

#### List of Items Controlled

*Unit:* Equipment or antennae in number; cable and fiber in meters/feet, “parts,” “components” and accessories in \$ value

*Related Controls:* (1) Telecommunications equipment defined in 5A001.a.1 through 5A001.a.3 for use on board satellites is “subject to the ITAR” (see 22 CFR parts 120 through 130). (2) Direction finding equipment defined in 5A001.e is “subject to the ITAR” (see 22 CFR parts 120 through 130). (3) See also 5A101 and 5A991.

\* \* \* \* \*

*Items:*

\* \* \* \* \*

b. Telecommunication systems and equipment, and specially designed “parts,” “components” and accessories therefor, having any of the following characteristics, functions or features:

\* \* \* \* \*

e. Radio direction finding equipment operating at frequencies above 30 MHz and

having all of the following, and specially designed “parts” and “components” therefor:

\* \* \* \* \*

f. Jamming equipment specially designed or modified to intentionally and selectively interfere with, deny, inhibit, degrade or seduce mobile telecommunication services and perform any of the following, and specially designed “parts” and “components” therefor:

\* \* \* \* \*

142. In Supplement No. 1 to part 774 (the Commerce Control List), Category 5—Telecommunications and “Information Security,” Part 1—Telecommunications, Export Control Classification Number (ECCN) 5A980 is amended by revising the heading to read as follows:

**5A980 Devices primarily useful for the surreptitious interception of wire, oral, or electronic communications, other than those controlled under 5A001.i; and “parts,” “components” and accessories therefor.**

\* \* \* \* \*

143. In Supplement No. 1 to part 774 (the Commerce Control List), Category 5—Telecommunications and “Information Security,” Part 1—Telecommunications, Export Control Classification Number (ECCN) 5A991 is amended:

a. By revising the heading;  
b. By revising the “Related Controls” paragraph in the List of Items Controlled section;

c. By revising the introductory text to “items” paragraphs b and c in the List of Items Controlled section; and

d. By revising “items” paragraph c.1, f, g, and h in the List of Items Controlled section to read as follows:

**5A991 Telecommunication equipment, not controlled by 5A001 (see List of Items Controlled).**

\* \* \* \* \*

#### List of Items Controlled

\* \* \* \* \*

*Related Controls:* (1) Telecommunication equipment defined in 5A991 for use on board satellites is “subject to the ITAR” (see 22 CFR parts 120 through 130). (2) See also 5E101 and 5E991.

\* \* \* \* \*

#### Items:

\* \* \* \* \*

b. Telecommunication transmission equipment and systems, and specially designed “parts,” “components” and accessories therefor, having any of the following characteristics, functions or features:

\* \* \* \* \*

c. “Stored program controlled” switching equipment and related signaling systems, having any of the following characteristics, functions or features, and specially designed

“parts,” “components” and accessories therefor:

**Note:** \* \* \*

c.1. “Data (message) switching” equipment or systems designed for “packet-mode operation” and “parts,” electronic assemblies and “components” therefor, n.e.s.

\* \* \* \* \*

f. Phased array antennas, operating above 10.5 GHz, containing active elements and distributed “parts” or “components,” and designed to permit electronic control of beam shaping and pointing, except for landing systems with instruments meeting International Civil Aviation Organization (ICAO) standards (microwave landing systems (MLS)).

g. Mobile communications equipment, n.e.s., and “parts,” electronic assemblies and “components” therefor; or

h. Radio relay communications equipment designed for use at frequencies equal to or exceeding 19.7 GHz and “parts” and “components” therefor, n.e.s.

144. In Supplement No. 1 to part 774 (the Commerce Control List), Category 5—Telecommunications and “Information Security,” Part 1—Telecommunications, Export Control Classification Number (ECCN) 5B001 is amended:

a. By revising the heading;

b. By revising the Special Conditions for License Exception STA paragraph section;

c. By revising “Unit” paragraph in the List of Items Controlled section; and

d. By revising the introductory text to “items” paragraph a and b to read as follows:

**5B001 Telecommunication test, inspection and production equipment, “parts,” “components” and accessories, as follows (See List of Items Controlled).**

\* \* \* \* \*

#### Special Conditions for License Exception STA

License Exception STA may not be used to ship 5B001.a equipment and specially designed “parts,” “components” or accessories therefor, specially designed for the “development,” “production” or “use” of equipment, functions or features specified by in ECCN 5A001.b.3, .b.5 or .h to any of the eight destinations listed in § 740.20(c)(2) of the EAR.

#### List of Items Controlled

*Unit:* Equipment in number; “parts,” “components” and accessories in \$ value

\* \* \* \* \*

#### Items:

a. Equipment and specially designed “parts,” “components” or accessories therefor, specially designed for the “development,” “production” or “use” of equipment, functions or features, controlled by 5A001.

\* \* \* \* \*

b. Equipment and specially designed “parts,” “components” or accessories

therefor, specially designed for the “development” of any of the following telecommunication transmission or switching equipment:

\* \* \* \* \*

145. In Supplement No. 1 to part 774 (the Commerce Control List), Category 5—Telecommunications and “Information Security,” Part 1—Telecommunications, Export Control Classification Number (ECCN) 5D001 is amended by revising the License Exception TSR paragraph in the License Exceptions section to read as follows:

**5D001 “Software” as follows (see List of Items Controlled).**

\* \* \* \* \*

#### License Exceptions

\* \* \* \* \*

TSR: Yes, except for exports and reexports to destinations outside of those 36 countries listed in § 740.20(c)(1) (License Exception STA) of “software” controlled by 5D001.a and specially designed for items controlled by 5A001.b.5 and 5A001.h.

\* \* \* \* \*

146. In Supplement No. 1 to part 774 (the Commerce Control List), Category 5—Telecommunications and “Information Security,” Part 1—Telecommunications, Export Control Classification Number (ECCN) 5D101 is amended by revising the heading to read as follows:

**5D101 “Software” specially designed or modified for the “use” of equipment controlled by 5A101.**

\* \* \* \* \*

147. In Supplement No. 1 to part 774 (the Commerce Control List), Category 5—Telecommunications and “Information Security,” Part 1—Telecommunications, Export Control Classification Number (ECCN) 5D991 is amended by revising the heading to read as follows:

**5D991 “Software” specially designed or modified for the “development,” “production” or “use” of equipment controlled by 5A991 and 5B991, and dynamic adaptive routing software as described as follows (see List of Items Controlled).**

\* \* \* \* \*

148. In Supplement No. 1 to part 774 (the Commerce Control List), Category 5—Telecommunications and “Information Security,” Part 1—Telecommunications, Export Control Classification Number (ECCN) 5E001 is amended:

a. By revising the introductory text of the License Exception TSR paragraph in the License Exceptions section;

b. By revising “Related Controls” paragraph in the List of Items Controlled section; and

c. By revising the introductory text to “items” paragraph e in the list of Items Controlled section to read as follows:

**5E001 “Technology” as follows (see List of Items Controlled).**

\* \* \* \* \*

**License Exceptions**

\* \* \* \* \*

TSR: Yes, except for exports and reexports to destinations outside of those 36 countries listed in § 740.20(c)(1) (License Exception STA) of “technology” controlled by 5E001.a for the “development” or “production” of the following:

\* \* \* \* \*

**List of Items Controlled**

\* \* \* \* \*

*Related Controls:* (1) Technology defined in 5E001.b.1, 5E001.b.2, 5E001.b.4, or 5E001.c for use on board satellites is “subject to ITAR” (see 22 CFR parts 120 through 130). (2) See also 5E101, 5E980 and 5E991.

\* \* \* \* \*

**Items:**

\* \* \* \* \*

e. “Technology” according to the General Technology Note for the “development” or “production” of electronic devices and circuits, specially designed for telecommunications and containing “parts” or “components” manufactured from “superconductive” materials, specially designed for operation at temperatures below the “critical temperature” of at least one of the “superconductive” constituents and having any of the following:

\* \* \* \* \*

149. In Supplement No. 1 to part 774 (the Commerce Control List), Category 5—Telecommunications and “Information Security,” Part 2—Telecommunications is amended by revising the “Note” 1 and “Note” 4 paragraph 2 that immediately follows the Category 5 Part II—“INFORMATION SECURITY” heading to read as follows:

**CATEGORY 5—TELECOMMUNICATIONS AND “INFORMATION SECURITY”**

**Part II—“INFORMATION SECURITY”**

**Note 1:** The control status of “information security” equipment, “software,” systems, application specific “electronic assemblies,” modules, integrated circuits, “parts,” “components” or functions is determined in Category 5, part 2 even if they are “parts,” “components” or “electronic assemblies” of other equipment.

\* \* \* \* \*

**Note 4:** \* \* \*

\* \* \* \* \*

2. A computer, including operating systems, “parts” and “components” therefor;

\* \* \* \* \*

150. In Supplement No. 1 to part 774 (the Commerce Control List), Category 5—Telecommunications and “Information Security,” Part 2—

Information Security, Export Control Classification Number (ECCN) 5A002 is amended:

a. By revising the heading:

b. By revising the License Exception LVS paragraph in the License Exceptions section; and

c. By revising the introductory text to “items” paragraph a to read as follows:

**5A002 “Information security” systems, equipment, “parts” and “components” therefor, as follows (see List of Items Controlled).**

\* \* \* \* \*

**License Exceptions**

LVS: Yes: \$500 for “parts” and “components”. N/A for systems and equipment.

\* \* \* \* \*

**List of Items Controlled**

\* \* \* \* \*

**Items:**

\* \* \* \* \*

a. Systems, equipment, application specific “electronic assemblies,” modules and integrated circuits for “information security,” as follows, and “parts” and “components” therefor specially designed for “information security”:

\* \* \* \* \*

151. In Supplement No. 1 to part 774 (the Commerce Control List), Category 5—Telecommunications and “Information Security,” Part 2—Information Security, Export Control Classification Number (ECCN) 5A992 is amended by revising “items” paragraph b to read as follows:

**5A992 Equipment not controlled by 5A002.**

\* \* \* \* \*

**List of Items Controlled**

\* \* \* \* \*

**Items:**

\* \* \* \* \*

b. “Information security” equipment, n.e.s., (e.g., cryptographic, cryptanalytic, and cryptologic equipment, n.e.s.) and “parts” and “components” therefor.

\* \* \* \* \*

152. In Supplement No. 1 to part 774 (the Commerce Control List), Category 5—Telecommunications and “Information Security,” Part 2—Information Security, Export Control Classification Number (ECCN) 5D992 is amended by revising the heading to read as follows:

**5D992 “Information Security” “software” not controlled by 5D002 as follows (see List of Items Controlled).**

\* \* \* \* \*

153. In Supplement No. 1 to part 774 (the Commerce Control List), Category 5—Telecommunications and “Information Security,” Part 2—

Information Security, Export Control Classification Number (ECCN) 5E992 is amended by revising the heading to read as follows:

**5E992 “Information Security” “technology” according to the General Technology Note, not controlled by 5E002, as follows (see List of Items Controlled).**

\* \* \* \* \*

154. In Supplement No. 1 to part 774 (the Commerce Control List), Category 6—Sensors and Lasers, Export Control Classification Number (ECCN) 6A001 is amended:

a. By revising the heading; and

b. By revising the introductory text to “items” paragraph a, a.1, a.1.d, and a.2 and the “Note” to a.2.f to read as follows:

**6A001 Acoustic systems, equipment, and “parts” and “components,” as follows (see List of Items Controlled).**

\* \* \* \* \*

**List of Items Controlled**

\* \* \* \* \*

**Items:**

a. Marine acoustic systems, equipment and specially designed “parts” and “components” therefor, as follows:

a.1. Active (transmitting or transmitting and receiving) systems, equipment and specially designed “parts” and “components” therefor, as follows:

\* \* \* \* \*

a.1.d. Acoustic systems and equipment, designed to determine the position of surface vessels or underwater vehicles and having all of the following, and specially designed “parts” and “components” therefor:

\* \* \* \* \*

a.2. Passive systems, equipment and specially designed “parts” and “components” therefor, as follows:

\* \* \* \* \*

**Note:** 6A001.a.2 also applies to receiving equipment, whether or not related in normal application to separate active equipment, and specially designed “parts” and “components” therefor.

\* \* \* \* \*

155. In Supplement No. 1 to part 774 (the Commerce Control List), Category 6—Sensors and Lasers, Export Control Classification Number (ECCN) 6A002 is amended:

a. By revising the heading;

b. By revising the Special Conditions for License Exception STA section; and

c. By revising the “Related Controls” paragraph in the List of Items Controlled section; and

d. By revising the introductory text to “items” paragraphs a.2, a.2.c and d to read as follows:

**6A002 Optical sensors and equipment, “parts” and “components” therefore, as follows (see List of Items Controlled).**

\* \* \* \* \*



**Special Conditions for License Exception STA**

License Exception STA may not be used to ship to any of the eight destinations listed in § 740.20(c)(2) of the EAR any commodity in: 6A002.a.1.a or .b.

\* \* \* \* \*

**List of Items Controlled**

Unit: \* \* \*

**Related Controls:** (1) The following commodities are “subject to the ITAR” (see 22 CFR parts 120 through 130): (a) “Image intensifiers” defined in 6A002.a.2 and “focal plane arrays” defined in 6A002.a.3 specially designed, modified, or configured for military use and not part of civil equipment; (b) “Space qualified” solid-state detectors defined in 6A002.a.1, “space qualified” imaging sensors (e.g., “monospectral imaging sensors” and “multispectral imaging sensors”) defined in 6A002.b.2.b.1, and “space qualified” cryocoolers defined in 6A002.d.1, unless, on or after September 23, 2002, the Department of State issues a commodity jurisdiction determination indicating the commodity is subject to the EAR. (2) See also 6A102, 6A202, and 6A992.

Note: \* \* \*

**Related Definitions:** N/A

Items:

\* \* \* \* \*

a. \* \* \*

a.2. Image intensifier tubes and specially designed “parts” and “components” therefor, as follows:

\* \* \* \* \*

a.2.c. Specially designed “parts” and “components,” as follows:

\* \* \* \* \*

d. Special support “parts” and “components” for optical sensors, as follows:

\* \* \* \* \*

156. In Supplement No. 1 to part 774 (the Commerce Control List), Category 6—Sensors and Lasers, Export Control Classification Number (ECCN) 6A003 is amended:

a. By revising the heading:

b. By adding a Reporting

Requirements section after the License Requirements section; and

c. By revising the introductory text to “items” paragraph a to read as follows:

**6A003 Cameras, systems or equipment, “parts” and “components” therefore, as follows (see List of Items Controlled).**

\* \* \* \* \*

**Reporting Requirements**

See § 743.3 of the EAR for thermal camera reporting for exports that are not authorized by an individually validated license of thermal imaging cameras controlled by ECCN 6A003.b.4.b to Albania, Australia, Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Japan, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, New Zealand, Norway, Poland, Portugal, Romania,

Slovakia, Slovenia, South Africa, South Korea Spain, Sweden, Switzerland, Turkey, or the United Kingdom, must be reported to BIS.

\* \* \* \* \*

**List of Items Controlled**

\* \* \* \* \*

Items:

a. Instrumentation cameras and specially designed “parts” and “components” therefor, as follows:

\* \* \* \* \*

157. In Supplement No. 1 to part 774 (the Commerce Control List), Category 6—Sensors and Lasers, Export Control Classification Number (ECCN) 6A004 is amended:

a. By revising the heading;

b. By revising the “Related Controls” paragraph (2) in the List of Items Controlled section; and

c. By revising “items” paragraph a.1 in the List of Items Controlled section;

d. By revising the introductory text of paragraph b in the List of Items Controlled section;

e. By revising the introductory text of paragraph c in the List of Items Controlled section; and

f. By revising paragraphs c.1, c.4, and

d.1 to read as follows:

d.1 to read as follows:

d.1 to read as follows:

**6A004 Optical equipment, “parts” and “components,” as follows (see List of Items Controlled).**

\* \* \* \* \*

**List of Items Controlled**

Unit: \*\*\*

**Related Controls:** \* \* \* (2) “Space qualified” “parts” and “components” for optical systems defined in 6A004.c and optical control equipment defined in 6A004.d.1 are “subject to the ITAR” (see 22 CFR parts 120 through 130). \* \* \*

**Related Definitions:** \* \* \*

Items:

\* \* \* \* \*

a.1. “Deformable mirrors” having either continuous or multi element surfaces, and specially designed “parts” and “components” therefor, capable of dynamically repositioning portions of the surface of the mirror at rates exceeding 100 Hz;

\* \* \* \* \*

b. Optical “parts” and “components” made from zinc selenide (ZnSe) or zinc sulphide (ZnS) with transmission in the wavelength range exceeding 3,000 nm but not exceeding 25,000 nm and having any of the following:

\* \* \* \* \*

c. “Space-qualified” “parts” and “components” for optical systems, as follows:

c.1. “Parts” and “components” lightweighted to less than 20% “equivalent density” compared with a solid blank of the same aperture and thickness;

\* \* \* \* \*

c.4. “Parts” and “components” manufactured from “composite” materials

having a coefficient of linear thermal expansion equal to or less than  $5 \times 10^{-6}$  in any coordinate direction;

\* \* \* \* \*

d.1. Equipment specially designed to maintain the surface figure or orientation of the “space-qualified” “parts” and “components” controlled by 6A004.c.1 or 6A004.c.3;

\* \* \* \* \*

158. In Supplement No. 1 to part 774 (the Commerce Control List), Category 6—Sensors and Lasers, Export Control Classification Number (ECCN) 6A005 is amended:

a. By revising the heading;

b. By adding a heading Note;

c. By revising the “Related Controls” paragraph (6) in the List of Items Controlled section;

d. By revising the “Note” to “items” paragraph a.6.b; and

e. By revising “items” paragraphs e and f.3 to read as follows:

**6A005 “Lasers,” “parts,” “components” and optical equipment, as follows (see List of Items Controlled).**

**HEADING NOTE:** This entry does not control “lasers” or “laser” systems for the separation of uranium isotopes with a spectrum frequency stabilizer for operation over extended periods of time that are subject to the export licensing authority of the Nuclear Regulatory Commission (see 10 CFR part 110).

\* \* \* \* \*

**List of Items Controlled**

\* \* \* \* \*

**Related Controls:** \* \* \* (6) Shared aperture optical elements, capable of operating in “super-high power laser” applications, and “lasers” specifically designed, modified, or configured for military application are “subject to ITAR” (see 22 CFR parts 120 through 130).

\* \* \* \* \*

Items:

\* \* \* \* \*

a.6.b.2. \* \* \*

**Note:** 6A005.a.6.b does not control multiple transverse mode, industrial “lasers” with output power exceeding 2kW and not exceeding 6 kW with a total mass greater than 1,200 kg. For the purpose of this note, total mass includes all “parts” and “components” required to operate the “laser,” e.g., “laser,” power supply, heat exchanger, but excludes external optics for beam conditioning and/or delivery.

\* \* \* \* \*

e. “Parts” and “components” as follows:

e.1. Mirrors cooled either by ‘active cooling’ or by heat pipe cooling;

**Technical Note:** ‘Active cooling’ is a cooling technique for optical “parts” and “components” using flowing fluids within the subsurface (nominally less than 1 mm below the optical surface) of the optical “part” or “component” to remove heat from the optic.

e.2. Optical mirrors or transmissive or partially transmissive optical or electro-

optical “parts” and “components,” specially designed for use with controlled “lasers”;

\* \* \* \* \*

f.3. Optical equipment, and “parts” and “components,” specially designed for a phased array “SHPL” system for coherent beam combination to an accuracy of  $\lambda/10$  at the designed wavelength, or 0.1  $\mu\text{m}$ , whichever is the smaller;

\* \* \* \* \*

159. In Supplement No. 1 to part 774 (the Commerce Control List), Category 6—Sensors and Lasers, Export Control Classification Number (ECCN) 6A006 is amended by revising the heading to read as follows:

**6A006 “Magnetometers,” “magnetic gradiometers,” “intrinsic magnetic gradiometers,” underwater electric field sensors, “compensation systems” as follows (see List of Items Controlled), and specially designed “parts” and “components” therefor.**

\* \* \* \* \*

160. In Supplement No. 1 to part 774 (the Commerce Control List), Category 6—Sensors and Lasers, Export Control Classification Number (ECCN) 6A008 is amended by revising the heading to read as follows:

**6A008 Radar systems, equipment and assemblies, having any of the following (see List of Items Controlled), and specially designed “parts” and “components” therefor.**

\* \* \* \* \*

161. In Supplement No. 1 to part 774 (the Commerce Control List), Category 6—Sensors and Lasers, Export Control Classification Number (ECCN) 6A102 is amended by revising the “Unit” paragraph in the List of Items Controlled section to read as follows:

**6A102 Radiation hardened detectors, other than those controlled by 6A002, specially designed or modified for protecting against nuclear effects (e.g., Electromagnetic Pulse (EMP), X-rays, combined blast and thermal effects) and usable for “missiles,” designed or rated to withstand radiation levels which meet or exceed a total irradiation dose of  $5 \times 10^5$  rads (silicon).**

\* \* \* \* \*

#### List of Items Controlled

*Unit:* “Parts” and “components” in number

\* \* \* \* \*

162. In Supplement No. 1 to part 774 (the Commerce Control List), Category 6—Sensors and Lasers, Export Control Classification Number (ECCN) 6A103 is amended by revising the heading to read as follows:

**6A103 Radomes designed to withstand a combined thermal shock greater than 100 cal/sq cm accompanied by a peak over pressure of greater than 50 kPa,**

**usable in protecting “missiles” against nuclear effects (e.g., Electromagnetic Pulse (EMP), X-rays, combined blast and thermal effects), and usable for “missiles.” (These items are “subject to the ITAR.” See 22 CFR parts 120 through 130.)**

\* \* \* \* \*

163. In Supplement No. 1 to part 774 (the Commerce Control List), Category 6—Sensors and Lasers, Export Control Classification Number (ECCN) 6A107 is amended:

- By revising the heading; and
- By revising “items” paragraph b to read as follows:

**6A107 Gravity meters (gravimeters) and specially designed “parts” and “components” for gravity meters and gravity gradiometers, as follows (see List of Items Controlled).**

\* \* \* \* \*

#### List of Items Controlled

\* \* \* \* \*

#### Items:

\* \* \* \* \*

- Specially designed “parts” and “components” for gravity meters controlled in 6A007.b or 6A107.a and gravity gradiometers controlled in 6A007.c.

\* \* \* \* \*

164. In Supplement No. 1 to part 774 (the Commerce Control List), Category 6—Sensors and Lasers, Export Control Classification Number (ECCN) 6A108 is amended by revising the “Related Controls” paragraph (2) in the List of Items Controlled section to read as follows:

**6A108 Radar systems and tracking systems, other than those controlled by 6A008, as follows (see List of Items Controlled).**

\* \* \* \* \*

#### List of Items Controlled

*Unit:* \* \* \*

*Related Controls:* \* \* \* (2) Items in 6A108.a that are specially designed or modified for “missiles” or for items on the U.S. Munitions List are “subject to the ITAR” (see 22 CFR parts 120 through 130).

\* \* \* \* \*

165. In Supplement No. 1 to part 774 (the Commerce Control List), Category 6—Sensors and Lasers, Export Control Classification Number (ECCN) 6A203 is amended:

- By revising the heading;
- By revising the “unit” paragraph in the List of Items Controlled section; and
- By revising the introductory text to “items” paragraph a and the Note to paragraph a to read as follows:

**6A203 Cameras and “parts” and “components,” other than those**

**controlled by 6A003, as follows (see List of Items Controlled).**

\* \* \* \* \*

#### List of Items Controlled

*Unit:* Equipment, “parts” and “components” in number

\* \* \* \* \*

#### Items:

\* \* \* \* \*

- Mechanical rotating mirror cameras, as follows, and specially designed “parts” and “components” therefor:

\* \* \* \* \*

**Note:** “Parts” and “components” of cameras controlled by 6A203.a include their synchronizing electronics units and rotor assemblies consisting of turbines, mirrors and bearings.

\* \* \* \* \*

166. In Supplement No. 1 to part 774 (the Commerce Control List), Category 6—Sensors and Lasers, Export Control Classification Number (ECCN) 6A205 is amended by revising the heading to read as follows:

**6A205 “Lasers,” “laser” amplifiers and oscillators, other than lasers used in plants for the separation of isotopes of “natural uranium” and “depleted uranium,” “special fissile materials” and “other fissile materials,” and specially designed or prepared equipment, “parts” and “components” therefor that are subject to the export licensing authority of the Nuclear Regulatory Commission (see 10 CFR part 110) or 6A005, as follows (see List of Items Controlled).**

\* \* \* \* \*

167. In Supplement No. 1 to part 774 (the Commerce Control List), Category 6—Sensors and Lasers, Export Control Classification Number (ECCN) 6A225 is amended by revising the “Unit” paragraph in the List of Items Controlled section to read as follows:

**6A225 Velocity interferometers for measuring velocities exceeding 1 km/s during time intervals of less than 10 microseconds.**

\* \* \* \* \*

#### List of Items Controlled

*Unit:* Equipment in number

\* \* \* \* \*

168. In Supplement No. 1 to part 774 (the Commerce Control List), Category 6—Sensors and Lasers, Export Control Classification Number (ECCN) 6A226 is amended by revising the “Unit” paragraph in the List of Items Controlled section to read as follows:

**6A226 Pressure sensors, as follows (see List of Items Controlled).**

\* \* \* \* \*

**List of Items Controlled***Unit:* Equipment in number

\* \* \* \* \*

169. In Supplement No. 1 to part 774 (the Commerce Control List), Category 6—Sensors and Lasers, Export Control Classification Number (ECCN) 6A991 is amended by revising the heading to read as follows:

**6A991 Marine or terrestrial acoustic equipment, n.e.s., capable of detecting or locating underwater objects or features or positioning surface vessels or underwater vehicles; and specially designed “parts” and “components,” n.e.s.**

\* \* \* \* \*

170. In Supplement No. 1 to part 774 (the Commerce Control List), Category 6—Sensors and Lasers, Export Control Classification Number (ECCN) 6A992 is amended:

- a. By revising the heading to read;
- b. By revising the “Unit” paragraph in the List of Items Controlled section; and
- c. By revising the introductory text to “items” paragraph a to read as follows:

**6A992 Optical Sensors, not controlled by 6A002, as follows (see List of Items Controlled).**

\* \* \* \* \*

**List of Items Controlled***Unit:* Equipment in number; “parts,” “components” and accessories in \$ value

\* \* \* \* \*

*Items:*

\* \* \* \* \*

- a. Image intensifier tubes and specially designed “parts” and “components” therefor, as follows:

\* \* \* \* \*

171. In Supplement No. 1 to part 774 (the Commerce Control List), Category 6—Sensors and Lasers, Export Control Classification Number (ECCN) 6A994 is amended:

- a. By revising the heading; and
- b. By revising the “Unit” paragraph in the List of Items Controlled section to read as follows:

**6A994 Optics, not controlled by 6A004, as follows (see List of Items Controlled).**

\* \* \* \* \*

**List of Items Controlled***Unit:* Equipment in number

\* \* \* \* \*

172. In Supplement No. 1 to part 774 (the Commerce Control List), Category 6—Sensors and Lasers, Export Control Classification Number (ECCN) 6A995 is amended:

- a. By revising the heading;
- b. By revising the “Unit” paragraph in the List of Items Controlled section; and

- c. By revising the “Note” following “items” paragraph e.2.b to read as follows:

**6A995 “Lasers” as follows (see List of Items Controlled).**

\* \* \* \* \*

**List of Items Controlled***Unit:* Equipment in number

\* \* \* \* \*

*Items:*

\* \* \* \* \*

e.2.b. \* \* \*

**Note:** 6A995.e.2.b does not control multiple transverse mode, industrial “lasers” with output power less than or equal to 2kW with a total mass greater than 1,200kg. For the purpose of this note, total mass includes all “parts” and “components” required to operate the “laser,” e.g., “laser,” power supply, heat exchanger, but excludes external optics for beam conditioning and/or delivery.

\* \* \* \* \*

173. In Supplement No. 1 to part 774 (the Commerce Control List), Category 6—Sensors and Lasers, Export Control Classification Number (ECCN) 6A996 is amended:

- a. By revising the heading; and
- b. By revising the introductory text to “Items” paragraph b to read as follows:

**6A996 “Magnetometers” not controlled by ECCN 6A006, “Superconductive” electromagnetic sensors as follows (see List of Items Controlled), and specially designed “parts” and “components” therefor.**

\* \* \* \* \*

**List of Items Controlled***Unit:* Equipment in number

\* \* \* \* \*

*Items:*

\* \* \* \* \*

- b. “Superconductive” electromagnetic sensors, “parts” and “components” manufactured from “superconductive” materials:

\* \* \* \* \*

174. In Supplement No. 1 to part 774 (the Commerce Control List), Category 6—Sensors and Lasers, Export Control Classification Number (ECCN) 6A997 is amended by revising the heading to read as follows:

**6A997 Gravity meters (gravimeters) for ground use, n.e.s., as follows (see List of Items Controlled).**

\* \* \* \* \*

175. In Supplement No. 1 to part 774 (the Commerce Control List), Category 6—Sensors and Lasers, Export Control Classification Number (ECCN) 6A998 is amended:

- a. By revising the heading; and
- b. By revising “items” paragraph a to read as follows:

**6A998 Radar systems, equipment and “major components” n.e.s., and specially designed “parts” and “components” therefor, as follows (see List of Items Controlled).**

\* \* \* \* \*

**List of Items Controlled**

\* \* \* \* \*

*Items:*

\* \* \* \* \*

- a. Airborne radar equipment, n.e.s., and specially designed “parts” and “components” therefor.

\* \* \* \* \*

176. In Supplement No. 1 to part 774 (the Commerce Control List), Category 6—Sensors and Lasers, Export Control Classification Number (ECCN) 6B008 is amended by revising the heading to read as follows:

**6B008 Pulse radar cross section measurement systems having transmit pulse widths of 100 ns or less, and specially designed “parts” and “components” therefor.**

\* \* \* \* \*

177. In Supplement No. 1 to part 774 (the Commerce Control List), Category 6—Sensors and Lasers, Export Control Classification Number (ECCN) 6B995 is amended:

- a. By revising the heading; and
- b. By revising the “Unit” paragraph in the List of Items Controlled section to read as follows:

**6B995 Specially designed or modified equipment (see List of Items Controlled), including tools, dies, fixtures or gauges, and other specially designed “parts,” “components” and accessories therefor as follows (see List of Items Controlled).**

\* \* \* \* \*

**List of Items Controlled***Unit:* Equipment in number; “parts,” “components” and accessories in \$ value

\* \* \* \* \*

178. In Supplement No. 1 to part 774 (the Commerce Control List), Category 6—Sensors and Lasers, Export Control Classification Number (ECCN) 6C992 is amended:

- a. By revising the heading; and
- b. By revising the “Unit” paragraph in the List of Items Controlled section to read as follows:

**6C992 Optical sensing fibers not controlled by 6A002.d.3 that are modified structurally to have a ‘beat length’ of less than 500 mm (high birefringence) or optical sensor materials not described in 6C002.b and having a zinc content of equal to or more than 6% by ‘mole fraction.’**

\* \* \* \* \*

**List of Items Controlled**

Unit: Equipment in number

\* \* \* \* \*

179. In Supplement No. 1 to part 774 (the Commerce Control List), Category 6—Sensors and Lasers, Export Control Classification Number (ECCN) 6C994 is amended:

- By revising the heading; and
- By revising the “Unit” paragraph in the List of Items Controlled section to read as follows:

**6C994 Optical materials, as follows (see List of Items Controlled).**

\* \* \* \* \*

**List of Items Controlled**

Unit: Equipment in number; and accessories in \$ value

\* \* \* \* \*

180. In Supplement No. 1 to part 774 (the Commerce Control List), Category 6—Sensors and Lasers, Export Control Classification Number (ECCN) 6D001 is amended:

- By revising the License Exception TSR paragraph (3) in the License Exceptions section; and
- By revising the “Related Controls” paragraph in the List of Items Controlled section to read as follows:

**6D001 “Software” specially designed for the “development” or “production” of equipment controlled by 6A004, 6A005, 6A008 or 6B008.**

\* \* \* \* \*

**License Exceptions**

CIV: \* \* \*

TSR: Yes, except for the following:

\* \* \* \* \*

(3) Exports or reexports to destinations outside of those 36 countries listed in § 740.20(c)(1) (License Exception STA) of “software” specially designed for the “development” or “production” of equipment controlled by 6A004.c or d, 6A008.d, h, k or 6B008.

\* \* \* \* \*

**List of Items Controlled**

\* \* \* \* \*

*Related Controls:* (1) “Software” specially designed for the “development” or “production” of “space qualified” “parts” and “components” for optical systems defined in 6A004.c and “space qualified” optical control equipment defined in 6A004.d.1 is “subject to the ITAR” (see 22 CFR parts 120 through 130). (2) See also 6D991, and ECCN 6E001 (“development”) for “technology” for items controlled under this entry.

\* \* \* \* \*

181. In Supplement No. 1 to part 774 (the Commerce Control List), Category 6—Sensors and Lasers, Export Control Classification Number (ECCN) 6D002 is amended by revising the “Related

Controls” paragraph in the List of Items Controlled section to read as follows:

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

\* \* \* \* \*

**List of Items Controlled**

Unit: \* \* \*

*Related Controls:* (1) “Software” specially designed for the “use” of “space qualified” imaging sensors (e.g., “monospectral imaging sensors” and “multispectral imaging sensors”) defined in 6A002.b.2.b.1 is “subject to the ITAR” (see 22 CFR parts 120 through 130), unless, on or after September 23, 2002, the Department of State issues a commodity jurisdiction determination indicating the “software” is subject to the EAR. (2) “Software” specially designed for the “use” of “space qualified” LIDAR equipment specially designed for surveying or for meteorological observation, released from control under the note in 6A008.j, is controlled in 6D991. (3) See also 6D102, 6D991, and 6D992.

\* \* \* \* \*

182. In Supplement No. 1 to part 774 (the Commerce Control List), Category 6—Sensors and Lasers, Export Control Classification Number (ECCN) 6D003 is amended by revising the License Exception TSR paragraph in the License Exceptions section to read as follows:

**6D003 Other “software” as follows (see List of Items Controlled).**

\* \* \* \* \*

**License Exceptions**

\* \* \* \* \*

TSR: Yes, except for exports or reexports to destinations outside of those 36 countries listed in § 740.20(c)(1) (License Exception STA) of “software” for items controlled by 6D003.a.

\* \* \* \* \*

183. In Supplement No. 1 to part 774 (the Commerce Control List), Category 6—Sensors and Lasers, Export Control Classification Number (ECCN) 6D102 is amended by revising the heading to read as follows:

**6D102 “Software” specially designed or modified for the “use” of equipment controlled by 6A108.**

\* \* \* \* \*

184. In Supplement No. 1 to part 774 (the Commerce Control List), Category 6—Sensors and Lasers, Export Control Classification Number (ECCN) 6D993 is amended by revising the heading to read as follows:

**6D993 Other “software,” not controlled by 6D003, as follows (see List of Items Controlled).**

\* \* \* \* \*

185. In Supplement No. 1 to part 774 (the Commerce Control List), Category 6—Sensors and Lasers, Export Control Classification Number (ECCN) 6D994 is removed.

186. In Supplement No. 1 to part 774 (the Commerce Control List), Category 6—Sensors and Lasers, Export Control Classification Number (ECCN) 6E001 is amended:

- By revising the License Exception TSR paragraph (4) introductory text in the License Exceptions section; and
- By revising the “Related Controls” paragraph in the List of Items Controlled section to read as follows:

**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, or 6A998), 6B (except 6B995), 6C (except 6C992 or 6C994), or 6D (except 6D991, 6D992, or 6D993).**

\* \* \* \* \*

**License Exceptions**

\* \* \* \* \*

TSR: Yes, except for the following:

\* \* \* \* \*

(4) Exports or reexports to destinations outside of those 36 countries listed in § 740.20(c)(1) (License Exception STA) of “technology” for the “development” of the following:

\* \* \* \* \*

**List of Items Controlled**

\* \* \* \* \*

*Related Controls:* (1) “Technology” according to the General Technology Note for the “development” of the following commodities is “subject to the ITAR” (see 22 CFR parts 120 through 130): “Space qualified” (a) “Parts” and “components” for optical systems defined in 6A004.c and optical control equipment defined in 6A004.d.1.; (b) Solid-state detectors defined in 6A002.a.1, “imaging sensors” (e.g., “monospectral imaging sensors” and “multispectral imaging sensors”) defined in 6A002.b.2.b.1, and cryocoolers defined in 6A002.d.1 unless on or after September 23, 2002, the Department of State issues a commodity jurisdiction determination indicating the “technology” is subject to the EAR. (2) See also 6E101, 6E201, and 6E991.

\* \* \* \* \*

187. In Supplement No. 1 to part 774 (the Commerce Control List), Category 6—Sensors and Lasers, Export Control Classification Number (ECCN) 6E002 is amended:

- By revising the License Exception TSR paragraph (3) introductory text in the License Exceptions section; and
- By revising the “Related Controls” paragraph in the List of Items Controlled section to read as follows:

**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 or 6A998), 6B (except 6B995) or 6C (except 6C992 or 6C994).

\* \* \* \* \*

#### License Exceptions

\* \* \* \* \*

TSR: Yes, except for the following:

\* \* \* \* \*

(3) Exports or reexports to destinations outside of those 36 countries listed in § 740.20(c)(1) (License Exception STA) of “technology” for the “development” of the following:

\* \* \* \* \*

#### List of Items Controlled

\* \* \* \* \*

*Related Controls:* (1) “Technology” according to the General Technology Note for the “production” of the following commodities is “subject to the ITAR” (see 22 CFR parts 120 through 130) when intended for use on a satellite: “Space qualified” (a) “Parts” and “components” for optical systems defined in 6A004.c and optical control equipment defined in 6A004.d.1; (b) Solid-state detectors defined in 6A002.a.1, “imaging sensors” (e.g., “monospectral imaging sensors” and “multispectral imaging sensors”) defined in 6A002.b.2.b.1, and cryocoolers defined in 6A002.d.1 unless on or after September 23, 2002, the Department of State issues a commodity jurisdiction determination indicating the “technology” is subject to the EAR. (2) See also 6E992.

\* \* \* \* \*

188. In Supplement No. 1 to part 774 (the Commerce Control List), Category 6—Sensors and Lasers, Export Control Classification Number (ECCN) 6E993 is amended by revising the introductory text to “items” paragraph a to read as follows:

**6E993 Other “technology,” not controlled by 6E003, as follows (see List of Items Controlled).**

\* \* \* \* \*

#### List of Items Controlled

\* \* \* \* \*

#### Items:

\* \* \* \* \*

a. Optical fabrication technologies for serially producing optical “parts” and “components” at a rate exceeding 10 m<sup>2</sup> of surface area per year on any single spindle and having all of the following:

\* \* \* \* \*

189. In Supplement No. 1 to part 774 (the Commerce Control List), Category 7—Navigation and Avionics, Export Control Classification Number (ECCN) 7A001 is amended by revising the heading to read as follows:

**7A001 Accelerometers as follows (see List of Items Controlled) and specially**

designed “parts” and “components” therefor.

\* \* \* \* \*

190. In Supplement No. 1 to part 774 (the Commerce Control List), Category 7—Navigation and Avionics, Export Control Classification Number (ECCN) 7A002 is amended by revising the heading to read as follows:

**7A002 Gyros or angular rate sensors, having any of the following (see List of Items Controlled) and specially designed “parts” and “components” therefor.**

\* \* \* \* \*

191. In Supplement No. 1 to part 774 (the Commerce Control List), Category 7—Navigation and Avionics, Export Control Classification Number (ECCN) 7A003 is amended:

- By revising the heading;
- By revising the “Related Controls” paragraph in the List of Items Controlled section; and
- By revising the introductory text to “items” paragraphs a and c to read as follows:

**7A003 Inertial systems and specially designed “parts” and “components,” as follows (see List of Items Controlled).**

\* \* \* \* \*

#### List of Items Controlled

\* \* \* \* \*

*Related Controls:* (1) See also 7A103 and 7A994. (2) Inertial Navigation Systems (INS) and inertial equipment, and specially designed “parts” and “components” therefor specifically designed, modified or configured for military use are “subject to the ITAR” (see 22 CFR parts 120 through 130).

\* \* \* \* \*

#### Items:

a. Inertial Navigation Systems (INS) (gimballed or strapdown) and inertial equipment, designed for “aircraft,” land vehicles, vessels (surface or underwater) or “spacecraft,” for navigation, attitude, guidance or control and having any of the following and specially designed “parts” and “components” therefor:

\* \* \* \* \*

c. Inertial measurement equipment for heading or True North determination and having any of the following, and specially designed “parts” and “components” therefor:

\* \* \* \* \*

192. In Supplement No. 1 to part 774 (the Commerce Control List), Category 7—Navigation and Avionics, Export Control Classification Number (ECCN) 7A004 is amended:

- By revising the heading; and
- By revising the “items” paragraph b in the List of Items Controlled section to read as follows:

**7A004 ‘Star trackers’ and “parts and “components” therefor, as follows (see List of Items Controlled).**

\* \* \* \* \*

#### List of Items Controlled

\* \* \* \* \*

#### Items:

\* \* \* \* \*

b. “Parts” and “components” specially designed for equipment specified in 7A004.a as follows:

\* \* \* \* \*

193. In Supplement No. 1 to part 774 (the Commerce Control List), Category 7—Navigation and Avionics, Export Control Classification Number (ECCN) 7A005 is amended:

- By revising the heading;
- By revising the License Requirements section;
- By revising the “Related Controls” paragraph; and
- By revising the “Note” to “items” paragraph b in the List of Items Controlled section to read as follows:

**7A005 Global Navigation Satellite Systems (GNSS) receiving equipment having any of the following (see List of Items Controlled) and specially designed “parts” and “components” therefor.**

\* \* \* \* \*

#### License Requirements

These items are “subject to the ITAR” (see 22 CFR parts 120 through 130).

#### List of Items Controlled

\* \* \* \* \*

*Related Controls:* (1) See also 7A105 and 7A994. Typically commercially available GPS do not employ decryption or adaptive antenna and are classified as 7A994. (2) For equipment specially designed for military use, see Categories XI and XV of the U.S. Munitions List (22 CFR 121).

\* \* \* \* \*

#### Items:

\* \* \* \* \*

b. **Note:** 7A005.b does not apply to GNSS receiving equipment that only uses “parts” and “components” designed to filter, switch, or combine signals from multiple omnidirectional antennae that do not implement adaptive antenna techniques.

\* \* \* \* \*

194. In Supplement No. 1 to part 774 (the Commerce Control List), Category 7—Navigation and Avionics, Export Control Classification Number (ECCN) 7A008 is amended by revising the heading to read as follows:

**7A008 Underwater sonar navigation systems using Doppler velocity or correlation velocity logs integrated with a heading source and having a positioning accuracy of equal to or less (better) than 3% of distance traveled “Circular Error Probable” (“CEP”) and**

**specially designed “parts” and “components” therefor.**

\* \* \* \* \*

195. In Supplement No. 1 to part 774 (the Commerce Control List), Category 7—Navigation and Avionics, Export Control Classification Number (ECCN) 7A101 is amended:

a. By revising the heading; and

b. By revising the introductory text to “items” paragraph a to read as follows:

**7A101 Accelerometers, other than those controlled by 7A001 (see List of Items Controlled), and specially designed “parts” and “components” therefor.**

\* \* \* \* \*

**List of Items Controlled**

\* \* \* \* \*

*Items:*

a. Linear accelerometers designed for use in inertial navigation systems or in guidance systems of all types, usable in “missiles” having all of the following characteristics, and specially designed “parts” and “components” therefor:

\* \* \* \* \*

196. In Supplement No. 1 to part 774 (the Commerce Control List), Category 7—Navigation and Avionics, Export Control Classification Number (ECCN) 7A102 is amended by revising the heading to read as follows:

**7A102 Gyros, other than those controlled by 7A002 (see List of Items Controlled), and specially designed “parts” and “components” therefor.**

\* \* \* \* \*

197. In Supplement No. 1 to part 774 (the Commerce Control List), Category 7—Navigation and Avionics, Export Control Classification Number (ECCN) 7A103 is amended:

a. By revising the heading;

b. By revising the “Related Controls” paragraph in the List of Items Controlled section; and

c. By revising “items” paragraph a and b and the introductory text to the “Technical Note” paragraph at the end of the “items” paragraph in the List of Items Controlled section to read as follows:

**7A103 Instrumentation, navigation equipment and systems, other than those controlled by 7A003, and specially designed “parts” and “components” therefor, as follows (see List of Items Controlled).**

\* \* \* \* \*

**List of Items Controlled**

*Unit:* \* \* \*

*Related Controls:* (1) See ECCN 7A003 and 7A994. (2) For rockets, missiles, or unmanned aerial vehicles controlled under the U.S. Munitions List (USML), items described in 7A103.b are “subject to the ITAR” (see 22 CFR parts 120 through 130).

(3) Inertial navigation systems and inertial equipment, and specially designed “parts” and “components” therefor specifically designed, modified or configured for military use are “subject to the ITAR” (see 22 CFR parts 120 through 130).

\* \* \* \* \*

*Items:*

\* \* \* \* \*

a. Inertial or other equipment using accelerometers or gyros controlled by 7A001, 7A002, 7A101 or 7A102 and systems incorporating such equipment, and specially designed “parts” and “components” therefor;

b. Integrated flight instrument systems, which include gyrostabilizers or automatic pilots, designed or modified for use in rockets, missiles, or unmanned aerial vehicles capable of achieving a “range” equal to or greater than 300 km, and specially designed “parts” and “components” therefor.

c. \* \* \*

**Technical Note:** An “integrated navigation system” typically incorporates the following “parts” and “components”:

\* \* \* \* \*

198. In Supplement No. 1 to part 774 (the Commerce Control List), Category 7—Navigation and Avionics, Export Control Classification Number (ECCN) 7A104 is amended:

a. By revising the heading; and

b. By revising the “Related Controls” paragraph in the List of Items Controlled section to read as follows:

**7A104 Gyro-astro compasses and other devices, other than those controlled by 7A004, which derive position or orientation by means of automatically tracking celestial bodies or satellites and specially designed “parts” and “components” therefor.**

\* \* \* \* \*

**List of Items Controlled**

\* \* \* \* \*

*Related Controls:* This entry controls specially designed “parts” and “components” for gyro-astro compasses and other devices controlled by 7A004.

\* \* \* \* \*

199. In Supplement No. 1 to part 774 (the Commerce Control List), Category 7—Navigation and Avionics, Export Control Classification Number (ECCN) 7A105 is amended by revising the heading to read as follows:

**7A105 Receiving equipment for Global Navigation Satellite Systems (GNSS) (e.g. GPS, GLONASS, or Galileo) having any of the following characteristics, and specially designed “parts” and “components” therefor. (These items are “subject to the ITAR.” See 22 CFR parts 120 through 130.)**

200. In Supplement No. 1 to part 774 (the Commerce Control List), Category 7—Navigation and Avionics, Export Control Classification Number (ECCN) 7A106 is amended by revising the heading to read as follows:

**7A106 Altimeters, other than those controlled by 7A006, of radar or laser radar type, designed or modified for use in “missiles”. (These items are “subject to the ITAR.” See 22 CFR parts 120 through 130.)**

201. In Supplement No. 1 to part 774 (the Commerce Control List), Category 7—Navigation and Avionics, Export Control Classification Number (ECCN) 7A107 is amended by revising the heading to read as follows:

**7A107 Three axis magnetic heading sensors having all of the following characteristics (see List of Items Controlled), and specially designed “parts” and “components” therefor.**

\* \* \* \* \*

202. In Supplement No. 1 to part 774 (the Commerce Control List), Category 7—Navigation and Avionics, Export Control Classification Number (ECCN) 7A115 is amended by revising the heading to read as follows:

**7A115 Passive sensors for determining bearing to specific electromagnetic sources (direction finding equipment) or terrain characteristics, designed or modified for use in “missiles”. (These items are “subject to the ITAR.” See 22 CFR parts 120 through 130.)**

203. In Supplement No. 1 to part 774 (the Commerce Control List), Category 7—Navigation and Avionics, Export Control Classification Number (ECCN) 7A116 is amended by revising the heading to read as follows:

**7A116 Flight control systems (hydraulic, mechanical, electro-optical, or electro-mechanical flight control systems (including fly-by-wire systems) and attitude control equipment) designed or modified for “missiles”. (These items are “subject to the ITAR.” See 22 CFR parts 120 through 130.)**

204. In Supplement No. 1 to part 774 (the Commerce Control List), Category 7—Navigation and Avionics, Export Control Classification Number (ECCN) 7A117 is amended by revising the heading to read as follows:

**7A117 “Guidance sets” capable of achieving system accuracy of 3.33% or less of the range (e.g., a “CEP” of 10 km or less at a “range” of 300 km). (These items are “subject to the ITAR.” See 22 CFR parts 120 through 130.)**

205. In Supplement No. 1 to part 774 (the Commerce Control List), Category 7—Navigation and Avionics, Export Control Classification Number (ECCN) 7A994 is amended:

a. By redesignating the introductory text of the License Requirement Note in the License Requirements section as License Requirement Note 1;

b. By adding a License Requirement Note 2 in the License Requirements section; and

c. By revising the “Related Controls” paragraph in the List of Items Controlled section to read as follows:

**7A994 Other navigation direction finding equipment, airborne communication equipment, all aircraft inertial navigation systems not controlled under 7A003 or 7A103, and other avionics equipment, including “parts” and “components,” n.e.s.**

#### License Requirements

\* \* \* \* \*

#### License Requirement Notes

\* \* \*

(2) Typically commercially available GPS do not employ decryption or adaptive antenna and are classified as 7A994.

\* \* \* \* \*

#### List of Items Controlled

\* \* \* \* \*

*Related Controls:* (1) See also 7A005 and 7A105. (2) QRS11 Micromachined Angular Rate Sensors are “subject to the ITAR” (see 22 CFR parts 120 through 130), unless the QRS11-00100-100/101 is integrated into and included as an integral “component” of a commercial primary or standby instrument system of the type described in ECCN 7A994, or aircraft of the type described in ECCN 9A991 that incorporates such systems, or is exported solely for integration into such a system; or the QRS11-00050-443/569 is integrated into an automatic flight control system of the type described in ECCN 7A994, or aircraft of the type described in ECCN 9A991 that incorporates such systems, or are exported solely for integration into such a system. (See Commodity Jurisdiction requirements in 22 CFR Parts 121; Category VIII(e), Note(1).) In the latter case, such items are subject to the EAR. Technology specific to the development and production of QRS11 sensors remains “subject to the ITAR” (see 22 CFR parts 120 through 130).

\* \* \* \* \*

206. In Supplement No. 1 to part 774 (the Commerce Control List), Category 7—Navigation and Avionics, Export Control Classification Number (ECCN) 7B003 is amended by revising the “Related Controls” paragraph (1) in the List of Items Controlled section to read as follows:

**7B003 Equipment specially designed for the “production” of equipment controlled by 7A (except 7A994).**

\* \* \* \* \*

#### List of Items Controlled

\* \* \* \* \*

*Related Controls:* (1) See also 7B103, (this entry is “subject to the ITAR” (see 22 CFR parts 120 through 130)) and 7B994.

\* \* \* \* \*

207. In Supplement No. 1 to part 774 (the Commerce Control List), Category 7—Navigation and Avionics, Export Control Classification Number (ECCN) 7B103 is amended by revising the heading to read as follows:

**7B103 Specially designed “production facilities” for equipment controlled by 7A117. (These items are “subject to the ITAR.” See 22 CFR parts 120 through 130.)**

208. In Supplement No. 1 to part 774 (the Commerce Control List), Category 7—Navigation and Avionics, Export Control Classification Number (ECCN) 7D001 is amended:

a. By revising the “RS” paragraph in the License Requirements section; and  
b. By revising the “Related Controls” paragraphs (2) and (3) in the List of Items Controlled section to read as follows:

**7D001 “Software” specially designed or modified for the “development” or “production” of equipment controlled by 7A (except 7A994) or 7B (except 7B994).**

#### License Requirements

*Reason for Control:* \* \* \*

Control(s)	Country chart
* * *	* * *
RS applies to “software” for inertial navigation systems, inertial equipment, and specially designed “parts” and “components” therefor, for “civil aircraft”.	RS Column 1.
* * *	* * *

#### List of Items Controlled

\* \* \* \* \*

*Related Controls:* \* \* \* (2) The “software” related to 7A003.b, 7A005, 7A103.b, 7A105, 7A106, 7A115, 7A116, 7A117, or 7B103 is “subject to the ITAR” (see 22 CFR parts 120 through 130). (3) “Software” for inertial navigation systems and inertial equipment, and specially designed “parts” or “components” therefor, not for use on civil aircraft is “subject to the ITAR” (see 22 CFR parts 120 through 130).

\* \* \* \* \*

209. In Supplement No. 1 to part 774 (the Commerce Control List), Category 7—Navigation and Avionics, Export Control Classification Number (ECCN) 7D003 is amended by adding a Reporting Requirements section after

the License Requirements section to read as follows:

**7D003 Other “software” as follows (see List of Items Controlled).**

\* \* \* \* \*

#### Reporting Requirements

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

\* \* \* \* \*

210. In Supplement No. 1 to part 774 (the Commerce Control List), Category 7—Navigation and Avionics, Export Control Classification Number (ECCN) 7D101 is amended:

a. By revising the MT paragraph in the Control(s) paragraph of the License Requirements section; and

b. By revising the “Related Controls” paragraph in the List of Items Controlled section to read as follows:

**7D101 “Software” specially designed or modified for the “use” of equipment controlled by 7A001 to 7A006, 7A101 to 7A107, 7A115, 7A116, 7A117, 7B001, 7B002, 7B003, 7B101, 7B102, or 7B103.**

#### License Requirements

*Reason for Control:* \* \* \*

Control(s)	Country chart
* * *	* * *
MT applies to “software” for commodities controlled for MT reasons.	MT Column 1.
* * *	* * *

#### List of Items Controlled

\* \* \* \* \*

*Related Controls:* (1) The “software” related to 7A003.b, 7A005, 7A103.b, 7A105, 7A106, 7A115, 7A116, 7A117, or 7B103 is “subject to the ITAR” (see 22 CFR parts 120 through 130). (2) “Software” for inertial navigation systems and inertial equipment, and specially designed “parts” and “components” therefor, not designed for use on civil aircraft by civil aviation authorities of a country listed in Country Group A:1 is “subject to the ITAR” (see 22 CFR parts 120 through 130).

\* \* \* \* \*

211. In Supplement No. 1 to part 774 (the Commerce Control List), Category 7—Navigation and Avionics, Export Control Classification Number (ECCN) 7D102 is amended by revising the “Related Controls” paragraph in the List of Items Controlled section to read as follows:



**7D102 Integration “software,” as follows  
(See List of Items Controlled).**

\* \* \* \* \*

**List of Items Controlled**

\* \* \* \* \*

*Related Controls:* The “software” related to 7A003.b or 7A103.b is “subject to the ITAR” (see 22 CFR parts 120 through 130).

\* \* \* \* \*

212. In Supplement No. 1 to part 774 (the Commerce Control List), Category 7—Navigation and Avionics, Export Control Classification Number (ECCN) 7D103 is amended by revising the heading to read as follows:

**7D103 “Software” specially designed for modelling or simulation of the “guidance sets” controlled by 7A117 or for their design integration with “missiles”. (This entry is “subject to the ITAR.” See 22 CFR parts 120 through 130.)**

213. In Supplement No. 1 to part 774 (the Commerce Control List), Category 7—Navigation and Avionics, Export Control Classification Number (ECCN) 7E001 is amended:

- a. By revising the RS paragraph in the License Requirements section;
- b. By adding a Reporting Requirements section after the License Requirements section; and
- c. By revising the “Related Controls” paragraph (2) in the List of Items Controlled section to read as follows:

**7E001 “Technology” according to the General Technology Note for the “development” of equipment or “software,” controlled by 7A (except 7A994), 7B (except 7B994) or 7D (except 7D994).**

**License Requirements**

Reason for Control: \* \* \*

Control(s)	Country chart
* * * * *	* * * * *
RS applies to “technology” for inertial navigation systems, inertial equipment, and specially designed “parts” and “components” therefor, for “civil aircraft.”	RS Column 1
* * * * *	* * * * *

**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 of Items Controlled**

\* \* \* \* \*

*Related Controls:* \* \* \* (2) The “technology” related to 7A003.b, 7A005, 7A103.b, 7A105, 7A106, 7A115, 7A116, 7A117, 7B103, software in 7D101 specified in the

Related Controls paragraph of ECCN 7D101, 7D102.a, or 7D103 is “subject to the ITAR” (see 22 CFR parts 120 through 130).

\* \* \* \* \*

214. In Supplement No. 1 to part 774 (the Commerce Control List), Category 7—Navigation and Avionics, Export Control Classification Number (ECCN) 7E002 is amended:

- a. By revising the RS paragraph in the License Requirements section;
- b. By adding a Reporting Requirements section after the License Requirements section; and
- c. By revising the “Related Controls” paragraph (2) in the List of Items Controlled section to read as follows:

**7E002 “Technology” according to the General Technology Note for the “production” of equipment controlled by 7A (except 7A994) or 7B (except 7B994).**

**License Requirements**

Reason for Control: \* \* \*

Control(s)	Country chart
* * * * *	* * * * *
RS applies to “technology” for inertial navigation systems, inertial equipment, and specially designed “parts” and “components” therefor, for “civil aircraft.”	RS Column 1
* * * * *	* * * * *

**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 of Items Controlled**

\* \* \* \* \*

*Related Controls:* \* \* \* (2) The “technology” related to 7A003.b, 7A005, 7A103.b, 7A105, 7A106, 7A115, 7A116, 7A117, or 7B103 is “subject to the ITAR” (see 22 CFR parts 120 through 130).

\* \* \* \* \*

215. In Supplement No. 1 to part 774 (the Commerce Control List), Category 7—Navigation and Avionics, Export Control Classification Number (ECCN) 7E101 is amended:

- a. By revising the RS paragraph in the License Requirements section; and
- b. By revising the “Related Controls” paragraph in the List of Items Controlled section to read as follows:

**7E101 “Technology,” according to the General Technology Note for the “use” of equipment controlled by 7A001 to 7A006, 7A101 to 7A107, 7A115 to 7A117, 7B001, 7B002, 7B003, 7B101, 7B102, 7B103, or 7D101 to 7D103.**

**License Requirements**

Reason for Control: \* \* \*

Control(s)	Country chart
* * * * *	* * * * *
RS applies to “technology” for inertial navigation systems, inertial equipment, and specially designed “parts” and “components” therefor, for “civil aircraft.”	RS Column 1
* * * * *	* * * * *

**List of Items Controlled**

\* \* \* \* \*

*Related Controls:* The “technology” related to 7A003.b, 7A005, 7A103.b, 7A105, 7A106, 7A115, 7A116, 7A117, 7B103, software specified in the Related Controls paragraph of ECCN 7D101, 7D102.a, or 7D103 is “subject to the ITAR” (see 22 CFR parts 120 through 130).

\* \* \* \* \*

216. In Supplement No. 1 to part 774 (the Commerce Control List), Category 7—Navigation and Avionics, Export Control Classification Number (ECCN) 7E104 is amended by revising the heading to read as follows:

**7E104 Design “Technology” for the integration of the flight control, guidance, and propulsion data into a flight management system, designed or modified for rockets or missiles capable of achieving a “range” equal to or greater than 300km, for optimization of rocket system trajectory. (This entry is “subject to the ITAR.” See 22 CFR parts 120 through 130.)**

217. In Supplement No. 1 to part 774 (the Commerce Control List), Category 7—Navigation and Avionics, Export Control Classification Number (ECCN) 7E994 is amended by revising the “Related Controls” paragraph in the List of Items Controlled section to read as follows:

**7E994 “Technology,” n.e.s., for the “development,” “production” or “use” of navigation, airborne communication, and other avionics equipment.**

\* \* \* \* \*

**List of Items Controlled**

\* \* \* \* \*

*Related Controls:* Technology specific to the development and production of QRS11 sensors remains “subject to the ITAR” (see 22 CFR parts 120 through 130) and (see ECCN 7A994, Related Controls).

\* \* \* \* \*

218. In Supplement No. 1 to part 774 (the Commerce Control List), Category 8—Marine, Export Control Classification Number (ECCN) 8A002 is amended:

- a. By revising the heading:  
 b. By revising the “Unit” paragraph in the List of Items Controlled section;  
 c. By revising the introductory text to “Items” paragraph (a);  
 d. By revising “items” paragraphs a.4, o.1.e, and o.2.d to read as follows:

**8A002 Marine systems, equipment, “parts” and “components,” as follows (see List of Items Controlled).**

\* \* \* \* \*

**List of Items Controlled**

*Unit:* Systems and equipment in number, “parts” and “components” in \$ value

\* \* \* \* \*

*Items:*

a. Systems, equipment, “parts” and “components,” specially designed or modified for submersible vehicles and designed to operate at depths exceeding 1,000 m, as follows:

\* \* \* \* \*

a.4. “Parts” and “components” manufactured from material specified by ECCN 8C001;

\* \* \* \* \*

o.1.e. Power transmission shaft systems incorporating “composite” material “parts” or “components” and capable of transmitting more than 1 MW;

\* \* \* \* \*

o.2.d. Power transmission shaft systems incorporating “composite” material “parts” or “components” and capable of transmitting more than 2 MW;

\* \* \* \* \*

219. In Supplement No. 1 to part 774 (the Commerce Control List), Category 8—Marine, Export Control Classification Number (ECCN) 8A918 is removed.

220. In Supplement No. 1 to part 774 (the Commerce Control List), Category 8—Marine, Export Control Classification Number (ECCN) 8A992 is amended:

a. By revising the heading;

b. By revising the License

Requirements section;

c. By revising “items” paragraphs f and g; and

c. By adding paragraphs l and m to the “items” paragraph in the “List of Items Controlled” section to read as follows:

**8A992 Vessels, marine systems or equipment, not controlled by 8A001, 8A002 or 8A018, and specially designed “parts,” and “components” therefor, and marine boilers and “parts” and “components,” accessories, and attachments therefor (see List of Items Controlled).**

**License Requirements**

*Reason for Control:* AT, UN

<i>Control(s)</i>	<i>Country chart</i>
AT applies to entire entry.	AT Column 1

<i>Control(s)</i>	<i>Country chart</i>
UN applies to 8A992.l and m.	See § 746.1(b) for UN controls

\* \* \* \* \*

**List of Items Controlled**

\* \* \* \* \*

*Items:*

\* \* \* \* \*

f. Vessels, n.e.s., including inflatable boats, and specially designed “parts” and “components” therefor, n.e.s.;

g. Marine engines (both inboard and outboard) and submarine engines, n.e.s.; and specially designed “parts” and “components” therefor, n.e.s.;

\* \* \* \* \*

l. Marine boilers designed to have any of the following characteristics:

l.1. Heat release rate (at maximum rating) equal to or in excess of 190,000 BTU per hour per cubic foot of furnace volume; or

l.2. Ratio of steam generated in pounds per hour (at maximum rating) to the dry weight of the boiler in pounds equal to or in excess of 0.83.

m. Major components, accessories, and attachments for marine boilers described in 8A992.l.

221. In Supplement No. 1 to part 774 (the Commerce Control List), Category 8—Marine, Export Control Classification Number (ECCN) 8D001 is amended by revising the License Exception TSR paragraph in the License Exceptions section to read as follows:

**8D001 “Software” specially designed or modified for the “development,” “production” or “use” of equipment or materials, controlled by 8A (except 8A018 or 8A992), 8B or 8C.**

\* \* \* \* \*

**License Exceptions**

\* \* \* \* \*

*TSR:* Yes, except for exports or reexports to destinations outside of those 36 countries listed in § 740.20(c)(1) (License Exception STA) of “software” specially designed for the “development” or “production” of equipment controlled by 8A001.b, 8A001.d, or 8A002.o.3.b.

\* \* \* \* \*

222. In Supplement No. 1 to part 774 (the Commerce Control List), Category 8—Marine, Export Control Classification Number (ECCN) 8E001 is amended by revising the License Exception TSR paragraph in the License Exceptions section, to read as follows:

**8E001 “Technology” according to the General Technology Note for the “development” or “production” of equipment or materials, controlled by 8A (except 8A018 or 8A992), 8B or 8C.**

\* \* \* \* \*

**License Exceptions**

\* \* \* \* \*

*TSR:* Yes, except for exports or reexports to destinations outside of those 36 countries listed in § 740.20(c)(1) (License Exception STA) of “software” specially designed for the “development” or “production” of equipment controlled by 8A001.b, 8A001.d, or 8A002.o.3.b.

\* \* \* \* \*

223. In Supplement No. 1 to part 774 (the Commerce Control List), Category 9—Aerospace and Propulsion, Export Control Classification Number (ECCN) 9A002 is amended by revising the heading to read as follows:

**9A002 ‘Marine gas turbine engines’ with an ISO standard continuous power rating of 24,245 kW or more and a specific fuel consumption not exceeding 0.219 kg/kWh in the power range from 35 to 100%, and specially designed assemblies, “parts” and “components” therefor.**

\* \* \* \* \*

224. In Supplement No. 1 to part 774 (the Commerce Control List), Category 9—Aerospace and Propulsion, Export Control Classification Number (ECCN) 9A003 is amended by revising the heading to read as follows:

**9A003 Specially designed assemblies, “parts” and “components,” incorporating any of the “technologies” controlled by 9E003.a, 9E003.h or 9E003.i, for any of the following gas turbine engine propulsion systems (see List of Items Controlled).**

\* \* \* \* \*

225. In Supplement No. 1 to part 774 (the Commerce Control List), Category 9—Aerospace and Propulsion, Export Control Classification Number (ECCN) 9A004 is amended by revising the “Related Controls” paragraphs (2), (4), (5) and (6) in the List of Items Controlled section to read as follows:

**9A004 Space launch vehicles and “spacecraft”.**

\* \* \* \* \*

**List of Items Controlled**

\* \* \* \* \*

*Related Controls:*

\* \* \* \* \*

(2) Space launch vehicles are “subject to the ITAR” (see 22 CFR parts 120 through 130).

\* \* \* \* \*

(4) All other “spacecraft” not controlled under 9A004 and their payloads, and specifically designed or modified “parts,” “components,” accessories, attachments, and associated equipment, including ground support equipment, are “subject to the ITAR” (see 22 CFR parts 120 through 130), unless otherwise transferred to the Department of Commerce via a commodity jurisdiction determination by the Department of State.

(5) Exporters requesting a license from the Department of Commerce for “spacecraft”

and their associated “parts” and “components,” other than the international space station, must provide a statement from the Department of State, Directorate of Defense Trade Controls, verifying that the item intended for export is under the licensing jurisdiction of the Department of Commerce. All specially designed or modified “parts,” “components,” accessories, attachments, and associated equipment for “spacecraft” that have been determined by the Department of State through the commodity jurisdiction process to be under the licensing jurisdiction of the Department of Commerce, and that are not controlled by any other ECCN on the Commerce Control List, will be assigned a classification under this ECCN 9A004.

(6) Technical data required for the detailed design, development, manufacturing, or production of the international space station (to include specifically designed “parts” and “components”) remains “subject to the ITAR” (see 22 CFR parts 120 through 130). This control by the ITAR of detailed design, development, manufacturing or production technology for NASA’s international space station does not include that level of technical data necessary and reasonable for assurance that a U.S.-built item intended to operate on NASA’s international space station has been designed, manufactured, and tested in conformance with specified requirements (e.g., operational performance, reliability, lifetime, product quality, or delivery expectations). All technical data and all defense services, including all technical assistance, for launch of the international space station, including launch vehicle compatibility, integration, or processing data, are “subject to the ITAR” (see 22 CFR parts 120 through 130).

\* \* \* \* \*

226. In Supplement No. 1 to part 774 (the Commerce Control List), Category 9—Aerospace and Propulsion, Export Control Classification Number (ECCN) 9A005 is amended by revising the heading to read as follows:

**9A005 Liquid rocket propulsion systems containing any of the systems, “parts” or “components,” controlled by 9A006. (These items are “subject to the ITAR.” See 22 CFR parts 120 through 130.)**

227. In Supplement No. 1 to part 774 (the Commerce Control List), Category 9—Aerospace and Propulsion, Export Control Classification Number (ECCN) 9A006 is amended by revising the heading to read as follows:

**9A006 Systems, “parts” and “components,” specially designed for liquid rocket propulsion systems. (These items are “subject to the ITAR.” See 22 CFR parts 120 through 130.)**

228. In Supplement No. 1 to part 774 (the Commerce Control List), Category 9—Aerospace and Propulsion, Export Control Classification Number (ECCN) 9A007 is amended by revising the heading to read as follows:

**9A007 Solid rocket propulsion systems. (These items are “subject to the ITAR.” See 22 CFR parts 120 through 130.)**

229. In Supplement No. 1 to part 774 (the Commerce Control List), Category 9—Aerospace and Propulsion, Export Control Classification Number (ECCN) 9A008 is amended by revising the heading to read as follows:

**9A008 “Parts” and “components” specially designed for solid rocket propulsion systems. (These items are “subject to the ITAR.” See 22 CFR parts 120 through 130.)**

230. In Supplement No. 1 to part 774 (the Commerce Control List), Category 9—Aerospace and Propulsion, Export Control Classification Number (ECCN) 9A009 is amended by revising the heading to read as follows:

**9A009 Hybrid rocket propulsion systems. (These items are “subject to the ITAR.” See 22 CFR parts 120 through 130.)**

231. In Supplement No. 1 to part 774 (the Commerce Control List), Category 9—Aerospace and Propulsion, Export Control Classification Number (ECCN) 9A010 is amended by revising the heading to read as follows:

**9A010 Specially designed “parts,” “components,” systems and structures, for launch vehicles, launch vehicle propulsion systems or “spacecraft”. (These items are “subject to the ITAR.” See 22 CFR parts 120 through 130.)**

232. In Supplement No. 1 to part 774 (the Commerce Control List), Category 9—Aerospace and Propulsion, Export Control Classification Number (ECCN) 9A011 is amended by revising the heading to read as follows:

**9A011 Ramjet, scramjet or combined cycle engines, and specially designed “parts” and “components” therefor. (These items are “subject to the ITAR.” See 22 CFR parts 120 through 130.)**

233. In Supplement No. 1 to part 774 (the Commerce Control List), Category 1—Aerospace and Propulsion, Export Control Classification Number (ECCN) 9A012 is amended:

- By revising the heading;
- By revising the “Unit” paragraph in the List of Items Controlled section;
- By revising the introductory text to “items” paragraph b; and
- By revising paragraph b.3 to read as follows:

**9A012 Non-military “unmanned aerial vehicles,” (“UAVs”), associated “airships,” associated systems, equipment, “parts” and “components,” as follows (see List of Items Controlled).**

\* \* \* \* \*

#### List of Items Controlled

*Unit:* Equipment in number; “parts,” “components” and accessories in \$ value

\* \* \* \* \*

#### Items:

\* \* \* \* \*

b. Associated systems, equipment, and “parts” and “components,” as follows:

\* \* \* \* \*

b.3. Equipment, “parts” and “components” specially designed to convert a manned “aircraft” or a manned “airship” to a “UAV” controlled by 9A012.a;

\* \* \* \* \*

234. In Supplement No. 1 to part 774 (the Commerce Control List), Category 9—Aerospace and Propulsion, Export Control Classification Number (ECCN) 9A101 is amended by revising the “Related Controls” paragraph in the List of Items Controlled section to read as follows:

**9A101 Turbojet and turbofan engines, other than those controlled by 9A001, as follows (see List of Items Controlled).**

\* \* \* \* \*

#### List of Items Controlled

\* \* \* \* \*

*Related Controls:* 9A101.b controls only engines for non-military unmanned air vehicles [UAVs] or remotely piloted vehicles [RPVs], and does not control other engines designed or modified for use in “missiles,” which are “subject to the ITAR” (see 22 CFR parts 120 through 130).

\* \* \* \* \*

235. In Supplement No. 1 to part 774 (the Commerce Control List), Category 9—Aerospace and Propulsion, Export Control Classification Number (ECCN) 9A103 is amended by revising the heading to read as follows:

**9A103 Liquid propellant tanks specially designed for the propellants controlled in ECCNs 1C011, 1C111 or other liquid propellants used in “missiles.” (These items are “subject to the ITAR.” See 22 CFR parts 120 through 130.)**

236. In Supplement No. 1 to part 774 (the Commerce Control List), Category 9—Aerospace and Propulsion, Export Control Classification Number (ECCN) 9A104 is amended by revising the heading to read as follows:

**9A104 Sounding rockets, capable of a range of at least 300 km. (These items are “subject to the ITAR.” See 22 CFR parts 120 through 130.)**

237. In Supplement No. 1 to part 774 (the Commerce Control List), Category 9—Aerospace and Propulsion, Export Control Classification Number (ECCN) 9A105 is amended by revising the heading to read as follows:

**9A105 Liquid propellant rocket engines. (These items are “subject to the ITAR.” See 22 CFR parts 120 through 130.)**

238. In Supplement No. 1 to part 774 (the Commerce Control List), Category 9—Aerospace and Propulsion, Export

Control Classification Number (ECCN)

9A106 is amended:

- a. By revising the heading;
- b. By revising the “Unit” in the List of Items Controlled section;
- c. By revising the “Related Controls” paragraph in the List of Items Controlled section; and
- d. By revising the introductory text to “items” paragraph d to read as follows:

**9A106 Systems, “parts” or “components,” other than those controlled by 9A006, usable in “missiles,” and specially designed for liquid rocket propulsion systems, as follows (see List of Items Controlled).**

\* \* \* \* \*

#### List of Items Controlled

*Unit:* Equipment, “parts” and “components” in number

*Related Controls:* Items described in 9A106.a, .b, and .c are “subject to the ITAR” (see 22 CFR parts 120 through 130).

\* \* \* \* \*

*Items:*

\* \* \* \* \*

d. Liquid and slurry propellant (including oxidizers) control systems, and specially designed “parts” and “components” therefor, designed or modified to operate in vibration environments greater than 10 g rms between 20 Hz and 2000 Hz.

\* \* \* \* \*

239. In Supplement No. 1 to part 774 (the Commerce Control List), Category 9—Aerospace and Propulsion, Export Control Classification Number (ECCN) 9A107 is amended by revising the heading to read as follows:

**9A107 Solid propellant rocket motors, usable in rockets with a range capability of 300 Km or greater, other than those controlled by 9A007, having total impulse capacity equal to or greater than  $8.41 \times 10^5$  Ns, but less than  $1.1 \times 10^6$  Ns. (These items are “subject to the ITAR.” See 22 CFR parts 120 through 130.)**

240. In Supplement No. 1 to part 774 (the Commerce Control List), Category 9—Aerospace and Propulsion, Export Control Classification Number (ECCN) 9A108 is amended by revising the heading to read as follows:

**9A108 Solid rocket propulsion “parts” and “components,” other than those controlled by 9A008, usable in rockets with a range capability of 300 Km or greater. (These items are “subject to the ITAR.” See 22 CFR parts 120 through 130.)**

241. In Supplement No. 1 to part 774 (the Commerce Control List), Category 9—Aerospace and Propulsion, Export Control Classification Number (ECCN) 9A109 is amended by revising the heading to read as follows:

**9A109 Hybrid rocket motors, usable in rockets with a range capability of 300**

**Km or greater, other than those controlled by 9A009, and specially designed “parts” and “components” therefor. (These items are “subject to the ITAR.” See 22 CFR parts 120 through 130.)**

242. In Supplement No. 1 to part 774 (the Commerce Control List), Category 9—Aerospace and Propulsion, Export Control Classification Number (ECCN) 9A110 is amended:

- a. By revising the heading; and
- b. By revising the “Related Controls” paragraph (2) in the List of Items Controlled section to read as follows:

**9A110 Composite structures, laminates and manufactures thereof, other than those controlled by entry 9A010, specially designed for use in rockets, missiles, or unmanned aerial vehicles capable of achieving a “range” equal to or greater than 300km or the subsystems controlled by entries 9A005, 9A007, 9A105.a, 9A106 to 9A109, 9A116, or 9A119.**

\* \* \* \* \*

#### List of Items Controlled

\* \* \* \* \*

*Related Controls:* \* \* \* (2) “Composite structures, laminates, and manufactures thereof, specially designed for use in missile systems are “subject to the ITAR” (see 22 CFR parts 120 through 130), except those specially designed for non-military unmanned air vehicles controlled in 9A012.

\* \* \* \* \*

243. In Supplement No. 1 to part 774 (the Commerce Control List), Category 9—Aerospace and Propulsion, Export Control Classification Number (ECCN) 9A111 is amended by revising the heading to read as follows:

**9A111 Pulse jet engines, usable in rockets, missiles, or unmanned aerial vehicles capable of achieving a “range” equal to or greater than 300km, and specially designed “parts” and “components” therefor. (These items are “subject to the ITAR.” See 22 CFR parts 120 through 130.)**

244. In Supplement No. 1 to part 774 (the Commerce Control List), Category 9—Aerospace and Propulsion, Export Control Classification Number (ECCN) 9A115 is amended by revising the heading to read as follows:

**9A115 Apparatus, devices and vehicles, designed or modified for the transport, handling, control, activation and launching of rockets, missiles, and unmanned aerial vehicles capable of achieving a “range” equal to or greater than 300 km. (These items are “subject to the ITAR.” See 22 CFR parts 120 through 130.)**

245. In Supplement No. 1 to part 774 (the Commerce Control List), Category 9—Aerospace and Propulsion, Export

Control Classification Number (ECCN) 9A116 is amended by revising the heading to read as follows:

**9A116 Reentry vehicles, usable in “missiles,” and equipment designed or modified therefor. (These items are “subject to the ITAR.” See 22 CFR parts 120 through 130.)**

246. In Supplement No. 1 to part 774 (the Commerce Control List), Category 9—Aerospace and Propulsion, Export Control Classification Number (ECCN) 9A117 is amended by revising the heading to read as follows:

**9A117 Staging mechanisms, separation mechanisms, and interstages therefor, usable in “missiles”. (These items are “subject to the ITAR.” See 22 CFR parts 120 through 130.)**

247. In Supplement No. 1 to part 774 (the Commerce Control List), Category 9—Aerospace and Propulsion, Export Control Classification Number (ECCN) 9A118 is amended by revising the heading to read as follows:

**9A118 Devices to regulate combustion usable in engines which are usable in rockets, missiles, and unmanned aerial vehicles capable of achieving a “range” equal of 300 Km or greater than 300 Km, controlled by 9A011 or 9A111. (These items are “subject to the ITAR.” See 22 CFR parts 120 through 130.)**

248. In Supplement No. 1 to part 774 (the Commerce Control List), Category 9—Aerospace and Propulsion, Export Control Classification Number (ECCN) 9A119 is amended by revising the heading to read as follows:

**9A119 Individual rocket stages, usable in rockets with a range capability greater than 300 Km or greater, other than those controlled by 9A005, 9A007, 9A009, 9A105, 9A107 and 9A109. (These items are “subject to the ITAR.” See 22 CFR parts 120 through 130.)**

249. In Supplement No. 1 to part 774 (the Commerce Control List), Category 9—Aerospace and Propulsion, Export Control Classification Number (ECCN) 9A120 is amended:

- a. By revising the heading;
- b. By revising the “Unit” paragraph in the List of Items Controlled section; and
- c. By revising the “Related Controls” paragraph to read as follows:

**9A120 Complete unmanned aerial vehicles, not specified in 9A012, having all of the following characteristics (see List of Items Controlled).**

\* \* \* \* \*

#### List of Items Controlled

*Unit:* Equipment in number

*Related Controls:* See ECCN 9A012 or the U.S. Munitions List Category VIII (22 CFR part 121). Also see ECCN 2B352.h for controls on certain spraying or fogging systems, and “parts” and “components”

therefor, specially designed or modified for fitting to aircraft, "lighter than air vehicles," or "UAVs."

\* \* \* \* \*

250. In Supplement No. 1 to part 774 (the Commerce Control List), Category 9—Aerospace and Propulsion, Export Control Classification Number (ECCN) 9A980 is amended:

- a. By revising the heading; and
- b. By adding a heading Note to read as follows:

**9A980 Nonmilitary mobile crime science laboratories; and accessories, n.e.s.**

**Heading Note:** In order for a vehicle to be classified as a nonmilitary mobile crime scene laboratory under ECCN 9A980, the vehicle must contain one or more analytical or laboratory items controlled for Crime Control (CC) reasons on the CCL, such as ECCNs 3A980 and 3A981.

\* \* \* \* \*

251. In Supplement No. 1 to part 774 (the Commerce Control List), Category 9—Aerospace and Propulsion, Export Control Classification Number (ECCN) 9A990 is amended:

- a. By revising the heading; and
- b. By revising "items" paragraphs b and c to read as follows:

**9A990 Diesel engines, n.e.s., and tractors and specially designed "parts" and "components" therefor, n.e.s. (see List of Items Controlled).**

\* \* \* \* \*

**List of Items Controlled**

\* \* \* \* \*

**Items:**

\* \* \* \* \*

b. Off highway wheel tractors of carriage capacity 9 mt (20,000 lbs) or more; and "major components" and accessories, n.e.s.

c. On-Highway tractors, with single or tandem rear axles rated for 9 mt per axle (20,000 lbs.) or greater and specially designed "major components".

\* \* \* \* \*

252. In Supplement No. 1 to part 774 (the Commerce Control List), Category 9—Aerospace and Propulsion, Export Control Classification Number (ECCN) 9A991 is amended:

- a. By revising the heading;
- b. By revising the "Related Controls" paragraph in the List of Items Controlled section; and
- c. By revising "items" paragraphs c, d, and e in the List of Items Controlled section to read as follows:

**9A991 "Aircraft," n.e.s., and gas turbine engines not controlled by 9A001 or 9A101 and "parts" and "components," n.e.s. (see List of Items Controlled).**

\* \* \* \* \*

**List of Items Controlled**

\* \* \* \* \*

**Related Controls:** QRS11 Micromachined Angular Rate Sensors are "subject to the ITAR" (see 22 CFR parts 120 through 130), unless the QRS11-00100-100/101 is integrated into and included as an integral "component" of a commercial primary or standby instrument system of the type described in ECCN 7A994, or aircraft of the type described in ECCN 9A991 that incorporates such a system, or is exported solely for integration into such a system; or the QRS11-00050-443/569 is integrated into an automatic flight control system of the type described in ECCN 7A994, or aircraft of the type described in ECCN 9A991 that incorporates such a system, or are exported solely for integration into such a system. (See Commodity Jurisdiction requirements in 22 CFR Part 121; Category VIII(e), Note(1)) In the latter case, such items are subject to the EAR. Technology specific to the development and production of QRS11 sensors remains "subject to the ITAR" (see 22 CFR parts 120 through 130).

\* \* \* \* \*

**Items:**

\* \* \* \* \*

c. Aero gas turbine engines, and "parts" and "components" specially designed therefor.

\* \* \* \* \*

d. "Parts" and "components" specially designed for "aircraft" subject to the controls of ECCN 9A991.a or .b., n.e.s.

e. Pressurized aircraft breathing equipment, n.e.s.; and "parts" and "components" specially designed therefor, n.e.s.

253. In Supplement No. 1 to part 774 (the Commerce Control List), Category 9—Aerospace and Propulsion, Export Control Classification Number (ECCN) 9B001 is amended:

- a. By revising the "Unit" paragraph in the List of Items Controlled section; and
- b. By revising the "Related Controls" paragraph in the List of Items Controlled section to read as follows:

**9B001 Equipment, tooling and fixtures, specially designed for manufacturing gas turbine blades, vanes or "tip shroud" castings, as follows (see List of Items Controlled).**

\* \* \* \* \*

**List of Items Controlled**

**Unit:** \$ value

**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.

\* \* \* \* \*

254. In Supplement No. 1 to part 774 (the Commerce Control List), Category 9—Aerospace and Propulsion, Export Control Classification Number (ECCN) 9B002 is amended:

- a. By revising the heading; and

b. By revising "items" paragraph a in the List of Items Controlled section to read as follows:

**9B002 On-line (real time) control systems, instrumentation (including sensors) or automated data acquisition and processing equipment, having all of the following (see List of Items Controlled).**

\* \* \* \* \*

**List of Items Controlled**

\* \* \* \* \*

**Items:**

a. Specially designed for the "development" of gas turbine engines, assemblies, "parts" or "components"; and

\* \* \* \* \*

255. In Supplement No. 1 to part 774 (the Commerce Control List), Category 9—Aerospace and Propulsion, Export Control Classification Number (ECCN) 9B003 is amended by revising the heading to read as follows:

**9B003 Equipment specially designed for the "production" or test of gas turbine brush seals designed to operate at tip speeds exceeding 335 m/s, and temperatures in excess of 773 K (500°C), and specially designed "parts," "components" or accessories therefor.**

\* \* \* \* \*

256. In Supplement No. 1 to part 774 (the Commerce Control List), Category 9—Aerospace and Propulsion, Export Control Classification Number (ECCN) 9B009 is amended:

- a. By revising the heading; and
- b. By revising the "Related Controls" paragraph in the List of Items Controlled section to read as follows:

**9B009 Tooling specially designed for producing turbine engine powder metallurgy rotor "parts" and "components" capable of operating at stress levels of 60% of Ultimate Tensile Strength (UTS) or more and metal temperatures of 873 K (600°C) or more.**

\* \* \* \* \*

**List of Items Controlled**

\* \* \* \* \*

**Related Controls:** See ECCN 9B002.

\* \* \* \* \*

257. In Supplement No. 1 to part 774 (the Commerce Control List), Category 9—Aerospace and Propulsion, Export Control Classification Number (ECCN) 9B010 is amended:

- a. By revising the heading; and
- b. By revising the "Unit" paragraph in the List of Items Controlled section to read as follows:

**9B010 Equipment specially designed for the production of "UAVs" and associated systems, equipment, "parts" and "components," controlled by 9A012.**

\* \* \* \* \*

**List of Items Controlled**

*Unit:* Equipment in number; “parts” and “components” in \$ value

\* \* \* \* \*

258. In Supplement No. 1 to part 774 (the Commerce Control List), Category 9—Aerospace and Propulsion, Export Control Classification Number (ECCN) 9B115 is amended:

- a. By revising heading;
- b. By revising “Unit” paragraph in the List of Items Controlled section; and
- c. By revising the “Related Controls” paragraph in the List of Items Controlled section to read as follows:

**9B115 Specially designed “production equipment” for the systems, sub-systems, “parts” and “components” controlled by 9A004 to 9A009, 9A011, 9A101, 9A103 to 9A109, 9A111, 9A116 to 9A119.**

\* \* \* \* \*

**List of Items Controlled**

*Unit:* Equipment in number; “parts” and “components” in \$ value

*Related Controls:* Although items described in ECCNs 9A004 to 9A009, 9A011, 9A101, 9A104 to 9A109; 9A111, 9A116 to 9A119 are “subject to the ITAR” (see 22 CFR parts 120 through 130), the “production equipment” controlled in this entry that is related to these items is subject to the EAR.

\* \* \* \* \*

259. In Supplement No. 1 to part 774 (the Commerce Control List), Category 9—Aerospace and Propulsion, Export Control Classification Number (ECCN) 9B116 is amended:

- a. By revising heading;
- b. By revising “Unit” paragraph in the List of Items Controlled section; and
- c. By revising the “Related Controls” paragraph in the List of Items Controlled section to read as follows:

**9B116 Specially designed “production facilities” for the systems, sub-systems, “parts” and “components” controlled by 9A004 to 9A009, 9A011, 9A012, 9A101, 9A103 to 9A109, 9A111, 9A116 to 9A119.**

\* \* \* \* \*

**List of Items Controlled**

*Unit:* Equipment in number; “parts” and “components” in \$ value

*Related Controls:* Although items described in ECCNs 9A004 to 9A009, 9A011, 9A101, 9A104 to 9A109; 9A111, 9A116 to 9A119 are “subject to the ITAR” (see 22 CFR parts 120 through 130), the “production equipment” controlled in this entry that is related to these items is subject to the EAR.

\* \* \* \* \*

260. In Supplement No. 1 to part 774 (the Commerce Control List), Category 9—Aerospace and Propulsion, Export Control Classification Number (ECCN) 9B990 is amended by revising the heading to read as follows:

**9B990 Vibration test equipment and specially designed “parts” and “components,” n.e.s.**

\* \* \* \* \*

261. In Supplement No. 1 to part 774 (the Commerce Control List), Category 9—Aerospace and Propulsion, Export Control Classification Number (ECCN) 9B991 is amended by revising the heading to read as follows:

**9B991 Specially designed equipment, tooling or fixtures, not controlled by 9B001, as described in the List of Items Controlled, for manufacturing or measuring gas turbine blades, vanes or tip shroud castings as follows (see List of Items Controlled).**

\* \* \* \* \*

262. In Supplement No. 1 to part 774 (the Commerce Control List), Category 9—Aerospace and Propulsion, Export Control Classification Number (ECCN) 9D001 is amended by revising the “Related Controls” paragraph in the List of Items Controlled section to read as follows:

**9D001 “Software” specially designed or modified for the “development” of equipment or “technology,” controlled by 9A (except 9A018, 9A990 or 9A991), 9B (except 9B990 or 9B991) or 9E003.**

\* \* \* \* \*

**List of Items Controlled**

\* \* \* \* \*

*Related Controls:* (1) “Software” “required” for the “development” of items controlled by 9A004 is “subject to the ITAR” (see 22 CFR parts 120 through 130). (2) “Software” “required” for the “development” of equipment or “technology” “subject to the ITAR” is also “subject to the ITAR” (see 22 CFR parts 120 through 130).

\* \* \* \* \*

263. In Supplement No. 1 to part 774 (the Commerce Control List), Category 9—Aerospace and Propulsion, Export Control Classification Number (ECCN) 9D002 is amended by revising the “Related Controls” paragraph in the List of Items Controlled section to read as follows:

**9D002 “Software” specially designed or modified for the “production” of equipment controlled by 9A (except 9A018, 9A990, or 9A991) or 9B (except 9B990 or 9B991).**

\* \* \* \* \*

**List of Items Controlled**

\* \* \* \* \*

*Related Controls:* (1) “Software” “required” for the “production” of items controlled by 9A004 is “subject to the ITAR” (see 22 CFR parts 120 through 130). (2) “Software” “required” for the “production” of equipment or “technology” “subject to the ITAR” is also “subject to the ITAR” (see 22 CFR parts 120 through 130).

\* \* \* \* \*

264. In Supplement No. 1 to part 774 (the Commerce Control List), Category 9—Aerospace and Propulsion, Export Control Classification Number (ECCN) 9D003 is amended by revising the “Related Controls” paragraph (2) in the List of Items Controlled section to read as follows:

**9D003 “Software” incorporating “technology” specified by 9E003.h and used in “FADEC Systems” for propulsion systems controlled by 9A (except 9A018, 9A990 or 9A991) or equipment controlled by 9B (except 9B990 or 9B991).**

\* \* \* \* \*

**List of Items Controlled**

\* \* \* \* \*

*Related Controls:* \* \* \* (2) “Software” “required” for the “use” of equipment or “technology” “subject to the ITAR” is also “subject to the ITAR” (see 22 CFR parts 120 through 130).

\* \* \* \* \*

265. In Supplement No. 9 to part 774 (the Commerce Control List), Category 9—Aerospace and Propulsion, Export Control Classification Number (ECCN) 9D004 is amended by revising “items” paragraphs b and e to read as follows:

**9D004 Other “software” as follows (see List of Items Controlled).**

\* \* \* \* \*

**List of Items Controlled**

\* \* \* \* \*

*Items:*

\* \* \* \* \*

b. “Software” for testing aero gas turbine engines, assemblies, “parts” or “components,” specially designed to collect, reduce and analyze data in real time and capable of feedback control, including the dynamic adjustment of test articles or test conditions, as the test is in progress;

\* \* \* \* \*

e. “Software” specially designed or modified for the operation of “UAVs” and associated systems, equipment, “parts” and “components,” controlled by 9A012;

\* \* \* \* \*

266. In Supplement No. 1 to part 774 (the Commerce Control List), Category 9—Aerospace and Propulsion, Export Control Classification Number (ECCN) 9D103 is amended by revising the heading to read as follows:

**9D103 “Software” specially designed for modelling, simulation or design integration of “missiles,” or the subsystems controlled by 9A005, 9A007, 9A009, 9A105, 9A106, 9A107, 9A108, 9A109, 9A116 or 9A119. (This entry is “subject to the ITAR.” See 22 CFR parts 120 through 130.)**

267. In Supplement No. 1 to part 774 (the Commerce Control List), Category 9—Aerospace and Propulsion, Export

Control Classification Number (ECCN) 9D104 is amended:

- a. By revising the heading; and
- b. By revising the “Related Controls” paragraph in the List of Items Controlled section to read as follows:

**9D104 “Software” specially designed or modified for the “use” of equipment controlled by 9A001, 9A005, 9A006, 9A007, 9A008, 9A009, 9A010, 9A011, 9A012 (for MT controlled items only), 9A101, 9A105, 9A106.c, .d and .e, 9A107, 9A108, 9A109, 9A111, 9A115, 9A116, 9A117, or 9A118.**

\* \* \* \* \*

**List of Items Controlled**

\* \* \* \* \*

*Related Controls:* “Software” for commodities controlled by 9A005 to 9A011, 9A105, 9A106.c, 9A107 to 9A109, 9A111, 9A115, 9A116, 9A117, and 9A118 is “subject to the ITAR” (see 22 CFR parts 120 through 130).

\* \* \* \* \*

268. In Supplement No. 1 to part 774 (the Commerce Control List), Category 9—Aerospace and Propulsion, Export Control Classification Number (ECCN) 9D105 is amended by revising the heading to read as follows:

**9D105 “Software” that coordinates the function of more than one subsystem, specially designed or modified for “use” in rockets, missiles, or unmanned aerial vehicles capable of achieving a “range” equal to or greater than 300 km. (These items are “subject to the ITAR.” See 22 CFR parts 120 through 130.)**

269. In Supplement No. 1 to part 774 (the Commerce Control List), Category 9—Aerospace and Propulsion, Export Control Classification Number (ECCN) 9E001 is amended by revising the “Related Controls” paragraphs (2) and (3) in the List of Items Controlled section to read as follows:

**9E001 “Technology” according to the General Technology Note for the “development” of equipment or “software,” controlled by 9A001.b, 9A004 to 9A012, 9B (except 9B990 or 9B991), or 9D (except 9D990 or 9D991).**

\* \* \* \* \*

**List of Items Controlled**

\* \* \* \* \*

*Related Controls:* \* \* \* (2) The “technology” required for the “development” of equipment controlled by 9A004 is “subject to the ITAR” (see 22 CFR parts 120 through 130). (3) “Technology,” required for the “development” of equipment or “software” “subject to the ITAR,” is also “subject to the ITAR” (see 22 CFR parts 120 through 130).

\* \* \* \* \*

270. In Supplement No. 1 to part 774 (the Commerce Control List), Category 9—Aerospace and Propulsion, Export

Control Classification Number (ECCN) 9E002 is amended by revising the “Related Controls” paragraphs (3) and (4) in the List of Items Controlled section to read as follows:

**9E002 “Technology” according to the General Technology Note for the “production” of equipment controlled by 9A001.b, 9A004 to 9A011 or 9B (except 9B990 or 9B991).**

\* \* \* \* \*

**List of Items Controlled**

\* \* \* \* \*

*Related Controls:* \* \* \* (3) The “technology” required for the “development” of equipment controlled by 9A004 is “subject to the ITAR” (see 22 CFR parts 120 through 130). (4) “Technology,” required for the “development” of equipment or “software” “subject to the ITAR,” is also “subject to the ITAR” (see 22 CFR parts 120 through 130).

\* \* \* \* \*

271. In Supplement No. 1 to part 774 (the Commerce Control List), Category 9—Aerospace and Propulsion, Export Control Classification Number (ECCN) 9E003 is amended:

a. By revising the “Related Controls” paragraph in the List of Items Controlled section;

b. By revising the introductory text of “items” paragraphs a and a.3 in the List of Items Controlled section;

c. By revising “items” paragraphs a.4, a.7, a.8, and the “Technical Note” to paragraph a.8 in the List of Items Controlled section;

d. By revising the introductory text of “items” paragraph (c) in the List of Items Controlled section; and

e. By revising “items” paragraphs f introductory text, f.1, f.1.d, h.1, h.2, i.1, i.2, and j in the List of Items Controlled section to read as follows:

**9E003 Other “technology” as follows (see List of Items Controlled).**

\* \* \* \* \*

**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). “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 case-by-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.

\* \* \* \* \*

*Items:*

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

\* \* \* \* \*

a.3. “Parts” or “components” manufactured from any of the following:

\* \* \* \* \*

a.4. Uncooled turbine blades, vanes, “tip shrouds” or other “parts” or “components,” designed to operate at gas path total (stagnation) temperatures of 1,323 K (1,050°C) or more at sea-level static take-off (ISA) in a ‘steady state mode’ of engine operation;

\* \* \* \* \*

a.7. Gas turbine engine “parts” and “components” using “diffusion bonding” “technology” controlled by 2E003.b;

a.8. ‘Damage tolerant’ gas turbine engine rotor “parts” and “components” using powder metallurgy materials controlled by 1C002.b; or

**Technical Note:** ‘Damage tolerant’ “parts” and “components” are designed using methodology and substantiation to predict and limit crack growth.

\* \* \* \* \*

c. “Technology” “required” for manufacturing cooling holes, in gas turbine engine “parts” and “components” incorporating any of the “technologies” specified by 9E003.a.1, 9E003.a.2 or 9E003.a.5, and having any of the following:

\* \* \* \* \*

f. “Technology” “required” for the “production” of specially designed “parts” and “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.d. One or more other “part” or “component” (including exhaust ports, turbochargers, valve guides, valve assemblies or insulated fuel injectors);

h. \* \* \*

h.1. “Development” “technology” for deriving the functional requirements for the “parts” and “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” and “components” unique to the “FADEC system” and used to regulate engine thrust or shaft power;

i. \* \* \*

i.1. “Development” “technology” for deriving the functional requirements for the “parts” and “components” that maintain engine stability;

i.2. “Development” or “production” “technology” for “parts” and “components”



unique to the adjustable flow path system and that maintain engine stability;

\* \* \* \* \*

j. “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” and “components” of civil derivatives of military engines controlled on the U.S. Munitions List.

\* \* \* \* \*

272. In Supplement No. 1 to part 774 (the Commerce Control List), Category 9—Aerospace and Propulsion, Export Control Classification Number (ECCN) 9E101 is amended by revising the “Related Controls” paragraph in the List of Items Controlled section to read as follows:

**9E101 “Technology” according to the General Technology Note for the “development,” “production” or “use” of commodities or software controlled by 9A012, 9A101, 9A104 to 9A111,**

**9A115 to 9A119, 9C110, 9D101, 9D103, 9D104 or 9D105.**

\* \* \* \* \*

#### List of Items Controlled

\* \* \* \* \*

*Related Controls:* “Technology” controlled by 9E101 for items in 9A101.b, 9A104 to 9A111, 9A115 to 9A119, 9D103, and 9D105 is “subject to the ITAR” (see 22 CFR parts 120 through 130).

\* \* \* \* \*

273. In Supplement No. 1 to part 774 (the Commerce Control List), Category 9—Aerospace and Propulsion, Export Control Classification Number (ECCN) 9E102 is amended by revising the “Related Controls” paragraph (2) in the List of Items Controlled section to read as follows:

**9E102 “Technology” according to the General Technology Note for the “use” of space launch vehicles specified in 9A004, or commodities or software**

**controlled by 9A005 to 9A012, 9A101, 9A104 to 9A111, 9A115 to 9A119, 9B105, 9B106, 9B115, 9B116, 9B117, 9D101, 9D103, 9D104 or 9D105.**

\* \* \* \* \*

#### List of Items Controlled

\* \* \* \* \*

*Related Controls:* \* \* \* (2) “Technology” controlled by 9E102 for commodities or software “subject to the ITAR” (see 22 CFR parts 120 through 130) in 9A004 to 9A011, 9A101.b, 9A104, 9A105, 9A106.a to .c, 9A107 to 9A111, 9A115 to 9A119, 9B115, 9B116, 9D103, specified software in 9D104, and 9D105 is “subject to the ITAR” (see 22 CFR parts 120 through 130).

\* \* \* \* \*

Dated: November 16, 2012.

**Kevin J. Wolf,**

*Assistant Secretary for Export Administration.*

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