



April 4, 2016

Office of Defense Trade Controls Policy
Department of State
Washington, DC
By email to DDTCPublicComments@state.gov

RE: ITAR Amendment—Category XII Second Proposed

Dear Sirs/Madams,

I am writing on behalf of the Association of University Export Control Officers (AUECO), an association of over 155 senior export practitioners with export compliance responsibilities at more than 100 accredited institutions of higher education in the United States. As expressed in its founding charter, AUECO is committed to monitoring changes in the administration of export laws and regulations that could affect transactions and collaborations in academia.

The research enterprise in the United States is critical to the economic advancement of our country, and having export regulations that are not overly broad ensures that innovation is not stifled in performing fundamental research. As export officers at universities conducting academic research, we are keenly aware of the value of some of the technologies described in the proposed Category XII as having dual uses in areas such as astronomy and space science, oceanography, telecommunication, photonics, computer processor-memory interconnects, materials engineering, thermal management, energy storage, energy conversion, photovoltaic devices, groundwater management, computational ophthalmology, and molecular medical diagnostic tools. There should be a clear delineation between items that have military and non-military end uses.

AUECO is providing the following comments in response to the Department of State Proposed Rule for *Amendment to the International Traffic in Arms Regulations: Revision to U.S. Munitions List Category XII*.

General Comments

- 1) The current proposed rule is an improvement over the rule proposed in 2015. However, there are still some areas of concern as noted below.
- 2) The inclusion of the phrase “specially designed for a military end user” helps address concerns regarding off-the-shelf (commercial) items used with controlled articles. However, there are many situations when off-the-shelf items do not meet the specifications required for scientific instrumentation developed at universities. To meet these specifications, custom-made items need to be developed for use with controlled articles for civilian end uses. Therefore, we recommend that the use of “specially designed for a military end user” be extended to ensure that custom-made items used in conjunction with controlled articles for civilian end uses are not ITAR controlled.
- 3) The phrases “specially designed for articles in this subchapter” and “specially designed for articles in this category” are used through the Category. We feel these phrases are overly broad, may be confusing when applied to academic instrumentation, and will “catch” many items designed for civilian use without providing a contingency to “release” items as currently written. Therefore, we recommend that these statements be replaced with “specially designed for a military end user” throughout Category XII.
- 4) Moving parts and components from Category XII(a)-(d) to XII(e) helps eliminate confusion found in the previous version.

- 5) We recommend adding a definition for “military end use” to this category.

Comments on ITAR XII (b)(6)

The inclusion of the phrase “specially designed for a military end user” removes the concern that meteorological LiDARs could be controlled under Category XII.

Comments on ITAR XII (b)(7), (c)(9), (d)(6) and (e)(23)

These four subparagraphs state that any equipment developed under Department of Defense (DOD) funding are controlled under Category XII (except as noted in the applicable Notes).

- 1) This presumes that all items funded by the DOD under this category are for military end use. This seems overly broad and dismisses the possibility that an item funded by the DOD could be dual use or even EAR99.
- 2) These subparagraphs do not address dual funding for projects at universities. There are circumstances when a researcher receives award money from multiple funding sources (such as the DOD, U.S. Geological Survey, National Science Foundation, and Department of Energy) to conduct portions of the same research. Although the notes for (b)(7), (c)(9), (d)(6), and (e)(23) attempt to address this by stating “This paragraph does not control {items}...(c) identified in the relevant Department of Defense contract or other funding authorization as being developed for both civil and military applications,” many awards to universities do not identify whether the items subject to the award are being developed for civilian or military applications or both. This can create confusion in determining whether a particular line of research funded by DOD and a non-military funding source (such as NSF) is controlled under ITAR or not.

If not clarified, the proposed wording of these subparagraphs will negatively impact research conducted at universities. Lasers, electro-optical/infrared systems, navigation systems, optics, imaging electronics and other parts/components not developed for a military end use should not be controlled under ITAR, even if their development was funded by the Department of Defense.

Request for Wording Changes to ITAR XII (b)(7), (c)(9), (d)(6) and (e)(23)

We recommend that the phrase “...funded by the Department of Defense...” be replaced in each of these subparagraphs by “...specially designed for a military end use.”

Comments on ITAR XII (e)(14)

There are circumstances where IRFPAs controlled under Category XII are used for scientific/research purposes, such as in astronomical telescopes. In this case, the dewar and cooling system may be commercial off-the-shelf items or specially designed for use with this IRFPA. Regardless, their end use is non-military and current wording would have the unfortunate and unintended consequence of controlling a dewar and cooling system specifically designed for use with IRFPA within an astronomical telescope. Also, in the case where the dewar and cooling system are specially designed, one could state that they are specially designed for use in a specific telescope rather than specially designed for use with an IRFPA and, therefore, should not be controlled under Category XII.

Request for Wording Changes to ITAR XII (e)(14)

We recommend replacing “specially designed for articles in this subchapter other than Category XV, and specially designed parts and components therefore;” with “specially designed for a military end use” in this subparagraph to clarify this concern.

Comments on ITAR XII (e)(14)

The phrase “...specially designed for articles in this subchapter other than Category XV...” is unclear. Does this mean that IDCAs specially designed for articles under Category XV are not controlled under the USML or that they are controlled under Category XV (or elsewhere)?

Request for note to be added to ITAR XII (e)(14)

We recommend that either:

- A note be added to address whether IDCAs specially designed for articles in Category XV are controlled under Category XV, elsewhere in the USML, or the applicable ECCN under the EAR; or
- The phrase be changed to “specially designed for a military end use” as noted for the previous comment.

Comments on ITAR XII (e)(17)

The phrase “...specially designed for articles controlled in this category” is very useful in removing Category XII control from off-the-shelf optics used in conjunction with an IRFPA. However, in many scientific applications these optics, treatments, and coatings will be specially designed and produced for use with the controlled IRFPA. These can be very specialized components made by only a few vendors worldwide.

For example, an infrared telescope is a very complex instrument that can utilize multiple lenses, mirrors, beamsplitters, filters, gratings, etalons, coatings, and treatments. Each of these items has a specific purpose in the optical chain of the telescope and must be built to very specific requirements. This may require that an academic institution utilize multiple vendors to create the lenses, mirrors, and beamsplitters, different vendors for the gratings and filters, and yet other vendors for the coatings and treatments. In some instances, these components are designed by the academic institution, vendor, or collaboration between the two. Also, these vendors may be domestic or foreign.

This subparagraph would require that academic institutions making non-military, scientific instrumentation (such as an infrared telescope) get export licenses to share the technology (design) of these optics with foreign vendors or potentially domestic vendors using foreign staff. This could add a significant burden to the management of information regarding these optics and potentially limit the institution’s ability to procure optics from a foreign vendor with no derived benefit to national security.

Comments on ITAR XII (e)(18)

In similar fashion to proposed Category XII (e)(17), “...specially designed for articles controlled in this category” is very useful in removing Category XII control from off-the-shelf electronics used in conjunction with an IRFPA, but would maintain control over electronics that were specially designed for use with an ITAR-controlled IRFPA. It is very likely the control, signal and image processing electronics, and software used with an IRFPA in a scientific instrument (such as an infrared telescope) will be specially designed for that application, thus requiring control under Category XII (e).

Comments on ITAR XII (e)(17) and (e)(18)

If one combines the impact of proposed Categories XII (e)(17) and (e)(18) for an infrared telescope using an IRFPA as its detector, the entire image change of the telescope could be controlled under ITAR XII (e), from the first lens through which the infrared radiation passes to the entire signal processing chain used to create the usable IR images. We do not believe that this is the intent of these two subparagraphs, nor do we see any national security benefit from these two subparagraphs when applied to non-military end uses. Also, the licensing requirements for a complex telescope could create a huge burden to the developer of that instrument when one considers that: (a) many of these instruments are located internationally, (b) many of the parts may be sourced from international vendors, (c) development is likely over multiple years, and (d) different subsystems (optics, dewar/cooling, and signal and image processing) would be developed at different times in the project. Therefore, multiple licenses would need to be submitted to address the various controlled subsystems.

It can be difficult to find a company to make custom optical elements for such a scientific device when considering process capabilities (of the company to make a specific element), quality considerations, overall cost, and delivery schedules. In some instances, the best candidate may be a foreign vendor. An export license would be required to

export the design specifications as technical data for the manufacture of these components and would increase Agency and project workload, solely because these elements are to be used with an IRFPA.

Also, domestic vendors that produce such optical elements may need to review their staffing to determine whether a license is required for any foreign persons working within their facility. Alternatively, they may decide that they will not supply optics for equipment that contains ITAR components due to the overhead costs in supporting that activity. Any of these scenarios could compromise a research organization's ability to procure high quality optical elements. This issue would also increase the regulatory burden on the research project, vendor, and Agency with no likely national security impact.

Request for Wording Changes to ITAR XII (e)(17) and (e)(18)

We recommend replacing "specially designed for articles controlled in this category" with "specially designed for a military end use" in these subparagraphs to clarify this concern.

Recommendation for Additional Wording to ITAR XII (e)

Because the concerns in XII (e)(14), (17), and (18) are similar, we recommend changing the first sentence in XII (e) from "Parts, components, accessories, or attachments, as follows:" to "Parts, components, accessories, or attachments, specially designed for a military end use, as follows:". This would address our concerns regarding "specially designed" items when used for civilian applications throughout XII (e) and allow the authors to remove the redundant text found in a number of these subparagraphs.

Comments on Note to Category XII

The note at the end of the proposed rules makes a strong attempt to define when an item is specially designed for a military end use/user; however:

- 1) The design intent of a potentially controlled item may be unclear to the purchaser, particularly when the item is being used in non-military instrumentation. Therefore in the situation when the supplier is not forthcoming with the design intent of the item, it may be very difficult for the purchaser to determine whether the item was specially designed for a military end use, specially designed for a non-military end use or dual use.
- 2) The phrase "...any person or entity whose actions or functions are intended to support military end uses" is very broad and could lead to significant misinterpretation. This could be read to include contractors and suppliers to military end users as well universities that provide research, analysis, design, and development services. We do not consider persons or entities that support military end users to be military end users themselves (support and end use are mutually exclusive roles). Therefore, we recommend removing this phrase.
- 3) It may be extremely difficult to find "documents contemporaneous with the development" of an item that could be controlled under Category XII. The definition of contemporaneous is "existing or occurring in the same period of time." This indicates that the documentation needed to determine whether an item was developed for civilian or military end use would need to have been created at the time the item was developed. Although this may be appropriate for items developed within the last few years, universities often need to purchase parts, components and instruments that were developed decades earlier. In these instances, it is unlikely that such contemporaneous documentation exists or that the original developer will provide it to a purchaser. This requirement would place these items (that may have been developed for civilian use) under ITAR control because a purchaser cannot provide documentation contemporaneous with the development of the item.

Request for Wording Changes to Note to Category XII

We recommend that the proposed text for Note to Category XII be changed to: "For purposes of determining whether an item (i.e., system, end item, part, component, accessory, attachment, or software) is specially designed for a military end user, a "military end user" means the national armed services (Army,

Navy, Marine, Air Force, Coast Guard), National Guard, national police, or government intelligence or reconnaissance organizations. A system or end item is not specially designed for a military end user if the item was developed with knowledge that it is or will be for use by both military end users and non-military end users, or if the item was or is being developed with no knowledge for use by a particular end user. In such instances, the expectations regarding end use must be documented.”

AUECO appreciates the opportunity to provide the Department of State with the above comments on ITAR Amendment—Category XII.

Sincerely,



Brandi Boniface

Chair
Association of University Export Control Officers
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