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BY E-MAIL

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Bureau of Industry and Security, Room 2099B
U.S. Department of Commerce
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ATTN: **RIN 0694-AF66**

RE: Alcoa Inc. – Comments on Proposed Definition for *Specially Designed*

Dear Sir or Madam:

Alcoa Global Fasteners, Inc. dba Alcoa Fastening Systems ("AFS") appreciates the invitation to comment on the Department of Commerce, Bureau of Industry and Security's ("BIS") July 19, 2012 proposed definition for *Specially Designed.*[1] While AFS believes the proposed definition reflects the practical viewpoint that low level parts that have no genuine military purpose, such as fasteners, and fastening systems that are of a type used on many commodities, should not be controlled on the CCL, AFS offers the following comments and suggestions to assist BIS in this rulemaking process.[2]

I. Alcoa Fastening Systems

Alcoa Inc. is a world leader in the production and management of primary aluminum, fabricated aluminum products and alumina. Alcoa has 61,000 employees spread over 31 countries and reported 2011 revenue of $25 billion. Through its AFS business unit, Alcoa designs and manufactures fasteners, fastening systems, installation tooling, and bearing products used in civil and military applications worldwide. AFS sells over $1 billion dollars annually in fasteners, fastening systems, installation tooling and bearing products used in civil and military applications worldwide.

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1 Proposed revision to the Export Administration Regulations: Definition of Specially Designed, 77 Fed. Reg. 36409 (July 19, 2012).

2 AFS is concurrently submitting comments to the Department of State regarding its related proposed definition for Specially Designed, 77 Fed. Reg. 36428 (July 19, 2012).

II. Fasteners, Fastening Systems and Bearing Products

Fasteners and fastening systems used in various applications can range from relatively simple hardware devices, such as nuts, bolts, lockbolts, and screws, to more complex multi-subcomponent fasteners and fastening systems, such as panel fasteners, blind fasteners, fluid fitting connectors, and latches.[3] Because they simply hold things together, they perform the same function regardless of the components they connect, and their ultimate utility is independent of the end-item in which they are installed.

Bearing products include such items as spherical bearings, tie rods and rod ends. These bearing products are used in many kinds of civil and military applications that have components in assemblies that must rotate or oscillate such as landing gear or flight controls.

Generally, fasteners, fastening systems, and bearing products used in civil and military applications have the same performance levels and are functionally interchangeable, because the materials and specification requirements for AFS products used on many kinds of articles are generally the same. Additionally, many of the original designs for fasteners, fastening systems and bearing products are decades old and are based on consensus standards and/or established industry specifications and standards. Only in rare instances would the military or civilian nature of an article materially affect the design of the fastener.

III. Specific Comments on Proposed Definition of *Specially Designed*

AFS believes that most fasteners, fastening systems, fastener installation tooling, bearing products and similar low-level parts used on defense articles would not be controlled on the CCL under new ECCN 9A610.x if the proposed definition for *specially designed* is adopted, unless the part has a genuine military purpose.

With the understanding that fasteners and fastening systems, and other similar low-level parts that are designed, modified, or configured for a military article, have no genuine military purpose and are functionally interchangeable with fasteners on similar civil articles, it is appropriate to expressly exclude such parts from control on the CCL under its proposed definition of "specially designed".

However, certain provisions within the revised definition may still not preclude the interpretation that would potentially control fastening systems, fastener installation tooling, bearing products and other similar low level items that we believe BIS does not intend to control. Toward clarifying that these articles will not be controlled under ECCN 9A610.x, we offer the comments and suggestions discussed below.

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[3] AFS product lines commonly used by both civil and military aerospace customers include: blind bolts, blind rivets, fluid fittings, inserts and studs; installation and removal tools; latching systems; nuts; panel fasteners; pin fastening systems, bolts and screws; and lockbolt fastening systems. *See* AFS product brochure, *available at*: http://www.alcoa.com/fastening_systems/en/pdf/Aerospace_Products_Brochure.pdf., and AFS commercial product brochures at: http://www.alcoa.com/fastening_systems/commercial/en/home.asp.

As part of our comments, we provided examples of parts from two fastening systems and our bearing product line used on civil and military articles in Section IV below to demonstrate our understanding of the application of the draft definition. The parts are not listed in the examples in (b)(2), but these are also the kinds of low level parts we believe are not intended to be controlled as our examples suggest.

1. **Inadvertent Capture of Low-Level Parts**

AFS is concerned that as the proposed rule is currently written, standard types of fasteners and bearing products such as latches, blind bolts, panel fasteners, fluid fitting connectors[4], spherical bearings and rod ends that have been configured for a military aircraft could still be construed as defense articles lacking further clarity in the list of examples in (b)(2) that are "single unassembled parts of a type commonly used in multiple types of commodities".[5] As demonstrated in the examples below, our analysis suggests these are dual use articles because each is of a type used in civil and military articles; however, the dimensions of the part may vary to properly mate with another component, to fit within a specific space, or to conform to a curved surface on the fuselage of a military aircraft. These design considerations are common to military and civil aircraft, but the resulting parts perform the same function. To further clarify the intent of (b)(2), it would be helpful to have a more comprehensive list of items in this section. In this regard, we would suggest adding other representative categories of parts that are intended to fit the definition in (b)(2) such as latches, blind bolts, panel fasteners, fluid fittings, bearings, and rod ends.

2. **Inadvertent Capture of Fastener Installation Tooling**

ECCN 9A610.x. does not address fastener installation tooling, and the draft definition for *specially designed* may not provide the clarity needed for all interpreters of the CCL to reach the same conclusion that unique, but low level tooling is not controlled.

In this regard, AFS urges revision of (b)(3) to clarify the meaning or application of the "form … of … an accessory".[6] This part of the rule may subject some AFS fastener installation tooling, which has been customized at the request of a military customer for purposes of

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[4] Fluid fittings are used in low and high pressure fluid systems to connect hoses to components such as actuators that are used to control a system on civil or military aircraft, e.g. landing gear, flight controls.

[5] All of these items are comprised of several subcomponents that must be assembled into a completed fastener or bearing assembly in order to create the "single unassembled part" referred to in (b)(2) of the draft definition.

[6] Lacking a better category for fastener installation tools, AFS currently considers tooling to be an accessory that is needed by aircraft manufactures and maintenance facilities to install and repair fasteners. Installation tooling would therefore not be 'released' under section (b)(2), which addresses parts, even though it is used to install fasteners 'released' under this section. If it is intended to 'release' fastener installation tooling under (b)(2) as part of a fastener system, then this would need to be expressly stated.

installing fasteners on military articles, to control even though the fit (means for engaging the fastener) and performance levels are the same. The customization of installation tooling is done primarily to compensate for access issues so that fasteners and fastening systems may be properly installed, but the overall function of the tooling is not changed. We are concerned that minor modifications could be interpreted as *specially designed* and control otherwise dual-use tooling under section (a)(3) of the proposed definition when there is no express "release" in section (b) when such a modification is first requested by a military customer but has equal utility in the civil markets.

While (b)(4) could be interpreted to include such modified tools, its application is ambiguous particularly if the first request for a modification is from a military customer even though it is reasonable that a civil customer could encounter the same access issues, on for example a small business jet, and therefore require the same tooling at a later time.

Accordingly, we respectfully suggest that BIS clarify either the definition of "form" as used in (b)(3) since tooling with different forms that have the same performance capabilities as tooling used on civil articles are not controlled, or better address the criteria under (b)(4) to avoid capturing customized tooling that have no military purpose.[7]

IV. Specific Examples for Application of Proposed Definition for *Specially Designed*

In reviewing the proposed definition for *specially designed*, AFS selected three common types of parts as examples that were then evaluated against the criteria in the proposed revision to the CCL for ECCN 9A610.x[8], and the proposed definition as provided below. In each of the cases, AFS determined that the articles should not be controlled on the USML, but rather should be controlled under the EAR.

1. Latch designed for fighter aircraft:

   In reviewing the criteria under *specially designed*, AFS believes the latch may not be captured under (a)(1) through (a)(3) because there is no performance level, characteristics, or functions enumerated for a latch on the USML, it is not genuinely necessary for the function of the defense article, and it is not an accessory or

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[7] It is noted that various fastening systems with different "forms" are also intended to be interchangeable. For example, lockbolts and threaded pins are interchangeable and used depending on clearance for tooling; panel fasteners can be used instead of latches at the designer's discretion; blind bolts are used in lieu of lockbolts or threaded pins when access for installation is from one side. Thus, the definition and use of 'form' does not fully reflect the known uses of similar products.

[8] 76 Fed. Reg. 41958 (July 15, 2011) and 76 Fed. Reg. 68694 (Nov. 7, 2011)

attachment.[9] However, since the latch has unique dimensions, and interpretations can vary, AFS assumed the latch was captured by (a)(1) and (a)(2), and moved to the analysis in (b).

On reviewing the latch under (b)(1), we first determined the part is not listed on the USML. Then, our review of the latch under (b)(2) concluded the latch is not *specially designed* because it "is a single unassembled part that is of a type commonly used in multiple types of commodities not enumerated on the U.S. Munitions List or the Commerce Control List …"[10] Latches made from the same materials with slightly different dimensions and features that have the same function are used on both civil and military articles.

2. Fluid fitting connectors designed for fighter aircraft:

   Similar to the analysis above, the fitting does not appear to meet the requirements of (a)(1) or (a)(2), but since the dimensions may vary slightly, it was assumed the part was captured under section (a). The part is not listed on the USML (b)(1), and "is a single unassembled part that is of a type commonly used in multiple types of commodities not enumerated on the U.S. Munitions List or the Commerce Control List …" thus the part is 'released' under (b)(2) and it is not *specially designed.*

3. Rod end designed for fighter aircraft:

   A rod end is designed for use on the landing gear of a fighter aircraft. On reviewing the definition for specially designed, sections (a)(1) or (a)(2) could 'capture' this rod end due to its unique dimensions, but section (b)(2) 'releases' this rod end because it "is a single unassembled part that is of a type commonly used in multiple types of commodities not enumerated on the U.S. Munitions List or the Commerce Control List …". Rod ends made from the same materials, with the same function, are used in many types of articles.

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[9] A dual-use structural panel fastener could be easily used in lieu of a latch, albeit with minor modifications to the aircraft. Panel fasteners and latches provide similar solutions to fasten panels to a structure on an aircraft and are frequently selected based on the preference of the aircraft designer rather than some unique function or characteristic of the defense article to perform its intended function.

[10] AFS understands "of a type commonly used in multiple types of commodities not enumerated on the US Munitions List or the Commerce Control List" as used in (b)(2) to apply broadly to all fasteners used on commodities regardless of their form, material, dimensions, applied coatings or lubricants, provided these features do not contribute to the low observable characteristic of the end item or other unique characteristic that warrants control. AFS also understands articles not "enumerated" on the control lists include such articles as commercial airliners, farm equipment, computer furniture, etc. AFS suggests adding an explanatory note to clarify the meaning of (b)(2).

V. Level of Control – ECCN for Fasteners, Fastening Systems and Bearing Products

In our comment letter to BIS dated December 22, 2011, for the Proposed Rule to amend Category VIII published in 76 Fed. Reg. 68675 (November 7, 2011), AFS suggested that fasteners used on aircraft could be classified 9A991.d or EAR99. However, on further review of the application of *specially designed*, and since all of these low-level articles have the same function of holding things together in virtually all man-made articles, it seems more appropriate to use EAR99 for these articles. While many AFS fasteners are designed for use on aircraft since this is a significant part of our business, the features of our products have utility in high-performance race cars, gas turbines used to generate electricity and other similar applications requiring higher performance fasteners and connectors, and thus should be controlled as EAR99 consistent with other types of fasteners and connectors.

VI. Conclusion

Alcoa appreciates BIS's significant efforts in revising the definition for specially designed and affording industry the opportunity to provide input. We hope that our comments, suggestions, and examples will help to further clarify the application of the proposed definition.

Should you have any questions or require further information, please do not hesitate to contact the undersigned at TJ.Adcock@Alcoa.com or (724) 337-2071.

Respectfully submitted,

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Alcoa Inc.