Esterline Corporation
500 108th Avenue NE
Suite 1500
Bellevue, WA 98004

Tel: 425-453-9400
Fax: 425-453-2916
www.esterline.com
NYSE symbol: ESL

September 9, 2013
13-C-RRB-020

Mr. Brian Baker
Department of Commerce
Bureau of Industry and Security
Regulatory Policy Division
14th and Pennsylvania Avenue , N.W.
Room 2099B
Washington, D.C. 20230

Subject: RIN 0694-AF64 Military Electronic Equipment

Dear Mr. Baker:

Esterline Technologies Corporation supports the goals of the Export Control Reform (ECR) Initiative, and submits the following recommendations to simplify and make the reforms more efficient and clear. Esterline is a manufacturer of a wide variety of parts and components for the aerospace and defense sector. We appreciate the opportunity to comment on the U.S. Department of Commerce's proposed treatment of electronic items formerly controlled under the USML.

Summary of Comments and Recommendations

This section outlines our main comments, each of which is explained more fully in the remainder of this letter.

1. Select Option 2 for ".y" paragraphs, creating a single list of 600-series items subject only to antiterrorism and China military end-use license requirements (78 FR 45034).
2. Consider justification for addition of items to a ".y" structure (78 FR 45035).
3. Clarify whether ".y" ECCNs are considered ECCNs controlled only for Anti-Terrorism (AT) reasons with respect to paragraph (b)(3)(ii) of the "specially designed" definition.
4. Clarify the meaning of "used in or with" within the definition of "specially designed" to improve clarity and certainty to the process of classifying parts for military electronics (78 FR 45034).
5. Address apparent inconsistency between paragraph (b)(1) of the definition for "specially designed" and paragraph (c) to General Order No. 5 in Supplement No. 1 to 15 CFR 736 (78 FR 45029).

6. Address inconsistency between 600-series ECCNs, USML categories, and dual-use ECCNs for electronics installed in certain end items (78 FR 45030).
7. Address appropriate control of printed circuit boards and multichip modules (78 FR 45046).
8. Address appropriate classification of chaff and flares for electronic combat systems.

Detailed Comments and Recommendations

1. Select Option 2 for ",y" paragraphs

At 78 FR 45034, BIS invited comment on four options for the ".y" paragraphs in 600-series ECCNs.

Esterline strongly supports Option 2 for ".y" paragraphs. Most of the articles proposed for ".y" paragraphs are common items or basic hardware used in multiple types of end item.

In RIN 0694-AF36 and RIN 0694-39 the BIS ruled that various items are militarily less significant and warrant control only for Anti-Terrorism (AT) reasons, the China military end-use licensing requirements, and the *de minimis* controls on foreign-made items containing "600-series" items. These items will be placed in ".y" paragraphs within the 600-series ECCNs. In RIN 0694-AF36 BIS determined that, because national security concerns require visibility into transactions for many basic hardware items, they do not quite warrant release from specially-designed catch-all controls under paragraph (b)(2). The licensing policy established for ".y" items is therefore appropriate.

The items identified in the ".y" paragraphs to date are militarily less significant regardless of application. A customized knob ought to be identically controlled regardless of which type of military system it is installed in. Consistent treatment across all 600-series ECCNs (including both CCL product groups A and B) would provide a common policy basis that would be much easier for manufacturers, exporters, licensing, customs, and enforcement personnel to understand. This approach would still support the national security interests of the United States.

Of the four options BIS has proposed, Option 2 is the most consistent with the nine stated objectives for the definition of "specially designed" under ECR in RIN 0694–AF17 (76 FR 41958, July 15, 2011), particularly:

- Preclude multiple or overlapping controls of similar items within and across the two control lists
- Easily understood and applied by exporters, prosecutors, juries, and the U.S. Government

The current ".y" structure (Option 1) specifically creates multiple and overlapping controls of similar items within the CCL. Further, it is not easily understood. ECCN and licensing policy for a box of knobs passing through Customs will vary depending on whether they are installed in an aircraft cockpit, a cargo bay crewstation, the ground support equipment for the aircraft, or any other another type of military end item. If

installed in military electronics in an aircraft cockpit, it is unclear whether ECCN 9A610 or 3A611 would prevail for the knobs.

Options 3 and 4, both of which would do away with the ".y" structure, would detract from national security by distracting licensing and enforcement from critical technologies and putting too many resources into the licensing and control of minor items. These options would result in a major step backward for export control reform.

Esterline suggest BIS might consider a fifth option, which is to use a single ".y" ECCN for common items and basic hardware, and leave those few items that are particular to an end item (such as antique aircraft under ECCN 9A610.y.29) within the end item ECCN.

2. Select Option 2 for ".y" paragraphs

At 78 FR 45035, BIS invited public comment as to why particular types of items, regardless as to how they would be modified for a military item, are nonetheless non-significant so as to warrant not more than AT-only controls.

Esterline would like to highlight basic hardware as an example of items that do not warrant more than AT-only controls.

In remarks by former Defense Secretary Gates to the Business Executives for National Security on the U.S. Export Control System on April 11, 2011, the secretary stated "We need a system that dispenses with the 95 percent of easy cases and lets us concentrate our resources on the remaining 5 percent" and "Frederick the Great's famous maxim that he who defends everything, defends nothing certainly applies to export control." Refocusing control to from basic hardware to critical technology is a national security imperative under ECR,

A partial list of basic hardware is provided in Table I. These items are common to all types of military and commercial end items. They have either been listed in or proposed for ".y" paragraphs, are released from "specially designed" under paragraph (b)(2), or reflect an equivalent level of significance. The appropriate licensing policy for these items is either the current control for 600-series ".y" paragraphs or, where BIS deems acceptable, release from specially designed under paragraph (b)(2).

Note that specific versions of several items listed on Table I are already enumerated on the CCL due to their technical parameters, including certain microcircuits, semiconductor devices, valves, and gaskets. Since those specific versions are enumerated on the CCL they would not be eligible for placement in a ".y" paragraph and will remain suitably controlled.

Esterline suggests that identification plates and nameplates are more suited to release from specially designed under paragraph (b)(2). DDTC has previously advised Esterline that their policy for labels is that they are not subject to the ITAR except when they contain technical data subject to the ITAR. Thus, they should not be moving to 600-series control.

3. Clarify application of paragraph (b)(3)(ii) of the Specially Designed definition

Paragraph (b)(3)(ii) releases parts, components, accessories, attachments, or software from "specially designed" if they are used in or with an item that is either not 'enumerated' on the CCL or USML, or is described in an ECCN controlled only for Anti-Terrorism (AT) reasons.

The 600-series ".y" paragraphs are controlled for AT reasons, but are also subject to the restrictions of 15 CFR 744.21 and *de minimis* restrictions for foreign articles containing 600-series ECCNs.

Could BIS clarify whether parts, components, accessories, attachments, or software used in or with 600-series ".y" paragraphs are released from specially designed by paragraph (b)(3)(ii)?

If not, Esterline suggests that the ".y" paragraphs also control parts, components, accessories, attachments, or software not enumerated and used in or with items described in the ".y" paragraphs, so that these lower-level items will not be controlled under ".x" paragraphs.

4. Clarify the meaning of "used in or with"

At 78 FR 45034, BIS invited public comment as to whether the definition of "specially designed" and the order of review add clarity and certainty to the process of classifying parts for military electronics.

The order of review and the definition of "specially designed" add clarity in some areas. BIS could improve the clarity of classifying parts for military electronics (and other parts and components) by explaining the meaning of "used in or with". BIS and DDTC personnel have recently described this as meaning "one level up" in a hierarchical design structure for an end item, system, or equipment,

The "one level up" explanation is not found either within the definition of "specially designed", or in the order of review specified by Supplement 4 to 15 CFR 774, or in published agency guidance. The meaning of "used in or with" is therefore subject to interpretation.

Esterline suggests that "one level up" as an explanation for "used in or with" would allow inappropriate decontrol of sensitive items, particularly in the area of military electronics.

A lower-level item in a hierarchical design structure (typically an indented bill of material) may have properties peculiarly responsible for achieving or exceeding the performance levels of an enumerated item higher in the hierarchy. Several intermediate levels may be found between these two items. The intermediate levels are usually not enumerated because they are implemented for ease of production or to support logistics. Using "one level up" as a criterion could decontrol critical lower-level items because the relationship with the higher-level enumerated item is not considered. Instead, the lower-level item is

used in or with an item that is not enumerated and may be released by paragraph (b)(3)(ii) of the specially designed definition.

Importantly, if control of a lower-level item is determined by the classification of the item "one level up", unscrupulous manufacturers could insert artificial non-enumerated levels in a hierarchical design for the express purpose of decontrolling a sensitive item.

Esterline suggests an analysis of "used in or with" should follow up the design hierarchy for product build across supply chain boundaries until an enumerated item or the top of the hierarchy is reached, whichever is first. The lower item will then be "used in or with" the higher item found (or multiple higher items, if there are multiple applications).

In end items the lower-level components often branch up through multiple paths of system design hierarchy. The same component can be part of more than one equipment or system (even at "one level up" the product build hierarchy). Classifying these items depends on determining which of the higher-level equipment or system classifications prevail.

The order of review provides precedence only to the distinction between USML, 600-series, the rest of the CCL, and EAR99. It does not help in determining which of several 600-series ECCNs will prevail when any might apply.

Crewstation control panels, displays, and other human-machine interface devices in end items such as aircraft, land vehicles, and naval vessels are typically multi-function components. They often incorporate controls and indicators for several systems, enumerated under both the military electronics and end item categories. Wire harness, databus, and data concentrator components have similar considerations.

Esterline suggests amending the order of review to allow for distinguishing between 600-series ECCNs when a component is used in or with multiple systems (excepting items described in a common ".y" ECCN). Esterline suggests that in such cases the end item ECCN should prevail. Thus, if a component is used in or with systems under both ECCN 3A611 and ECCN 9A610, or both systems under both ECCN 3A611 and USML VIII, then ECCN 9A610 should prevail for the component,

5. Consistency between "specially designed" and General Order No. 5

At 78 FR 45029, BIS invited comment as to whether General Order No.5 would prevent items determined to be subject to EAR by a prior Commodity Jurisdiction (CJ) determination from moving to the 600-series.

Esterline notes that the text of paragraph (b)(1) in the "specially designed" definition differs from the text of General Order No. 5. Older CJ rulings from DDTC did not provide an ECCN, but simply stated that an item was not subject to the USML. An item with such a CJ ruling, and not listed in an "018" series ECCN, would not be 600-series by General Order No. 5, but also would not be released by paragraph (b)(1) in the "specially designed" definition.

Esterline recommends amending paragraph (b)(1) in the "specially designed" definition for consistency with General Order No. 5. This would remove doubt about whether General Order No. 5 prevents items with a CJ determination from moving from the existing CCL to the 600-series as a result of the rule.

6. Consistency between USML, 600-series, and other ECCNs

At 78 FR 45030, BIS invited comments as to whether separate 600-series ECCNs for military computers, telecommunications, lasers, and radars would be easier to understand than placing these items in 3Y611.

Esterline notes that the BIS approach is distinctly different from both the USML approach under ECR and the existing ECCNs for dual-use items. Given this context, it is not easy to understand.

Esterline believes that it would be more appropriate for the 600-series ECCNs to follow the same logic as the USML, because the order of review is then better aligned between the USML and 600-series items.

Esterline notes that computers for aircraft and land vehicles, in particular, tend to be highly customized and unique to their class of end item.

Under ECR, DDTC is moving most military computers to the end item categories. In RIN 1400-AD37 (78 FR 22740, April 16, 2013) DDTC will move several computers to USML entries VIII(h)(16) and VIII(h)(17) effective October 15, 2013. USML entries XIX(e) and XIX(f)(5) will include inherently computerized electronic systems. At 78 FR 22742 DDTC indicates that it "believes it is sensible to control as aircraft components computer systems specially designed for aircraft." USML entry VIII(h)(17) will control mission computers, vehicle management computers, and integrated core processors specially designed for Commerce-controlled aircraft under ECCN 9A610.

Similarly, in RIN 1400-AD40 (78 FR 40921, July 8, 2013) DDTC will move several computerized systems to USML entries VI(f)(4), VI(f)(6), VI(f)(7), VII(g)(2), VII(g)(7), VII(g)(11), and VII(g)(12) effective January 6, 2014.

While not explicitly stated, this appears to result in moving a number of parts, components, accessories, and attachments for computers currently found in USML entries XI(a)(6) and XII(a) (as well as military aircraft computers not described in the new USML Category VIII) to ECCNs 9Y610 and 9Y619 on October 15, 2013, and again to ECCNs 0Y606 and 8Y609 on January 6, 2014, as computers transition for these categories – probably before RIN 0694-AF64 can take effect.

Further, in RIN 1400-AD25 (78 FR 45017, July 25, 2013) DDTC proposes to change USML entry XI(a)(6) from military computers to "[Reserved]" after which computers will no longer be controlled as a general description under USML Category XI.

By contrast, computers and most electronics for civil aircraft are generally controlled as avionics under CCL Category 7, whereas ECCN 7Y611 would redirect items to ECCN

3Y611. The existing CCL approach necessarily follows the Wassenaar dual-use list, but the lack of a definition for "avionics sometimes results in uncertainty as to whether a component belongs in CCL Category 7 or Category 9.

BIS does not appear to have contemplated ECCNs 0Y611 or 8Y611 to address land vehicle, naval, and submarine electronics that could be transitioning on January 6, 2014.

7. Printed Circuit Boards and Multichip Modules

At 78 FR 45046, BIS proposes to regulate printed circuit boards and populated circuit card assemblies specially designed for 600-series items under ECCN 3A611.g, and multichip modules similarly under ECCN 3A611.h.

Esterline notes that where these items are used in items controlled by a ".y" paragraph, they are inherently non-significant and should either be released by paragraph (b)(3)(ii) of the specially designed definition, or themselves controlled by the ".y" paragraph. A similar approach may be suitable for application-specific integrated circuits and programmable logic devices proposed for ECCN 3A611.f.

8. Chaff and Flares

DDTC has been controlling chaff and flare rounds produced by Esterline subsidiaries under USML Category XI. Since this may not seem intuitive, Esterline believes it is appropriate that these items be positively listed. Esterline suggests BIS add a positive subparagraph under 3A611 to control parts and components that do not contain materials controlled by USML Category V and that are specially designed for chaff and flares rounds described in USML Category XI. Alternately, a note could be added to explain that such specially designed parts and components are controlled under 3A611.x.

Esterline is separately recommending that DDTC also add a new non-SME entry under USML subcategory XI(c) to control chaff and flare rounds specially designed for the systems and equipment described in USML entry XI(a)(4)(iii), and parts and components thereof containing materials controlled under USML Category V.

Table I. Basic Hardware

Electrical, Electronic, and Optical
Batteries
Capacitors
Filtered and unfiltered display elements: cathode ray tubes, electroluminescent panels, liquid crystal panels, segmented or graphic light-emitting diode arrays
Circuit protection devices: electric fuses other than those specially designed for explosive detonation, circuit breakers, gas discharge tube arrestors, ground fault circuit interrupters, metal-oxide varistors, thermal cutoffs, transient-voltage suppressor diodes
Crystal units and microelectronic oscillators

Discrete semiconductor devices, unless enumerated
Electric filters, baluns, and ferrites
Electric and optical switches other than RF, diplexer, duplexer, or circulator switches
Electric transformers, inductors, and coils
Electrical and optical connectors, sockets, crimps, and couplings and their associated hardware: terminals, contacts, guide pins, covers, strain reliefs, backshells, shield socks, etc.
Filtered and unfiltered panel knobs, indicators, switches, thumbwheels, buttons, dials, lamps, and multi-character readout displays
Fixed resistors and variable resistors, potentiometers, and rheostats
Fluorescent lamp inverters and ballasts
Heater elements
Jumpers and grounding straps
Meters, gauges, and indicator dials
Microcircuits, unless enumerated
Lamp holders
Power supplies, converters, and inverters
Photovoltaic cells
Relays, contactors, and optoisolators
Solenoids
Audio speakers, buzzers, microphones, headphones, earphones, handsets, and headsets
Thermoelectric coolers
Touchpads and touchscreens
Vacuum tubes other than TWTs, klystron tubes, or tubes specially designed for articles enumerated in USML Category XII
Solder – specially designed release (b)(2)
Wires – specially designed release (b)(2)
Mechanical
Bushing – specially designed release (b)(2)
Caps and plugs
Circuit board and enclosure hardware: racks, trays, card guides, handles, pullers, and rails
Circuit board and enclosure hardware: standoffs, spacers – specially designed release (b)(2)

Electronic component insulators clips, and spacers – specially designed release (b)(2)
Electronic component mounts and holders
Fan hardware: grills, air filters, and finger barriers
Fasteners: screws, bolts, nuts, nut plates, studs, inserts, clips, rivets, pins, rods, thumbscrews, standoffs, turnbuckles, etc. – specially designed release (b)(2)
Flip-guards
Gaskets and O-Rings, unless enumerated
Grommets and grommet strips – specially designed release (b)(2)
Heat sinks electrical and electronic components
Identification plates and nameplates
Knobs
Latches and hinges
Magnets
Rings
Solder – specially designed release (b)(2)
Springs – specially designed release (b)(2)
Washers – specially designed release (b)(2)
Wires – specially designed release (b)(2)
Hydraulic, Pneumatic, Fuel & Lubrication
Gauges
Hoses, tubing, straight and unbent lines, and straight and unbent pipes
Fittings, couplings, clamps, and line blocks
Filters
Regulators
Switches
Valves, unless enumerated

Summary

Esterline believes that addressing these points will improve clarity and result in more appropriate control of items on the 600-series. Esterline supports the goals and objectives of ECR, and appreciates that BIS has already made substantial revisions to its proposed rules based on public comment.

Regards,

Richard R. Baldwin
Director, Ethics & Compliance
Esterline Technologies Corporation