SIA SEMICONDUCTOR INDUSTRY ASSOCIATION

January 28, 2013

Mr. Timothy Mooney
Regulatory Policy Division
Room 2099B
Bureau of Industry and Security
U.S. Department of Commerce
14th Street & Pennsylvania Ave., N.W.
Washington, D.C. 20230

Re: Revisions to the Export Administration Regulations Pertaining to Control of Military Electronic Equipment and Related Items the President Determines No Longer Warrant Control Under the United States Munitions List (*Federal Register* Notice of November 28, 2012; (RIN 0694-F64)

Dear Mr. Mooney:

The Semiconductor Industry Association ("SIA") is the premier trade association representing the U.S. semiconductor industry. Founded in 1977 by five microelectronics pioneers, SIA unites over 60 companies that account for nearly 90 percent of the semiconductor production of this country. The semiconductor industry accounts for a sizeable portion of U.S. exports.

SIA is pleased to submit the following public comments in response to the request for public comments issued by the Commerce Department's Bureau of Industry and Security ("BIS") on proposed revisions to the Export Administration Regulations ("EAR") pertaining to control of military electronic equipment and related items ("Proposed Revisions").[1]

Central to the Proposed Revisions is the definition of "specially designed." Indeed, it is difficult to gauge the impact of the Proposed Revisions without knowing the definition of that term. Accordingly and in light of its particular importance to the semiconductor industry, SIA's comments focus on that definition.

As noted in SIA's comments submitted in response to BIS's proposed "specially designed" definition,[2] SIA has serious concerns about the "catch and release" structure of the revised proposed "specially designed" definition. In particular, SIA is concerned that the "release" portions of the proposed definition will fail to exclude from the definition many integrated circuits ("ICs") that are not specially designed for controlled end items.

[1] Revisions to the Export Administration Regulations (EAR): Control of Military Electronic Equipment and Related Items the President Determines No Longer Warrant Control Under the United States Munitions List (USML), 77 Fed. Reg. 70,945 (Nov. 28, 2012) ("Proposed Revisions").
[2] SIA, Comments on Proposed "Specially Designed" Definition, RIN-0694-AF66 (Aug. 3, 2012).

Prior to finalizing the "specially designed" definition, BIS should:

- Include in subsection (a)(1) of the definition application-specific components of end items for which the control parameters or character can be ascertained;

- Restrict the "necessary" standard for components set forth in subsection (a)(2) to components for which there is no basis to assess the controlled parameters or character of the end item in which the component is incorporated;

- Create a note that provides an appropriate industry definition of ASICs; and

- Eliminate reference in subsection (b)(3) to "form and fit" for components of equivalent performance

These changes would properly reduce the scope of the "catch" in the proposed definition. They would also sharpen the exceptions in a more systematic way that is consistent with the derivative nature of components and reliant on widespread industry practice and understanding.

Of particular concern is the inclusion of "form," and "fit" in the language of paragraph (b)(3) of the proposed definition. For ICs, form and fit do not affect, nor are they a part of, design.

The four major steps in the design and manufacturing process for ICs are design, wafer fabrication, assembly/packaging, and testing. These steps are discrete and sequential. The design of an IC takes place and is completed before the wafer manufacturing step takes place. The final IC design is reflected in the wafers produced as a result of the wafer fabrication process and the die or "chips" on the wafers. Importantly, both the design and function of the IC is final at this time point in time — *i.e.*, at the point at which IC design is completed.

Wafer fabrication employs the IC design to produce individual die or "chips" on a semiconductor wafer, resulting in an IC. At that point the functionality of the IC exists in a useable form and is final. Assembly/packaging and testing have no impact on the functionality of the IC. While packaging and testing are part of the overall manufacturing process, they are not part of the IC design process and do not represent a modification of the original design reflected on the die or "chips" produced during the wafer fabrication step.

If the original IC circuit design was not "specific" to a controlled end use application, it is appropriate next to determine if the original circuit design of the IC was subsequently "modified" for a "specific" controlled end use application. (Such modification is known in the semiconductor industry as a die "revision" or a die "spin.")

In examining whether an IC is "specially designed" it is inappropriate to examine the processing, packaging and testing of the IC, as those steps have no impact on the functionality of the IC or on its design characteristics.

In short, two ICs that have the same design, function or performance capabilities based upon that same design should be deemed to be identical and therefore worthy of the same control status, regardless of any differences in form and fit between the two ICs. In addition, for the semiconductor industry, different part numbers do not signify different "models" or "versions" of the part when the parts share the same basic performance and capability based upon the common die/chip used in each of the specific parts with different numbers.

Given the reality that the form and fit of an IC do not and cannot alter the specific design and hence the functionality of the IC as contained in the die, form and fit should be eliminated in subsection (b)(3) of the revised proposed definition.

SIA urges BIS to simplify and clarify the "specially designed" definition such that the definition captures the natural meaning of that term in a positive fashion without any need for overreaching exclusions or exceptions. SIA also maintains that it is both logical and feasible to tie the control of a "specially designed" component to the related end item, but only to the extent that the "specially designed" component is peculiarly responsible for the controlled parameters or the controlled character as a whole of the end item.

If BIS for whatever reason chooses not to implement SIA's recommendations for all components, then, at a minimum, BIS should implement targeted modifications or additions to the Proposed Definition (*e.g.*, through a targeted Note to the definition) such that SIA's recommendations are implemented with respect to ICs. SIA strongly supports a semiconductor-specific note to the specially designed definition (a) which clarifies that, as applied to semiconductors, specially designed shall apply only to ASICs that are peculiarly responsible for achieving or exceeding the controlled parameters of end items into which they are incorporated. Further if "form and fit" are retained in (b)(3) we would strongly support a semiconductor-specific note which clarifies that, as applied to ICs, "form" and function should be determined at the wafer level when the design of the device is fully realized. "Fit" should be determined by accessing the pin out attached to the die.

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SIA appreciates the opportunity to comment on the Proposed Revisions and looks forward to continuing its cooperation with the U.S. Government on this subject. Please feel free to contact the undersigned or SIA's counsel, Clark McFadden of Orrick, Herrington & Sutcliffe LLP, if you have questions regarding these comments.

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