From: Larry Disenhof <larryd@cadence.com>
To: PublicComments@bis.doc.gov
Date: Fri, Feb 4, 2011 10:03 AM
Subject: Notice of Inquiry-CCL'

Good morning,

On behalf of the EDA Consortium and our export committee, I am submitting the attached letter in response to the Department of Commerce Advanced Notice of Proposed Rulemaking soliciting comments on how the CCL can be more positive and tiered.

We appreciate the opportunity to provide our input on this important reform effort.

Sincerely,

Larry Disenhof

[cid:image002.gif@01CBC44E.78482BC0]

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Sent via email to: *publiccomments@bis.doc.gov*

February 3, 2011

Regulatory Policy Division
ATTN: Notice of Inquiry -- CCL
Bureau of Industry and Security
Room 2705
U.S. Department of Commerce
Washington, DC 20230

RE: Federal Register: December 9, 2010 (Volume 75, No. 236) Commerce Control List: Revising Descriptions of Items and Foreign Availability

Dear Sir or Madam:

The Consortium Export Committee wishes to thank the Department of Commerce for the opportunity to comment on the advanced notice of proposed rulemaking which seeks public comment on how the descriptions of items controlled on the Commerce Control List (CCL) of the Export Administration Regulations (EAR) could be more clear and positive, as well as "tiered" in a manner consistent with the control criteria the Administration has developed as part of the reform effort. The involvement of industry in the reform effort will ensure the resulting export control system is streamlined in a way that more effectively addresses national security concerns, while making the system more transparent and efficient for the government and regulated community.

The notice also requests comments on the degree to which a controlled item provides the United States with a critical, substantial, or significant military or intelligence advantage; and the availability of the item outside certain groups of countries. To this end, we will address the current ECCNs that most directly affect the EDA industry and technology.

EDA WHERE ELECTRONICS BEGINS

The EDA Consortium Export Committee would like to thank the Department of Commerce and the interagency task force for the tremendous effort that has been done to-date in support of the Administration's Export Control Reform Initiative. The Consortium fully supports the overarching goals of:

- A three tiered system comprised of items using a "positive list" approach, describing controlled items using objective criteria rather than broad, open-ended, subjective, generic or design intent-based criteria.
- Creation of a "bright line" between the two current control lists (USML and EAR) to determine which list an item is controlled on;
    - To this end, any part or component of the end item or equipment controlled in a Category that is common to an item "subject to the EAR" should be under the export jurisdiction of the Department of Commerce. A part or component "is common" if it is interchangeable on a one-for-one replacement basis with an item "subject to the EAR" without more than minor adjustments or minor modifications to its form or fit.
- The two lists are structurally aligned so that they can eventually be combined into a single list of controlled items

Policy Principles

- Consistent with the Administration's goal of avoiding an overly broad and complex export control system, the Administration should adopt positive lists that focus only on sensitive items that are susceptible to effective control.
- Considerations that should inform the Administration's proposed criteria for placing items within the 3-tier control structure should include:
    - Products that are, or will become, widely available or accessible should be classified under EAR99 except under narrow and justifiable circumstances.
    - An application of foreign availability that includes whether equivalent foreign items and capabilities exist, as well as the degree to which an item is available or accessible through commercial distribution outside the U.S.
    - The new export control system should comport with multilateral agreements and disciplines.

- Tier 1 should apply to items that have an inherent military character or to functions/capabilities that are peculiarly responsible for a military / intelligence application.

- Tier 2 should apply to items found on the Wassenaar *Very Sensitive List* and *Sensitive List.*

- Under the 3-tiered structure, items not found on the Wassenaar *Lists*, as well as general purpose items should fall under Tier 3, if not classified EAR99 outright.

- Thus items for which companies hold CCATS or other rulings indicating AT-Level controls should be Tier 3 or EAR99. A general purpose item by definition should not be treated as "critical" or "substantial."

- Items for which companies hold CCATS or other rulings indicating the products are EAR99 should continue to stand, and not be incorporated under any of the new Tiers.

Specific to our industry, the EDA Consortium Export Committee would like to address four ECCNs and their corresponding technology classifications: 3D991, 3D003 and 3A001.a.5.a and 3A001.a.5.b

ECCN 3D991: "Software" specially designed for the "development", "production", or "use" of electronic devices 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.

Electronic Design Automation (EDA) is the formal name for a suite of software and related technology used by designers and engineers for the layout of electronic circuits. The EDA design process incorporates multiple steps from idea generation through "tape out" of a design that is then translated by software/firmware within fab equipment to produce a chip or board.

Core EDA products were decontrolled in the early 1990's. Companies within the industry received multiple CCATS listing these products under ECCNs 3D96G and EAR99. Beginning in 2004, in conjunction with a clarification to ECCN 3D003, BIS began

classifying EDA tools under ECCN 3D991. Taking a conservative approach, EDA companies have self-classified their suites of software tools under 3D991, even though if exported individually, many of the individual software components would be EAR99 (database managers, GUI translators, design library files for EAR99 components such as memory, etc.)

We take this broader approach in classifying software as 3D991/ 3E991, as fundamentally these classifications and EAR99 are both equally subject to the level of restrictions described in the *General Prohibitions* outlined in Part 736 of the EAR. To break the components out individually creates a bureaucratic structure that has zero affect on compliance practice or national security.

We offer two proposals. The first is to drop all current AT-level control items from the CCL. Again in complying with the end-use / end-user controls, and the *General Prohibitions* of Part 736 of the EAR, there is no fundamental difference in administering the export of these products versus EAR99. This will also serve to align our control list with that of Wassenaar.

The second proposal we offer is to retain a modified ECCN 3D991/ 3E991, identified in Tier 3 of the new category structure. These ECCNs would be modified to include a statement that 3D991 does not control Electronic Design Automation software, and 3E991 does not control Electronic Design Automation technology. This would clarify what today is a confusing mix of 3D991, 3E991 and legitimate EAR99 classifications that exist within the EDA spectrum. By reclassifying EDA as EAR99 (as it had been prior to 2004), this also acknowledges the broad availability of this software that is being taught in universities and used in commercial settings worldwide.

The resultant 3D991/ 3E991 would continue to control the design features of specific electronics controlled under 3A991. However, consistent with our overarching policy principles, parts/components that today fall under 3A991 are by their nature general purpose and generally used in commercial applications, and should be classified as EAR99. 3D991 and 3E991 would be limited to software and technology as it applies to the remaining 3A992, 3B991 & 3B992 entries.

ECCN 3D003: "Physics-based" simulation "software" specially designed for the "development" of lithographic, etching or deposition processes for translating masking patterns_into specific topographical patterns in conductors, dielectrics or semiconductor materials.
Related Definitions: 1.) Libraries, design attributes or associated data for the design of semiconductor devices or integrated circuits are considered as "technology". 2.) Physics-based' in 3D003 means using computations to determine a sequence of

physical cause and effect events based on physical properties (e.g., temperature, pressure, diffusion constants and semiconductor materials properties).

This ECCN is unnecessary as the application of this software resides solely in process-specific manufacturing equipment used to produce photolithographic masks that are already effectively controlled in category 3B. The cost of this equipment, coupled with the costs of supporting the infrastructure, is in the multi-millions of dollars, effectively limiting its availability. Furthermore, 3D003 technology is being taught in universities worldwide, providing a basis for foreign availability.

ECCN 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).

IP sold for reuse in chip designs by EDA companies is currently restricted under ECCN 3E001 if the technical attributes exceed certain limits. This IP includes commercially used building blocks such as Analog to Digital Converters, and Digital to Analog Converters. The EDA Consortium recommends that the parameters that trigger control under 3E001 be increased to higher thresholds so that U.S. and European companies that produce the IP are not put at a competitive disadvantage with the foreign competition that exists outside the Wassenaar countries. Here is one commercially available source for such IP in India:
http://www.cosmiccircuits.com/adc-listing

The Cosmic Circuits IP catalog contains several IPs which are 12-bit, 125MSPS ADCs, currently controlled under EU/US export regulations, section 3A001, 5.a.:

3. a resolution of 12 bit with an output rate greater than 105 million words per second;

As further evidence that the technical capabilities for these products exists worldwide, the EDA Consortium offers this example of a paper written in China:
http://ieeexplore.ieee.org/stamp/stamp.jsp?arnumber=05667791

The current regulations restrict analogue-to-digital converters having any of the following:

N.B.: SEE ALSO 3A101.ybn

1. a resolution of 8 bit or more, but less than 10 bit, with an output rate greater than 500 million words per second;
2. a resolution of 10 bit or more, but less than 12 bit, with an output rate greater than 200 million words per second;

3. a resolution of 12 bit with an output rate greater than 105 million words per second;
4. a resolution of more than 12 bit, but equal to or less than 14 bit, with an output rate greater than 10 million words per second; or
5. a resolution of more than 14 bit with an output rate greater than 2,5 million words per second;

The EDA Consortium believes that the current technical limits are outdated and recommends the following limits be implemented:

Resolution (bit)	**Output rate (words per second)**
8 or more, but less than 10	2000 million
10 or more, but less than 12	1000 million
12	500 million
more than 12, but equal or less than 14	100 million
more than 14	25 million

Again, we at the EDA Consortium appreciate the tremendous work the Department of Commerce and inter-agency task force has invested in the reform efforts, and our opportunity to provide these comments on behalf of the EDA community.

Sincerely,

Laurence K. Disenhof
Group Director, Export Compliance & Government Relations, Cadence Design Systems
Chair, EDA Consortium Export Committee