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The Association For Manufacturing Technology
Over 100 Years of Building Global Productivity

February 7, 2011

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Mr. Timothy Mooney
Office of Exporter Services, Regulatory Policy Division
Bureau of Industry and Security
U.S. Department of Commerce
1401 Constitution Avenue, NW, Room 2705
Washington, DC 20230

RE: Notice of Inquiry—CCL

Dear Mr. Mooney:

On behalf of AMT - The Association For Manufacturing Technology, I appreciate the opportunity to submit comments on the Administration's export control initiative, specifically on the December 9, 2010 Federal Register notice requesting input on the proposed 3-tier control list.

AMT represents U.S.-based manufacturing technology companies. Our members provide the tools that enable production of all manufactured goods. Their products cover the entire range of manufacturing – design, automation, material removal, material forming, assembly, inspection and testing, plus communications and control. They are the "engine" driving innovation and economic growth. They are also critical to a strong defense industrial base.

Over the last 30 years, the machine tool industry, like many industries, has changed. What was once a thriving industry that led the world in exports, now trails behind several of its foreign competitors. Technology, globalization, and changing economies undoubtedly played a role in this decline, but most of it can be attributed to the unlevel playing field on which our companies must compete. While some may find it inconceivable that our own government contributes to this inequity, it is nevertheless the case. One glaring example is our Cold War-era export control policy, particularly as it relates to five-axis machine tools.

In order to modernize the current system, AMT recommends the following:

- Refer and reconsider MPETAC export control proposals submitted over the last two years.
- The vast majority of five-axis machines should be removed from the control list. Five-axis CNC machine tools that are controlled should be classified with a designation no more rigorous than that of Tier 3.
- All items currently controlled under ECCNs 2B001 through 2B009, inclusive, should be placed at Tier 3.
- The language for ECCN 2B001.b.2 should be changed from "Five or more axes which can be coordinated simultaneously for "contouring control" to "Five or more axes which can be coordinated simultaneously for "contouring control" and having all linear axes less than two meters travel." This additional language will provide for the decontrol of large machine tools.

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Alternative language could read:

Five or more axes which can be coordinated simultaneously for "contouring control"- having any of the following:

a. Positioning accuracy with "all compensations available" equal to or less (better) than 9 µm according to ISO 230/2 (1997) or national equivalents along any linear axis; or
b. Positioning accuracy with "all compensations available" equal to or less (better) than 16 µm in any 2 meter incremental length of travel along any linear axis greater than 2 meters according to ISO 230/2 (1997) or national equivalents;

There is irrefutable evidence that five-axis machine tools are widely available in the global market and should, therefore, be decontrolled. A 2009 Commerce Department study entitled "*Critical Technology Assessment: Five-Axis Simultaneous Control Machine Tools*" (July 2009) confirmed what AMT has argued for years. It concluded, based not only on industry data but also on the U.S. Government's own observations and investigations, that there is indeed a significant number of foreign suppliers of five-axis machines and that they are making such machines available to customers in markets that U.S. companies cannot. China is a prime example.

The study went on to reveal that there is also a significant number of indigenous Chinese and Taiwanese companies that are capable of producing both five-axis machine tools and the five-axis numerical controller necessary to implement the sophisticated software of modern manufacturing. Specifically, the report concluded that "Foreign availability of certain five-axis simultaneous control mills, mill/turns, and machining centers controlled under ECCN 2B001.b.2 exists to China and Taiwan" and that "both countries have an indigenous capability to produce five-axis simultaneous control machine tools with linear positioning accuracies comparable to the United States." The Commerce Department study found that there was sufficient evidence that five-axis CNC machine tools had all the characteristics necessary to make a finding of foreign availability under the statute. Five-axis machines are available-in-fact, from non-U.S. sources, and from non-export control regime sources, in sufficient quantity and of comparable quality. At the 2008 International Manufacturing Technology Show held in Chicago, at least one company from China actually displayed and demonstrated a five-axis machine tool on the trade show floor which was immediately available for production and shipment to customers worldwide.

Unfortunately, 18 months have lapsed since the issuance of the report, and no actions have been taken to decontrol the sales of five-axis machine tools to China, nor has there even been an easing of the licensing burden in light of this authoritative government study. We appreciate the Administration's current efforts to revise and update the export control lists and urge Commerce to reconsider its own recommendations, cited below and taken in summary form from that 2009 study:

- Encourage producers and distributors to identify or develop anti-tampering and anti-diversion features for their machine tools that can be utilized to mitigate concerns of machine tool misuse or diversion after export to facilitate interagency review of license applications to sensitive destinations;

- Amend the EAR to allow the export of five-axis simultaneous control mills, mill/turns, and machining centers of certain precision accuracies controlled by ECCN 2B001.b.2 with foreign availability to controlled countries under license exception or similar-type authorization, and work with international partners (via the Wassenaar Arrangement and the Nuclear Suppliers Group) to modify the existing multilateral export control of five-axis simultaneous control machine tools by adding a linear positioning accuracy control parameter, while working towards a better capability measure of this technology (e.g., volumetric accuracy);

- Improve communication between U.S. companies and U.S. export licensing officials to decrease processing times of license applications for exports destined to China; and
- Monitor, on a routine basis, the competitive position of U.S. machine tool producers to support critical industrial base needs.

Additionally, AMT received input from its member companies that are incorporated into this overall response. Comments fell into three broad areas:

- The problem with U.S. export regulations is that it is difficult for American companies to export products that our global customers can easily buy from our foreign competitors, even though we are all operating under the same Wassenaar Arrangement.

- The U.S. export licensing process is both cumbersome and time consuming. Sales have been lost, sometimes after the item has been manufactured, because the export license was not approved in a timely manner. Basically, the U.S. export licensing process is a trade barrier.

- U.S. companies have either moved development operations to other countries, or are contemplating doing so, so that they can receive export licenses more quickly and avoid the U.S. system. This results in U.S. job loss, off-shoring of manufacturing capabilities and technology loss to other countries, weakening the U.S. industrial base and overall national security.

Attachments providing additional data are also included.

Thank you for the opportunity to provide this input. AMT's staff stands prepared to assist the Department of Commerce in its continued efforts to reform and modernize our export control system. Please contact Amber Thomas (703-827-5230) or Jeff Bond (703-827-5293) for additional information or comment on these recommendations.

Regards,

Douglas K. Woods
President

Attachments:

1) ***Critical Technology Assessment: Five-Axis Simultaneous Control Machine Tools*** (7/2009)
2) ***Metalworking Insiders Report***, January 10, 2011
3) ***USA Export License Requirements*** – Ingersoll Machine Tools, Inc., Rockford, Illinois