

March 14, 2017

U.S. Department of State  
Bureau of Political-Military Affairs  
Directorate of Defense Trade Controls  
ATTN: Mr. C. Edward Peartree  
2401 E Street, NW  
12<sup>th</sup> Floor, SA-1  
Washington, DC 20520

Subject: DOS-2017-0002, Notice of Inquiry, "Request for Comments Regarding United States Munitions List Category XII," dated January 13, 2017.

Dear Mr. Peartree:

On behalf of the more than 1,600 member companies and the nearly 80,000 individual members that comprise the National Defense Industrial Association (NDIA), we appreciate the opportunity to comment on the Notice of Inquiry (NOI) regarding United States Munitions List (USML) Category XII. NDIA would first like to congratulate the State Department for its October 2016 final rule amending USML Category XII that went into effect December 31, 2016. We believe that rule achieves an excellent balance between protecting U.S. national security interests and enabling U.S. industry to compete with an increasingly competitive world-wide industry in the rapidly expanding commercial infrared and laser fields.

Given the positive reaction from both industry and government audiences to the October 2016 Category XII final rule, we are confused with this most recent NOI. The NOI proposes fixed performance criteria to determine the export control jurisdiction of many Category XII entries. This approach of using fixed performance criteria was proposed in the original Category XII proposed rule in 2015. There was a significant outcry against such an approach because the proposed criteria captured many existing commercial items as well as many future planned commercial items. The result of this would have been a cessation of advanced development by U.S. industry and a ceding of U.S. technology leadership in these areas to non-U.S. companies, both to the detriment of U.S. national security. The published final rule recognized this, and relied on using "specially designed" as a criterion to determine the export control jurisdiction of most items rather than fixed performance criteria.

We believe that, (1) fixed criteria being proposed in this NOI will have the same adverse effects on the U.S. industrial base as the original Category XII proposed rule; and (2)

this NOI is unnecessary because October 2016 final rule, as published, adequately protects the national security interests of the U.S.

The NOI proposes to control commercial items that either are currently in production or will be in production shortly. For example, it proposes to control multi-spectral infrared focal plane arrays with a detector pitch of less than 50 microns. High performance multi-spectral infrared imaging entered the commercial mainstream several years ago. It is common in environmental sensing such as ocean oil spill detection, earth mapping, and critical bio-medical applications such as tuberculosis detection. The NOI also proposes to control microbolometer infrared focal plane arrays with greater than 328,000 detector elements and a pitch equal to or less than 14 microns. Such microbolometers are in production today in France where they are regulated as commercial items. Chinese infrared companies crossed the 328,000 element and 17 micron threshold four years ago. Given the 5-year cycle of R&D to production, they are expected to exceed this performance threshold this year.

As another example, we anticipate development within the next five years of bioculars, goggles, or head or helmet-mounted imaging systems (including video-based articles having a separate near-to-eye display) having fusing outputs of multiple infrared focal plane arrays each having a peak response at a wavelength greater than 1,000 nm. Such systems will have multiple civil and military applications. A person on the ground or in a vehicle would be able to hold bioculars, wear goggles, or head or helmet-mounted imaging systems to either transmit video images to a central location or to view video of multispectral infrared fused images from other camera systems mounted on towers or vehicles, for instance. This type of system could be utilized at large commercial installations (nuclear plants, oil refineries, mines), large public events (the Olympics, marathons, parades, concerts, sporting events), or for a range of civilian missions including airport security, policing, fire and rescue, or border patrol.

The negative impact this NOI would have on commercial development is the same as the first proposed rule. Regulation of commercial items as military, especially ones that are commercially available outside the U.S., would decimate the U.S. industry. Additionally, the fixed performance criteria would ensure that no U.S. company would invest any development funds into such a product because the company would be unable to sell it commercially. This would guarantee that non-U.S. companies would advance ahead of U.S. companies in these critical technology areas.

We also believe the NOI to be unnecessary. The October 2016 final rule, in effect now, wholly protects critical military-unique items in these areas. The rule does this in two ways. First, the rule relies on the definition of “specially designed.” For items to not be considered specially designed industry must prove there is either an equivalent commercial item in existence, or that from its inception and throughout development the item was meant for commercial use. Absent such proof, the only alternative is to

ask the U.S. Government for a ruling. Second, such critical items in development that the Department of Defense has either funded or helped to fund are automatically controlled as military regardless of commercial equivalents or design intent.

The Category XII final rule, as implemented, is not perfect. Industry continues to struggle with the “specially designed for a military end user” definition. We believe this control to be unnecessary as the definition of “specially designed” itself ensures such military-only items remain controlled accordingly. The addition of “for a military end user” adds confusion in that a change made to an item is not necessarily required to pertain to infrared, night vision, or laser capability. This causes concern that commercial changes requested by the military for commercial reasons would make an item subject to controls under the International Traffic in Arms Regulations.

Despite this deficiency, we firmly believe the current Category XII to be a success for the U.S. Government. It ensures that if industry identifies a commercial opportunity in the future they are able to invest resources to pursue it knowing that when they succeed their commercial business case will be sound. It also ensures that items that are uniquely military remain controlled as such. We believe this to be a radically better approach than instituting fixed performance criteria that will only result in stunting the growth of U.S. industry while ensuring the success of foreign industry. Because of this, NDIA strongly urges that this approach in general, and this NOI in particular, be abandoned.

We hope these comments are of value. Feel free to contact me at [azemek@ndia.org](mailto:azemek@ndia.org) or (703) 247-2595 if you have any questions.

Sincerely,



Alexander F. Zemek  
Vice President for Policy