January 10, 2019

Richard Ashooh
Assistant Secretary for Export Administration
Bureau of Industry and Security
Department of Commerce
1401 Constitution Ave, NW
Washington, DC 20230

Assistant Secretary Ashooh:

Thank you for the opportunity to provide input to the Advanced Notice of Proposed Rulemaking (ANPRM) BIS 2018-0024. The Optical Society (OSA) hereby submits the following response.

The Optical Society (OSA) represents over 22,000 scientists and engineers spanning academia, industry and government labs focused on the research and development of technologies using optics and photonics. Based on the science of light, optics and photonics are specialized fields of physics and engineering essential to technologies underpinning medicine, defense, telecommunications, basic research, and a vast array of consumer products.

Our society’s members are concerned about the potential imposition of new export controls for Certain Emerging Technologies reducing the ability to conduct advanced research and development in an open and collaborative environment; limiting innovation and inhibiting the revolutionizing steps required to mature the technologies for market insertion; and preventing the acquisition and retention of skilled workers.

Of the representative general categories of emerging technologies on which the Commerce Department seeks comments, virtually every one is in one way or another enabled by optics or photonics technologies.

For example, an emerging biotechnology technique could include neuro photonics, which uses light and imaging to better understand the way the neurons in our brains work. Research in neuro photonics could possibly lead to understanding and curing diseases such as Alzheimer’s and Parkinson’s. Similarly, optics and photonics are instrumental to technologies such as additive manufacturing, which is an area in which researchers throughout the EU, especially Germany, are
leading in the use of lasers coupled with optics and materials science to create new components that can be created through 3D printing technology.

The industry members of the Optical Society, known formally as the OSA Industry Development Association (OIDA), would be willing to participate and partner with the Bureau of Industry and Security to discuss these Emerging Technologies and work towards a complete evaluation of their development status and any necessity to be included in export control rules. Industry representation on a committee is essential, as industrial representatives are generally in a better position to describe the criteria appropriate to determine whether there are specific technologies within these general categories that are important to U.S. national security; the sources of such technologies; the status of development of these technologies in the United States and abroad; the impact, intended or unintended, specific controls would have on U.S. technological leadership; and any other important considerations. These discussions take time and a carefully defined set of parameters for review against which experts, such as those within the OIDA, can share input similar to that which was successfully utilized for the Export Control Reform Act (ECRA).

OSA notes that that the Advance Notice of Proposed Rulemaking (ANPRM) does not seek to expand jurisdiction over technologies that are not currently subject to the EAR, such as “fundamental research” described in §734.8 of the EAR, and agrees with this approach.

The Administration is seeking input on how it should define emerging technologies, and OSA believes that this limited comment period over a holiday is insufficient to adequately obtain input from our industrial members detailing global competition, current state of the art of the technology, and allow for definitions of which portions of the emerging technology are strictly consumer focused, and which segments are core technologies essential to the national security of the United States. Until this can be completed through a thorough analysis and discussion with industry leaders in these fields, the Optical Society encourages the Department of Commerce Bureau of Industry and Security consider suspending the implementation of the plan to prepare a proposed rule to add emerging technologies to the Commerce Control List (CCL) of the Export Administration Regulations (EAR).

Sincerely,

Elizabeth A. Rogan
Chief Executive Officer