University of Colorado
Boulder

Office of Research Integrity www.colorado.edu/vcr/ORI
Joseph G. Rosse, Ph.D. Joseph.Rosse@colorado.edu
Associate Vice Chancellor, Research Integrity & Compliance (303) 735-5809

August 3, 2015

Ms. Hillary Hess
Regulatory Policy Division
Bureau of Industry and Security
U.S. Department of Commerce
Room 2099B
14th Street and Pennsylvania Ave. NW.
Washington, DC 20230

RE: RIN 0694-AG32

Dear Ms. Hess,

The University of Colorado Boulder ("CU-Boulder") welcomes the opportunity to provide comments regarding the proposed changes to the Export Administration Regulations (EAR). CU-Boulder has an extensive research portfolio, receiving $425M in sponsored research funding in 2014-15, including $52M from the Department of Commerce. We are also firmly committed to the role of public universities in collaborating in and sharing the results of fundamental research. Therefore, we have a significant interest in export control reform, and appreciate the efforts of the Departments of Commerce and State to harmonize definitions and procedures between the EAR and the ITAR. While much progress has been made, we also believe that there are further opportunities to hone these definitions in ways that both protect national security considerations and facilitate the research engine that significantly drives the national economy.

Below are our comments on the eight issues on which BIS has requested specific comments:

1. Whether the proposed revisions create gaps, overlaps, or contradictions between the EAR and the ITAR, or among various provisions within the EAR.

Response: While we greatly appreciate the improved harmonization between the two sets of regulations, we do have a very strong concern about the difference in how the EAR and ITAR deal with prepublication review by sponsors. We are encouraged that the proposed ITAR rule recognizes that information arising during, or resulting from fundamental research that is "intended to be published" is not technical data subject to the ITAR, making the ITAR consistent with the EAR in this regard. However, it is deeply concerning that the proposed ITAR rule then differs from the EAR in providing that "intended to be published" does not apply to a research sponsor's review of proprietary information.

This provision, the basis of which is not explained, will have a major impact on university-industry collaboration precisely at a time when such collaboration is a priority for industry, academia, and the Administration. Agreements with industry sponsors

routine include provisions for proprietary information review. Industry reasonably wants to guard against inadvertent disclosure of proprietary information or trade secrets when research is published. This kind of information is immaterial to the fundamental nature of the research being conducted, so CU-Boulder willingly accepts this requirement, as long as the time period for review is limited (typically to 60 days) and the scope is limited so that our researchers are free to publish their findings. These agreements make it clear that the research results are fundamental research, and not proprietary to the company. This situation differs significantly from those rare situations in which the sponsor demands the right to approve publication of the research results. CU-Boulder policy prohibits such agreements without prior review and approval by both a faculty committee and the Chancellor; if a policy waiver is provided, we ensure that all university participants are aware that such research is not considered fundamental research.

The proposed changes to the ITAR are inconsistent with the not only the EAR but also with NSDD 189, impose a very significant regulatory burden, impede integrative research with industry, and raise Constitutional questions about prior restraint on publication and academic freedom. We strongly urge that the ITAR be aligned with the EAR interpretation and definition of fundamental research.

We also have significant concerns about the proposed restatement of the "education information exemption." The restatement appears to merge current ITAR and EAR text to state that "information and software that ...concern general scientific, mathematical, or engineering principles commonly taught in schools, and released by instruction in a catalog course or associated teaching laboratory of an academic institution." We recommend that the "and" be changed to "or" in this statement. Increasingly, and appropriately, university education addresses not only “general principles” but also the experiential, “hands-on” application of specific principles, processes and techniques. This is particularly apparent in teaching laboratories and graduate education. Especially in the STEM fields, this ensures that U.S. students remain on the cutting edge of new developments. Limiting this exemption to “general principles” is unnecessary and counter-productive.

In addition, limiting the educational information exemption to what is “commonly taught” creates an impediment to academic innovation. Universities that are developing new curricular additions should not be penalized for thinking outside the box. Moreover, the “commonly taught” criterion is antithetical to the goal of incorporating the latest research findings into the courses taught by the same faculty who are conducting that research. If the information is provided in a catalog course that should be sufficient to treat such information similar to information that arises during, or results from, fundamental research. Thus we recommend deleting “commonly” from the revised definition.

Another difference between the EAR and ITAR are the provisions related to government-sponsored research covered by contract controls (EAR 734.11). The proposed EAR rule essentially restates the current 734.11(a), which universities have found confusing. CU-Boulder prefers the ITAR language at 120.49(b) Note 3, suitably modified to apply to technology arising during or resulting from fundamental research. We also find the examples in 734.11(b) to be helpful and recommend that they be retained.

2. Whether the alternative definition of fundamental research suggested in the preamble should be adopted.

Response: While we generally support the proposed alternative definition of

fundamental research as “non-proprietary research in science and engineering, the results of which ordinarily are published and shared broadly within the scientific community," the term "non-proprietary" may inject new ambiguity. CU-Boulder endorses the recommended definition provided by the Association of University Export Control Officers (AUECO) that defines fundamental research as “research in science and engineering, the results of which ordinarily are published and shared broadly within the scientific community, and for which the researchers have not accepted restrictions for proprietary or national security reasons”.

The proposed changes to §734.8(a) include a note that software and commodities are not 'technology resulting from fundamental research." This seems to contradict §734.3(b)(3) and 734.7(a) that treat technology and software similarly. If that is the intent, excluding software from fundamental research would have a substantial impact on university research, and does not appear to be supported by any logical distinction between, for example, natural language and computer language documents authored on the same topic by the same researcher. We strongly recommend that software arising during, or resulting from, fundamental research should not be subject to the EAR.

We also perplexed that the current presumption in EAR 734.8(b) that university based research will be considered fundamental research appears to have been eliminated. There is no clear policy reason stated for this change. We urge BIS to restate the presumption in the final rule.

Finally, we have concerns about the proposed EAR 734.8 Note 1 to paragraph (a), which states: “The inputs used to conduct fundamental research, such as information, equipment, or software, are not “technology that arises during or results from fundamental research” except to the extent that such inputs are technology that arose during or resulted from earlier fundamental research.” This statement seems to attempt to draw a delineation between the conduct of research and the results of that research that is neither practical nor consistent with NSDD 189. We urge that this note be deleted.

3. Whether the alternative definition of applied research suggested in the preamble should be adopted, or whether basic and applied research definitions are needed given that they are subsumed by fundamental research.

Response: We are ambivalent about the proposed definitions of applied research. Universities routinely use, and are very familiar with, the OMB Circular A-11definition, and suggest it be adopted. Alternatively, if the DFARS definition of applied research is adopted we agree with the recommendation of the Association of University Export Control Officers that it should also include the 48 CFR 31.205-18 description of what applied research is NOT. This would provide added clarification, including a more clear delineation between “applied research” and “development” activities.

4. Whether the questions and answers in existing Supplement no. 1 to part 734 proposed to be removed (to the BIS website) have criteria that should be retained in part 734.

Response: We have found these Q&A's to be extremely helpful, and in fact have incorporated them into our internal guidance documents. While we recognize that they would still exist under the proposed changes, we fear that they would not have the same

gravitas if removed from the EAR and placed on the website. Researchers greatly appreciate specific guidance, so this proposed change is a significant step backwards.

5. With respect to end-to-end encryption as described in the proposed rule (sec. 734.18), whether the illustrative standard in the proposed EAR rule also should be adopted in the ITAR; whether the safe harbor standard in the proposed ITAR rule also should be adopted in the EAR, or whether the two bodies of regulations should have different standards.

We greatly appreciate that the proposed changes to both the EAR and ITAR provide clarification regarding cloud computing. CU-Boulder prefers the proposed EAR definition in 734.13(a)(6), which requires actual knowledge that releasing information relating to encryption will cause or permit the transfer of technology to a foreign national. We also prefer the EAR provision in 734.18(4)(iii) providing for “other similarly effective cryptographic means“ for securing technology or software. This provides useful flexibility now and, even more importantly, as technology advances.

We suggest that BIS consider adding a note that a contract that includes vendor restrictions on countries not proscribed in 126.1 is sufficient for compliance purposes. As a practical matter, ensuring actual compliance is beyond our effective control.

6. Whether encryption standards adequately address data storage and transmission issues.

Response: Our IT Security professionals need more time to explore this very complex issue.

7. Whether the proposed definition of "peculiarly responsible" effectively explains how items may be "required" or "specially designed" for particular functions.

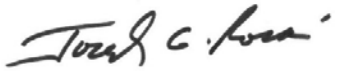
Response: We have no comment on this proposed change.

8. The effective date of the final rule.

Depending on the extent of the final changes, the proposed 30-day delayed effective date creates a significant burden on CU-Boulder to ensure that all changes are implemented and promulgated to researchers. This short deadline creates particular challenges for researchers who are in the process of submitting proposals to funding sources. If the proposed changes regarding Prepublication Review go into effect without modification, substantial changes will be necessary to our business practices associated with review, negotiation, and management of sponsored research agreements. These changes will require implementation of new review procedures, including determination of whether the EAR or ITAR definition of “fundamental research” applies for research awards with sponsor review, development and monitoring of technology control plans, applications for export licenses, as well as revised export compliance training for researchers. To accomplish all of this will likely require hiring additional resources, which further adds to the timeline. To accommodate this panoply of changes will require at least a six-month delayed effective date.

CU-Boulder appreciates the work of the DDTC and BIS to harmonize their procedures, as well as the opportunity to provide comments on these proposed changes. We believe the proposed changes to the EAR are for the most part positive and worthy of support and hope that BIS will consider our comments when finalizing the definitions.

Sincerely,



Joseph G. Rosse, Ph.D.
Export Control Officer and Empowered Official