December 7, 2011

Mr. Richard Goorevich
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Office of Nonproliferation and International Security
NA 24
National Nuclear Security Administration
Department of Energy
1000 Independence Ave. SW
Washington, DC 20585

EMAIL: Part810.NOPR@hq.doe.gov

RE: RIN 1994-AA02 (Proposed revisions to 10 CFR Part 810)

Dear Mr. Goorevich,

I am writing on behalf of the Association of University Export Control Officers (AUECO), a group of senior export practitioners at twenty-two accredited institutions of higher learning in the United States. AUECO members monitor proposed changes in laws and regulations affecting academic activities and advocate reforms that will improve the efficiency and effectiveness of the United States export control system. AUECO is specifically interested in contributing to the export reform effort in order to ensure that the resulting regulations do not have an adverse impact on academic pursuits. As a result, AUECO is providing the following comments on the Department of Energy's proposed revisions to 10 CFR Part 810.

AUECO fully supports the mission of protecting the nation's most sensitive technologies, including nuclear technologies, while also ensuring that the U.S. remains at the forefront of technological innovation. AUECO believes that U.S. universities and research institutions play a critical role in maintaining U.S. technological competitiveness through the education and training of engineers and scientists as well as the performance of fundamental (basic and applied) research activities. Therefore, we want to ensure that any regulatory changes carefully protect university activities.

AUECO supports the President's Export Control Reform initiative, specifically the efforts to reduce regulatory burden. AUECO does not feel that the proposed rule, as currently written, has a sound statutory basis for the imposition of a deemed export rule on university research, and we recommend that key terms and provisions be revised to protect university activity. We suggest that any revisions to 10 CFR Part 810 be consistent with the export control regulations administered by the Departments of

State (22 CFR Parts 120-130) and Commerce (15 CFR Parts 730-774). The following comments and recommendations explain AUECO's position in greater detail.

Proposed Rule is Inconsistent with the Atomic Energy Act's Treatment of University Activity

The proposed changes to § 810.1 purport to "state the statutory basis for the regulation". AUECO appreciates DOE's recognition that the proposed regulations require a sound statutory basis. However, the proposed addition of a deemed export rule to any university-based activity under the auspices of Section 57(b) of the Atomic Energy Act[1] (AEA) is not consistent with DOE's regulatory authority under that Act. Since DOE is proposing to create a new regulatory burden (the Federal Register notice clearly states that DOE is proposing to ***add regulations*** to address deemed exports), the agency must do so while abiding by the scope of regulatory authority accorded by the AEA. This new regulatory burden should be structured such that university-based activity is protected from onerous regulation. The Congressional intent to protect research and other university-based activity from regulation is reflected throughout not only the AEA, but also the Nuclear Nonproliferation Treaty (NNT).

The AEA's purpose is specifically defined to support the conducting, assisting, and fostering of research in order to encourage maximum scientific progress[2]. The Act specifies that the dissemination of unclassified scientific and technical information is a key goal of the Act, and that even the handling of Restricted Data should be performed as to encourage scientific progress[3]. The provisions of the AEA reflect a long-established policy that the dissemination of scientific and technical information relating to atomic energy should be permitted and encouraged so as to provide for the free interchange of ideas and criticism which is essential to scientific progress, public understanding, and the growth of technical knowledge[4].

Similarly, the Nuclear Nonproliferation Treaty states that implementing regulations shall avoid hampering economic or technological development, as well as international cooperation in the field of peaceful nuclear activities[5]. This treaty recognizes the right of member parties to participate in the fullest possible exchange of equipment, materials and scientific and technological information for the peaceful use of nuclear energy[6].

It is AUECO's position that the proposed revisions to 810.1 do not establish the necessary statutory basis for a deemed export rule as it would apply to university research. Since both the Atomic Energy Act and the Nuclear Nonproliferation Treaty clearly hold that exchanges of scientific and technical information should be protected from onerous regulation, the DOE's assertion that Section 57(b) serves as the statutory basis for the imposition of a deemed export rule upon university research contradicts the language of the AEA and NNT.

[1] Atomic Energy Act of 1954 (P.L. 83-703) as amended by the Nuclear Non-Proliferation Act of 1978.
[2] See AEA, Section 3, Purpose.
[3] Id.
[4] See Section 141(b).
[5] 22 USC 88, Articles III and IV.
[6] Id.

Concerns with Terms and Definitions

AUECO appreciates the exemption of certain types of activity, including the dissemination of public information and the conduct and reporting of basic scientific research. These exemptions are critical to many of the activities pursued within the academic community, and are consistent with the long-established policy of disseminating unclassified scientific and technical information in order to encourage scientific and industrial progress stated in in the Atomic Energy Act[7]. However, there are several points that DOE will need to specifically address before proceeding with the proposed changes.

AUECO believes that the term "basic scientific research" should be changed to "fundamental research" to make 10 CFR 810 more closely aligned with other U.S. export control regulations (see detailed discussion below).

We are troubled by the use of the term "specially designed" in Section 810.2(13). While an illustrative list of "specially designed" items is a useful guide, the term is nonetheless subject to individual interpretation absent a clear definition. This term has long caused consternation among exporters as well as excessive licensing burden under the ITAR and EAR as commonly available items such as bolts, nuts, and fasteners become inadvertently controlled when initially designed for a covered item. This issue is widely recognized in the export community, and seems to finally be addressed in the Department of Commerce's notice of proposed rule-making (RIN 0694-AF17). The Department of Energy would be well-served to either abandon the term "specially designed" or to clearly define the term in a manner consistent with its use in other export regulations.

The classification of "U.S. persons" and "foreign persons" should be equally aligned with other export control regulations. Both the ITAR and EAR define a U.S. person as a citizen, lawful permanent resident, or protected individual as defined in 8 USC 1324b(a)(3). Yet, the proposed revisions to 10 CFR 810 defines "U.S. person" in 810.2 as "All persons subject to the jurisdiction of the United States." In 810.3, it defines "foreign person" as "a person other than a U.S. person" and a "foreign national" as "an individual who is not a citizen or national of the United States." This would imply that U.S. permanent residents should be treated as foreign nationals. While the Federal Register notice states "*Under this proposal, no part 810 specific authorization would be required if the foreign national employee (or prospective employee) is lawfully admitted for permanent residence in the United States, or is a protected individual under the Immigration and Nationalization Act (8 U.S.C. 1324b(a)(3))"*, this is inconsistent with the definitions of "U.S. persons" and "foreign persons" found in 810.2. AUECO recommends rewriting these definitions so that they are consistent with the position stated in the Federal Register and other export control regulations.

AUECO is concerned with the use and definition of the term "basic scientific research". The proposed rule defines basic scientific research as "experimental or theoretical work undertaken principally to acquire new knowledge of the fundamental principles of phenomena and observable facts, not directed towards a specific practical aim or objective". The definition requires a subjective determination of the intent of the research activity as the basis for the applicability of the regulations. Furthermore, under a strict interpretation, it would preclude the exemption of any applied research, regardless of intent to make the results of such applied research publicly available.

[7] See Section 3(b).

It's important to note that the Atomic Energy Act repeatedly recognizes the need to protect research *and development* from onerous regulation[8], and defines "research and development" as "(1) theoretical analysis, exploration, or experimentation; or (2) the extension of investigative findings and theories of a scientific or technical nature into practical application for experimental and demonstration purposes, including the experimental production and testing of models, devices, equipment, materials, and processes[9]. The Act clearly states that the intent of Congress should be construed from the definitions found in Section 11[10], but the implementing regulatory definition of basic scientific research contradicts the stated congressional intent found in Section 11 because it does not protect development or applied research.

The definition of basic scientific research also varies significantly from that of "fundamental research" as defined in National Security Decision Directive 189 (NSDD 189), which has been adopted by the ITAR and the EAR, in that it does not address applied academic research, which is usually widely disseminated within the scientific community. In NSDD 189, fundamental research is defined as "basic and applied research in science and engineering, the results of which ordinarily are published and broadly shared within the scientific community, as distinguished from proprietary research and from industrial development, design, production, and product utilization, the results of which ordinarily are restricted for proprietary or national security reasons."

The NSDD 189 concept of fundamental university research is further supported by the Federal Acquisition Regulations. 48 CFR Part 27.404-4 (contractor's release, publication, and use of data), specifically states that "in contracts for basic and applied research at universities and colleges, agencies shall not place restrictions on the conduct or reporting of results of unclassified basic and applied research…". The NSDD 189 definition of fundamental research provides an objective criterion of whether the results will be published or broadly disseminated within the scientific community, and is clearly understood by the academic community. AUECO strongly recommends that the term "basic scientific research" be replaced with "fundamental research" in the proposed rule, and that the Department of Energy adopt the NSDD 189 definition of fundamental research.

The proposed rule defines technology as the specific information required for the development, production or use of any facility or activity listed in §810.2(c). We believe that this is a typographical error and the correct reference here should be §810.2 (b).

The term "technical services" is used in the definition of "sensitive nuclear technology", but is not itself defined. What is the difference between "technical assistance" (assistance in such forms as instruction, skills training, working knowledge, consulting services, or any other assistance as determined by the Secretary) and the provision of "technical services"? If the two are one in the same, we suggest that the term "technical services" be replaced by "technical assistance" in the definition of "sensitive nuclear technology". If they are substantially different, AUECO recommends including a definition of "technical services" to increase clarity of the rule.

[8] See 42 USC 2013(a) and (b); as well as 42 USC 2051 "[Statutory power should be exercised] to insure the continued conduct of research and development and training activities. . .by public or private institutions. . .and assist in the acquisition of an ever-expanding fund of theoretical and practical knowledge."
[9] 42 USC 2014(x).
[10] See 42 USC 2014 "The intent of Congress in the definitions as given in this section should be construed from the words or phrases used in the definitions."

The proposed rule applies to "companies", however, it is unclear if this term captures a wide variety of organizations including U.S. government agencies and academic institutions (public and/or private). AUECO feels that clarification is needed. Given the well documented legislative intent to protect research from the chilling effect of regulations, it is AUECO's position that the term "companies" should be clearly defined such that accredited institutions of higher education in the U.S. are not included.

AUECO is also concerned about the breadth of the term "nuclear reactor" as currently written in the proposed rule. A positive list enumerating the controlled components of a nuclear reactor is necessary to provide notice to the regulated community on the scope of the proposed rule. Without such a positive list, the term "nuclear reactor" could be interpreted to encompass a wide variety of items and technologies that are not related to the production of special nuclear materials.

Additional Concerns

Part 810.6 provides a positive list of countries for which a general authorization applies. However, the wording of Section 810.6(a) does not make it clear that deemed exports to employees who are nationals of the nations enumerated in §810.6(b) are also generally authorized.

Furthermore, the proposed rule is silent on dual-national foreign employees of U.S. Persons. If the dual national non-U.S. person employee has citizenship in one nation listed in 810.6(b) (1), is a general authorization valid regardless of a second citizenship in a non- authorized nation? Or, if a dual-national holds citizenship in any nation not eligible for the general authorization, is a specific authorization required? AUECO recommends that the Department of Energy base licensing decisions on an individual's most recent nationality, consistent with the policy of the Department of Commerce. This will provide clearer guidance on how to classify dual-national foreign employees and will be consistent with the well-established policy administered by the Bureau of Industry and Security.

AUECO is also concerned that the list of countries requiring specific authorization is seemingly expanded by the proposed rule, without any explanation for why 73 new countries are included. There is nothing in the proposed rule that justifies this expansive license requirement. It is unclear if there is any reason why these countries now warrant additional scrutiny for nonproliferation reasons. This departure from the previous rule represents a significant compliance burden that has the potential to unnecessarily inhibit academic exchanges.

Lack of Cohesiveness with President Obama's Export Control Reform Initiative

In April of 2010, President Obama announced his export control reform initiative with the states goals of fundamentally reforming the current system with its multiple regulatory agencies and control lists. It is unclear how the proposed revisions to 10 CFR 810 support this initiative.

A primary objective of this initiative is to development of a single list of export-controlled items and technologies. The intent is for this single control list to be "positive" in that it should clearly identify controlled items using objective criteria. This conversion to a single, positive list is currently underway and involves a complete restructuring of both the Commerce Control List (CCL) and United States Munitions List (USML). AUECO encourages the DOE to adopt this same approach.

The reform initiative also calls for "harmonization" of key terms for export control regulations. The Obama Administration recognized that harmonized terms and definitions are necessary to end

confusion about the scope of regulation. To this end, AUECO has recommended above specific changes to the terms and definitions used in the proposed rule.

Unfortunately, while the proposed rule states that it is modeling its deemed export rule after the rule found in the Export Administration Regulations (EAR), it makes no attempt to harmonize its definitions with those found in the EAR. This will only create additional confusion and complexity for deemed exports.

Additionally, absent incorporation of the proposed rule into the current restructuring of the CCL and USML, the proposed deemed export rule will undermine President Obama's Export Control Reform Initiative since it does not take into account the primary objective of having a single control list for export controls . The proposed rule also fails to create a "positive" control list (see concerns above about the term "nuclear reactor").

Closing

AUECO believes that as written, the proposed rule will significantly increase the regulatory burden on the academic community, have a chilling effect on research, and inhibit the competitiveness of U.S. academic institutions to attract the best and brightest minds in a variety of fields. At a time when the DOE is purporting to harmonize its controls with other countries in the Nuclear Suppliers Group (NSG), it is notable that the DOE is proposing to impose a deemed export rule that isn't a burden for other NSG member countries.

A lack of definitions for key terms combined with the very problematic definition of "basic scientific research" will have a significant adverse impact for a variety of academic research. Also concerning is an apparent lack of statutory authority for imposing a deemed export rule upon university research. AUECO is troubled by the additional licensing burden of specific authorizations being required for 73 additional countries, particularly since the proposed rule does not provide any explanation or rationalization for a change in licensing requirements for these countries.

We strongly encourage the Department of Energy to carefully examine the limitations on regulatory authority contained in the Atomic Energy Act (as amended by the Nuclear Nonproliferation Treaty), and only pursue regulations that have a sound statutory basis coupled with a nexus to the development or production of special nuclear material . We also strongly recommend that the exemption for "basic scientific research" be changed to "fundamental research" with that term being defined in a manner consistent with NSDD 189.

AUECO thanks the Department of Energy for the opportunity to comment on this proposed rule. As noted earlier we fully support the mission of protecting the nation's most sensitive technologies, including nuclear technologies. We look forward to working with the DOE to provide the necessary assistance to advance a supportive regulatory climate for university research.

If you have any questions, please feel free to contact us.

Sincerely,

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