DEPARTMENT OF COMMERCE
Bureau of Industry and Security

15 CFR Part 774
[Docket No. 220826–0174]

RIN 0694–AI84

Request for Comments Concerning the Imposition of Section 1758 Technology Export Controls on Instruments for the Automated Chemical Synthesis of Peptides

AGENCY: Bureau of Industry and Security, Commerce.

ACTION: Advance notice of proposed rulemaking (ANPRM).

SUMMARY: The Bureau of Industry and Security (BIS), Department of Commerce, maintains controls on the export, reexport and transfer (in-country) of dual-use items and less sensitive military items pursuant to the Export Administration Regulations (EAR), including the Commerce Control List (CCL). Certain instruments for the automated synthesis of peptides (automated peptide synthesizers) have been identified by BIS for evaluation according to the criteria in section 1758 of the Export Control Reform Act of 2018 (ECRA) pertaining to emerging and foundational technologies. BIS is seeking public comments on the potential uses of this technology, particularly with respect to its impact on U.S. national security (e.g., whether such technology could provide the United States, or any of its adversaries, with a qualitative military or intelligence advantage). This advance notice of proposed rulemaking also requests public comments on how to ensure that the scope of any controls that may be imposed on this technology would be effective (in terms of protecting U.S. national security interests) and appropriate (with respect to minimizing their potential impact on legitimate commercial or scientific applications).

DATES: Comments must be received by BIS no later than October 28, 2022.

ADDRESSES: You may submit comments, identified by regulations.gov docket number BIS–2022–0023 or by RIN 0694–AI84, through any of the following:

• Federal eRulemaking Portal: http://www.regulations.gov. You can find this advance notice of proposed rulemaking by searching for its regulations.gov docket number, which is BIS–2022–0023.

• Email: PublicComments@bis.doc.gov. Include RIN 0694–AI84 in the subject line of the message.

All filers using the portal or email should include the name of the person or entity submitting the comments in the name of their file(s), in accordance with the instructions below. Anyone submitting business confidential information should clearly identify the business confidential portion at the time of submission, file a statement justifying nondisclosure and referring to the specific legal authority claimed, and provide a non-confidential submission to be made publicly available.

For comments submitted electronically containing business confidential information, the file name of the business confidential version should begin with the characters “BC.” Any page containing business confidential information must be clearly marked “BUSINESS CONFIDENTIAL” on the top of that page. The corresponding non-confidential version of those comments must be clearly marked “PUBLIC.” The file name of the non-confidential version should begin with the character “P.” The “BC” and “P” should be followed by the name of the person or entity submitting the comments on rebuttal comments. Any submissions with file names that do not begin with a “P” or “BC” will be assumed to be public and will be made publicly available through https://www.regulations.gov.

FOR FURTHER INFORMATION CONTACT: For questions on automated peptide synthesizers, contact Dr. Tara Gonzalez, Chemical and Biological Controls Division, Office of Nonproliferation and Treaty Compliance, Bureau of Industry and Security, Telephone: (202) 482–3343, Email: Tara.Gonzalez@bis.doc.gov. For questions on the submission of comments, contact Willard Fisher, Regulatory Policy Division, Office of Exporter Services, Bureau of Industry and Security, U.S. Department of Commerce, (202) 482–6057, Email: RPID@bis.doc.gov.

SUPPLEMENTARY INFORMATION:

Background

Identification of Section 1758 Technologies

As part of the National Defense Authorization Act (NDAA) for Fiscal Year 2019, Public Law 115–232, Congress enacted the Export Control Reform Act of 2018 (ECRA), 50 U.S.C. 4801–4852. Section 1758 of ECRA (as codified under 50 U.S.C. 4817) authorizes the Bureau of Industry and Security (BIS) to establish appropriate controls on the export, reexport or transfer (in-country) of emerging and foundational technologies essential to the national security of the United States. Due to the absence of specific definitions or other guidance in ECRA differentiating the terms “emerging technology” or “foundational technology,” and in order to ensure greater efficiency in implementing controls for such items, BIS has chosen to characterize such technologies as “Section 1758 technologies” for purposes of section 1758 of ECRA, rather than characterizing a specific technology as either “emerging” or “foundational.”

As described in section 1758(a)(2)(B) of ECRA, the identification of Section 1758 technologies takes into account: (i) the development of these technologies in foreign countries; (ii) the effect export controls imposed pursuant to this section may have on the development of such technologies in the United States; and (iii) the effectiveness of export controls imposed pursuant to this section on limiting the proliferation of the emerging and foundational technologies in foreign countries.

The Secretary of Commerce must establish appropriate controls on the export, reexport or transfer (in-country) of technology identified to the Section 1758 process. In so doing, the Secretary must consider the potential...
end-uses and end-users of Section 1758 technologies, and the countries to which exports from the United States are restricted (e.g., embargoed countries). While the Secretary has discretion to set the level of export controls, at a minimum a license must be required for the export of such technologies to countries subject to a U.S. embargo, including those countries subject to an arms embargo.

In addition, section 1758(a)(2)(C) of ECRA (50 U.S.C. 4817(a)(2)(C)) requires the interagency process for identifying Section 1758 technologies to include a notice and comment period. November 19 Advance Notice of Proposed Rulemaking

On November 19, 2018, BIS published an advance notice of proposed rulemaking, “Review of Controls for Certain Emerging Technologies” (83 FR 58201) (November 19 ANPRM). The November 19 ANPRM identified biotechnology in a representative list of fourteen technology categories concerning which BIS sought public comment to determine whether there are specific emerging technologies that are essential to U.S. national security, and for which effective controls can be implemented. The biotechnology-related comments submitted to BIS in response to its November 19 ANPRM are not addressed in this ANPRM, because none of the comments specifically addressed the question of export controls on automated peptide synthesizers.

Evaluation of Automated Peptide Synthesizers Pursuant to Section 1758 of ECRA

Instruments for the automated synthesis of peptides (automated peptide synthesizers) have been identified by BIS for evaluation according to the criteria in section 1758 of ECRA pertaining to emerging and foundational technologies.

Peptides and polypeptides are polymeric chains of amino acids, linked together by peptide bonds. Proteins are three-dimensional (3D) macromolecules composed of one or more folded large chains of polypeptides. Proteins must fold into the correct 3D shape to be functionally active. The first peptide bond was synthesized over 100 years ago. However, in the last few decades, advances in chemical synthesis methods have established automated peptide synthesis as a common laboratory technique. Long-established synthesis methods using fluorenlymethoxy carbonyl (Fmoc) chemistry can reliably and routinely produce high quality polypeptides around 50 amino acids in length. Recent advances in peptide synthesis technology and instrumentation have increased both the speed of peptide synthesis and the length of peptide products, including peptides and proteins greater than 100 amino acids in length.

Most protein toxins that are controlled under Export Control Classification Number (ECCN) 1C351 on the Commerce Control List (CCL) (see Supplement No. 1 to part 774 of the EAR) are over 100 amino acids in length and have an average length of 300 amino acids (with the notable exception of conotoxins, which range between 10–100 amino acids in length).

Consequently, absent the imposition of additional controls on the export, reexport or transfer (in-country) of certain peptide synthesis technology and instrumentation (e.g., automated peptide synthesizers), there would be an increased risk that such technology and instrumentation could be used to produce controlled toxins for biological weapons purposes.

Request for Comments

Consistent with section 1758(a)(2)(C) of ECRA (50 U.S.C. 4817(a)(2)(C)), BIS welcomes comments on the following questions. If specific automated peptide synthesizer instruments are described by respondents, BIS requests that this should be done, to the extent practicable, within the context of the following questions.

1. What is the current state of development of automated peptide synthesizers in the United States, including those having primarily academic or commercial applications, and how does this compare with that of other countries (e.g., is the United States at the forefront of such development in the academic and commercial fields)? Where possible, please identify any publicly available studies that support your position.

2. What is the current availability and predominate application(s) of automated peptide synthesizers in the United States and how does this compare with that of other countries (e.g., how common is the use of these instruments in life sciences laboratories/ institutions and other academic or commercial settings)?

3. To what extent are custom peptide synthesis services available in the United States and other countries, and would the availability of such services (particularly for academic or commercial applications) be likely to impact domestic or foreign demand for automated peptide synthesizers?

4. To what extent are current peptide synthesis technology expected to address the challenges of peptide length, sequence fidelity, and protein folding (e.g., are efforts currently underway to integrate protein folding into the automation process)?

5. To what extent would the establishment of Section 1758 technology export controls on automated peptide synthesizer instruments, and related “software” and “technology,” likely be effective in terms of limiting the proliferation of these items abroad (including the potential use of such items to produce controlled toxins for biological weapons purposes)?

6. To what extent would the imposition of Section 1758 technology export controls on automated peptide synthesizer instruments, and related “software” and “technology,” impact U.S. technological leadership in this field (e.g., within the academic or commercial spheres) and would this impact be distinctly different if controls were placed primarily on “software” as opposed to hardware, or vice versa?

7. To what extent has the increased availability of lower cost coupling reagents, together with recent advances in automated peptide synthesizers and related technology, overcome economic or technological factors that previously might have limited the availability and use of this technology, abroad?

8. To what extent should Section 1758 technology export controls on peptide synthesis technology be implemented unilaterally (rather than bilaterally), in the interest of increasing their effectiveness and minimizing their impact on U.S. industry?

Several respondents who commented on BIS’s November 19 ANPRM indicated their preference for multilateral export controls over unilateral export controls, because the former typically place U.S. industry on a more level playing field with respect to producers/suppliers in other countries. In this regard, note that section 1758(c) of ECRA (as codified under 50 U.S.C. 4817(c)) provides that “the Secretary of State, in consultation
with the Secretary [of Commerce] and the Secretary of Defense, and the heads of other Federal agencies, as appropriate, shall propose that any technology identified pursuant to subsection (a) [of ECRA] [which addresses the interagency process for identifying Section 1758 technologies] be added to the list of technologies controlled by the relevant multilateral export control regimes.”

Finally, BIS encourages comments addressing any other automated peptide synthesizer technology topics deemed to be relevant to this inquiry.

Comments should be submitted as described in the ADDRESSES section of this ANPRM and must be received no later than October 28, 2022.

This ANPRM has been designated as a “significant regulatory action,” although not economically significant, under Executive Order 12866. Accordingly, this ANPRM has been reviewed by the Office of Management and Budget (OMB).

Matthew S. Borman,
Deputy Assistant Secretary for Export Administration.

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DEPARTMENT OF HEALTH AND HUMAN SERVICES

Food and Drug Administration

21 CFR Part 1

[Docket No. FDA–2011–N–0179]

Prior Notice of Imported Food Questions and Answers (Edition 4); Draft Guidance for Industry;

Availability

AGENCY: Food and Drug Administration, HHS.

ACTION: Notice of availability.

SUMMARY: The Food and Drug Administration (FDA or we) is announcing the availability of a draft guidance for industry entitled “Prior Notice of Imported Food Questions and Answers; Draft Guidance for Industry (Edition 4).” The draft guidance adds three additional questions. One question relates to any effect systems recognition or equivalency determinations have on prior notice requirements. The other two questions relate to FDA’s notice to a submitter of prior notice of an FDA refusal for inadequate prior notice or hold if the food article is from a foreign facility that is not registered, and address the timeframe for making requests for FDA review of such a refusal or hold. FDA is also making other technical and editorial changes.

DATES: Submit either electronic or written comments on the draft guidance by November 14, 2022 to ensure that we consider your comment on this draft guidance before we begin work on the final version of the guidance.

ADDRESSES: You may submit comments on any guidance at any time as follows:

Electronic Submissions

Submit electronic comments in the following way:

• Federal eRulemaking Portal: https://www.regulations.gov. Follow the instructions for submitting comments. Comments submitted electronically, including attachments, to https://www.regulations.gov will be posted to the docket unchanged. Because your comment will be made public, you are solely responsible for ensuring that your comment does not include any confidential information that you or a third party may not wish to be posted, such as medical information, your or anyone else’s Social Security number, or confidential business information, such as a manufacturing process. Please note that if you include your name, contact information, or other information that identifies you in the body of your comments, that information will be posted on https://www.regulations.gov.

• If you want to submit a comment with confidential information that you do not wish to be made available to the public, submit the comment as a written/paper submission and in the manner detailed (see “Written/Paper Submissions” and “Instructions”).

Written/Paper Submissions

Submit written/paper submissions as follows:

• Mail/Hand Delivery/Courier (for written/paper submissions): Dockets Management Staff (HFA–305), Food and Drug Administration, 5630 Fishers Lane, Rm. 1061, Rockville, MD 20852.

• For written/paper comments submitted to the Dockets Management Staff, FDA will post your comment, as well as any attachments, except for information submitted, marked and identified, as confidential, if submitted as detailed in “Instructions.”

Instructions: All submissions received must include the Docket No. FDA–2011–N–0179 for “Prior Notice of Imported Food Questions and Answers; Draft Guidance for Industry (Edition 4).” Received comments will be placed in the docket and, except for those submitted as “Confidential Submissions,” publicly viewable at https://www.regulations.gov or at the Dockets Management Staff between 9 a.m. and 4 p.m., Monday through Friday, 240–402–7500.

• Confidential Submissions—To submit a comment with confidential information that you do not wish to be made publicly available, submit your comments only as a written/paper submission. You should submit two copies total. One copy will include the information you claim to be confidential with a heading or cover note that states “THIS DOCUMENT CONTAINS CONFIDENTIAL INFORMATION.” FDA will review this copy, including the claimed confidential information, in its consideration of comments. The second copy, which will have the claimed confidential information redacted/blacked out, will be available for public viewing and posted on https://www.regulations.gov. Submit both copies to the Dockets Management Staff. If you do not wish your name and contact information to be made publicly available, you can provide this information on the cover sheet and not in the body of your comments and you must identify this information as “confidential.” Any information marked as “confidential” will not be disclosed except in accordance with 21 CFR 10.20 and other applicable disclosure law. For more information about FDA’s posting of comments to public dockets, see 80 FR 56469, September 18, 2015, or access the information at: https://www.govinfo.gov/content/pkg/FR-2015-09-18/pdf/2015-23389.pdf.

Docket: For access to the docket to read background documents or the electronic and written/paper comments received, go to https://www.regulations.gov and insert the docket number, found in brackets in the heading of this document, into the “Search” box and follow the prompts and/or go to the Dockets Management Staff, 5630 Fishers Lane, Rm. 1061, Rockville, MD 20852, 240–402–7500.

You may submit comments on any guidance at any time (see 21 CFR 10.115(g)(5)). Submit written requests for single copies of the draft guidance to the Division of Operational Policy, Office of Regulatory Affairs, Food and Drug Administration, Element Building, 12420 Parklawn Dr., Rockville, MD 20852. Send one self-addressed adhesive label to assist that office in processing your requests. See the SUPPLEMENTARY INFORMATION section for electronic access to the draft guidance document.

FOR FURTHER INFORMATION CONTACT:

Chris Henderson, Office of Regulatory Affairs, Food and Drug Administration, Element Building, 12420 Parklawn Dr.,