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FOR FURTHER INFORMATION CONTACT: *For technical information contact:* Kenneth Moss, Chemical Control Division (7405M) Office of Pollution Prevention and Toxics, Environmental Protection Agency, 1200 Pennsylvania Ave. NW., Washington, DC 20460–0001; telephone number: (202) 564–9232; email address: *moss.kenneth@epa.gov.*

For general information contact: The TSCA-Hotline, ABVI-Goodwill, 422 South Clinton Ave. Rochester, NY 14620; telephone number: (202) 554–1404; email address: *TSCA-Hotline@epa.gov.*

SUPPLEMENTARY INFORMATION:

I. Does this action apply to me?

A list of potentially affected entities is provided in the **Federal Register** of November 17, 2015 (81 FR 1250) (FRL–9953–41). If you have questions regarding the applicability of this action to a particular entity, consult the technical person listed under **FOR FURTHER INFORMATION CONTACT**.

II. What direct final SNURs are being withdrawn?

In the **Federal Register** of November 17, 2015 (81 FR 1250), EPA issued direct final SNURs for the chemical substances that are identified in this document. These direct final SNURs were issued under the procedures in 40 CFR part 721, subpart D. Because the Agency received notices of intent to submit adverse comments, in accordance with § 721.160(c)(3)(ii), EPA is withdrawing the direct final SNURs issued for the following chemical substances, which were the subject of PMNs: bimodal mixture consisting of multi-walled carbon nanotubes and other classes of carbon nanotubes (generic), (PMN No. P–11–482); and carbon nanotubes (generic), (PMN No. P–15–54). EPA intends to publish proposed SNURs for the chemical substances identified in this document.

For further information regarding EPA's direct final rulemaking procedures for issuing SNURs, see 40 CFR part 721, subpart D, and the **Federal Register** of July 27, 1989 (54 FR 31314).

III. Statutory and Executive Order Reviews

This action withdraws regulatory requirements that have not gone into effect and which contain no new or amended requirements. As such, the Agency has determined that this action will not have any adverse impacts, economic or otherwise. The statutory and Executive Order review requirements applicable to the direct final rule were discussed in the **Federal Register** of November 17, 2015 (81 FR 1250) (FRL–9953–41). Those review requirements do not apply to this action because it is a withdrawal and does not contain any new or amended requirements.

IV. Congressional Review Act (CRA)

Pursuant to the Congressional Review Act (5 U.S.C. 801 *et seq.*), EPA will submit a report containing this rule and other required information to the U.S. Senate, the U.S. House of Representatives, and the Comptroller General of the United States prior to publication of the rule in the **Federal Register**. This action is not a ''major rule'' as defined by 5 U.S.C. 804(2).

List of Subjects

40 CFR Part 9

Environmental protection, Reporting and recordkeeping requirements.

40 CFR Part 721

Environmental protection, Chemicals, Hazardous substances, Reporting and recordkeeping requirements.

Dated: January 9, 2017.

Maria J. Doa,

Director, Chemical Control Division, Office of Pollution Prevention and Toxics.

Therefore, 40 CFR chapter I is amended as follows:

PART 9—[AMENDED]

■ 1. The authority citation for part 9 continues to read as follows:

Authority: 7 U.S.C. 135 *et seq.,* 136–136y;15 U.S.C. 2001, 2003, 2005, 2006, 2601–2671; 21 U.S.C. 331j, 346a, 348; 31 U.S.C. 9701; 33 U.S.C. 1251 *et seq.,* 1311, 1313d, 1314, 1318, 1321, 1326, 1330, 1342, 1344, 1345 (d) and (e), 1361; E.O. 11735, 38 FR 21243, 3 CFR, 1971–1975 Comp. p. 973; 42 U.S.C. 241, 242b, 243, 246, 300f, 300g, 300g–1, 300g–2, 300j–2, 300j–3, 300j–4, 300j–9, 1857 *et seq.,* 6901–6992k, 7401–7671q, 7542, 9601–9657, 11023, 11048.

§ 9.1 [Amended]

■ 2. In the table in § 9.1, under the undesignated center heading ''Significant New Uses of Chemical Substances,'' remove the entries for §§ 721.10927 and 721.10942.

PART 721—[AMENDED]

■ 3. The authority citation for part 721 continues to read as follows:

Authority: 15 U.S.C. 2604, 2607, and 2625(c).

§ 721.10927 [Removed]

■ 4. Remove § 721.10927.

§ 721.10942 [Removed]

■ 5. Remove § 721.10942.

[FR Doc. 2017–00938 Filed 1–18–17; 8:45 am]

BILLING CODE 6560–50–P

DEPARTMENT OF HEALTH AND HUMAN SERVICES

[Docket No. CDC–2015–0006]

42 CFR Part 73

RIN 0920–AA59

Possession, Use, and Transfer of Select Agents and Toxins; Biennial Review of the List of Select Agents and Toxins and Enhanced Biosafety Requirements

AGENCY: Centers for Disease Control and Prevention (CDC), Department of Health and Human Services (HHS).

ACTION: Final rule.

SUMMARY: In accordance with the Public Health Security and Bioterrorism Preparedness and Response Act of 2002 (the Bioterrorism Response Act), the Centers for Disease Control and Prevention (CDC) in the Department of Health and Human Services (HHS) has reviewed the list of biological agents and toxins that have the potential to pose a severe threat to public health and safety. Following the review, HHS has decided: Not to finalize the proposed changes to the list of select agents and toxins at this time; to finalize provisions to address toxin permissible limits and the inactivation of select agents; to finalize specific provisions to the section of the regulations addressing biosafety; and to clarify regulatory language concerning security, training, incident response, and records. In a companion document published in this issue of the **Federal Register**, the U.S. Department of Agriculture (USDA) has made parallel regulatory changes.

DATES: Effective February 21, 2017.

FOR FURTHER INFORMATION CONTACT: Dr. Samuel S. Edwin, Director, Division of Select Agents and Toxins, Centers for Disease Control and Prevention, 1600

Clifton Road NE., MS–A46, Atlanta, Georgia 30329. Telephone: (404) 718–2000.

SUPPLEMENTARY INFORMATION: The preamble to this final rule is organized as follows:

I. Executive Summary

On February 27, 2015 we published an Advance Notice of Proposed Rulemaking (ANPRM) (80 FR 10656) that initiated the required biennial review and republication of the HHS list of select agents and toxins. The ANPRM solicited public comments regarding whether any biological agents and toxins should be added or removed from the HHS list of select agents and toxins based on the following criteria:

(1) The effect on human health of exposure to the agent or toxin;

(2) The degree of contagiousness of the agent or toxin, and the methods by which the agent or toxin is transferred to humans;

(3) The availability and effectiveness of pharmacotherapies and immunizations to treat and prevent any illness resulting from infection by the agent or exposure to the toxin; and

(4) Any other criteria, including the needs of children and other vulnerable populations that the commenter considered appropriate.

This notice also asked for public comment on whether HHS should remove the following agents from the HHS list of select agents and toxins: *Coxiella burnetii, Rickettsia prowazekii, Bacillus anthracis* Pasteur, *Brucella abortus, B. melitensis,* and *B. suis.*

On January 19, 2016, we published a Notice of Proposed Rulemaking (NPRM) (81 FR 2805). The NPRM solicited public comments regarding whether any biological agents and toxins should be added or removed from the HHS list of select agents and toxins based on the same criteria used in ANPRM:

We also invited comments on the following:

(1) Methods that should be required to validate the rendering of a select agent non-viable or regulated nucleic acids that can produce infectious forms of any select agent virus as non-infectious;

(2) Proposed changes to the aggregate amount of toxin excluded from the requirements of the select agent regulations;

(3) Removal of Diacetoxyscirpenol (DAS) and T–2 from the list;

(4) Whether seven calendar days provides a sufficient amount of time for the entity to destroy or transfer a select agent or toxin after identification;

(5) Specific biosafety measures that should be required to prevent laboratory acquired infections (LAIs) or accidental release of the select agents and toxins from an entity into the community; and

(6) Alternative regulatory requirements that could be constructed such that a registered entity would know whether it had a theft or loss of a select agent or toxin without that registered entity first having ''an accurate, current inventory for each select agent . . . held in long term storage.''

(7) Whether short, paralytic alpha-conotoxins containing the following amino acid sequence ($X_1CCX_2PACGX_3X_4X_5X_6CX_7$), *C. burnetii, R. prowazekii, B. anthracis* Pasteur, *B. abortus, B. melitensis,* and *B. suis* should be removed from the HHS list of select agents and toxins.

We received 22 public comments to the ANPRM and 35 public comments to the NPRM that addressed the composition of the HHS list of select agents and toxins. After carefully considering the technical input of subject matter experts, both within the Federal government and from public comments, and recommendations from Federal advisory groups, we have decided not to finalize the proposed changes to the list of select agents and toxins at this time. Upon further consideration, we may decide to finalize changes to the list at a future time.

This final rule makes the following changes to current regulations:

1. New provisions regarding the inactivation of select agents, specific biosafety requirements, and toxin requirements;

2. Other revisions to the regulations to clarify regulatory language concerning security, training, and records.

3. In addition, when HHS added *B. cereus* Biovar *anthracis* to the list of HHS select agents and toxins on September 14, 2016 by an interim final rule (81 FR 63138), we neglected to add the name of the agent to the immediate notification list for Tier 1 agents in sections 5 and 9 of the regulations. We are correcting that error in this final rule.

Costs of the Rule: The entities affected by this final rule include research and diagnostic facilities; Federal, State, and university laboratories; and private commercial and non-profit enterprises. The current regulations require registering for the possession, use, and transfer of select agents or toxins. In addition, the entity is currently required to ensure that the facility where the agent or toxin is housed has adequate biosafety and containment measures; that the physical security of the premises is adequate to prevent unauthorized access; that all individuals with approved access to select agents or toxins have the appropriate education, training, and/or experience to handle such agents or toxins; and that complete records concerning activities related to the select agents or toxins are maintained.

The HHS final rule will further reduce or minimize the risk of misuse of select agents and toxins that have the potential to pose a severe threat to human health. HHS recognizes that several of the required measures of the regulations may impose certain operational costs upon affected entities. Specifically, the rule will clarify that an entity must use a validated method to render a select agent non-viable or a regulated infectious nucleic acid sample non-infectious for future use. This means the method must be scientifically sound and produce consistent results each time it is used. Appropriate reporting and record keeping is required in order to mitigate threats to human health. In many cases, however, the affected entities already employ some or all of the required measures. Compliance costs actually incurred will therefore vary from one entity to the next.

While information on the specific changes that would need to occur at individual sites and the associated costs was not readily available during proposed rulemaking, some general observations regarding the potential costs were presented. These general cost observations can be found in the Regulatory Impact Analysis. Based on the current recordkeeping and reporting requirements, an additional 10 to 20 hours per year may be required by entities. At an imputed cost of $33.40 per hour, this additional time

requirement per entity will total between $334 and $668 per year, or in total for all registered entities between $80,000 and $160,000.

Benefits: The objectives of the HHS final rule are to create a means of ensuring enhanced oversight in the transfer, storage, and use of select agents and toxins; clarify that an entity must use a validated method to render a select agent non-viable or a regulated infectious nucleic acid sample non-infectious for future use; and require that entities in possession of such agents and toxins develop and implement effective means of biosafety, information security, and physical security. The overall benefit of the amended regulatory provisions will be a reduced likelihood of the accidental or intentional release of a select agent or toxin; and the avoidance of human morbidity, mortality and the economic loss associated with such a release. The goal of the amended regulations is to enhance the protection of human health and safety.

II. Changes to 42 CFR Part 73

The table below describes the changes to the current regulation.

Section No.	Section title	Change
73.0	Applicability and related requirements	No changes.
73.1	Definitions	Adds definitions: Validated inactivation procedure and viability testing protocol.
73.2	Purpose and scope	No changes.
73.3	HHS select agents and toxins	Clarifies language to include addition of *B. cereus* Biovar *anthracis* and adds new paragraphs.
73.4	Overlap select agents and toxins	Clarifies language to include addition of *B. cereus* Biovar *anthracis* and adds new paragraphs.
73.5	Exemptions for HHS select agents and toxins	Clarifies language; redesignates paragraph; and adds new paragraph.
73.6	Exemptions for overlap select agents and toxins	Clarifies language; redesignates paragraph; and adds new paragraph.
73.7	Registration and related security risk assessments	Redesignates paragraphs; adds new paragraph.
73.8	Denial, revocation, or suspension of registration	No changes.
73.9	Responsible Official	Clarifies language to include addition of *B. cereus* Biovar *anthracis* and adds new paragraphs.
73.10	Restricting access to select agents and toxins; security risk assessments.	Clarifies language.
73.11	Security	Clarifies language and adds new paragraph.
73.12	Biosafety	Clarifies language.
73.13	Restricted experiments	No changes.
73.14	Incident response	Clarifies language.
73.15	Training	Clarifies language and adds new paragraph.
73.16	Transfers	Clarifies language.
73.17	Records	Clarifies language and adds new paragraph.
73.18	Inspections	No changes.
73.19	Notification of theft, loss, or release	No changes.
73.20	Administrative review	No changes.
73.21	Civil money penalties	No changes.

A. Modifications to the List of HHS and Overlap Select Agents and Toxins

We received 22 public comments to the ANPRM and 35 public comments to the NPRM that addressed the composition of the HHS list of select agents and toxins. After carefully considering the technical input of subject matter experts, both within the Federal government and from public comments, and recommendations from Federal advisory groups, we have decided not to finalize the proposed changes to the list of select agents and toxins at this time.

B. Responses to Other Proposed Changes

i. Definitions

It recently became clear that some inactivation protocols have failed to inactivate *B. anthracis* spores completely, as evidenced by inactivation failures that led to the inadvertent transfer of potentially live *B. anthracis* samples by the Department of Defense in 2015. In response to this incident, new requirements were proposed to address the inactivation of select agents. We proposed adding definitions for the terms ''inactivation'' and ''kill curve'' to clarify the new inactivation provisions. As discussed below, we have removed the proposed requirement for a ''kill curve,'' and accordingly, we have also removed the proposed definition of ''kill curve.''

To exclude a select agent or regulated nucleic acids that can produce infectious forms of any select agent virus from the requirements of the select agent regulations, an entity will need to subject the select agent or the nucleic acids to a validated inactivation procedure whose efficacy is confirmed through a viability testing protocol.

Commenters stated that additional definitions should be provided for ''validated inactivation procedure,'' ''sterility testing protocol,'' and ''safety margin.'' We agree with the commenters and are defining the terms as described below. ''Validated inactivation procedure'' means ''a procedure, whose efficacy is confirmed by data generated from a viability testing protocol, to render a select agent non-viable but allows the select agent to retain characteristics of interest for future use; or to render any nucleic acids that can produce infectious forms of any select agent virus non-infectious for future use.''

Further, we have not included a separate definition for ''inactivation'' as it is now captured in the definition of ''validated inactivation procedure.''

We have changed the proposed phrase ''sterility testing protocol'' to ''viability testing protocol'' and defined the latter as ''a protocol to confirm the validated inactivation procedure by demonstrating the material is free of all viable select agent.'' This change reflects the intent that the validated inactivation procedure, or the procedure for removal of viable select agents from material

containing select agents, must render the material non-viable (*i.e.,* unable to replicate). In addition, any nucleic acids that can produce infectious forms of any select agent virus must be rendered non-infectious for future use.

We are choosing to not define the term ''safety margin'' and have incorporated the concept of a performance standard instead.

The new definitions will help clarify the regulatory language found in 42 CFR 73.3, 73.4.

ii. Inactivation of a Select Agent

Historical inactivation failures by registered entities required us to focus on ways to increase the certainty that inactivated select agents intended for further use do not contain live agent. This is particularly important when the inactivation methods are tempered in order to avoid disrupting some of the physical characteristics of the agent. We proposed adding specific requirements to the exclusion sections of the regulations (42 CFR 73.3(d), 73.4(d)) to address the requirements for rendering select agents, nucleic acids that can produce infectious forms of any select agent virus, or extracts from select agents non-viable.

Sections 73.3(d)(2) (HHS select agents and toxins) and 73.4(d)(2) (Overlap select agents and toxins) both provide that a non-viable select agent is excluded from the requirements of the select agent regulations. We proposed that for a select agent to be non-viable or to render nucleic acids that can produce infectious forms of any select agent virus non-infectious for future use, an entity must use a validated inactivation procedure. Commenters stated there is some confusion between inactivation validation requirements for moving materials to a lower containment level and inactivation validation requirements for waste disposal. We are clarifying that these provisions apply to a select agent that is inactivated for future use as a non-select agent and is not intended for material for waste disposal.

Many commenters stated that the focus on strengthening inactivation requirements was being driven by an incorrect public perception of recent procedural errors that occurred at federally run research laboratories. Without commenting on what is or might be the public's perception with regard to inactivation problems, we disagree with these comments because the focus on inactivation failures with select agents is based on the realization that past inactivation activities have proved to be inadequate.

We proposed that an entity would be required to develop a site-specific kill curve to identify conditions of inactivation for each select agent. Commenters stated that although the generation of kill curves is appropriate for inactivation procedures using heat, irradiation and filtration, it is not generally applicable to determining infectivity of nucleic acids. Commenters stated that for inactivation procedures where a ''kill curve is not applicable, inactivation conditions are selected and then replicated to obtain 100% inactivation within a statistical certainty.''

We agree with the commenters and are withdrawing the proposal to require a kill curve and safety margin because these would not be applicable to all inactivation procedures. Further, the variety of agents and inactivation procedures makes it likely that prescriptive requirements would have unintended negative consequences on research. We are, nonetheless, finalizing requirements for a validated inactivation procedure and viability testing. We are requiring that for a select agent or regulated nucleic acid that can produce infectious forms of any select agent virus to be excluded from the requirements of the select agent regulations, an entity will be responsible for achieving a certain performance standard that is confirmed through a viability testing protocol. Surrogate strains that are known to possess equivalent properties with respect to inactivation can be used to validate an inactivation procedure. However, if there are known strain-to-strain variations in the resistance of a select agent to an inactivation procedure, then an inactivation procedure validated on a lesser resistant strain must also be validated on the more resistant strains. Additional guidance regarding this performance standard has been developed and is available at *www.selectagents.gov.*

Many commenters asked HHS to state clearly if the standard for select agent inactivation is complete sterility (*i.e.,* not a single viable pathogen in the entire volume of an inactivated sample), a log reduction in viable pathogen titer, or the limit of detection of the assay. We agree that it is important to specify the intent of the performance standard. HHS recognizes the limits of detection of the viability testing procedures (related to the detection assay and the sampling of inactivated material) and expected run-to-run variation when following an inactivation procedure precisely precludes demonstrating full sterility of inactivated material. These sources of error must be considered when establishing performance parameters for inactivation procedures. While complete sterility is not a feasible goal for material that is intended for further use, HHS expects that the risk of live agent in inactivated materials will be as low as realistically possible from both a safety and security perspective.

We proposed that entities subject representative samples of an inactivated select agent to a validated sterility testing protocol to ensure that the inactivation procedure has rendered the select agent non-viable. Commenters stated that it is not always practical to conduct validation on each sample that is inactivated. Often samples are in limited quantities and validation studies will leave very little or no sample for the experimental purpose. Commenters also stated that the requirement to subject representative samples to sterility testing using a validated protocol requires further clarification. Commenters stated that it is reasonable to require this type of testing when the inactivation procedure is first established and if any changes to the inactivation protocol are made. However, commenters stated that it cannot be reasonably done on each sample in laboratory research if the inactivation protocol has not changed. They stated that implementing such a requirement would waste specimens where limited volumes are available, would be costly in terms of technical time and resources, and is scientifically unjustified.

We agree with the commenters that the varied needs and conditions for inactivation preclude setting a specific standard for viability testing at this time. We have removed the proposed sterility testing requirement for select agents and nucleic acids that can produce infectious forms of any select agent virus and have incorporated this concept into the performance standard. The requirement to develop a validated inactivation procedure and subsequent validation data derived from viability testing will determine the extent of sampling required. This activity will provide the associated measures of uncertainty with the sampling protocol chosen.

We proposed adding exclusion requirements that extracts from a select agent could not be excluded from the requirements of the select agent regulations until an individual or entity met the following requirements: (1) Any extract is subjected to a process that removes all viable cells, spores, or virus particles; (2) any extract is subjected to a validated sterility testing protocol; (3) any viability of an extract that was subjected to a validated inactivation

protocol is reported to the Responsible Official (RO); and (4) any viability of a select agent or infectivity of regulated nucleic acids that can produce infectious forms of any select agent virus, previously assessed as inactive by their validated sterility testing protocol, is reported to APHIS or CDC.

Some commenters expressed concern with having to subject every extract from a select agent, such as nucleic acids, to sterility testing. We agree with the commenters and are replacing the term ''extract'' with ''material containing a select agent'' to clarify that the requirements apply to material containing a select agent such as serum or liquid culture where select agents are typically removed via filtration without a previous inactivation step. The term ''extract'' is commonly used in conjunction with nucleic acids extracted from a select agent. We are using the term ''extract'' in the final rule to reflect the application of two processing steps: An inactivation step to destroy the select agent (*e.g.,* lysis of select agent) and then another step (such as filtration), to remove any remaining viable select agents. Extracts from a select agent (nucleic acids, antigens, lysates) would be subject to the performance standard for select agents in the new sections 3(d)(3) and 4(d)(3) of the select agent regulations that includes viability testing but does not necessarily require viability testing on every sample. The requirement to develop a validated inactivation procedure and subsequent validation data derived from viability testing will determine the extent of sampling required. However, material containing select agents, as opposed to extracts (*e.g.,* nucleic acids, antigens, lysates), that is subjected to a process to remove all viable cells, spores, or virus particles would require viability testing on every sample prior to treating it as a non-select agent. The distinguishing feature between ''material containing a select agent'' and an extract from a select agent is that in the former the select agent will only be removed and in the latter the select agent will be destroyed before removal. The more stringent requirement for viability testing of all material containing a select agent where the select agent was removed is warranted because of the lack of select agent destruction which increases the risk of viable select agent remaining in the material.

We proposed that if there are strain-to-strain variations in resistance of a select agent to the inactivation procedure, then a specific kill curve must be developed for each strain that undergoes the inactivation procedure. We received comments asking us to clarify language to specify under what circumstances strain-to-strain differences must be validated. Commenters also stated that this is an unnecessary use of resources especially when agents, based on their morphological characteristics, are susceptible to similar inactivating agents. Commenters suggested at a minimum the language should state that this requirement only applies when there are known strain-to-strain variations in resistance of a select agent to the inactivation procedure.

We agree with the commenters and added in the term ''known'' strain-to-strain variation and, as stated previously, have removed the kill curve requirement.

Commenters also inquired whether surrogate strains can be used to develop inactivation procedures. We agree with the commenters that surrogate strains known to possess equivalent properties with respect to inactivation as a select agent can be used to develop inactivation procedures. We have revised the requirement to include the provision that ''Surrogate strains that are known to possess equivalent properties with respect to inactivation can be used to validate an inactivation procedure; however, if there are known strain-to-strain variations in the resistance of a select agent to an inactivation procedure, then an inactivation procedure validated on a lesser resistant strain must also be validated on the more resistant strains.''

Commenters were concerned about performing viability testing on materials such as a single diagnostic sample that is determined to contain a select agent and where there is a limited amount of material with which to work. For example, consider an entity using a commercially available RNA extraction kit on a diagnostic sample to obtain RNA for sequencing, and the sample is identified to contain highly pathogenic avian influenza (HPAI). In this situation, the entire single sample would be used when trying to demonstrate that the inactivation procedure was effective. We agree with the commenters. As noted above, surrogate select agent strains that are known to possess equivalent properties with respect to inactivation as the select agent can be used to develop validated inactivation procedures. In this example, low pathogenic avian influenza (LPAI) could be used to validate the inactivation procedure for diagnostic samples that are identified as containing HPAI, if LPAI possesses equivalent properties with respect to inactivation as HPAI. In addition, we are clarifying that these provisions do not apply to diagnostic samples until they are identified to contain a select agent and are inactivated for future use as a non-select agent.

Many commenters asked who would determine the validity of an inactivation protocol. The responsibility for this activity remains with the entity, which will allow for researchers to continue to develop new inactivation procedures. Entities retain the responsibility to evaluate their inactivation procedures, to include consideration of the biosafety and security risks posed by the inactivated material. The Federal Select Agent Program (FSAP) inspectors will verify that the entity has developed a validated inactivation procedure and may review validation data during an entity's inspection. We made no changes based on these comments.

Many commenters stated that the intent behind the annual review provisions was not clear. We agree with the commenters and modified the provisions to state that an entity ''Review, and revise as necessary, each of the entity's validated inactivation procedures or viable agent removal method. The review must be conducted annually or after any change in Principal Investigator, change in the validated inactivation procedure or viable agent removal method, or failure of the validated inactivation procedure or viable agent removal method. The review must be documented and training must be conducted if there are any changes to the validated inactivation procedure, viable agent removal method, or viability testing protocol.'' We made these changes because the annual review of an entity's validated inactivation procedures or viable agent removal method is key to a successful inactivation program. The annual review requirement does not necessarily involve revalidating inactivation procedures. This review could simply be the evaluation of the site-specific standard operating procedures for validated inactivation of select agents to ensure the inactivating conditions used and upper agent concentration limits found in validation data are consistent, and that entity staff are following the site-specific standard operating procedures for validated inactivation of select agents.

However, sometimes an entity will need to revalidate inactivation procedures during the annual review. For example, if the entity identifies that staff are not adhering to standard operating procedures for validated inactivation of select agents, or if the entity wants to deviate from the validated inactivation procedure, the

entity will need to revalidate the inactivation procedures during the annual review. Further, in this final rule, we have consolidated the review provisions into one provision, clarified that the reviews must be documented, and moved this provision into the requirements for the RO as they will be the individual responsible for these review activities.

Many commenters stated that the intent of the inactivation failure reporting requirements was not clear and reporting every inactivation failure to CDC or APHIS was burdensome. We agree with the commenters and have modified reporting requirements to require the RO to ''Investigate to determine the reason for any failure of a validated inactivation procedure or any failure to remove viable agent from material. If the Responsible Official is unable to determine the cause of a deviation from a validated inactivation procedure or a viable agent removal method; or receives a report of any inactivation failure after the movement of material to another location, the Responsible Official must report immediately by telephone or email the inactivation failure or viable agent removal method failure to CDC or APHIS.'' The intent of this modification is to create an environment at the entity where inactivation or select agent removal failures are investigated to determine the reason for the failure as opposed to merely re-subjecting the material to the inactivation or select agent removal method. It is the position of the FSAP that each failure represents either human error in conducting the validated procedure or an inadequate inactivation method or an inadequate select agent removal method if no human error can be discovered. Both situations demand careful attention by the entity to ensure training and/or reevaluation of the inactivation procedure in order to minimize the likelihood that the situation would reoccur in the future. The revised regulatory language only requires reporting of inactivation or select agent removal failures to FSAP when the RO cannot establish that the failure resulted from human error or when an entity receives a report of any inactivation failure after the movement of material to another location.

We also proposed that written records be kept for select agents that have been subjected to a procedure to render them non-viable, or regulated nucleic acids that can produce infectious forms of any select agent virus that have been subjected to a procedure to render them incapable of producing infectious forms of any select agent virus. Some commenters stated that the proposal was not clear how long these records must be kept and who is responsible for keeping these records. We made no changes based on these comments as these records are subject to the records retention requirement in section 17 of the select agent regulations and must be kept for three years by a registered individual or entity.

Some commenters asked about the conditions of submitting a waiver to the inactivation provisions of the select agent regulations. An entity may submit a request to FSAP to apply an alternative inactivation procedure. The entity is to provide justification regarding the alternative procedure including a description of what material is to be waived, the inactivation protocol and viability test to be used, validation data, and any other supporting information/references, such as scientific references. Accordingly, we revised the provision found in sections 3(d)(6) and 4(d)(6) to include information on how to apply for a waiver that reads ''. . . To apply for such a determination a registered individual or entity must submit a written request and supporting scientific information to FSAP. A written decision granting or denying the request will be issued.'' Additional guidance has been developed and is available at: *www.selectagents.gov.*

iii. Toxins

To ensure the language is consistent with the exclusion language found in 73.3(e) which describes the exclusion of toxins that have been modified to be *less* potent or toxic, we are making a technical change to the regulation and revising the terms ''nonfunctional'' toxin to ''nontoxic'' toxin and ''functional form(s) of any of the toxins'' to ''toxic form(s) of any of the toxins.'' This change is being made to clarify the intent of the regulations as the terms ''nonfunctional'' and ''functional'' are broad and have led to confusion. The intention behind the original provisions was to exclude toxins that can no longer exert their toxic effect and cause disease and regulate those that can. For example, Botulinum neurotoxin has three functional domains—binding domain, translocation domain and catalytic domain. Each functional domain solely can be manipulated such that the toxin is no longer toxic and does not cause diseases even though the other two domains may be functional.

Due Diligence

We are adding a more specific documentation requirement to the toxin exclusion provision found in section 73.3(d)(3)(i) of the select agent regulations to require the transferor of an unregulated amount of a select toxin to document the identity of the recipient and the legitimate need (*i.e.,* prophylactic, protective, bona fide research, or other peaceful purpose) claimed by the recipient. The name of the toxin and the total amount transferred must also be documented. Identity information of the person requesting and using the toxins must include the individual's name, institution name, address, telephone number, and email address. We received one comment requesting to include language for transfers of toxins within an institution. We made no changes based on this comment because intra-entity transfers, where the sender and the recipient are covered by the same certificate of registration, are already addressed in section 17(3)(viii) of the regulations.

Toxin Permissible Limits

As proposed, we are increasing the toxin exclusion aggregate amounts. We received 10 comments supporting the increase in the toxin exclusion aggregate amounts. We received three general comments opposing the increase of the exclusion aggregate amounts and two additional comments opposing the increase of the ricin exclusion aggregate amount. One commenter stated that no changes were necessary. Another commenter had concerns regarding whether the risk assessment scenarios were relevant to the goal of reducing any significant harm able to be caused by illegitimate use of any lethal amounts of toxin. We are making no changes based on these comments.

DHS developed toxin parameters and attack scenarios for potential inhalation and ingestion exposures to select toxins to protect the homeland against the potential release of weaponized biological toxins. The DHS group analyzed a range of release sizes (in mg) for each select toxin in order to estimate the number of people that would be exposed to each toxin amount by ingestion of milk (using published TD[50] or LD[50]) and/or indoor inhalation (using published LD[50]). Revised toxin exclusion aggregate amounts were proposed based on the data generated by the models to expose <10 or <100 people by inhalation or ingestion to the LD[50] or TD[50] levels of toxin. A commenter stated that (1) the scenarios proposed appear to consider a high-consequence event or exposure to a given toxin and that the interpretation of what constitutes a high-consequence event or exposure is impacted not only in the number of people affected but in

the attention afforded by news media and the public and (2) a revision of these exclusion limits should also consider amounts that would be sufficient for research purposes. We are making no changes based on these comments because we do not believe the impact the news media may have if an exposure occurs is an appropriate consideration for the listing of a biological agent or toxin. Further, the consideration of amounts sufficient for research purposes is a subjective assessment as smaller academic laboratories have differing needs than an entity that is developing detection assays. The comments specific to ricin raised concerns that the increased exclusion aggregate amounts would increase the risk of (1) exposure to laboratory workers and (2) that individuals would have access to greater amounts of material to use for nefarious purposes. We are making no changes based on these comments. We do not agree that the increased permissible limits will increase the risk of laboratory worker exposure. The new proposed exclusion amount is less than an oral lethal dose for a single person weighing more than 50 kg, based on 20 mg/kg-body weight (Ref. 1), thus a single fatality would require consuming more than all of the ricin in the laboratory. Ricin does display a higher toxicity when administered intravenously or by inhalation, but these two routes of exposure require either injection or manipulation to generate particles capable of reaching the lower respiratory tract, respectively, two processes not likely to occur accidentally. Also, entities that produce ricin typically do so in liquid, as opposed to lyophilized powder formulations, thus decreasing the risk of ingestion or aerosol exposure. Additionally, the increased exclusion aggregate amounts would allow entities to more efficiently produce and store ricin preparations which are typically frozen in aliquots until the need to use the material arises. Finally, while increasing the permissible limits allows individuals with nefarious purposes access to greater amounts of toxin, we do not believe access to the revised amounts poses a severe threat to public health and safety based on the reasons stated above.

Toxins: Exclusion of an HHS Select Toxin Identified in an Original Food Samples and Clinical Samples

As proposed, we are excluding from the requirements of the regulations a select toxin identified in an original food sample and clinical samples. Original food samples and clinical samples are those specimens that are submitted to laboratories for diagnosis or verification purposes to identify or verify a biological agent or toxin. For example, an original food sample could be a container of potato salad or juice. An original clinical sample could be serum or stool from a patient. Laboratories that test food and clinical samples for the presence of toxins generally do not know the level of toxin in a sample and do not extract and purify a toxin as part of their studies. Therefore, our proposal to exclude select toxin identified in an original food sample or clinical sample identified is consistent with the rationale for the current exclusion for animals exposed to toxins (42 CFR 73.3(d)(4)). This exclusion was based on recommendations by toxin subject matter experts. We received one comment that supported this exclusion.

Exclusion of Botulinum Neurotoxin Produced as a Byproduct

In the NPRM, we proposed to exclude all toxins that are only produced as a byproduct of a study of the toxin producing host organism so long as the toxin had not been intentionally collected, purified, or otherwise extracted, and the material containing the toxin was inactivated and properly disposed of within 30 days of the initiation of the culture. Based on the input from subject matter experts, the final regulatory language narrows the exception to only Botulinum neurotoxin produced as a byproduct in the study of Botulinum neurotoxin producing species of *Clostridium.* Work with that organism is already regulated, thus providing regulatory oversight of the material during the 30 day time frame, as opposed to an agent like *Staphylococcus aureus,* the organism that produces *Staphylococcal* enterotoxins, which is not regulated. One commenter stated that clarification was needed in the ''exclusion of toxin produced as a by-product'' and inquired whether this provision applies to material held in long term storage or cell lysates or culture supernatants kept for diagnostic or research purposes other than toxin work. Since the situations described by the commenter referred to material held in long term storage (longer than 30 days) this exclusion would not apply.

iv. Exclusion Involving Patient Care

To clarify how the select agent regulations apply to activities associated with the diagnosis and care for individuals infected with a select agent, we proposed that waste generated during the delivery of patient care is not considered regulated under the select agent regulations. One commenter recommended that we define patient care as part of the diagnosis definition. Specifically, the commenter suggested we define diagnosis as ''the analysis of specimens for the purpose of identifying or confirming the presence or characteristics of a select agent or toxin provided that such analysis is associated with the determination or provision of patient treatment in a patient care setting, or directly related to protecting the public health or safety, animal health or animal products, or plant health or plant products. Clinical or diagnostic specimen retention times as required for patient treatment are included within the determination of the point in time when patient care has concluded.'' Another commenter stated ''the challenges of differentiating between patient care and experimental research when treating infectious diseases are complex and nuanced and any effort to introduce regulation of medical care involving select agents and toxins has the potential to introduce inconsistencies and confusion.'' The proposed exclusion language in the NPRM was ''Waste generated during the delivery of patient care from a patient infected with a select agent that is decontaminated with a validated method within seven calendar days of the conclusion of patient care.'' We revised the proposed language based on the two comments to state: ''Waste generated during the delivery of patient care by health care professionals from a patient diagnosed with an illness or condition associated with a select agent, where such waste is, within seven days of the conclusion of patient care, decontaminated, or transferred for destruction in compliance with state and Federal regulations.''

We revised the proposed exemption language in 42 CFR 73.5(a)(3), and 42 CFR 73.6(a)(3) to provide that, unless otherwise directed by the HHS Secretary or APHIS Administrator, as appropriate, ''the clinical or diagnostic specimens collected from a patient infected with a select agent are transferred in accordance with § 73.16 or destroyed on-site by a recognized sterilization or inactivation process within seven days after delivery of patient care by health care professionals has concluded.''

For specimens generated from the patient, the specimens are not subject to the select agent regulations for only the period that they are directly associated with the diagnosis. In accordance with sections five and six of the select agent regulations, within seven calendar days after identification, a specimen is subject to the select agent regulations

and must be transferred in accordance with section 73.16 or destroyed on-site by a recognized sterilization or inactivation process. Since the material would be excluded from the regulations, there would be no requirement to document the transfer or destructions. A specimen must be secured against theft, loss, or release during the period between identification and transfer or destruction, and any theft, loss, or release of the specimen must be reported. All specimens generated from the patient and kept more than seven days after acute patient care concludes would be subject to the select agent regulations.

v. Exemptions for Select Agents and Toxins

Informing Specimen Provider

Since a registered or reference laboratory typically confirms the identification of a select agent or toxin for public health and agriculture, we proposed to require that a registered or reference laboratory inform the specimen provider of the identification as a condition for a clinical or diagnostic laboratory to maintain their exemption under 42 CFR 73.5(a), and 42 CFR 73.6(a). Two commenters stated they did not believe basic good practices require regulations. We made no changes based on these comments because this provision will ensure that the reference laboratory notifies the specimen provider of the identification of the select agent or toxin. It is important that the specimen provider is aware that they are in possession of the agent or toxin and must meet the requirements outlined in 42 CFR 73.5, 73.6 (*e.g.,* cannot maintain possession of the select agent or toxin, must destroy or get approval for a transfer, and report a theft, loss, or release).

Identification of Toxin

In the current select agent regulations, in order for clinical or diagnostic laboratories to maintain their exemption under 42 CFR 73.5(a), and 42 CFR 73.6(a), the clinical or diagnostic laboratory must, either immediately or within seven calendar days, report the identification of a select agent or toxin to APHIS or CDC unless directed otherwise by HHS Secretary or APHIS Administrator. In the NPRM, we proposed to amend the language in 42 CFR 73.5(a), and 42 CFR 73.6(a) to state: ''Unless directed otherwise by the Secretary, within seven calendar days after identification of the select agent or toxin (except for Botulinum neurotoxin (BoNT) and/or Staphylococcal enterotoxins (Subtypes A–E)), or within 30 calendar days after identification of Botulinum neurotoxin and/or Staphylococcal enterotoxin (Subtypes A–E), the select agent or toxin is transferred in accordance with § 73.16 or destroyed on-site by a recognized sterilization or inactivation process.'' We sought comments concerning (1) the extension of the exemption time period to 30 days for BoNT and Staphylococcal enterotoxin (Subtypes A–E) to allow clinical and diagnostic laboratories sufficient time to complete their investigations without having to transfer or destroy the sample, and (2) whether seven calendar days provided sufficient amount of time for the entity to destroy or transfer other select agents or toxins after identification. We received one comment to extend the amount of time for other select agents or toxins to 10 calendar days since destruction may not occur on-site, therefore allowing the secure transport to the ultimate site of disposition. We made no changes to adjust the seven calendar day requirement for agents or toxins other than BoNT and Staphylococcal enterotoxin (Subtypes A–E) because the other agents or toxins do not involve the identification of both agent and toxin as part of diagnosis. Therefore, these situations are not as complicated and do not warrant additional time for reporting identification.

vi. Registration

We are codifying in regulation the current FSAP policy that an entity is required to meet all of the regulatory requirements for those select agents and toxins listed on an entity's registration regardless of whether the select agent or toxin is in the actual possession of an entity, and without regard to the actual amounts of toxins in the possession of an entity. We received no comments regarding this proposal and have made no changes to the language in the proposed rule.

vii. Responsible Official

Section 73.9(a)(6) of the select agent regulations currently states that the RO must ensure that an annual inspection is conducted for each laboratory where select agents and toxins are stored or used. This requirement also provides that the results of each inspection must be documented, and any deficiencies identified during an inspection must be corrected. We proposed adding a requirement that the RO must also document the corrective actions taken by the entity to address any identified deficiencies. We received one comment that supported this proposed requirement and are finalizing the requirement as proposed.

HHS or USDA Office of the Inspector General Hotline

In its December 2014 report, the Federal Experts Security Advisory Panel (FESAP) recommended adding a specific regulatory requirement addressing how individuals are informed of the availability of procedures for accessing the HHS or USDA Office of Inspector General Hotlines to anonymously report a safety or security concern. In response to that recommendation, we proposed adding a requirement that the RO must ensure that individuals at their entity are provided the contact information of the HHS Office of Inspector General Hotline and USDA Office of Inspector General Hotline so that an individual is able to anonymously report a biosafety or security concern related to select agents and toxins. We received no comments regarding this proposed addition and are finalizing the requirement as proposed.

viii. Visitor Access to Select Agents and Toxins

Section 73.10(e) of the select agent regulations currently provides that a person with a valid approval from the HHS Secretary or APHIS Administrator to have access to select agents and toxins may request, through his or her RO, that the HHS Secretary or APHIS Administrator provide their approved access status to another registered individual or entity for a specified period of time. This allows a person with approved access at a registered entity to have approved access to a select agent at another registered entity. To ensure that the RO of the entity hosting such a visitor is aware if a visiting individual loses access approval to select agents and toxins, we added a requirement that the RO at the home entity must immediately notify the RO of the visiting entity if a person's access to select agents or toxins has been terminated. We received one comment that supported this addition to the regulations and are finalizing the requirement as proposed.

ix. Security, Biosafety, and Incident Response Plans

The select agent regulations require a registered entity to develop and implement a number of plans in order to ensure the safety and security of the select agents and toxins they handle. These are:

- A security plan that provides for measures sufficient to safeguard a select agent or toxin against unauthorized access, theft, loss, or release (42 CFR 73.11);

• A biosafety plan that provides for measures sufficient to contain a select agent or toxin (42 CFR 73.12); and

• An incident response plan that provides for measures that the registered entity will implement in the event of theft, loss, or release of a select agent or toxin; inventory discrepancies; security breaches (including information systems); severe weather and other natural disasters; workplace violence; bomb threats and suspicious packages; and emergencies such as fire, gas leak, explosion, power outage, or others. (42 CFR 73.14).

The select agent regulations require that drills or exercises must be conducted at least annually to test and evaluate the effectiveness of the plans, and that the plans must be reviewed and revised, as necessary, after any drill or exercise, and after any incident. We proposed to require that these drills or exercises be documented to include how the drill or exercise tested and evaluated the plan, any problems identified and corrective actions that were taken, and the names of the individuals who participated in the drill or exercise. Three commenters stated that there was no need to codify the documentation of how a drill or exercise evaluated a plan and corrective actions in regulations because they believed this requirement is already being documented. We are making no changes based on the comments because this requirement will provide a more thorough accounting of required activities via testing and entity-directed improvements.

Another commenter requested clarification regarding the recording of the names of individuals who participate in drills or exercises. The commenter believed the requirement should be limited to registered entity personnel and not include first responders or other non-entity participants, but list only the participating external agencies (*e.g.,* emergency management, emergency medical services, or fire department). We agreed with the commenter and have amended the proposed regulatory language to clarify that an entity only needs to document the names of individuals at the registered entity. An entity may choose to list the external agencies who participated in the drill or exercise.

Similar to the existing requirement for the security plan, we proposed to add a requirement that the biosafety and incident response plans be submitted for initial registration, renewal of registration, or when requested by FSAP. We received two comments regarding these proposals which supported this requirement. However, one commenter questioned the need for additional requirements as this is already done routinely. While we agreed with the commenter that some, or even most, entities already provide the plans routinely, we are making no changes to the proposed language so that all entities will be required to submit their biosafety and incidence response plans, consistent with the existing requirement for the security plan.

Security

We proposed amending the requirement that a security plan contain a description of how the entity authorizes the means of entry into areas where select agents or toxins are stored or used, to add a requirement that the security plan must include a description of centralized access control management systems (*e.g.,* keycards) and/or key management (*e.g.,* mechanical keys). We proposed this requirement because during our inspections of registered entities we have observed that the central access control management system in some instances is controlled, either on- or off-site, by individuals who (1) have not received access approval from HHS Secretary or APHIS Administrator, and (2) have the ability to assign people access or override access controls without the knowledge of the entity's RO. Three commenters suggested that access management processes are sensitive and a greater security risk may result from having too detailed information available in a single document. One commenter recommended we include a definition of what an access control system is and what components need to be included in the security plan. After considering the comments and reconsidering the purpose of the proposed language, we are not finalizing the proposed revision. Our concerns about unauthorized persons either having access or granting access without the knowledge of the entity RO can be addressed by the current provisions found in subsections (c)(1) and (c)(2) of section 11 (security) of the select agent regulations, which make the RO responsible to ensure access controls, irrespective of the type of security system in place.

Paragraphs (d)(7)(i) through (d)(7)(v) of section 11 (security) of the select agent regulations encompass a list of events that individuals with access approval from the HHS Secretary or the APHIS Administrator must immediately report to the RO. We proposed to add a new requirement that the RO must be notified of any loss of computer, hard drive, or other data storage device containing information that could be used to gain access to select agents or toxins. We received one comment requesting clarification on the time frame for notification. We made no changes based on the comment since the regulations under subsection (d) already provide that notification must be immediate. The notification will facilitate notification of the Federal Bureau of Investigation (FBI) if deemed necessary by the RO as the loss of such equipment may be criminal in nature.

Biosafety

We proposed amending the regulatory language in section 73.12 of the select agent regulations to update the name change of the National Institutes of Health (NIH) ''Guidelines for Research Involving Recombinant or Synthetic Nucleic Acid Molecules'' (Ref. 2). We received no comments and are finalizing this change as proposed.

The biosafety section of the select agent regulations contains a reference to the Occupational Safety and Health Administration (OSHA) regulations found in 29 CFR 1910.1200 and 1910.1450. These sections provide specific requirements for handling hazardous chemicals in the laboratories. These regulations also provide recommendations for safely working with chemicals including toxins and give non-mandatory recommendations for prudent practices in laboratories handling chemical hazards. Since the current edition of the CDC/NIH ''Biosafety in Microbiological and Biomedical Laboratories'' Appendix I (Ref. 3) now provides guidelines for work with toxins of biological origin, we proposed removal of the reference to these OSHA regulations. We note, however, that regulated entities are still required to meet the OSHA regulatory requirements where applicable. We received no comments and are finalizing this change as proposed.

In the NPRM, we proposed adding the requirement that ''biosafety and containment procedures specific to each registered laboratory must be available to each individual working in that laboratory.'' We proposed adding this language to ensure that laboratory personnel working with select agents and toxins have access to relevant biosafety information and are therefore aware of the risks associated with these agents. One commenter requested clarification regarding the term ''laboratory'' and whether the term referred to a single room or a building or to a group of rooms (*e.g.,* laboratory, animal room, necropsy) used by a Principal Investigator for a research project. The commenter also requested

clarification on the language ''must be available to each individual working in the laboratory'' and whether this implied that there must be a specific biosafety manual for each room. We also received three comments that questioned the need for a new requirement since the commenters believe a laboratory-specific biosafety manual was already accessible to individuals. We are not adding the proposed provision to the regulations because upon further reflection we agree with the commenters that individuals already have access to their biosafety plan.

In the NPRM, we proposed adding specific provisions to the biosafety section that would require (1) a written risk assessment for each registered select agent or toxin; (2) written safety procedures to protect entity personnel, the public, and the environment from exposure to the select agent or toxin; (3) written decontamination procedures; and (4) written waste management procedures. We received 13 comments that stated that ''risk assessments'' should be defined and the proposed requirement of having these for each procedure involving a select agent or toxin that addresses the hazards associated with the agent or toxin must be clarified because risk assessments are completed through institutional review committees by collaborative processes with Principal Investigators and biosafety professionals. One commenter stated that a risk assessment was always a requirement. We agree with the commenters that ''risk assessment for each procedure'' should not be required and agreed that having a risk assessment was already addressed in the regulations as outlined in Section 12(a) that ''An individual or entity required to register under this part must develop and implement a written biosafety plan that is commensurate with the risk of the select agent or toxin, given its intended use.'' However, we have clarified in the final regulatory language found in section 12(a)(1) of the select agent regulations that the biosafety plan include ''the hazardous characteristics of each agent or toxin listed on the entity's registration and the biosafety risk associated with laboratory procedures related to the select agent or toxin.''

The majority of the commenters stated that the approach outlined in the NPRM discussion of section 12(a) would lead to decreased compliance and an increase in paperwork burden. One commenter stated that many biosafety plans are already upwards of 50 pages, and increasing the length further may greatly decrease the likelihood that researchers will continue to read these plans and use them as a resource. Another commenter stated that regulatory language should be omitted to prevent creating a redundant process such as those provisions already covered under training and incident response. We agree with commenters and have removed the training and incident response language that was noted in the NPRM because these provisions are already covered by other sections in the regulations (*i.e.,* incident response and training sections). We combined other provisions to reduce the seven provisions listed in the NPRM to four provisions in the final rule.

One commenter stated we should consider requiring the adoption of shared algorithms developed by the American Society for Microbiology (ASM) for use by clinical laboratories. These algorithms are presented as frequently asked questions (FAQs) from ASM to assist laboratories. We made no changes based on this comment because FSAP already provides FAQs to assist entities with meeting the biosafety requirements of the regulations.

Another commenter recommended that we also offer the suggestion that entities consider implementing programs whereby personnel are required to work with another trained person (*i.e.,* a ''buddy'' system or dual authentication) as an appropriate and effective proactive method for the prevention of laboratory acquired infections and accidental releases of select agents. We made no changes based on this comment as it is essential for entities to develop their own biosafety initiatives to meet their own needs. The commenter continued that many of these issues come down to the culture of safety in an entity, and adherence to established protocols and training. The commenters wanted the regulatory provisions to reflect an improved safety culture. Two commenters requested that we consider leaving the current provisions in place and develop guidance to assist entities that would include risk assessment, use of safety equipment, personal protective equipment, containment devices, and occupational health consideration. Another commenter stated that the new section appears redundant with the risk assessment(s) performed during review of work registrations by an Institutional Biosafety Committee. We agree with the commenters that the provisions focus on the hazards and risks associated with the select agents and toxins and the safety practices put in place by the entity to protect entity personnel, the public, and the environment. We have revised the proposed language to state that the biosafety plan must include the provisions found in section 12(a) of the select agent regulations (see § 73.12(a)(1)–(4)). To address the commenters' suggestion that FSAP develop a guidance document regarding biosafety, additional guidance has been developed and is available at: *http://www.selectagents.gov.*

x. Training

We proposed to amend section 15 of the select agent regulations to require that training be completed within 12 months of that individual's anniversary of receiving access approval from the HHS Secretary or the APHIS Administrator, or prior to his or her entry into an area where any select agents and toxins are used or stored, whichever occurs first. This change is necessary in order to ensure that individuals at registered entities receive timely training. We received no specific comments regarding this proposed change. However, seven commenters stated that we should include a description of the level of training necessary for personnel in varying positions with highly disparate job duties and responsibilities. The commenters requested that we clarify that the required training will be conducted at a level appropriate to the registered person's role and level of access to select agents. We made no changes based on this comment because the current regulatory language is clear that ''the training must address the particular needs of the individual, the work they will do, and the risks posed by the select agents or toxins.'' The training for the individuals should be determined by the entity based on at the level of which the individual will have access to select agents or toxins. The training that each person receives should be designed to ensure that they can carry out their responsibilities without causing harm to themselves, or to their fellow co-workers, or to the public. We did clarify the regulatory language regarding training for an individual who must be escorted to specify that their training must be accomplished prior to the individual's entry into a registered area.

One commenter also asked that we consider making ''training a pre-requisite for access to select agents and toxins, and not a requirement for just being FSAP approved.'' The regulations in 42 CFR 73.15(a)(1) already requires that each approved individual receive information and training on biosafety, security (including security awareness), and incident response before that individual has access to any select agents and toxins. The same commenter

asked that we clearly specify the requirements for both initial and annual training. While we made no changes to our regulatory language based on this comment, the document, ''Guidance for Meeting the Training Requirements of the Select Agent Regulations,'' found at *http://www.selectagents.gov/guidance-training.html,* has been amended to provide further detail and assistance regarding the content of initial and annual training. The same commenter stated that in two instances an employee's annual training deadline occurred in the middle of an extended medical leave during which it was not possible to complete the training, and the entity had to choose to either let the training become overdue, or to remove the individual from the registration and completely start over with the security risk assessment (SRA) approval process once the individual was back to work. The commenter stated that ''SRA approved personnel could commonly be on other types of extended leave such as maternity leave, or on sabbatical doing research at another institution but still employed and SRA approved at their home institution.'' While we made no changes to our regulatory language based on this comment, we have updated our guidance, ''Guidance for Meeting the Training Requirements of the Select Agent Regulations,'' which is available at *www.selectagents.gov,* to include information on how to deal with situations regarding individuals that have extended absences from the laboratory.

xi. Records

Based on our inspections of registered entities, we observed that not all entities maintain records of the final disposition of select agents when consumed or destroyed, and this impedes validation of inventory holdings. Section 73.17 of the select agent regulations currently does not include a requirement for documenting the final disposition of a select agent. To ensure the proper tracking of a select agent from acquisition to final disposition, we are adding a requirement for entity records to include the final disposition (including destruction) for each select agent that has been held in long-term storage. One commenter expressed concern that a requirement for a record of destruction of select agents would place an undue burden on investigators and recommended that this requirement be excluded from the final rule. However, the commenter did agree that an entity should be required to maintain a current and accurate inventory of all select agents in their possession and document when an agent is no longer in their possession. We agree with the commenter that final disposition needs to be part of the entity's recordkeeping requirement. We disagree with the commenter that this will place undue burden on investigators because this information can be included with an entity's existing recordkeeping system (*e.g.,* inventory spreadsheet). Therefore, to clarify the regulatory language, we have revised the proposed regulatory language to provide that the record will need to include ''the select agent used, purpose of use, and, when applicable, final disposition.''

Section 73.17 of the select agent regulations currently states that records and databases need to be accurate. To ensure that the accuracy of handwritten records can be verified, we proposed to clarify that a handwritten record must be legible (*i.e.,* capable of being read). We received one comment requesting that we define the term ''legible handwritten records.'' We made no changes based on this comment because we are using the term ''legible'' in its ordinary meaning.

We proposed to expand the scope of records required to be maintained to include any records that contain information related to the requirements of the regulations. We received five comments that expressed concerns about the information being kept in laboratory notes. The commenters stated that the information is ''proprietary in nature,'' contains intellectual property information and should not be required to be provided to FSAP inspectors. We understand the concerns of the commenters and clarified the language to indicate that it is only information related to requirements of the select agent regulations that must be produced on request. Such information may be found in the biocontainment certifications, laboratory notebooks, institutional biosafety and/or animal use committee minutes and approved protocols, and records associated with occupational health and suitability programs. Accordingly, we will only review relevant portions of any laboratory notebooks or documents, and only if they contain information related to any requirements of the regulations under sections 73.5, 73.7, 73.9, 73.11, 73.12, 73.14, 73.15, 73.16, 73.17, and 73.19 of the select agent regulations. Two commenters stated that certain records are ''protected under the HIPAA Privacy Rule.'' FSAP would expect any information provided to FSAP regarding an individual's health would be provided in accord with the HIPAA Privacy Rule, including the use and disclosure of protected health information to public health authorities authorized by law to collect or receive such information for preventing or controlling disease, injury, or disability.

Records for Long-Term Storage

In the NPRM we also solicited information and ideas as to how a regulatory requirement could be constructed such that a registered entity would know whether a select agent or toxin had been lost or stolen, without that registered entity first having ''an accurate, current inventory for each select agent . . . held in long-term storage.'' In addition, we requested ideas as to how the current regulations could be amended to address the threat of the theft of a select agent from a container held in long-term storage. We received three comments that addressed this request. One commenter suggested that FSAP inspectors review the record of select agents held in long-term storage and accept the attestation of the responsible investigators of their accuracy. Another commenter stated we should continue with FSAP's current select agent practices to allow for these stocks to be maintained in tamper-evident containers (*e.g.,* security ties on freezer boxes) so that vials are not individually removed, thawed, and measured. The third commenter recommended dual authentication coupled with required entity inventory reviews. We appreciate the comments and will continue to consider how the recognition of theft and loss might be addressed through alternative approaches.

III. Alternatives Considered

The Public Health Security and Bioterrorism Preparedness and Response Act of 2002 requires HHS and USDA to review and republish the list of select agents and toxins every two years. In drafting this final rule, we considered the action proposed in the NPRM of removing the six select agents and one toxin where its costs and benefits were discussed. If those policies were adopted, it would result in savings ranging from approximately $15,300 for a small commercial BSL–3 laboratory to approximately $165,000 for a larger university with BSL–2/3 laboratories for laboratories no longer regulated. Based on the review of FSAP database, approximately eleven small entities would no longer be regulated and would not be required to register with FSAP. If the entities withdrew their registration, it would result in an estimated saving of $168,300 annually. On the other hand, this policy could increase the likelihood of entities working with these removed select agents and toxin not having the

appropriate biosafety and security provisions in place to prevent an accidental or intentional release of a select agent or toxin. The intentional release could adversely affect the public health and safety. Recent events concerning the accidental transfer of select agents that had not been fully inactivated, leading to the inadvertent release of select agents, caused us to also look at provisions in this regulation. After carefully considering the technical input of subject matter experts, both within the Federal government and from public comments, and recommendations from Federal advisory groups, we have decided not to finalize the proposed changes to the list of select agents and toxins at this time.

IV. Required Regulatory Analyses

A. Executive Orders 12866 and 13563

Under Executive Order (E.O.) 12866, Regulatory Planning and Review (58 FR 51735, October 4, 1993), CDC is required to determine whether this regulatory action would be ''significant'' and therefore subject to review by the Office of Management and Budget (OMB) and the requirements of the Executive Orders (E.O.). E.O. 12866 defines ''significant regulatory action'' as any regulatory action that is likely to result in a rule that may:

- Have an annual effect on the economy of $100 million or more or adversely affect in a material way the economy, a sector of the economy, productivity, competition, jobs, the environment, public health or safety, or state, local, or tribal governments or communities;
- Create a serious inconsistency or otherwise interfere with an action taken or planned by another agency;
- Materially alter the budgetary impact of entitlements, grants, user fees, or loan programs or the rights and obligations of recipients; or,
- Raise novel legal or policy issues arising out of legal mandates, the President's priorities, or the principles set forth in E.O. 12866.

E.O. 13563, Improving Regulation and Regulatory Review, (76 FR 3821, January 21, 2011), updates some of the provisions of E.O. 12866 in order to promote more streamlined regulatory actions. This E.O. charges, in part, that, while protecting ''public health, welfare, safety, and our environment'' that regulations must also ''promote predictability and reduce uncertainty'' in order to promote economic growth. Further, regulations must be written in plain language and be easy to understand.

We have prepared an economic analysis for this rule. The economic analysis provides a cost-benefit analysis, as required by E.O. 12866, and a final regulatory flexibility analysis (See Section III.B. of this Preamble) that examines the potential economic effects of this rule on small entities, as required by the Regulatory Flexibility Act. The economic analysis is summarized below. Copies of the full analysis are available in the docket at *www.regulations.gov* or at *www.selectagents.gov*.

We have determined that this final rule is significant for the purposes of Executive Order 12866 and, therefore, this final rule has been reviewed by OMB.

Summary of the Regulatory Impact Analysis

The Public Health Security and Bioterrorism Preparedness and Response Act of 2002 (Pub. L. 107–188) provides for the regulation of certain biological agents and toxins that have the potential to pose a severe threat to human, animal, or plant health, or to animal or plant products. APHIS and CDC have primary responsibility for implementing the provisions of the Act within the Department of Agriculture and the Department of Health and Human Services, respectively. Within APHIS, Veterinary Services (VS) select agents and toxins are those that have been determined to have the potential to pose a severe threat to animal health or animal products, and Plant Protection and Quarantine (PPQ) select agents and toxins are those that have been determined to have the potential to pose a severe threat to plant health or plant products. HHS select agents and toxins are those that have been determined to have the potential to pose a severe threat to human health. APHIS and CDC coordinate regulatory activities for overlap select agents and toxins that have been determined to pose a severe threat to human and animal health or products.

Sections 201 and 212(a)(2) of the Act require a biennial review and republication of the select agent and toxin list, with revisions as appropriate in accordance with this law. These final rules will implement the recommendations of the fourth biennial review of select agent regulations and have finalized changes that will increase their usability as well as provide for enhanced program oversight. These amendments include new provisions regarding the inactivation of select agents, specific biosafety and toxin requirements and clarification of regulatory language concerning security, training, and records.

The final rule will require that entities develop validated inactivation procedures for select agents or regulated infectious nucleic acid and maintain written records of having done so. Costs of complying with this amendment are expected to be modest.

Currently, there are 286 entities registered with APHIS and CDC including 91 academic, 53 commercial, 81 State government, 45 Federal government, and 16 private (non-profit) institutions, most of which are considered to be small entities. Based on current record keeping and reporting requirements, an additional 10 to 20 hours per year may be required for maintaining records associated with select agents or material containing select agents or regulated nucleic acids that can produce infectious forms of any select agent virus that have been subjected to a validated inactivation procedure or a procedure for removal of viable select agents. At an imputed cost of $33.40 per hour (GS–12, step 2), this additional time requirement per entity will cost between $334 and $668 per year, or in total for all registered entities between $80,000 and $160,000. The final rule will not have a significant economic impact on a substantial number of small entities. Costs associated with this rule do not include costs related to training, overhead, updates to facilities, etc. We assume in this rule that all costs associated with such factors for entities performing inactivation procedures have already been incurred prior to rulemaking.

The benefits of strengthened safeguards against the unintentional or deliberate release of a select agent or toxin greatly exceed compliance costs of the rules. As an example of losses that can occur, the October 2001 anthrax attacks caused five fatalities and 17 illnesses, disrupted business and government activities (including $2 billion in lost revenues for the Postal Service), and required more than $23 million to decontaminate one Senate office building and $3 billion to decontaminate postal facilities and procure mail-sanitizing equipment. Deliberate introduction greatly increases the probability of a select agent becoming established and causing wide-ranging and devastating impacts to the economy, other disruptions to society, and diminished confidence in public and private institutions.

The amended regulations will enhance the protection of human, animal, and plant health and safety. The final rules will reduce likelihood of the accidental or intentional release of a

select agent or toxin. Benefits of the rules will derive from the greater probability that a release will be prevented from occurring.

B. The Regulatory Flexibility Act (RFA), as Amended by the Small Business Regulatory Enforcement Fairness Act (SBREFA)

We have examined the impacts of the proposed rule under RFA (5 U.S.C. 601–612). Unless we certify that the proposed rule is not expected to have a significant economic impact on a substantial number of small entities, RFA, as amended by the Small Business Regulatory Enforcement Fairness Act (SBREFA), requires agencies to analyze regulatory options that would minimize any significant economic impact of a rule on small entities. We certify that this proposed rule will not have a significant economic impact on a substantial number of small entities within the meaning of the RFA because these registered entities are already required to comply with the select agent regulations. The small entities would only incur some costs if they are performing inactivation procedures and are not maintaining records. The additional costs that may be incurred are small in comparison to the long-term benefits of additional protection against the release of select agents and toxins that would result in devastating effects to the economy.

This regulatory action is not a major rule as defined by Sec. 804 of the Small Business Regulatory Enforcement Fairness Act of 1996. This proposed rule will not result in an annual effect on the economy of $100,000,000 or more; a major increase in cost or prices; or significant adverse effects on competition, employment, investment, productivity, innovation, or on the ability of United States-based companies to compete with foreign-based companies in domestic and export markets.

C. Paperwork Reduction Act of 1995

In accordance with section 3507(d) of the Paperwork Reduction Act of 1995 (44 U.S.C. 3501 *et seq.*), CDC has determined that the Paperwork Reduction Act does apply to information collection and recordkeeping requirements included in this rule. We note that the information collection and recordkeeping requirements are already approved by the Office of Management and Budget (OMB) under OMB Control Number 0920–0576 (Possession, Use, and Transfer of Select Agents and Toxins (42 CFR 73), Expiration 12/31/2018).

D. E.O. 12988: Civil Justice Reform

This rule has been reviewed under E.O. 12988, Civil Justice Reform. Once the final rule is in effect, CDC notes that: (1) All State and local laws and regulations that are inconsistent with this rule will be preempted; (2) No retroactive effect will be given to this rule; and (3) Administrative proceedings will not be required before parties may file suit in court challenging this rule.

E. E.O. 13132: Federalism

HHS/CDC has reviewed this final rule in accordance with E.O. 13132 regarding Federalism, and has determined that it does not have ''federalism implications.'' The rule does not ''have substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.''

F. Plain Language Act of 2010

Under the Plain Language Act of 2010 (Pub. L. 111–274, October 13, 2010), executive Departments and Agencies are required to use plain language in documents that explain to the public how to comply with a requirement the Federal Government administers or enforces. HHS/CDC has attempted to use plain language in promulgating this rule consistent with the Federal Plain Writing Act guidelines.

V. References

1. D.R. Franz and N.K. Jaax (1997). Defense Against Toxin Weapons (Chapter 30). In *Textbook of Military Medicine: Medical Aspects of Chemical and Biological Warfare,* Borden Institute, Walter Reed Army Medical Center, Washington, DC. 631–642.
2. U.S. Department of Health and Human Services, National Institutes of Health. (2013). *NIH Guidelines for Research Involving Recombinant Or Synthetic Nucleic Acid Molecules (NIH Guidelines).* Retrieved from *http://osp.od.nih.gov/sites/default/files/NIH_Guidelines.html.*
3. U.S. Department of Health and Human Services, Centers for Disease Control and Prevention and National Institutes of Health. (2009). *Biosafety in Microbiological and Biomedical Laboratories (BMBL)* 5th Edition. Retrieved from *http://www.cdc.gov/biosafety/publications/bmbl5/index.htm.*

List of Subjects in 42 CFR Part 73

Biologics, Packaging and containers, Penalties, Reporting and recordkeeping requirements, and Transportation.

For the reasons discussed in the preamble, we amend 42 CFR part 73 as follows:

PART 73—SELECT AGENTS AND TOXINS

■ 1. The authority citation for part 73 continues to read as follows:

Authority: 42 U.S.C. 262a; sections 201–2014, 221 and 231 of Title II of Public Law 107–188, 116 Stat 637 (42 U.S.C. 262a).

■ 2. Section 73.1 is amended by adding in alphabetical order, definitions of *validated inactivation procedure* and *viability testing protocol* to read as set forth below.

§ 73.1 Definitions.

* * * * *

Validated inactivation procedure means a procedure, whose efficacy is confirmed by data generated from a viability testing protocol, to render a select agent non-viable but allows the select agent to retain characteristics of interest for future use; or to render any nucleic acids that can produce infectious forms of any select agent virus non-infectious for future use.

* * * * *

Viability testing protocol means a protocol to confirm the validated inactivation procedure by demonstrating the material is free of all viable select agent.

* * * * *

■ 3. Section 73.3 is amended as follows:
■ a. By revising paragraph (b).
■ b. By removing ''functional'' and adding in its place ''toxic'' in paragraph (c)(2).
■ c. By revising paragraph (d)(2).
■ d. By redesignating paragraph (d)(3) as (d)(7) and revising redesignated paragraphs (d)(7) introductory text and (d)(7)(i).
■ e. By redesignating paragraph (d)(4) as paragraph (d)(8).
■ f. By redesignating paragraph (d)(5) as paragraph (d)(12).
■ g. By adding new paragraphs (d)(3), (d)(4), (d)(5), (d)(6), (d)(9), (d)(10) and (d)(11).
■ h. By adding paragraph (e)(3).
■ i. By adding ''*Bacillus cereus* Biovar *anthracis,*'' before ''Botulinum neurotoxins'' in paragraph (f)(3)(i).

The additions and revisions read as follows:

§ 73.3 HHS select agents and toxins.

* * * * *

(b) HHS select agents and toxins:

Abrin
Bacillus cereus Biovar *anthracis**
Botulinum neurotoxins*
Botulinum neurotoxin producing species of *Clostridium**
Conotoxins (Short, paralytic alpha conotoxins containing the following

amino acid sequence $X_1CCX_2PACGX_3X_4X_5X_6CX_7$) [1]
Coxiella burnetii
Crimean-Congo hemorrhagic fever virus
Diacetoxyscirpenol
Eastern equine encephalitis virus
Ebola virus*
*Francisella tularensis**
Lassa fever virus
Lujo virus
Marburg virus*
Monkeypox virus
Reconstructed replication competent forms of the 1918 pandemic influenza virus containing any portion of the coding regions of all eight gene segments (Reconstructed 1918 influenza virus)
Ricin
Rickettsia prowazekii
SARS coronavirus (SARS-CoV)
Saxitoxin
South American hemorrhagic fever viruses:
Chapare
Guanarito
Junin
Machupo
Sabia
Staphylococcal enterotoxins (subtypes A–E)
T–2 toxin
Tetrodotoxin
Tick-borne encephalitis virus
Far Eastern subtype
Siberian subtype
Kyasanur Forest disease virus
Omsk haemorrhagic fever virus
Variola major virus (Smallpox virus)*
Variola minor virus (Alastrim)*
*Yersinia pestis**

* * * * *

(d) * * *

(2) Non-viable HHS select agents or nontoxic HHS toxins.

(3) A select agent or toxin that has been subjected to decontamination or a destruction procedure when intended for waste disposal.

(4) A select agent or regulated nucleic acids that can produce infectious forms of any select agent virus that has been subjected to a validated inactivation procedure that is confirmed through a viability testing protocol. Surrogate strains that are known to possess equivalent properties with respect to inactivation can be used to validate an inactivation procedure; however, if there are known strain-to-strain variations in the resistance of a select agent to an inactivation procedure, then an inactivation procedure validated on a lesser resistant strain must also be validated on the more resistant strains.

(5) Material containing a select agent that is subjected to a procedure that removes all viable select agent cells, spores, or virus particles if the material is subjected to a viability testing protocol to ensure that the removal method has rendered the material free of all viable select agent.

(6) A select agent or regulated nucleic acids that can produce infectious forms of any select agent virus not subjected to a validated inactivation procedure or material containing a select agent not subjected to a procedure that removes all viable select agent cells, spores, or virus particles if the material is determined by the HHS Secretary to be effectively inactivated or effectively removed. To apply for a determination an individual or entity must submit a written request and supporting scientific information to CDC. A written decision granting or denying the request will be issued.

(7) Except as required in § 73.16(l), the aggregate amount of the toxin under the control of a principal investigator, treating physician or veterinarian, or commercial manufacturer or distributor does not, at any time, exceed the following amounts: 1000 mg of Abrin; 1 mg of Botulinum neurotoxins; 100 mg of Conotoxins (Short, paralytic alpha conotoxins containing the following amino acid sequence $X_1CCX_2PACGX_3X_4X_5X_6CX_7$); 10,000 mg of Diacetoxyscirpenol; 1000 mg of Ricin; 500 mg of Saxitoxin; 100 mg of Staphylococcal enterotoxins (subtypes A–E); 10,000 mg of T–2 toxin; or 500 mg of Tetrodotoxin. Provided that,

(i) The toxin is transferred only after the transferor uses due diligence and documents the identification of the recipient and the legitimate need (*e.g.,* prophylactic, protective, bona fide research, or other peaceful purpose) claimed by the recipient to use such toxin. Information to be documented includes, but is not limited to, the recipient identity information, including the recipient's name, institution name, address, telephone number and email address; name of the toxin and the total amount transferred; and the legitimate need claimed by the recipient. Notwithstanding the provisions of paragraph (d) of this section, the HHS Secretary retains the authority to, without prior notification, inspect and copy or request the submission of the due diligence documentation to the CDC.

* * * * *

(9) An HHS select toxin identified in an original food sample or clinical sample.

(10) For those laboratories that are not exempt under § 73.5(a) and § 73.6(a), Botulinum neurotoxin that is produced as a byproduct in the study of Botulinum neurotoxin producing species of *Clostridium* so long as the toxin has not been intentionally cultivated, collected, purified, or otherwise extracted, and the material containing the toxin is rendered non-toxic and disposed of within 30 days of the initiation of the culture.

(11) Waste generated during the delivery of patient care by health care professionals from a patient diagnosed with an illness or condition associated with a select agent, where that waste is decontaminated or transferred for destruction by complying with state and Federal regulations within seven calendar days of the conclusion of patient care.

(e) * * *

(3) An individual or entity may make a written request to the HHS Secretary for reconsideration of a decision denying an application for the exclusion of an attenuated strain of a select agent or a select toxin modified to be less potent or toxic. The written request for reconsideration must state the facts and reasoning upon which the individual or entity relies to show the decision was incorrect. The HHS Secretary will grant or deny the request for reconsideration as promptly as circumstances allow and will state, in writing, the reasons for the decision.

* * * * *

■ 4. Section 73.4 is amended as follows:
■ a. By revising paragraph (b).
■ b. By removing ''functional'' and adding in its place ''toxic'' in paragraph (c)(2).
■ c. By revising paragraph (d)(2).
■ d. By redesignating paragraph (d)(3) as (d)(9).
■ e. By adding new paragraphs (d)(3), (d)(4), (d)(5), (d)(6), (d)(7) and (d)(8).
■ f. By adding paragraph (e)(3).

The revision and additions read as follows:

§ 73.4 Overlap select agents and toxins.

* * * * *

(b) Overlap select agents and toxins:

Bacillus anthracis *
Bacillus anthracis Pasteur strain

[1] C = Cysteine residues are all present as disulfides, with the 1st and 3rd Cysteine, and the 2nd and 4th Cysteine forming specific disulfide bridges; The consensus sequence includes known toxins α-MI and α-GI (shown above) as well as α-GIA, Ac1.1a, α-CnIA, α-CnIB; X1 = any amino acid(s) or Des-X; X2 = Asparagine or Histidine; P = Proline; A = Alanine; G = Glycine; X3 = Arginine or Lysine; X4 = Asparagine, Histidine, Lysine, Arginine, Tyrosine, Phenylalanine or Tryptophan; X5 = Tyrosine, Phenylalanine, or Tryptophan; X6 = Serine, Threonine, Glutamate, Aspartate, Glutamine, or Asparagine; X7 = Any amino acid(s) or Des X and; ''Des X'' = ''an amino acid does not have to be present at this position.'' For example if a peptide sequence were XCCHPA then the related peptide CCHPA would be designated as Des-X.

Brucella abortus
Brucella melitensis
Brucella suis
Burkholderia mallei *
Burkholderia pseudomallei *
Hendra virus
Nipah virus
Rift Valley fever virus
Venezuelan equine encephalitis virus
* * * * *

(d) * * *

(2) Non-viable overlap select agents or nontoxic overlap toxins.

(3) A select agent or toxin that has been subjected to decontamination or a destruction procedure when intended for waste disposal.

(4) A select agent or regulated nucleic acids that can produce infectious forms of any select agent virus that has been subjected to a validated inactivation procedure that is confirmed through a viability testing protocol. Surrogate strains that are known to possess equivalent properties with respect to inactivation can be used to validate an inactivation procedure; however, if there are known strain-to-strain variations in the resistance of a select agent to an inactivation procedure, then an inactivation procedure validated on a lesser resistant strain must also be validated on the more resistant strains.

(5) Material containing a select agent that is subjected to a procedure that removes all viable select agent cells, spores, or virus particles if the material is subjected to a viability testing protocol to ensure that the removal method has rendered the material free of all viable select agent.

(6) A select agent or regulated nucleic acids that can produce infectious forms of any select agent virus not subjected to a validated inactivation procedure or material containing a select agent not subjected to a procedure that removes all viable select agent cells, spores, or virus particles if the material is determined by the HHS Secretary or Administrator to be effectively inactivated or effectively removed. To apply for a determination an individual or entity must submit a written request and supporting scientific information to CDC or APHIS. A written decision granting or denying the request will be issued.

(7) An overlap select toxin identified in an original food sample or clinical sample.

(8) Waste generated during the delivery of patient care by health care professionals from a patient diagnosed with an illness or condition associated with a select agent, where that waste is decontaminated or transferred for destruction by complying with state and Federal regulations within seven calendar days of the conclusion of patient care.

* * * * *

(e) * * *

(3) An individual or entity may make a written request to the HHS Secretary or Administrator for reconsideration of a decision denying an application for the exclusion of an attenuated strain of a select agent or a select toxin modified to be less potent or toxic. The written request for reconsideration must state the facts and reasoning upon which the individual or entity relies to show the decision was incorrect. The HHS Secretary or Administrator will grant or deny the request for reconsideration as promptly as circumstances allow and will state, in writing, the reasons for the decision.

* * * * *

■ 5. Section 73.5 is amended as follows:
■ a. By revising paragraph (a)(1).
■ b. By redesignating paragraph (a)(3) as paragraph (a)(4) and revising newly redesignated paragraph (a)(4).
■ c. By adding new paragraph (a)(3).
■ d. By adding ''*Bacillus cereus* Biovar *anthracis,*'' before ''Botulinum neurotoxins'' in paragraph (a)(3)(i).

The revisions and addition read as follows:

§ 73.5 Exemptions for HHS select agents and toxins.

(a) * * *

(1) Unless directed otherwise by the HHS Secretary, within seven calendar days after identification of the select agent or toxin (except for Botulinum neurotoxin and/or *Staphylococcal* enterotoxin (Subtypes A–E)), or within 30 calendar days after identification of Botulinum neurotoxin and/or *Staphylococcal* enterotoxin (Subtypes A–E), the select agent or toxin is transferred in accordance with § 73.16 or destroyed on-site by a recognized sterilization or inactivation process,

* * * * *

(3) Unless otherwise directed by the HHS Secretary, the clinical or diagnostic specimens collected from a patient infected with a select agent are transferred in accordance with § 73.16 or destroyed on-site by a recognized sterilization or inactivation process within seven calendar days after delivery of patient care by health care professionals has concluded, and

(4) The identification of the agent or toxin is reported to CDC or APHIS, the specimen provider, and to other appropriate authorities when required by Federal, State, or local law by telephone, facsimile, or email. This report must be followed by submission of APHIS/CDC Form 4 to APHIS or CDC within seven calendar days after identification.

* * * * *

■ 6. Section 73.6 is amended as follows:
■ a. By redesignating paragraph (a)(3) as paragraph (a)(4) and revising newly redesignated paragraph (a)(4).
■ b. By adding new paragraph (a)(3).

The revision and addition read as follows:

§ 73.6 Exemptions for overlap select agents and toxins.

(a) * * *

(3) Unless otherwise directed by the HHS Secretary or Administrator, the clinical or diagnostic specimens collected from a patient infected with a select agent are transferred in accordance with § 73.16 or destroyed on-site by a recognized sterilization or inactivation process within seven calendar days after delivery of patient care by health care professionals has concluded, and

(4) The identification of the agent or toxin is reported to CDC or APHIS, the specimen provider, and to other appropriate authorities when required by Federal, State, or local law by telephone, facsimile, or email. This report must be followed by submission of APHIS/CDC Form 4 to APHIS or CDC within seven calendar days after identification.

* * * * *

■ 7. Section 73.7 is amended as follows:
■ a. By redesignating paragraphs (b) through (k) as paragraphs (c) through (l), respectively.
■ b. By adding a new paragraph (b) to read as follows:

§ 73.7 Registration and related security risk assessments.

* * * * *

(b) As a condition of registration, each entity is required to be in compliance with the requirements of this part for select agents and toxins listed on the registration regardless of whether the entity is in actual possession of the select agent or toxin. With regard to toxins, the entity registered for possession, use or transfer of a toxin must be in compliance with the requirements of this part regardless of the amount of toxin currently in its possession.

* * * * *

■ 8. Section 73.9 is amended as follows:
■ a. In paragraph (a)(6) by removing ''laboratory'' and adding in its place ''registered space'' and adding ''and the corrections documented'' after ''corrected'' at the end of the sentence.
■ b. By adding paragraphs (a)(7), (a)(8) and (a)(9) to read as set forth below.

■ c. By adding ''*Bacillus cereus* Biovar *anthracis,*'' after ''*Bacillus anthracis,*'' in paragraph (c)(1).

§ 73.9 Responsible Official.

(a) * * *

(7) Ensure that individuals are provided the contact information for the HHS Office of Inspector General Hotline and the USDA Office of Inspector General Hotline so that they may anonymously report any biosafety or security concerns related to select agents and toxins.

(8) Investigate to determine the reason for any failure of a validated inactivation procedure or any failure to remove viable select agent from material. If the Responsible Official is unable to determine the cause of a deviation from a validated inactivation procedure or a viable select agent removal method; or receives a report of any inactivation failure after the movement of material to another location, the Responsible Official must report immediately by telephone or email the inactivation or viable agent removal method failure to CDC or APHIS.

(9) Review, and revise as necessary, each of the entity's validated inactivation procedures or viable select agent removal methods. The review must be conducted annually or after any change in Principal Investigator, change in the validated inactivation procedure or viable select agent removal method, or failure of the validated inactivation procedure or viable select agent removal method. The review must be documented and training must be conducted if there are any changes to the validated inactivation procedure, viable select agent removal method, or viability testing protocol.

* * * * *

■ 9. Section 73.10 is amended as follows:

■ a. By a sentence to the end of paragraph (e) to read as follows:

§ 73.10 Restricting access to select agents and toxins; security risk assessments.

* * * * *

(e) * * * A Responsible Official must immediately notify the Responsible Official of the visited entity if the person's access to select agents and toxins has been terminated.

* * * * *

■ 10. Section 73.11 is amended as follows:

■ a. In paragraph (c)(5) by adding ''keycards,'' between ''keys,'' and ''passwords'' and removing ''numbers'' and adding in its place ''permissions''.

■ b. By adding paragraph (d)(7)(vi).

■ c. By adding a sentence to the end of paragraph (h).

The additions read as follows:

§ 73.11 Security.

* * * * *

(d) * * *

(7) * * *

(vi) Any loss of computer, hard drive or other data storage device containing information that could be used to gain access to select agents or toxins.

* * * * *

(h) * * * Drills or exercises must be documented to include how the drill or exercise tested and evaluated the plan, any problems that were identified and corrective action(s) taken, and the names of registered entity personnel participants.

■ 11. Section 73.12 is amended as follows:

■ a. By revising paragraph (a).

■ b. By removing paragraph (c)(2), redesignating paragraph (c)(3) as (c)(2), and in newly redesignated paragraph (c)(2), removing ''NIH Guidelines for Research Involving Recombinant DNA Molecules'' and adding in its place ''NIH Guidelines for Research Involving Recombinant or Synthetic Nucleic Acid Molecules''.

■ c. By adding a new sentence to the end of paragraph (e).

The revision and addition read as follows:

§ 73.12 Biosafety.

(a) An individual or entity required to register under this part must develop and implement a written biosafety plan that is commensurate with the risk of the select agent or toxin, given its intended use. The biosafety plan must contain sufficient information and documentation to describe the biosafety and containment procedures for the select agent or toxin, including any animals (including arthropods) or plants intentionally or accidentally exposed to or infected with a select agent. The current biosafety plan must be submitted for initial registration, renewal of registration, or when requested. The biosafety plan must include the following provisions:

(1) The hazardous characteristics of each agent or toxin listed on the entity's registration and the biosafety risk associated with laboratory procedures related to the select agent or toxin;

(2) Safeguards in place with associated work practices to protect entity personnel, the public, and the environment from exposure to the select agent or toxin including, but not limited to: Personal protective equipment and other safety equipment; containment equipment including, but not limited to, biological safety cabinets, animal caging systems, and centrifuge safety containers; and engineering controls and other facility safeguards;

(3) Written procedures for each validated method used for disinfection, decontamination or destruction, as appropriate, of all contaminated or presumptively contaminated materials including, but not limited to: Cultures and other materials related to the propagation of select agents or toxins, items related to the analysis of select agents and toxins, personal protective equipment, animal caging systems and bedding (if applicable), animal carcasses or extracted tissues and fluids (if applicable), laboratory surfaces and equipment, and effluent material; and

(4) Procedures for the handling of select agents and toxins in the same spaces with non-select agents and toxins to prevent unintentional contamination.

* * * * *

(e) * * * Drills or exercises must be documented to include how the drill or exercise tested and evaluated the plan, any problems that were identified and corrective action(s) taken, and the names of registered entity personnel participants.

■ 12. Section 73.14 is amended as follows:

■ a. By adding a new sentence to the end of paragraph (a).

■ b. By adding a new sentence to the end of paragraph (f).

The additions read as follows:

§ 73.14 Incident response.

(a) * * * The current incident response plan must be submitted for initial registration, renewal of registration, or when requested.

* * * * *

(f) * * * Drills or exercises must be documented to include how the drill or exercise tested and evaluated the plan, any problems that were identified and corrective action(s) taken, and the names of registered entity personnel participants.

■ 13. Section 73.15 is amended as follows:

■ a. Revising paragraph (a) to read as set forth below.

■ b. By adding paragraph (e) to read as set forth below.

§ 73.15 Training.

(a) An individual or entity required to register under this part must provide information and training on biocontainment, biosafety, security (including security awareness), and incident response to:

(1) Each individual with access approval from the HHS Secretary or

Administrator. The training must address the particular needs of the individual, the work they will do, and the risks posed by the select agents or toxins. The training must be accomplished prior to the individual's entry into an area where a select agent is handled or stored, or within 12 months of the date the individual was approved by the HHS Secretary or the Administrator for access, whichever is earlier.

(2) Each individual not approved for access to select agents and toxins by the HHS Secretary or Administrator before that individual enters areas under escort where select agents or toxins are handled or stored (*e.g.,* laboratories, growth chambers, animal rooms, greenhouses, storage areas, shipping/receiving areas, production facilities, etc.). Training for escorted personnel must be based on the risk associated with accessing areas where select agents and toxins are used and/or stored. The training must be accomplished prior to the individual's entry into where select agents or toxins are handled or stored (*e.g.,* laboratories, growth chambers, animal rooms, greenhouses, storage areas, shipping/receiving areas, production facilities, etc.).

* * * * *

(e) The Responsible Official must ensure and document that individuals are provided the contact information of the HHS Office of Inspector General Hotline and the USDA Office of Inspector General Hotline so that they may anonymously report any safety or security concerns related to select agents and toxins.

■ 14. Section 73.16 is amended by revising paragraph (l)(1) to read as follows:

§ 73.16 Transfers.

* * * * *

(l) * * *

(1) Transfer the amounts only after the transferor uses due diligence and documents that the recipient has a legitimate need (*e.g.,* prophylactic, protective, bona fide research, or other peaceful purpose) to handle or use such toxins. Information to be documented includes, but is not limited, to the recipient information, toxin and amount transferred, and declaration that the recipient has legitimate purpose to store and use such toxins.

* * * * *

■ 15. Section 73.17 is amended as follows:

■ a. In paragraphs (a)(1)(iii) and (a)(3)(v) by adding ''or other storage container'' after ''freezer''.

■ b. By revising paragraph (a)(1)(v).

■ c. By adding paragraph (a)(8).

■ d . By revising paragraph (b).

■ e. By revising paragraph (c).

The revision and additions read as follows:

§ 73.17 Records.

(a) * * *

(1) * * *

(v) The select agent used, purpose of use, and, when applicable, final disposition,

* * * * *

(8) For select agents or material containing select agents or regulated nucleic acids that can produce infectious forms of any select agent virus that have been subjected to a validated inactivation procedure or a procedure for removal of viable select agent:

(i) A written description of the validated inactivation procedure or viable select agent removal method used, including validation data;

(ii) A written description of the viability testing protocol used;

(iii) A written description of the investigation conducted by the entity Responsible Official involving an inactivation or viable select agent removal failure and the corrective actions taken;

(iv) The name of each individual performing the validated inactivation or viable select agent removal method;

(v) The date(s) the validated inactivation or viable select agent removal method was completed;

(vi) The location where the validated inactivation or viable select agent removal method was performed; and

(vii) A certificate, signed by the Principal Investigator, that includes the date of inactivation or viable select agent removal, the validated inactivation or viable select agent removal method used, and the name of the Principal Investigator. A copy of the certificate must accompany any transfer of inactivated or select agent removed material.

* * * * *

(b) The individual or entity must implement a system to ensure that all records and data bases created under this part are accurate and legible, have controlled access, and authenticity may be verified.

(c) The individual or entity must promptly produce upon request any information that is related to the requirements of this part but is not otherwise contained in a record required to be kept by this section. The location of such information may include, but is not limited to, biocontainment certifications, laboratory notebooks, institutional biosafety and/or animal use committee minutes and approved protocols, and records associated with occupational health and suitability programs. All records created under this part must be maintained for 3 years.

Dated: January 9, 2017.

Sylvia M. Burwell,

Secretary.

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DEPARTMENT OF HEALTH AND HUMAN SERVICES

42 CFR Part 100

RIN 0906–AB01

National Vaccine Injury Compensation Program: Revisions to the Vaccine Injury Table

AGENCY: Health Resources and Services Administration (HRSA), HHS.

ACTION: Final rule.

SUMMARY: On July 29, 2015, the Secretary of Health and Human Services (the Secretary) published in the **Federal Register** a Notice of Proposed Rulemaking (NPRM) to amend the regulations governing the National Vaccine Injury Compensation Program (VICP or program) by proposing revisions to the Vaccine Injury Table (Table). The Secretary based the Table revisions primarily on the 2012 Institute of Medicine (IOM) report, ''Adverse Effects of Vaccines: Evidence and Causality,'' the work of nine HHS workgroups who reviewed the IOM findings, and consideration of the Advisory Commission on Childhood Vaccines' (ACCV) recommendations. The Secretary amends the Table through the changes in this final rule. These changes will apply only to petitions for compensation under the VICP filed after this final rule becomes effective.

DATE: This rule is effective February 21, 2017.

FOR FURTHER INFORMATION CONTACT: Dr. Narayan Nair, Acting Director, Division of Injury Compensation Programs, Healthcare Systems Bureau, HRSA, 5600 Fishers Lane, Room 8N146B, Rockville, MD 20857, or by telephone (855) 266–2427. This is a toll-free number.

SUPPLEMENTARY INFORMATION:

I. Background

The National Childhood Vaccine Injury Act of 1986, title III of Public Law 99–660 (42 U.S.C. 300aa–10 *et seq.*), established the VICP, a Federal