



Doc. 12

United States
Department of
Agriculture

November 14, 2013

Animal and Plant
Health Inspection
Service

Veterinary Services

National Import Export
Services

[REDACTED]
Responsible Official
Centers for Disease Control and Prevention
Select Agent Compliance, Roybal Campus
1600 Clifton Road NE, Mail Stop A-22
Atlanta Georgia 30333

Agriculture Select
Agent Services

4700 River Road,
Mailstop 22, Unit 2,
Room 1A-07
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The Animal and Plant Health Inspection Service (APHIS), Agricultural Select Agent Services (AgSAS) and the Centers for Disease Control and Prevention (CDC), Division of Select Agents and Toxins (DSAT) conducted an APHIS-Led CDC joint renewal inspection August 19, 2013 to August 23, 2013, at the Centers for Disease Control and Prevention. DSAT has completed the review and requires additional information from you. Please see the attached DSAT inspection report and provide a response to DSAT no later than 14 calendar days from receipt of this letter. AgSAS has not completed their review and will provide an inspection report to you at a later date.

If there are any questions or concerns in reference to this correspondence please contact [REDACTED] at [REDACTED] with the Centers for Disease Control and Prevention, Division of Select Agents and Toxins for any questions.

Sincerely,

[REDACTED]

Veterinary Medical Officer
Agriculture Select Agent Services



Safeguarding American Agriculture
APHIS is an agency of USDA's Marketing and Regulatory Programs
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Federal Relay Service
(Voice/TTY/ASCII/Spanish)
1-800-877-8339



Department of Health and Human Services
Centers for Disease Control and Prevention
Division of Select Agents and Toxins
Atlanta, Georgia

U.S. Department of Agriculture
Animal and Plant Health Inspection Service
Select Agent Program
Riverdale, Maryland



October 30, 2013

[Redacted] (Responsible Official)
Centers for Disease Control and Prevention
1600 Clifton Road, NE, Mailstop A-22
Atlanta, GA 30333
FAX: (404) 639-0437

RE: Entity Inspection Report: Centers for Disease Control and Prevention

Pursuant to the Public Health Security and Bioterrorism Preparedness and Response Act of 2002, the United States Department of Health and Human Services (HHS) and the United States Department of Agriculture (USDA) have established regulatory requirements for the possession, use, and transfer of biological agents and toxins that have the potential to pose a severe threat to public health and safety, animal and plant health, and animal and plant products. These requirements can be found at 42 CFR Part 73 (HHS), 7 CFR Part 331 (USDA-PPQ), and 9 CFR Part 121 (USDA-VS). The Centers for Disease Control and Prevention's (CDC) Division of Select Agents and Toxins (DSAT) inspects entities to evaluate whether they meet the regulatory requirements set forth in 42 CFR Part 73, and the Animal and Plant Health Inspection Service (APHIS) Select Agent Program (ASAP) inspects entities to evaluate whether they meet the regulatory requirements set forth in 7 CFR Part 331 and 9 CFR Part 121. The above referenced regulations and supporting guidance information may be found at <http://www.selectagents.gov/>.

DSAT inspectors visited your facility located at 1600 Clifton Road, NE, Mailstop A-22 Atlanta, GA 30333 from August 19, 2013 to August 23, 2013. A list of laboratories inspected on these dates is on file with this letter at CDC.

The following personnel from the CDC and APHIS Select Agent Programs inspected the facility:

- [Redacted] Lead Inspector
- [Redacted] Inspector

Individuals from Centers for Disease Control and Prevention present during the inspection included:

- [Redacted] Chief ACUPO
- [Redacted] Laboratorian
- [Redacted] ARO
- [Redacted] Laboratorian
- [Redacted] PI
- [Redacted] Laboratorian
- [Redacted] HCL Biologist/Technician
- [Redacted] Laboratorian
- [Redacted] Laboratorian
- [Redacted] Microbiologist
- [Redacted] Senior Advisor (LSPPPO)
- [Redacted] Biosafety ESHCO

[REDACTED] Support Staff: Animal
[REDACTED] Laboratorian
[REDACTED] RO
[REDACTED] PI
[REDACTED] PI
[REDACTED] CCID Safety Manager
[REDACTED] Deputy Branch Chief ARB
[REDACTED] Support: Admin
[REDACTED] Safety ESHCO
[REDACTED] PI
[REDACTED] PI
[REDACTED] Senior Advisor for Laboratory Sciences OID
[REDACTED] Laboratorian
[REDACTED] Chief ARB
[REDACTED] Biologist NCEZID
[REDACTED] Facilities Engineer OCOO/EMOSO
[REDACTED] Laboratorian
[REDACTED] HCL Manager
[REDACTED] Microbiologist
[REDACTED] PI
[REDACTED] Support: Animal Care
[REDACTED] PI
[REDACTED] Facilities Engineer OCOO/EMOSO
[REDACTED] ARO
[REDACTED] PI
[REDACTED] Senior Advisor OID
[REDACTED] Material Handler ARB
[REDACTED] Safety Officer

During the inspection, departures from regulatory requirements cited above were noted. Please address each of the items described in Attachment 1 (List of Entity Departures) and include in your response the specific actions or changes to be adopted to correct these departures. A detailed response should be received by this office not later than 14 calendar days from receipt of this letter. An electronic copy of your response should be sent to the lead inspector. Failure to fully respond may result in the initiation of proceedings for the withdrawal of your facility registration to possess, use, or transfer select agents and toxins.

If you have any questions concerning this correspondence please contact [REDACTED] at [REDACTED]

Sincerely,

[REDACTED]
[REDACTED]
Director, Division of Select
Agents and Toxins
Department of Health and Human
Services
Centers for Disease Control and
Prevention

[REDACTED]
[REDACTED]
Director, Agriculture Select Agent
Program
United States Department of
Agriculture
Animal and Plant Health
Inspection Service

Attachment: 1:
List of Entity Departures

Attachment 1: Entity Departures

Departures noted from August 19, 2013 to August 23, 2013 at Centers for Disease Control and Prevention (citations from 42 CFR Part 73 specifying each requirement are given in brackets).

- 1 **Requirement:** A certificate of registration may be amended to reflect changes in circumstances (e.g., replacement of the Responsible Official or other personnel changes, changes in ownership or control of the entity, changes in the activities involving any select agents or toxins, or the addition or removal of select agents or toxins). Prior to any change, the Responsible Official must apply for an amendment to a certificate of registration by submitting the relevant page(s) of the registration application. [Section 7(h)(1)]

Observation: At the time of inspection, [REDACTED] samples were being stored in a freezer in the [REDACTED] suite because the freezer in the [REDACTED] suite was full. The [REDACTED] suite is not registered for storage of select agents. Please submit an amendment to add storage of select agents to the [REDACTED] suite.

Inspectors noted the presence of equipment used to expose animals to aerosols in [REDACTED] and records indicating mice had been exposed to [REDACTED]. Laboratorians confirmed that these aerosol exposures had been performed. At the time of the inspection, aerosol exposure was not included in Principal Investigators' (PI) [REDACTED] and [REDACTED] objectives of work, or listed as an administration route in the description of their work with animals. An amendment to add this work to the entity's registration for PIs [REDACTED] and [REDACTED] was received and approved. No further action is required.

- 2 **Requirement:** The security plan must contain provisions for the control of access to select agents and toxins including the safeguarding of animals, including arthropods, or plants intentionally or accidentally exposed to or infected with a select agent, against unauthorized access, theft, loss or release. [Section 11(c)(2)]

Observation: Security plans contained provisions for the control of access to select agents and toxins including animals intentionally exposed to or infected with a select agent against unauthorized access, theft, loss, or release. Security plans for PI groups performing animal work did not, however, address animals accidentally exposed to a select agent. Please update security plans for PI [REDACTED] and [REDACTED] to include provisions for animals accidentally exposed to a select agent and provide documentation of these updates (i.e., updated pages of security plans).

- 3 **Requirement:** The security plan must describe procedures for how the Responsible Official will be informed of suspicious activity that may be criminal in nature and related to the entity, its personnel, or its select agents or toxins; [Section 11(c)(8)]

Observation: Security plans addressed suspicious activity but did not specifically address suspicious activity that may be criminal in nature. Please update security plans for [REDACTED], [REDACTED], [REDACTED], and [REDACTED] to describe procedures for how the Responsible Official will be informed of suspicious activity that may be criminal in nature and related to the entity, its personnel, or its select agents or toxins. Please provide documentation that these security plans have been update to include the procedures indicated above (i.e., updated pages of security plans).

- 4 **Requirement:** The security plan must contain provisions for information security that ensure that all external connections to systems which manage security for the registered space are isolated or have controls that permit only authorized and authenticated users. [Section 11(c)(9)(i)]

Attachment 1: Entity Departures

Observation: Inspectors were informed that external connections to systems which manage security for registered areas have controls that permit only authorized and authenticated users. However, these provisions were not described in the security plans. Please update security plans for [REDACTED] and [REDACTED] to include the procedures currently in place addressing this requirement, and provide documentation of these updates (i.e., updated pages of security plans).

- 5 **Requirement:** The security plan must: contain provisions for information security that ensure that authorized and authenticated users are only granted access to select agent and toxin related information, files, equipment (e.g., servers or mass storage devices) and applications as necessary to fulfill their roles and responsibilities. [Section 11(c)(9)(ii)]

Observation: Inspectors observed that authorized and authenticated users are only granted access to select agent and toxin related information, files, equipment and applications as necessary to fulfill their roles and responsibilities. However, these provisions were not contained in the security plans for [REDACTED]. Please update the security plans for these PI groups to include this required information, and provide documentation of these updates (i.e., updated pages of security plans).

- 6 **Requirement:** The security plan must: contain provisions for information security that ensure access is modified when the user's roles and responsibilities change or when their access to select agents and toxins is suspended or revoked; [Section 11(c)(9)(ii)]

Observation: Inspectors were informed that access to select agent and toxin related information, files, equipment, and applications is modified when users' roles and responsibilities change, or when their access to select agents and toxins is suspended or revoked. Please update the security plans for [REDACTED] and [REDACTED] to include the procedures currently in place addressing this requirement, and provide documentation of these updates (i.e., updated pages of security plans).

- 7 **Requirement:** The security plan must: contain provisions for information security that ensure controls are in place that are designed to prevent malicious code (such as, but not limited to, computer virus, worms, spyware) from compromising the confidentiality, integrity, or availability of information systems which manage access to registered spaces in §11 or records in §17. [Section 11(c)(9)(iii)]

Observation: Inspectors were informed that controls are in place designed to prevent malicious code from compromising the confidentiality, integrity, or availability of the information systems which manage access to registered areas or records. However, these provisions were not contained in the security plans for [REDACTED] and [REDACTED]. Please update the security plans for these PI groups to include this required information, and provide documentation of these updates (i.e., updated pages of security plans).

- 8 **Requirement:** The security plan must: contain provisions for information security that establish a robust configuration management practice for information systems to include regular patching and updates made to operating systems and individual applications. [Section 11(c)(9)(iv)]

Observation: Inspectors were informed that a robust configuration management practice for information systems that includes regular patching and updates made to operating systems and individual applications is in place. However, these practices were not contained in security plans for [REDACTED]. Please update the security plans for these PI groups to include this required information, and provide documentation of these updates (i.e., updated pages of security plans).

Attachment 1: Entity Departures

- 9 **Requirement:** The security plan must contain provisions for information security that establish procedures that provide backup security measures in the event that access control systems, surveillance devices, and/or systems that manage the requirements of section 17 of this part are rendered inoperable. [Section 11(c)(9)(v)]
- Observation:** Inspectors were informed that backup security measures in the event that access control systems, surveillance devices, and/or systems that manage the requirements of section 17 are rendered inoperable are in place. However, these provisions were not contained in the security plans for [REDACTED]. Please update the security plans for these PI groups to include this required information, and provide documentation of these updates (i.e. updated pages of security plans).
- 10 **Requirement:** The security plan must contain provisions and policies for shipping, receiving, and storage of select agents and toxins, including documented procedures for receiving, monitoring, and shipping of all select agents and toxins. These provisions must provide that an entity will properly secure containers on site and have a written contingency plan for unexpected shipments. [Section 11(c)(10)]
- Observation:** The security plans contained provisions and policies for shipping, receiving, and storage of select agents and toxins which included after-hours receipt of select agent or toxin packages. However, the security plans did not contain a written contingency plan for unexpected shipments. Please update the security plans for [REDACTED] to include this required information, and provide documentation of these updates (i.e., updated pages of security plans).
- 11 **Requirement:** Entities with Tier 1 select agents and toxins must prescribe the following security enhancements: Procedures that will limit access to a Tier 1 select agent or toxin to only those individuals who are approved by the HHS Secretary or Administrator, following a security risk assessment by the Attorney General, have had an entity-conducted pre-access suitability assessment, and are subject to the entity's procedures for ongoing suitability assessment. [Section 11(f)(4)(i)]
- Observation:** Inspectors observed procedures were in place that limited access to Tier 1 select agents and toxins only to individuals who were SRA approved, have had an entity-conducted pre-access suitability assessment, and subject to the entity's procedures for ongoing suitability assessment. However, this security enhancement was not described in the security plans. Please update the security plans for [REDACTED] to include this information, and provide documentation of these updates (i.e., updated pages of security plans).
- 12 **Requirement:** Entities with Tier 1 select agents and toxins must prescribe the following security enhancements: procedures that limit access to laboratory and storage facilities outside of normal business hours to only those specifically approved by the Responsible Official or designee. [Section 11(f)(4)(ii)]
- Observation:** Many individuals with access to Tier 1 select agents or toxins are provided continuous (24/7) access to areas containing Tier 1 select agents or toxins. However, security plans did not address the granting of approval for access outside of normal business hours by the Responsible Official. Please update the security plans for [REDACTED] to include this required security enhancement, and provide documentation of these updates (i.e., updated pages of security plans).
- 13 **Requirement:** The biosafety and containment procedures must be sufficient to contain the select agent or toxin (e.g., physical structure and features of the entity, and operational and procedural safeguards). [Section 12(b)]

Attachment 1: Entity Departures

Observation: Inspectors requested the procedures for visualizing virus in ferrets and mice using the In Vivo Imaging System (IVIS) and were provided technical service and calibration records for the Biaera inhalation exposure system used to expose animals to aerosolized influenza, a floor plan of the [REDACTED] and [REDACTED] suites showing the locations of equipment used during aerosol experiments, and a general flow chart of aerosol experiments illustrating the sequence of events during and after an aerosol exposure. Please provide procedures for visualizing virus in ferrets and mice using the IVIS that include how animals are transferred into the IVIS, how they are removed, and any containment used during these steps.

Inspectors noted that glass serum Vacutainer tubes containing blood collected from animals 14 or greater days post-exposure to [REDACTED] or [REDACTED] are spun in a bench top centrifuge without the use of biosafety cups in [REDACTED] 1 registered for [REDACTED]. Please provide a risk assessment for the centrifugation of these tubes without the use of biosafety cups.

In the [REDACTED] suite, registered for [REDACTED] inspectors noted that equipment with the potential to produce infectious aerosols was present and used outside of primary containment. A cytospin centrifuge was present on a bench top. A sonicator was present on a cart and held in an unsealed plexiglass box that did not appear to provide primary containment. Please provide a risk assessment for use of this equipment outside of primary containment (e.g., a biological safety cabinet [BSC]) and procedures for decontamination after use with select agent.

Inspectors were informed that samples of [REDACTED] are transported from the [REDACTED] suite, registered for [REDACTED] to gamma irradiators on campus to test parameters required for the inactivation of the agent. Please provide a biosafety risk assessment for this transport of [REDACTED].

- 14 **Requirement:** Entities with Tier 1 select agents and toxins must have the following additional incident response policies or procedures: The incident response plan must describe procedures for how the entity will notify the appropriate Federal, State, or local law enforcement agencies of suspicious activity that may be criminal in nature and related to the entity, its personnel, or its select agents or toxins. [Section 14(e)(2)]

Observation: Incident response plans for PI groups with Tier 1 select agents and toxins did not describe how the entity will notify the appropriate Federal, State, or local law enforcement agencies of suspicious activity that may be criminal in nature and related to the entity, its personnel, or its select agents and toxins. Please update the incident response plans for [REDACTED] and [REDACTED] to include policies or procedures addressing this requirement, and provide documentation of these updates (i.e., updated pages of incident response plans).

- 15 **Requirement:** An individual or entity required to register under this part must maintain complete records relating to the activities covered by this part. Such records must include: Accurate, current inventory for each select agent (including viral genetic elements, recombinant and/or synthetic nucleic acids, and recombinant and/or synthetic organisms) held in long-term storage (placement in a system designed to ensure viability for future use, such as in a freezer or lyophilized materials), including: [Section 17(a)(1)]

Observation: The electronic inventory record for [REDACTED] held by [REDACTED] indicated that a vial labeled [REDACTED] was removed from Box K12, Position A2 and not returned. Inspectors noted this vial was present. [REDACTED] documented this discrepancy in the electronic inventory at the time of inspection. No further action is required.

Inspectors noted the following inventory discrepancies for [REDACTED] and [REDACTED]:

On 8/19/2013 in [REDACTED] freezer [REDACTED] containing [REDACTED] one less vial was observed in the box than was indicated on the inventory record. Position 7A was empty, but the inventory record indicated a vial should be present at this location. Please provide an explanation for this discrepancy.

On 8/19/2013, the following select agent influenza samples were observed in [REDACTED]: 40 vials labeled [REDACTED] and dated 1/14/2011, vial(s) labeled [REDACTED] in a pink Eppendorf rack, vial(s) labeled [REDACTED]

Attachment 1: Entity Departures

██████████ vials" in a green Eppendorf rack, and many other vials in clear plastic bags and boxes. Because the temperature in the freezer rose rapidly during the inventory review, inspectors did not continue to assess samples stored in this freezer. Inspectors' escort stated this freezer was used for very short term storage only, and no inventory record was kept for samples in this freezer. On 8/21/2013, ██████████ discarded some samples and organized others into defrosted racks. ██████████ provided an email from ██████████ accounting for the contents of the freezer, stating that she and ██████████ were in the process of defrosting the racks to get rid of excessive frost build up, and describing actions she took on 8/20/2013. The email stated the samples present in this freezer were either a) not select agent virus, b) sample vials pre-labeled as containing select agent influenza virus where the animal was later shown to be uninfected and vials retained for use as naïve controls, or c) genuine temporary samples from select agent influenza-infected animals harvested before ██████████ travel the week prior to the inspection and not yet moved into inventory. ██████████ email also stated there was a binder with inventory records for this freezer. Inspectors re-visited ██████████ on 8/21/2013 and were provided an inventory log for this freezer and reviewed its contents. No further action is required.

An inventory review could not be completed in ██████████ during this inspection. Records for a significant portion of the inventory were not available or could not be found. Also, due to the failure of a chest freezer, select agent inventory had been transferred to a back-up, upright freezer also located in ██████████. Because the racks used to organize boxes are not compatible between these different freezer configurations, the transferred boxes were not organized in racks at the time of inspection. Inspectors will request to complete the inventory review in ██████████ as part of the renewal inspection visit to be scheduled for a future week.

On 8/20/2013 in ██████████ freezer ██████████ Rack ██████████ Box ██████████ containing ██████████ the inventory record indicated 25 vials, but inspectors observed 26 vials present. Inspectors re-visited on 8/23/2013 and observed that the inventory log indicated that the vial in position C9 was removed on 3/25/2011. ██████████ explained that this vial was not completely used, was returned to the box, and the record reflected 27 vials present but should have reflected 28. On 4/4/2011, two vials were removed and exhausted leaving a total of 26 vials but the total was inadvertently recorded as 25 due to the previous error. Blue pen had been used to add "+1" to entries made on both of these dates, and a note was added at end of the use page but no date was indicated for the correction. No further action is required.

On 8/20/2013 in ██████████ Freezer ██████████ Rack ██████████ Box ██████████ containing ██████████ inspectors observed an additional 12 vials present that were not accounted for in the inventory log. When inspectors re-visited on 8/23/2013, ██████████ had destroyed all vials in this box and noted this action by marking across the inventory record with date and her initials "8/22/13 ██████████ All samples destroyed." The use log on the back side of the inventory record shows 2 vials destroyed and 10 vials remaining. ██████████ stated she destroyed 2 vials first, realized she did not need any of the vials, and then destroyed the rest of the vials in the box. It was explained that the additional 12 vials originally noted were consolidated from another box and not logged on inventory record for this box. No further action is required.

On 8/20/2013 in ██████████ the box corresponding to the following inventory record was not located: ██████████ 2/25/03 ██████████ Notes stated ██████████ and ██████████. When inspectors re-visited on 8/23/2013, the box was produced. It was explained that the box was found in backup freezer and moved to the chest freezer by ██████████ and ██████████. A new inventory sheet was created using the correct template for the chest freezer. This is a deep box to accommodate taller vials with a 9 X 9 grid insert. All vials indicated on the inventory log were present in the box; however, some locations within the box did not agree with the log. Specifically the inventory log shows ██████████ located in ██████████ but the vial actually was present in ██████████. No further action is required.

16 **Requirement:** The individual or entity must implement a system to ensure that all records and data bases created under this part are accurate, have controlled access, and that their authenticity may be verified. [Section 17(b)]

Observation: Many of the inventory records for ██████████ were written in pencil. Inspectors noted an inventory record in the ██████████ suite that contained evidence of many erased items. It was explained that the person entering sample information onto the grid record did not initially recognize that the size of the grid on the record was different from the size of the grid in the sample box (10 X 10 versus 9 X 9) and erased to correct for this. Please describe how manual inventory records will be captured such that their authenticity may be verified.

Attachment 1: Entity Departures

- 17 Requirement:** The biosafety and containment procedures must be sufficient to contain the select agent or toxin (e.g., physical structure and features of the entity, and operational and procedural safeguards). [42 CFR 73.12(b)]. Posted information must include the laboratory's biosafety level, the supervisor's name (or other responsible personnel), telephone number, and required procedures for entering and exiting the laboratory. [BMBL: (BSL-3) A9]

Observation: Inspectors observed information posted at the entrance to a laboratory registered for [REDACTED] that included the name and contact information for an individual who was no longer with the influenza program. Inspectors verified that signage at entrances to laboratories within the [REDACTED] suite was updated on 8/23/2013. Please provide documentation that signage for [REDACTED] and [REDACTED] suites has been updated to include the name(s) and contact information for individual(s) who are currently part of the influenza program.

Inspectors did not observe exit procedures posted for [REDACTED] registered for [REDACTED]. Please provide documentation that required procedures for exiting the laboratory have been posted.

Inspectors did not observe exit procedures posted for [REDACTED] suite registered for [REDACTED]. Please provide documentation that required procedures for exiting the laboratory have been posted.

- 18 Requirement:** The biosafety and containment procedures must be sufficient to contain the select agent or toxin (e.g., physical structure and features of the entity, and operational and procedural safeguards). [42 CFR 73.12(b)]. Eye and face protection (goggles, mask, face shield or other splatter guard) is used for anticipated splashes or sprays of infectious or other hazardous materials. [BMBL: (BSL-3) C3]

Observation: Inspectors observed (and the biosafety plan requires) the use of a PAPR and hood when working in [REDACTED] the animal room registered for [REDACTED]. The biosafety plan also states that eye and face protection is required for anticipated splashes or sprays of infectious or other hazardous material. However, inspectors did not observe available eye or face protection to be worn in the rest of the [REDACTED] suite, outside of the animal room, to protect against splashes or sprays. Please describe the measures implemented to ensure that eye and face protection is available for use in the [REDACTED] suite outside of the animal room, and to be used for anticipated splashes or sprays of infectious or other hazardous material.

- 19 Requirement:** The biosafety and containment procedures must be sufficient to contain the select agent or toxin (e.g., physical structure and features of the entity, and operational and procedural safeguards). [42 CFR 73.12(b)]. The sink must be hands-free or automatically operated. [BMBL: (BSL-3) D2]

Observation: Inspectors observed that room [REDACTED] within the [REDACTED] suite registered for [REDACTED] contained a sink configured for hands-free operation. However, the sink was not operable as hands-free at the time of the inspection. Please provide documentation (e.g., completed work order) that the sink in [REDACTED] can now operate in hands-free mode.

- 20 Requirement:** The biosafety and containment procedures must be sufficient to contain the select agent or toxin (e.g., physical structure and features of the entity, and operational and procedural safeguards). [42 CFR 73.12(b)]. Seams, floors, walls, and ceiling surfaces should be sealed. [BMBL: (BSL-3) D3]

Observation: Inspectors observed an anchored screw hole penetrating the wall located behind an incubator in room [REDACTED] (within the [REDACTED] suite registered for [REDACTED]). Inspectors verified that this hole was filled on 8/23/2013. No further action is required.

- 21 Requirement:** The biosafety and containment procedures must be sufficient to contain the select agent or toxin (e.g., physical structure and features of the entity, and operational and procedural safeguards). [42 CFR 73.12(b)]. Chairs used in laboratory work must be covered with a non-porous material that can be easily cleaned and decontaminated with appropriate disinfectant. [BMBL: (BSL-3) D4-b]

Observation: Stools and chairs located in rooms [REDACTED] and [REDACTED] (all within the [REDACTED] suite registered for PI [REDACTED]) had areas of wear that appeared to reveal porous, absorbent material preventing them from being easily cleaned and decontaminated. During the inspection, escorts covered these areas with duct tape. No further action is required.

Attachment 1: Entity Departures

- 22 **Requirement:** The biosafety and containment procedures must be sufficient to contain the select agent or toxin (e.g., physical structure and features of the entity, and operational and procedural safeguards). [42 CFR 73.12(b)]. Provisions to assure proper safety cabinet performance and air system operation must be verified. [BMBL: (BSL-3) D10]

Observation: Inspectors observed BSC grilles were obstructed with pens and a pipette gun in the [REDACTED] suite registered for [REDACTED]. Please confirm that BSC grilles have been cleared of obstructions which may interfere with proper safety cabinet performance, and that laboratorians have been trained to ensure the BSC grilles remain unobstructed.

- 23 **Requirement:** The biosafety and containment procedures must be sufficient to contain the select agent or toxin (e.g., physical structure and features of the entity, and operational and procedural safeguards). [42 CFR 73.12(b)]. Equipment that may produce infectious aerosols must be contained in primary barrier devices that exhaust air through HEPA filtration or other equivalent technology before being discharged into the laboratory. These HEPA filters should be tested and/or replaced at least annually. [BMBL: (BSL-3) D12]

Observation: Inspectors were not provided with documentation that HEPA filters on four ultracentrifuges located in laboratories registered for [REDACTED] had been tested and/or replaced annually in 2011, 2012 and, if already performed, in 2013. Two ultracentrifuges were located in [REDACTED] and two ultracentrifuges (Sorvall Discovery SE and Optima TLX) were located in [REDACTED]. Please provide documentation that the HEPA filters on these ultracentrifuges are tested and/or replaced annually.

- 24 **Requirement:** The biosafety and containment procedures must be sufficient to contain the select agent or toxin (e.g., physical structure and features of the entity, and operational and procedural safeguards). [42 CFR 73.12(b)]. Operations that expose toxin solutions to vacuum or pressure, for example sterilization of toxin solutions by membrane filtration, should always be handled in this manner, and the operator should also use appropriate respiratory protection. [BMBL: Appendix I Inadvertent Toxin Aerosols]

Observation: The chemical hygiene plan for [REDACTED] did not address operations exposing toxin solutions to vacuum or pressure should be performed in a BSC, chemical fume hood, or other ventilated enclosure, and that the operator should wear appropriate respiratory protection. Inspectors noted a solution containing Botulinum neurotoxin is loaded into a syringe and pushed through a filter prior to being injected into mice. Please identify where (e.g., bench top, BSC) this operation is performed and the respiratory protection, if any, that is worn during the operation. Please update the chemical hygiene plan for [REDACTED] to address operations that expose toxin solutions to vacuum or pressure and provide documentation of these updates (i.e., updated pages of chemical hygiene plan).