



1301 K STREET, NW, SUITE 800 EAST WASHINGTON, DC 20005-7008 202-626-3900 F 202-626-3961  
BOSTON NEW YORK SAN FRANCISCO WASHINGTON, DC

## MEMORANDUM

Thomas M. Susman  
(202) 626-3920  
tsusman@ropesgray.com

DATE: January 27, 2003  
TO: Research Institutions  
SUBJECT: Effect of Bioterrorism Law on Possession, Use or Transfer of Biological Agents and Toxins

---

### Background

On June 12<sup>th</sup>, 2002, President George W. Bush signed into law the Public Health Security and Bioterrorism Preparedness Response Act of 2002 (“the Act”).<sup>1</sup> The purpose of the Act, which builds on provisions initially enacted as part of the USA PATRIOT Act of 2001,<sup>2</sup> is to “improve the ability of the United States to prevent, prepare for, and respond to bioterrorism and other public health emergencies.”<sup>3</sup> The Act establishes controls on the possession, use, and transfer of dangerous biological agents, and creates civil and criminal penalties for violations. The Act also directs federal agencies to develop stronger response capabilities to bioterrorism, including government organization for national preparedness and response, and to create a strategy for protection of food, water, and drug supplies. Several agencies, including the U.S. Department of Health and Human Services (HHS) and the U.S. Department of Agriculture (USDA), have recently adopted regulations for implementation of the Act.

This memorandum addresses the section of the Act entitled “Enhancing Controls on Dangerous Biological Agents and Toxins”<sup>4</sup> and the corresponding regulations adopted by HHS,<sup>5</sup> which was charged with regulating biological agents and toxins to protect the public health and

---

<sup>1</sup> Pub. L. No. 107-188, 116 Stat. 594.

<sup>2</sup> Title 8, § 817, “Expansion of the Biological Weapons Statute.” Pub. L. No. 107-056, 115 Stat. 385 (criminalizing possession of biological agents for reasons “not reasonably justified,” and making it unlawful for a “restricted person” to ship or possess biological agents, without implementation provisions or guidance).

<sup>3</sup> Pub. L. No. 107-188, 116 Stat. 594.

<sup>4</sup> Title II, Subtitle A, Pub. L. No. 107-188, 116 Stat. 637-647, (codified as amended at 42 U.S.C. §262a (2002)).

<sup>5</sup> 42 C.F.R. § 73 (2002), available at <http://www.cdc.gov/od/sap/docs/42cfr73.pdf>.

safety. Specifically, it addresses the list of select agents and toxins, registration requirements for institutions that possess, use or transfer select agents and toxins, and the regulation of select agents and toxins. Several narrow exemptions are also described, as are the potential civil and criminal penalties for failure to comply with the Act and regulations.

## **The Bioterrorism Preparedness Response Act and Accompanying Regulations**

### *Establishment of a List of Select Agents and Toxins*

The Act requires that the Secretary of Health and Human Services, by regulation, establish a list of biological agents and toxins that have the potential to pose a severe threat to public health and safety, based on criteria described in the Act.<sup>6</sup> HHS is also responsible for regulating those “select agents and toxins,” as they are called (discussed in more detail below). The Act further provides that some select agents and toxins should be subject to regulation by both HHS and the USDA.<sup>7</sup>

On December 13, 2002, after a public comment period, HHS issued an Interim Final Rule containing its list of select agents and toxins.<sup>8</sup> The Rule is effective February 7, 2003; written comments on the Interim Rule may be submitted until February 11, 2003, and the final rule will be published after consideration of comments. The current list can be found at 42 C.F.R. § 73.4-73.5, and is reproduced in Annex I to this memorandum.

### *Registration of Institutions that Possess, Use or Transfer Select Agents and Toxins*

The Act requires institutions that possess, use, or transfer select agents or toxins within the United States, or receive select agents or toxins from outside the United States, to register with the Secretary of HHS.<sup>9</sup> These institutions are then subject to safety and security

---

<sup>6</sup> Public Health Security and Bioterrorism Preparedness Response Act of 2002, 116 Stat. 637.

<sup>7</sup> HHS was charged with regulating biological agents to protect public health and safety. The USDA was charged with regulating biological agents and toxins to protect plant health and animal and plant products (these regulations, which are very similar to the HHS regulations discussed in this memo but target a different set of toxins, can be found at 7 C.F.R. § 331 and 9 C.F.R. § 121). Because there was likely to be overlap in the lists generated by each agency, the Act called for interagency coordination in regulating “overlap” agents and toxins. The agencies have established a unified reporting system, so there is no need for duplicative reporting.

<sup>8</sup> 42 C.F.R. § 73.

<sup>9</sup> As of February 7, 2003, an entity that does not currently possess a certificate of registration must submit an application package to HHS or USDA before conducting activities subject to this rule. After November 12, 2003, an entity must have a certificate of registration to conduct covered activities.

requirements, including access controls, screening of personnel who come into contact with the select agents or toxins, and inspections to ensure compliance (discussed in more detail below). The registration requirement for possession, use and transfer expands substantially on the previous law regulating biological agents (the Antiterrorism and Effective Death Penalty Act of 1996), which required registration only of those facilities transferring select agents or toxins.<sup>10</sup>

Under the regulations, the registration process requires facilities to submit, among other information, the name, source, and characterization information on select agents and toxins included in the registration, quantities held, and a detailed location of where the select agents or toxins will be used or stored.<sup>11</sup> The Act calls for the Secretary of HHS to maintain a national database of this information.<sup>12</sup> The database may be used for investigational purposes by federal agencies; however, information including site-specific registration or transfer information may not be disclosed to the public.<sup>13</sup>

### *Regulation of Select Agents and Toxins and Institutions Handling Them*

The Act directs the Secretary of HHS to adopt regulations that: provide for 1) “the establishment and enforcement of safety measures for the transfer of listed agents and toxins,” and 2) “the establishment and enforcement of standards and procedures governing the possession and use of listed agents and toxins.”<sup>14</sup> In short, the Act sets up a framework regulating how facilities operate, and requires that facilities record and report which personnel have access to the agents or toxins, and limit access to only persons permitted under the new regulations.

Operations. Entities conducting regulated activities involving select agents and toxins must now comply with regulations that require the following:

---

The registration provisions can be found in the Interim Final Rule at 42 C.F.R § 73.7, including what information must be submitted to HHS, what a certificate of registration entitles a holder to do, how certificates of registration may be amended, provisions for granting certificates of registration, the time and geographic scope of certificates of registration, and requirements for registered holders who wish to discontinue activities with an agent or toxin covered by a certificate of registration. Additional information on implementation, as well as application packages, can be found at <http://www.cdc.gov/od/sap/>.

<sup>10</sup> Pub. L. No. 104-132 § 511, 110 Stat. 1284 (codified at 42 U.S.C. § 262, note (1996)).

<sup>11</sup> 42 C.F.R. § 73.7.

<sup>12</sup> Pub. L. No. 107-188, § 351A(d), 116 Stat. 639, (codified as amended at 42 U.S.C. §262a (2002)).

<sup>13</sup> Pub. L. No. 107-188, §351A(f)-(h), 116 Stat. 642-44, (codified as amended at 42 U.S.C. §262a (2002)).

<sup>14</sup> Public Health Security and Bioterrorism Preparedness Response Act of 2002, 116 Stat. 637-38.

- Designation of a Responsible Official, who is approved for access to select agents and toxins (see “Personnel” below), is familiar with all of the regulations, and has authority and responsibility to ensure, on behalf of the entity, that the requirements are met.<sup>15</sup>
- Establishment and enforcement of safety procedures for handling select agents and toxins, including regular (at least annual) inspections conducted by the Responsible Official to ensure compliance.<sup>16</sup>
- Establishment and implementation of a thorough security plan to ensure the security of areas containing select agents and toxins including, among other requirements, inventory control procedures, education and experience criteria for individuals with access, provisions for routine cleaning and maintenance, procedures for loss or compromise of keys, passwords, or combinations, and procedures for reporting suspicious persons or activities, loss or theft of select agents or toxins, and other potential security breaches.<sup>17</sup>
- Establishment of an emergency response plan.<sup>18</sup>
- Timely provision of safety and security training for working with select agents and toxins to all individuals approved for access (see below), as well as all unapproved individuals working in or visiting areas where select agents and toxins are handled and stored.<sup>19</sup>
- Compliance with very specific requirements regarding the transfer of select agents or toxins.<sup>20</sup>
- Compliance with record-keeping standards regarding approved individuals, inventories, access to agents and toxins, and areas where agents are used.<sup>21</sup>
- Provision of access to the Secretary of HHS for unannounced inspection with or without cause.<sup>22</sup>

---

<sup>15</sup> 42 C.F.R. § 73.9.

<sup>16</sup> 42 C.F.R. § 73.10.

<sup>17</sup> 42 C.F.R. § 73.11.

<sup>18</sup> 42 C.F.R. § 73.12.

<sup>19</sup> 42 C.F.R. § 73.13.

<sup>20</sup> 42 C.F.R. § 73.14.

<sup>21</sup> 42 C.F.R. § 73.15

- Reporting of theft, loss, or release of select agents or toxins.<sup>23</sup>

Personnel. Under the Act, entities conducting regulated activities involving select agents or toxins (other than federal, state and local governmental agencies), as well as individuals who own or control such entities or have access to any select agent or toxin, must be approved by the HHS Secretary (or USDA Secretary) based on a risk assessment by the Attorney General. The HHS regulations set out procedures for obtaining a security risk assessment.<sup>24</sup>

Under the Act, “restricted” individuals may not be granted access to select agents and toxins.<sup>25</sup> A “restricted” individual is one who:<sup>26</sup>

- is under indictment for a crime punishable by imprisonment for a term exceeding one year;
- has been convicted in any court of a crime punishable by imprisonment for a term exceeding one year;
- is a fugitive from justice;
- is an unlawful user of any controlled substance (as defined in section 102 of the Controlled Substances Act (21 U.S.C. § 802));
- is an alien illegally or unlawfully in the United States;
- has been adjudicated as mentally defective or has been committed to any mental institution;
- is an alien (other than an alien lawfully admitted for permanent residence) who is a foreign national of a country which the Secretary of State has determined has repeatedly provided support for acts of international terrorism;<sup>27</sup> or

---

<sup>22</sup> 42 C.F.R. § 73.16

<sup>23</sup> 42 C.F.R. § 73.17.

<sup>24</sup> See 42 C.F.R. § 73.8(c). An entity must submit information to the Attorney General regarding the entity, the Responsible Official, any individual who owns or controls the entity, and any other individuals required to obtain approval. The Attorney General will conduct a security risk assessment, and notify the Secretary of the HHS of approval or denial.

<sup>25</sup> 42 C.F.R. § 73.8(e).

<sup>26</sup> 42 C.F.R. § 73.8(d)(1). The regulations define “restricted” individuals by reference to the federal criminal code, 18 U.S.C. § 175b.

- has been dishonorably discharged from the United States Armed Services.

The Secretary of HHS will also deny or limit access to any select agent or toxin to certain other entities or individuals, unless the Secretary determines that access is warranted in the interest of the public health and safety or national security.<sup>28</sup> Such entities or individuals are those reasonably suspected by any federal law enforcement or intelligence agency of:<sup>29</sup>

- Committing a crime specified in 18 U.S.C. § 2333b(g)(5) (describing “Federal crimes of terrorism”), or
- Having a knowing involvement with an organization that engages in domestic or international terrorism (as defined in 18 U.S.C. § 2331) or with any other organization that engages in intentional crimes of violence; or
- Being an agent of a foreign power (as defined in 50 U.S.C. § 1801).

#### *Exemptions From The Act*

There are four exemptions from the Act.

1. Entities that use a select agent or toxin *only* for diagnosis, verification, or proficiency testing are exempt from all the provisions except those regarding transfer, provided that they follow specific and detailed reporting requirements and transfer the select agents or toxins to a registered facility or destroy them within specified time periods.<sup>30</sup>
2. Products containing a select agent or toxin and that are already cleared, approved, or licensed under a specific federal law are exempt insofar as their use is only for the approved purposes, and meets requirements of various public health laws.<sup>31</sup> The

---

<sup>27</sup> As of May 2002, countries designated by the Secretary of State as state sponsors of terrorism are Cuba, Iran, Iraq, Libya, North Korea, Sudan, and Syria. *See* U.S. Department of State, *Patterns of Global Terrorism, 2001*, May 21, 2002, available at <http://www.state.gov/s/ct/rls/pgtrpt/2001/html/>.

<sup>28</sup> 42 C.F.R. § 73.8(e).

<sup>29</sup> 42 C.F.R. § 73.8(d)(2).

<sup>30</sup> 42 C.F.R. § 73.6(a).

<sup>31</sup> These laws include the Federal Food, Drug, and Cosmetic Act (21 U.S.C. § 301 *et seq.*); Section 351 of the Public Health Service Act pertaining to biological products (42 U.S.C. § 262); The Virus-Serum-Toxin Act (21 U.S.C. §§ 151-159); The Federal Insecticide, Fungicide, and Rodenticide Act (7 U.S.C. § 136 *et seq.*).

Secretary of HHS may, however, specifically issue an order making these regulations applicable to any such product.<sup>32</sup>

3. The Secretary of HHS may allow, on a case-by-case basis, an exemption for an investigational product that consists of or contains a select agent or toxin, when the product is being used in an investigation authorized under one of several federal acts<sup>33</sup> and additional regulation is not necessary to protect public health and safety.<sup>34</sup>
4. Finally, the Secretary of HHS may temporarily exempt an entity from any or all of these regulations, based on a determination that such an exemption is necessary to provide for the timely participation of that entity in a response to a domestic or foreign public health emergency.<sup>35</sup>

#### *Civil and Criminal Sanctions for Failure to Comply with the Act and Regulations*

Individuals who fail to comply with the Act and the regulations are subject to a \$250,000 fine. Other persons (*e.g.*, facilities or organizations) are subject to a \$500,000 fine.<sup>36</sup> Additionally, anyone who knowingly possesses a select agent or toxin without obtaining registration, or transfers a select agent or toxin to a person who the transferor knows or has reasonable cause to believe is not registered, shall be fined or imprisoned for up to five years or both.<sup>37</sup>

#### **Conclusion**

Research institutions and companies that handle biological toxins and agents are facing many new administrative requirements. As a result of the USA PATRIOT Act, they have likely already assessed the quantities and types of materials on hand and the personnel with access to those substances. They must now comply with additional regulations on risk assessment of personnel, safety procedures, security measures, and reporting requirements.

Although the regulations have a phase-in period,<sup>38</sup> by February 7, 2003 all covered entities must be prepared to comply with some of the provisions described here, and by November 11, 2003, the regulations will be in full effect. Research institutions would also be

---

<sup>32</sup> 42 C.F.R. § 73.6(b).

<sup>33</sup> *See supra* note 31.

<sup>34</sup> 42 C.F.R. § 73.6(c).

<sup>35</sup> 42 C.F.R. § 73.6(d).

<sup>36</sup> 42 C.F.R. § 1003.

<sup>37</sup> Pub. L. No. 107-188, § 231, 166 Stat. 660. (codified as amended at 18 U.S.C. §175b (2002)).

<sup>38</sup> *See* 42 C.F.R. § 73.0 for detailed description of phase-in period.

well-advised to monitor state legislation concerning biological agents and toxins. Several state legislatures, including Montana, Maryland, Massachusetts, and Minnesota, have proposed registration requirements for possession or maintenance of biological agents. North Carolina has already enacted such a law,<sup>39</sup> and other states are certain to follow.

Should you have any questions concerning compliance or other aspects of this new law, please feel free to call or write.

Thomas M. Susman  
(202) 626-3920  
[tsusman@ropesgray.com](mailto:tsusman@ropesgray.com)

Mara Krongard  
(617) 971-7226  
[mkrongard@ropesgray.com](mailto:mkrongard@ropesgray.com)

---

<sup>39</sup> N.C. Sess. Laws 2001-469, N.C. Gen. Stat. § 130A-149), *available at* <http://www.epi.state.nc.us/epi/bioagent/BARLaw.pdf>

## Annex

### 42 C.F.R. § 73.4: HHS Select Agents and Toxins

#### **a) Viruses**

1. Crimean-Congo haemorrhagic fever virus
2. Ebola viruses
3. Cercopithecine herpesvirus 1 (Herpes B virus)
4. Lassa fever virus
5. Marburg virus
6. Monkeypox virus
7. South American Haemorrhagic fever viruses (Junin, Machupo, Sabia, Flexal, Guanarito)
8. Tick-borne encephalitis complex (flavi) viruses (Central European Tick-borne encephalitis, Far Eastern Tick-borne encephalitis [Russian Spring and Summer encephalitis, Kyasanur Forest disease, Omsk Hemorrhagic Fever])
9. Variola major virus (Smallpox virus) and Variola Minor virus (Alastrim)

#### **b) Bacteria**

1. *Rickettsia prowazekii*
2. *Rickettsia rickettsii*
3. *Yersinia pestis*

#### **c) Fungi**

1. *Coccidioides posadasii*

#### **d) Toxins**

1. Abrin
2. Conotoxins
3. Diacetoxyscirpenol
4. Ricin
5. Saxitoxin
6. Tetrodotoxin
7. Shiga-like ribosome inactivating proteins

#### **e) Genetic Elements, Recombinant nucleic Acids, and Recombinant Organisms**

1. Select agent viral nucleic acids (synthetic or naturally derived, contiguous or fragmented, in host chromosomes or in expression vectors) that can encode infectious and/or replication competent forms of any of the select agent viruses
2. Nucleic acids (synthetic or naturally derived) that encode for the functional form(s) of any of the toxins listed in paragraph (d) of this section if the nucleic acids:
  - a. Are in a vector or host chromosome;
  - b. Can be expressed *in vivo* or *in vitro*; or
  - c. Are in a vector or host chromosome and can be expressed *in vivo* or *in vitro*

**f) Exclusions**

1. This section does not include any select agent or toxin that is in its naturally occurring environment provided it has not been intentionally introduced, cultivated, collected, or otherwise extracted from its natural source.
2. This section does not include non-viable select agent organisms or nonfunctional toxins.
3. Paragraph (a) of this section does not include the vaccine strain of Junin virus (Candid #1).
4. Paragraph (d) of this section does not include the following toxins (in the purified form or in combinations of pure and impure forms) if the aggregate amount under the control of a principal investigator does not, at any time, exceed the amount specified: 100 mg. of Abrin; 100 mg. of Conotoxins; 1,000 mg. of Diacetoxyscirpenol; 100 mg. of Ricin; 100 mg. of Saxitoxin; 100 mg. of Shiga-like ribosome inactivating proteins; or 100 mg. of Tetrodotoxin.
5. The HHS Secretary, upon application, may exclude from this section attenuated strains of HHS select agents or toxins upon a determination that they do not pose a severe threat to the public health and safety.

42 C. F.R. § 73.5: Overlap Select Agents and Toxins

**a) Viruses**

1. Eastern Equine Encephalitis virus
2. Nipah and Hendra Complex viruses
3. Rift Valley fever virus
4. Venezuelan Equine Encephalitis virus

**b) Bacteria**

1. *Bacillus anthracis*
2. *Brucella abortus*
3. *Brucella melitensis*
4. *Brucella suis*
5. *Burkholderia mallei* (formerly *Pseudomonas mallei*)
6. *Burkholderia pseudomallei* (formerly *Pseudomonas pseudomallei*)
7. Botulinum neurotoxin producing species of *Clostridium*
8. *Coxiella burnetii*
9. *Francisella tularensis*

**c) Fungi**

1. *Coccidioides immitis*

**d) Toxins**

1. Botulinum neurotoxins
2. *Clostridium perfringens* epsilon toxin
3. Shigatoxin

4. Staphylococcal enterotoxins
5. T-2 toxin

**e) Genetic elements, recombinant nucleic acids, and recombinant organisms**

1. Select agent viral nucleic acids (synthetic or naturally derived, contiguous or fragmented, in host chromosomes or in expression vectors) that can encode infectious and/or replication competent forms of any of the select agent viruses.
2. Nucleic acids (synthetic or naturally derived) that encode for the functional form(s) of any of the toxins listed in paragraph (d) of this section if the nucleic acids:
  - (i) Are in a vector or host chromosome;
  - (ii) Can be expressed *in vivo* or *in vitro*; or
  - (iii) Are in a vector or host chromosome and can be expressed *in vivo* or *in vitro*
3. Viruses, bacteria, fungi, and toxins listed in paragraphs (a) through (d) of this section that have been genetically modified

**f) Exclusions**

1. This section does not include any select agent or toxin that is in its naturally occurring environment provided that it has not been intentionally introduced, cultivated, collected, or otherwise extracted from its natural source.
2. This section does not include non-viable select agent organisms or nonfunctional toxins.
3. Paragraph (a) does not include the vaccine strain of Rift Valley fever virus (MP-12) or Venezuelan Equine encephalitis virus vaccine strain TC-83.
4. Paragraph (d) of this section does not include the following toxins (in the purified form or in combinations of pure and impure forms) if the aggregate amount under the control of a principal investigator does not, at any time, exceed the amount specified: 0.5 mg of Botulinum neurotoxins; 5 mg of Staphylococcal enterotoxins; 100 mg of *Clostridium perfringens* epsilon toxin; 100 mg of Shigatoxin; or 1,000 mg of T-2 toxin.
5. The HHS Secretary, upon application and after consultation with the USDA Secretary, may exclude from this section attenuated strains of overlap select agents or toxins upon a determination that they do not pose a severe threat to the public health and safety and do not meet the criteria in 9 CFR part 121 for inclusion.