

**INSTITUTIONAL BIOSAFETY COMMITTEE  
SAN JOSÉ STATE UNIVERSITY  
BIOLOGICAL USE AUTHORIZATION APPLICATION**

**Attachment E.  
Toxins**

Check all that apply:

- We will be performing procedures with toxin amounts that could be lethal for a person
- We will purposefully generating aerosols with the toxin
- We will be using the toxin with live animal models (Complete [Attachment G](#))
- We will be using a Select Toxin
- We will be working with a dry form (other than reconstituting lyophilized toxin in a sealed vial)

A Standard Operating Procedure (SOP) must be attached that describes the work with biological toxins and/or select toxins. Describe from where the material will be obtained. A detailed step-by-step protocol is not necessary, but provide sufficient information on your procedures so that the committee can identify the steps that involve the greatest likelihood of worker or environmental exposure. Include the preparation/dilution/reconstitution protocols (if applicable) and the steps that will be conducted in a biological safety cabinet. Consult the SOP template for other required components.

<b>Toxins</b>						
Toxin <i>Common Name</i>	Purchasing source	Maximum quantity on hand	LD <sub>50</sub>	Target organ	Dilution procedure, if applicable	Neutralization/ inactivation procedure
Anthrax	Thermo Fisher Scientific	1 ng	8,000-50,000 spores (estimated)	skin	Diluting via adding diluent through septa of lyophilized stock.	2% Dichlor or 5% hydrogen peroxide for 10 min

<input type="checkbox"/> N/A	<p><b>Regulated Select Toxins</b></p> <p>See <a href="#">link for list of Select Toxins, exclusions</a> and <a href="#">permissible toxin amounts</a>. If toxin is not eligible for exemption or exclusion, list the agents below and submit a copy of the Select Toxin registration application to the IBC</p>
Name of Toxin and Strain	
Bacillus anthracis Pasteur strain	

## **Risk assessment.**

If you are using a toxin that affects plants or animals, discuss the possible consequences of a release into local agricultural areas or natural ecosystems

Animals are susceptible to *Bacillus anthracis*, and infected animals can easily spread the disease-causing spores to humans, other animals, or contaminate the soil with spores which could cause future outbreaks. As such, preventing release of spores into the environment is vital. All work with anthrax will rely heavily on properly functioning engineering controls (including a certified biosafety cabinet and HEPA-filtered equipment), and appropriate decontamination of all surfaces, materials, and solutions that may have come in contact with the toxin. See SOP for detailed procedures we will implement to substantially reduce the chance of release of *Bacillus anthracis* into local agricultural or natural ecosystems.