

UNIVERSITY OF SOUTHERN MAINE  
Office of Research Integrity & Outreach

<b>Procedure #:</b>	IACUC - 004
<b>Date Adopted:</b>	November 13, 2012
<b>Last Updated:</b>	August 30, 2024
<b>Prepared By:</b>	Sarah Gilliam, Animal Facilities Manager
<b>Updated By:</b>	Danielle Jolie & Casey Webster, Research Compliance Administrators
<b>Reviewed By:</b>	IACUC Chair, IACUC, ORIO
<b>Procedure Title:</b>	Contingency Planning

### **1.0 Objective**

- 1.1. This document has been created to outline the steps to be taken in an emergency situation or disaster where an animal research facility at the University of Southern Maine (USM) is affected.

### **2.0 General Description**

- 2.1. All USM policies on emergency situations are to be followed and this document provides additional steps & considerations that are specific to an animal facility.
- 2.2. Examples of disasters that could occur are: flooding, equipment failure, animal rights activity, blizzard, power failure, loss of personnel, fire, bomb threats, and other unforeseen situations that could endanger the research animals and/or the personnel that work with them.
- 2.3 The IACUC defers to the University of Maine System (system) and the University of Southern Maine (institution) emergency response planning. This SOP is limited only to areas of IACUC authority under *IACUC-001* ([https://docs.google.com/document/d/196EDTMooOHZ8bCtHCxvgmLA705q6w9Ve\\_qSj8Ffu9dg/edit](https://docs.google.com/document/d/196EDTMooOHZ8bCtHCxvgmLA705q6w9Ve_qSj8Ffu9dg/edit)) and not otherwise covered by system or institution plans.
- 2.4 This SOP establishes IACUC-specific planning and is intended to supplement, not replace, existing system and institution emergency response planning.

### **3.0 Responsibility**

- 3.1. Execution of SOP: IACUC Chair, IACUC Members, ORIO Staff, RCA, Investigators, and Research Personnel.

## **4.0 Procedure**

### **4.1. Priorities**

- 4.1.1. Personnel should preserve their own health and safety before that of the animals, including leaving the area or facility they are working in to retreat to a safe area.
- 4.1.2. Appropriate responders, considering the situation, should be called in immediately.
- 4.1.3. If personnel are not in imminent danger, then staff should work to preserve the safety and well-being of the animals. Once safe, then all other key personnel should be called in and given all the known details as to what occurred or is occurring.

### **4.2. Other considerations**

- 4.2.1. The duration & severity of the disaster will have an effect on the response.
- 4.2.2. If the disaster causes extended interruption of food and water supplies, or power failure, it will cause inhumane conditions and the animals will need to be moved or euthanized.
- 4.2.3. In the event where some animals can be saved, but not all, then those involved in previously designated projects (i.e.-those who were chosen prior as the most 'important' to save) will be prioritized.
- 4.2.4. If it becomes necessary to move or evacuate the animals to a temporary shelter, then the location that they are to be moved to will be determined by the Assistant Provost for Research Integrity and the Director of Facilities Management.

### **4.3. Key Personnel/Departments**

- 4.3.1. A flow chart with the key individuals/departments and order of contact based on level of disaster is included at the end of this document.
- 4.3.2. A disaster plan will be posted within any facility used to house animals and will be distributed to the key USM personnel listed as well as other appropriate personnel (such as users of the facility, facility technicians, etc.).
- 4.3.3. Contacts
  - 4.3.3.1. Public Safety, 207-780-5211
  - 4.3.3.2. Consulting Veterinarian, 617-699-2256
  - 4.3.3.3. Assistant Provost for Research Integrity, 207-780-4340 / 207-780-4517
  - 4.3.3.4. Research Compliance Administrator, 207-228-8434 / 207-780-4517

- 4.3.3.5. Facilities Management, 207-780-4160
- 4.3.3.6. University Safety Management, 207-581-4055
- 4.3.3.7. Provost and Vice President of Academic Affairs, 207-780-4485
- 4.3.3.8. Office of Public Affairs, 207-780-4744
- 4.3.3.9. Ranger Engineering, 508-877-3166

#### **4.4. Disaster Level Definitions & Actions to be taken**

##### 4.4.1. Level 1: Complete Destruction

- 4.4.1.1. The facility is destroyed, unstable, & unusable. The safety of personnel is first and foremost. Escaped animals should be captured utilizing live traps if necessary. Euthanasia of injured animals that survived the disaster will be attempted by the most humane methods available, so that animal suffering is prevented and they don't create a public hazard. If there is an alternate shelter for the animals that can provide long term care and humane conditions, then the surviving animals in good condition can be moved to that location. If not, then all remaining animals should be humanely euthanized.

##### 4.4.2. Level 2: Partial Destruction

- 4.4.2.1. The building is intact and safe enough to provide shelter without risk of collapse. Water & power are out. The ability to enter the building will be determined by public safety personnel and no one will enter until clearance has been given. If water and power are unavailable for an extended period, and the conditions become unsafe or inhumane, then the animals will need to be evacuated or euthanized.

##### 4.4.3. Level 3: Temporary Disruption

- 4.4.3.1. The building is intact, but water and power are unavailable for a brief period of time. The appropriate personnel will maintain the animals, keeping them alive, until an assessment can be made about the situation. If utilities are not restored within a few days, then the disaster level is upgraded to level 2. If water and power are unavailable for an extended period, and the conditions become unsafe or inhumane, then the animals will need to be evacuated or euthanized.

##### 4.4.4. Level 4: Equipment/Personnel/Criminal Activity

- 4.4.4.1. The facility is intact and utilities are available but a major piece of equipment is inoperable, there is insufficient staff to care for the animals, or there is damage to the facility due to vandalism. For major equipment malfunctions, Facilities Management may attempt to get the equipment running. There should be enough supplies on hand to care

for the animals until the equipment is up and running. Feeding and housing equipment can be washed by hand if necessary.

4.4.4.2. If the facility has a lack of staff available, a trained member of the ORIO office (the Research Integrity Administrator) or other appropriate USM personnel will step in to cover during their absence.

4.4.4.3. Criminal activity in regards to the animal facility is most likely to be theft or vandalism. In the case of vandalism, then any animals in an area that has been damaged shall be moved to an undamaged part of the facility until any cleanup & repairs can be completed.

#### **4.5. General Preparations**

4.5.1. Enough food, water, & bedding should be on hand for animals to last 1-2 weeks in the case of supply interruption.

4.5.2. Have fans, humidifiers, dehumidifiers, and possibly heaters available to adjust environmental conditions accordingly.

4.5.3. Flashlights with working batteries should be available in each room.

4.5.4. Know escape routes and plans in case of an emergency.

4.5.5. Know the location of safety equipment such as fire extinguishers.

4.5.6. Keep contact information for personnel handy both at work and at home.

4.5.7. Keep an inventory of animals within the facility and know those that are most important to save first.

4.5.8. Keep basic tools around for minor equipment repair, i.e.-screwdrivers, wrenches, etc.

4.5.9. First aid kits should be stocked & readily accessible.

4.5.10. Keep euthanasia supplies and equipment available & know their locations and how to utilize them.

4.5.11. Keep any aquatic tanks plugged into the emergency power supply. In the event of a power loss, the generator will automatically start and keep the systems going.

4.5.12. Keep trapping equipment available in the case of escaped animals.

4.5.13. Have a portable 'Emergency Cart' stocked and ready for use.

4.5.13.1. Supplies that should be included are: gloves, flashlights, batteries, heavy duty extension cords, utility knife, first aid items, euthanasia

supplies, carcass bags, basic tools, personnel list & contact sheet, masks or respirators and other items that could be useful.

#### **4.6. Areas of Concern**

##### 4.6.1 Food & Water

4.6.1.1. If necessary, other sources of food may be utilized to feed the animals. In the case of a disruption of the facility water supply or contamination, water can be autoclaved, boiled, or purchased. Emergency hydrogel packs can also be used as an alternative source of water.

##### 4.6.2. Cage/Tank Sanitation

4.6.2.1. Cages and tanks can be washed by hand if necessary, utilizing bleach or another disinfectant to sanitize them. They should be rinsed thoroughly.

##### 4.6.3. HVAC System Loss

4.6.3.1. Doors can be propped open & fans (either battery operated or electric if power is available) can be used to provide air circulation-unless there is the potential for a hazard release. If there is a need to cool the room, fans or ice placed on the floor or in several containers within the room can provide some cooling. Portable heaters can be provided to keep the animals warm. Portable humidifiers or dehumidifiers are also available to stabilize humidity within a room.

##### 4.6.4. Animal Evacuation

4.6.4.1. In a situation where animals need to be relocated, then they can be moved to an unaffected section of the facility, housing each species in their own area. If relocation to another part of the facility is not possible, then other locations for their temporary housing can include the individual PI's laboratory, another building (TBD), or an attempt to arrange space at a nearby viable facility (UNE, MMCRI, etc.) can be made.

##### 4.6.5. Animal Euthanasia

4.6.5.1. If euthanasia of animals becomes necessary, only those personnel that are trained in humane euthanasia practices should perform the procedure. Euthanasia of animals should be done in a species appropriate manner and in accordance with the AVMA Guidelines on Euthanasia. A kit consisting of isoflourane, a chamber, carcass bags, pithing probe, and gauze should be available for emergency use.

#### 4.6.6. Discovery of Criminal Activity

4.6.6.1. This would include bomb threats, intruders, animal rights activity, or the discovery of an unknown device. If a threat is received, personnel should evacuate the area. An effort should be made to remember any possible identifiers of the individual conveying the threat such as sex & voice of the caller, what was said, anything that may have appeared on caller id, and any background noise. If intruders are spotted, an unknown/suspicious device found, again, personnel will leave the area immediately (& quietly if intruders are seen) and call the police. Any sign of vandalism or theft should be immediately reported to the police. In the case of animal rights activity, then the Executive Director of the Office of Public Affairs should be contacted and made aware of the situation.

#### 4.6.7. Communications

4.6.7.1. There should be open communication between emergency personnel, facility personnel, and any other campus authority in the case of a disaster. The above-mentioned key personnel should be kept informed of any disaster situation. If land lines are not operational, personal cell phones can be utilized for communication. When both the facility land-lines and personal cell phones are not operational, then portable radios can be used.

### **4.7. Most Likely Disaster Situations**

4.7.1. The University of Southern Maine's animal facilities may be located in Portland or Gorham, ME. Disasters that are most likely to occur in this area are blizzards/snowstorms, flooding, and power outages. As always, in these situations, the employees are to put their own safety above that of the animals. If all personnel are safe, then care of the animals is the next priority.

#### 4.7.2. Blizzard/Snowstorm

4.7.2.1. If a storm is predicted, then arrangements can be made for a staff member to remain with the animals, in order to provide care & husbandry during the course of the storm. An alternate plan would be to provide extra food and water to the animals that will last the duration of the storm and until staff can safely return to care for them.

4.7.2.2. If a storm arrives unexpectedly, then a staff member with a four wheel drive vehicle and/or who lives in the closest proximity to the facility will be asked to travel to the facility to care for the animals. In the case of a storm that is designated as life threatening, then all staff will wait until the storm is over and roads are cleared for travel before returning to the facility.

### 4.7.3. Flooding

4.7.3.1. Maine gets torrential rain storms from time to time that can cause flooding. In the event that area flooding is threatening the facility, then animals can be moved to an upper floor of the Research Wing, or another area on campus (that is not at risk for flooding). The area the animals will be moved to will be determined by the Director of Facilities Management. Extra food, water, and bedding to last at least a week should also be moved to the temporary housing area for the animals. Extra food & water will be provided for the animals for the duration of the storm/flooding. Once flooding recedes, then the facility can be assessed and steps taken accordingly to bring the facility back to normal operation.

### 4.7.3. Power Outages

4.7.3.1. Most power outages in the area are short in duration, only lasting a few hours. However there can be rare occasions in which an outage will last days. In this situation, the generator should provide emergency lighting in the halls and flashlights should be utilized as lighting in areas not equipped with emergency lights. There are some emergency power outlets that can be used to support essential equipment such as aquatic filtration systems, additional lighting, HVAC support, etc. See the information above under the section 'Areas of Concern' to address specific issues.

### 4.7.4. Pandemic

4.7.4.1. In the case of a pandemic, there will be three primary goals 1) ensuring the safety and wellbeing of the researchers and personnel 2) ensuring the health and safety of the research animals and 3) mitigating the spread of pathogens.

4.7.4.2. Actions to be taken if community pathogen spread appears to be imminent:

4.7.4.2.1. PI provides the IACUC with key personnel contact information. PI provides the IACUC with a current census of animals by species.

4.7.4.2.2. PI contacts the IACUC and ORIO immediately if research personnel are unable to maintain normal animal care, monitoring, or required procedures.

4.7.4.2.3. PI will follow all pandemic related guidance put out by the System and Institution.

4.7.4.3. Changes to be made to research operations if community pathogen spread appears to be imminent.

4.7.4.3.1. Do not begin any newly approved animal research or procedures.

4.7.4.3.2. Halt or delay any non-time sensitive animal research and procedures.

4.7.4.3.2.1. If PI believes the animal research or procedure is time sensitive and can proceed while following social distancing requirements, masking/PPE requirements, and any other guidance (Institutional, System, State, and/or Federal) to stop the spread of pathogens contact the IACUC Chair and ORIO to determine if the research may continue.

4.7.4.3.3. Halt or delay any non-time sensitive wildlife studies.

4.7.4.3.3.1. If PI believes the wildlife study is time sensitive and can proceed while following social distancing requirements, masking/PPE requirements, and any other guidance (Institutional, System, State, and/or Federal) to stop the spread of pathogens contact the IACUC Chair and ORIO to determine if the research may continue.

References:

USDA Animal Welfare Act disaster contingency planning

- <http://www.nal.usda.gov/awic/pubs/IACUC/dis.htm>

NIH Office of Laboratory Animal Welfare disaster planning

- <https://grants.nih.gov/policy/natural-disasters.htm>



**Flowchart Order of Contact for Animal Facility Disasters**

