



# **Animal Care and Use Program**

## **Emergency Preparedness and Recovery Plan**

**Revised 08/01/2025**

A handwritten signature in black ink that reads "Joanne M. Wallace, DVM". The signature is written in a cursive style.

Attending Veterinarian

## EMERGENCY PREPAREDNESS AND RECOVERY PLAN

<http://oacu.od.nih.gov/>

### **TABLE OF CONTENTS**

<b>INTRODUCTION .....</b>	<b>1</b>
<b>I. Purpose .....</b>	<b>1</b>
<b>II. Overview .....</b>	<b>1</b>
<b>EMERGENCY RESPONSE PLANNING.....</b>	<b>2</b>
<b>I. Mitigation .....</b>	<b>2</b>
<b>II. Preparedness .....</b>	<b>2</b>
<b>a. Identification of Chain of Command, Key Roles, and Responsibilities.....</b>	<b>2</b>
<b>b. Training.....</b>	<b>6</b>
<b>c. Resource Identification .....</b>	<b>7</b>
<b>III. Response.....</b>	<b>8</b>
<b>a. Primary Response - Immediate Threats to Personnel Safety .....</b>	<b>8</b>
<b>b. Secondary Response – Threats to Animal Health and Welfare .....</b>	<b>8</b>
<b>c. Communication with the Research Community .....</b>	<b>9</b>
<b>IV. Recovery .....</b>	<b>9</b>
<b>a. Disaster/Emergency Event Log: .....</b>	<b>9</b>
<b>b. Internal Regulatory Reporting: .....</b>	<b>10</b>
<b>c. External Regulatory Reporting: .....</b>	<b>10</b>
<b>d. Public Relations Response: .....</b>	<b>10</b>
<b>e. Post-Response Debriefing:.....</b>	<b>10</b>
<b>GENERAL EMERGENCY GUIDANCE.....</b>	<b>11</b>
ACUP Faculty and Staff Preparedness Information .....	12
ACUP Emergency Initial Incident Report.....	13
ACUP Triage Guidance for Disaster Events .....	14
Communication during Emergency/Disaster Event.....	15
Animal Escape .....	16
Euthanasia Guidance for Disaster Events .....	18
Evacuation from Large Animal Surgery, Imaging, and Special Procedure Areas .....	20
Relocation and Transportation Plan .....	22
Staffing and/or Supply Shortage Planning Guidance .....	23
Training Plan for Emergency Responders and Tradesmen .....	25

<b>INCIDENT-SPECIFIC RESPONSE PLANS .....</b>	<b>26</b>
Biohazard Exposure.....	27
Chemical Spill or Exposure .....	29
Critical Animal Room Temperatures .....	31
Facility Access Control Failure.....	32
Fire .....	33
Flood/High Water.....	34
Medical Emergency.....	35
Natural Disasters: Earthquake, Tornadoes or Severe Storms.....	37
Radiation Spill or Exposure .....	38
Security Threats .....	39
Utility Failure – Electric Power .....	43
Utility Failure – Information Technology Systems .....	44
Utility Failure – Phone Systems.....	45
Utility Failure – Water .....	46
<b>REFERENCES.....</b>	<b>48</b>

## **APPENDIXES**

- A. ACUP Emergency Response Contact Numbers
- B. Local, State, and National Disaster Response Resources
- C. ACUP Emergency Preparedness and Recovery Incident Log
- D. ACUP Emergency Rallying Points
- E. ACUP Centralized and Satellite Housing Facilities Map

**Vanderbilt University Medical Center**  
**Animal Care and Use Program**  
**EMERGENCY PREPAREDNESS AND RECOVERY PLAN (Disaster Plan)**

## **INTRODUCTION**

### **I. Purpose**

In the event of an emergency, Vanderbilt University Medical Center (VUMC) has a legal and ethical obligation to provide for the needs of the animals used in its teaching and research programs. The purpose of this Animal Care and Use Program (ACUP) Emergency Preparedness and Recovery Plan (ACUP Disaster Plan) is to outline roles/responsibilities, establish procedures, and identify resources to be utilized in case of an emergency or disaster affecting ACUP and/or animal facilities.

This document serves as the Animal Care and Use Program's "Departmental Emergency Response Plan" as mandated in [VUMC HR Emergency Preparedness Policy](#). The information provided is intended to supplement existing institutional emergency operations policies/plans and provide additional response information specific to the concerns of the animal care and use program. A copy of this plan is provided to the Department of Emergency Preparedness, which works closely with institutional security personnel and fire/police officials during an incident response.

### **II. Overview**

The safety of personnel is paramount in any emergency situation; animal care should be considered a secondary issue. The VUMC Emergency Response Quick Reference Guide (a.k.a. the Red Book) offers guidance on the immediate response to a variety of emergency situations. The ACUP Disaster Plan complements the Red Book and addresses concerns specific to animal care.

While the ACUP Disaster Plan is intended to give guidance during an emergency, it should not be used as a substitute for training, experience, or good judgement.

**Vanderbilt University Medical Center**  
**Animal Care and Use Program**  
**EMERGENCY PREPAREDNESS AND RECOVERY PLAN (Disaster Plan)**

**EMERGENCY RESPONSE PLANNING**

**I. Mitigation**

The impact of a disaster can be mitigated by identifying mission critical activities, performance requirements and priorities ahead of time. While specific emergency events cannot be forecast nor prevented, the most likely general situations can be predicted.

The ACUP Disaster Plan is developed to address concerns specific to animal care and is divided into four sections: Introduction, Emergency Response Planning, General Emergency Guidance, and Incident-Specific Responses. In addition, various appendixes are included to provide additional information where needed.

The ACUP Disaster Plan is reviewed on an annual basis by ACUP Leadership to ensure it is up-to-date and maintains consistency with the practices and recommendations of the VUMC Department of Emergency Preparedness, and in keeping with the Guide for the Care and Use of Laboratory Animals and Animal Welfare Act regulations.

In addition, and to minimize the effects of a disaster on the research community, the ACUP encourages researchers to identify - prior to an emergency - animals that are necessary for critical research activities or are irreplaceable. ACUP promotes the use of cryopreservation to preserve and protect valuable mouse strains and unique genetic lines. Information on cryopreservation is presented to the research community during the ACUP Disaster Plan training and is available upon request from the ACUP Administrative Office.

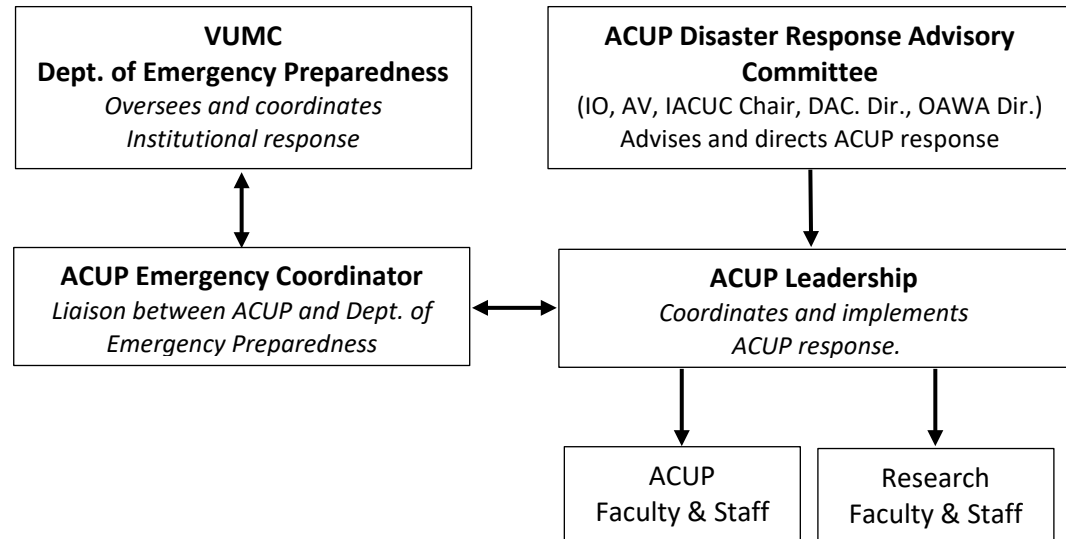
**II. Preparedness**

**a. Identification of Chain of Command, Key Roles, and Responsibilities**

Responses to emergency situations need to be strategically implemented across multiple departments to allocate and coordinate resources and personnel. As such, the emergency chain-of-command has been established as illustrated in Figure 1. Each role is further described on the following pages.

**Vanderbilt University Medical Center**  
**Animal Care and Use Program**  
**EMERGENCY PREPAREDNESS AND RECOVERY PLAN (Disaster Plan)**

FIGURE 1: ACUP Emergency Chain-of-Command



**i. VUMC Department of Emergency Preparedness**

VUMC's Department of Emergency Preparedness coordinates efforts to strengthen the infrastructure, facilities, and training programs needed for VUMC to respond quickly and effectively to emergency situations.

During an emergency that affects multiple functional areas, the Department of Emergency Preparedness may activate an Emergency Operations Center (EOC) to coordinate the response and recovery plan.

**ii. ACUP Emergency Coordinator**

The ACUP Emergency Coordinator is a member of the ACUP Leadership Team who serves as the ACUP's representative on the Department of Emergency Preparedness's Emergency Response Team.

Upon activation of the VUMC Emergency Operations Plan, the ACUP Emergency Coordinator serves as a liaison between the EOC and ACUP Leadership.

If an emergency situation occurs within the ACUP, the ACUP Emergency Coordinator and the VUMC Vice President for Animal Care determine if notification of the Department of Emergency Preparedness is warranted.

**Vanderbilt University Medical Center**  
**Animal Care and Use Program**  
**EMERGENCY PREPAREDNESS AND RECOVERY PLAN (Disaster Plan)**

**iii. ACUP Leadership**

ACUP Leadership (Directors, Associate Directors, and Assistant Directors) coordinate and implement the response and recovery plan for the animal care and use program in the event of an emergency.

Through its approval of this plan, the VUMC IACUC has authorized ACUP Leadership, in consultation with the ACUP Disaster Response Advisory Committee, to make all disaster response decisions. The authority of ACUP Leadership extends to all animals housed under the VUMC animal care and use program, including those maintained in Vanderbilt University (VU) owned buildings and in investigator-managed satellite housing facilities.

ACUP Leadership coordinates communication during an emergency including information provided to the VUMC/VU research community at large. All communication external to VUMC/VU is handled by the VUMC Public Information Officer or his/her designee.

Finally, ACUP Leadership is responsible for the annual review of the ACUP Disaster Plan and for the development and execution of training materials.

**iv. ACUP Disaster Response Advisory Committee**

The ACUP Disaster Response Advisory Committee (DRAC) consists of the Institutional Official (IO), the Attending Veterinarian (AV), the Director of OAWA, the ACUP Sr. Director of Business Administration and Finance, and the IACUC Chair.

The ACUP Disaster Response Advisory Committee is responsible for advising ACUP Leadership during an emergency. In addition, the committee must approve decisions that could have significant impact on the research community, such as:

- Restricted access to animal housing, procedural, or satellite space for greater than 12 hours;
- Cessation of all research activity;
- Relocation of animals to facilities off campus;
- Euthanasia of animals for non-acute animal welfare concerns or for colony management purposes in response to emergency conditions.

**Vanderbilt University Medical Center**  
**Animal Care and Use Program**  
**EMERGENCY PREPAREDNESS AND RECOVERY PLAN (Disaster Plan)**

**v. ACUP Faculty and Staff**

**1. Core Personnel**

ACUP Leadership has established that a position involved in the direct care of animals in the VUMC ACUP is considered a position that is critical and thus a “core” position. ACUP Faculty and Staff in “core” positions may be expected to stay late and/or report to work during an emergency situation. Work assignments and schedules are determined by ACUP Leadership and Managers.

Core positions include:

- Veterinarians
- Veterinary Technicians
- Animal Care Technicians
- Cage Wash Technicians
- Managers
- ACUP Leadership

**2. All ACUP Faculty and Staff**

All ACUP employees must comply with the directions of ACUP Leadership. While this may include performing job functions not normally assigned, no employee will be asked to perform any task for which he/she is not trained or qualified.

**vi. Research Faculty and Staff**

**1. IACUC Members**

IACUC Members should direct all questions or concerns brought to them during an emergency to the IACUC Chair or ACUP Leadership.

**2. Researchers managing IACUC-approved satellite animal housing facilities**

Researchers managing IACUC-approved satellite animal housing facilities may be called upon to assist in the management of a disaster impacting animals housed in the affected satellite facility. These researchers must be available at all times via personal phone or beeper. ACUP Leadership, in consultation with the DRAC, has the final say whenever differences in opinion exist regarding the management of animals housed in satellite facilities and researchers managing animals in these facilities must comply with ACUP/DRAC decisions.

**3. Other research faculty and staff**

During an emergency, research faculty and staff must comply with the directions of the ACUP faculty and staff. Research faculty/staff with specific questions or concerns about their animals should contact a member of ACUP Leadership.



**Vanderbilt University Medical Center**  
**Animal Care and Use Program**  
**EMERGENCY PREPAREDNESS AND RECOVERY PLAN (Disaster Plan)**

**b. Training**

Training is a key part of preparedness, and the following training plan (Figure 2) has been developed to ensure that faculty and staff have the knowledge and skills to respond appropriately and effectively manage an emergency situation.

The Animal Care and Use Program is responsible for training all pertinent personnel on the contents of this plan. Pertinent personnel have been identified as all Division of Animal Care (DAC) and Office of Animal Welfare Assurance (OAWA) faculty and staff, the Comparative Pathology staff of the Translational Pathology Shared Resource (TPSR), as well as members of the DRAC.

In addition, generalized training for research faculty and staff will be provided every two years and a copy of the plan and training materials will be made available on the ACUP website. Resources and materials will be made available to any research staff requesting additional training and/or consultation for creating their own laboratory emergency plans.

If changes are made to the plan, all pertinent personnel will be notified within 30 days of the adoption of the change. Training records of pertinent personnel will be kept in the VUMC Learning Management System.

FIGURE 2: ACUP Disaster Plan Training Plan

<b>Group Members</b>	<b>Training Objective</b>	<b>Training Materials &amp; Events</b>	<b>Training Frequency and Mode</b>
ACUP Leadership	<i>In-depth Training</i> <ul style="list-style-type: none"> <li>Review of Disaster Plan with dual goals of familiarization and continual improvement.</li> </ul>	<ul style="list-style-type: none"> <li>Disaster Plan</li> </ul>	<ul style="list-style-type: none"> <li>Annually</li> <li>Small Group Training at ACUP Document Review Committee meetings</li> </ul>
Disaster Response Advisory Committee	<i>High Level Training</i> <ul style="list-style-type: none"> <li>Overview of DRAC responsibilities</li> <li>Report on incident response plan</li> </ul>	<ul style="list-style-type: none"> <li>Disaster Plan</li> <li>Talking Points</li> </ul>	<ul style="list-style-type: none"> <li>Annually</li> <li>Small Group Training at regularly scheduled IO Meeting</li> </ul>
IACUC Members	<i>High Level Training</i> <ul style="list-style-type: none"> <li>Overview of plan</li> <li>Overview of DRAC</li> </ul>	<ul style="list-style-type: none"> <li>PowerPoint or online module</li> </ul>	<ul style="list-style-type: none"> <li>Annually</li> <li>Large Group Training at IACUC Meeting or online module</li> </ul>

**Vanderbilt University Medical Center**  
**Animal Care and Use Program**  
**EMERGENCY PREPAREDNESS AND RECOVERY PLAN (Disaster Plan)**

<b>Group Members</b>	<b>Training Objective</b>	<b>Training Materials &amp; Events</b>	<b>Training Frequency and Mode</b>
ACUP Faculty and Staff	<i>Generalized Training</i> <ul style="list-style-type: none"> <li>• General Disaster Planning</li> <li>• ACUP Staff Responsibilities</li> </ul>	<ul style="list-style-type: none"> <li>• PowerPoint or online module</li> </ul>	New Hires: <ul style="list-style-type: none"> <li>• Within 30 days of hire</li> <li>• Small Group Training or online module</li> </ul> All Faculty and Staff: <ul style="list-style-type: none"> <li>• Annually</li> <li>• Large Group Training at ACUP All Staff Meeting or online module</li> </ul>
Researchers in IACUC approved Satellite Housing Facilities	<i>Generalized Training</i> <ul style="list-style-type: none"> <li>• General Disaster Planning</li> <li>• Satellite Responsibilities</li> </ul>	<ul style="list-style-type: none"> <li>• Handout</li> </ul>	<ul style="list-style-type: none"> <li>• Annually Assessed during Semi Annual or monthly Inspections</li> </ul>
Research Community ACUP Research Faculty and Staff	<i>Generalized Training</i> <ul style="list-style-type: none"> <li>• General Disaster Planning</li> <li>• Research Faculty and Staff Responsibilities</li> <li>• Cryopreservation</li> </ul>	<ul style="list-style-type: none"> <li>• PowerPoint</li> </ul>	<ul style="list-style-type: none"> <li>• Every two years or as requested</li> <li>• ACUP Quarterly Informational Meeting</li> </ul>

**c. Resource Identification**

The ACUP Disaster Plan includes contact information for VUMC/VU and ACUP Departments and personnel that may be called on in an emergency (Appendix A). This list is updated annually and includes contact information for ACUP Leadership and Managers, as well as researchers who manage IACUC-approved Satellite Facilities.

In addition, ACUP Leadership has identified vendors, businesses, and institutions that are willing and able to provide resources to the animal care and use program in the event of an emergency. Appendix B contains contact information for local, state, and national disaster response resources including: transport companies, food and bedding vendors, regional animal resource programs, and State and National animal care organizations.

In preparation for an emergency, essential supplies should be reviewed and inventoried on a regular basis. The supplies reviewed should include food, bedding, chemicals, drugs, and Personal Protective Equipment (PPE) including respirators, and essential replacement parts for essential equipment.

**Vanderbilt University Medical Center  
Animal Care and Use Program  
EMERGENCY PREPAREDNESS AND RECOVERY PLAN (Disaster Plan)**

**III. Response**

**a. Primary Response - Immediate Threats to Personnel Safety**

The Department of Emergency Preparedness's Emergency Operations Quick Reference ("Red Book"; <https://www.vumc.org/emergency/emergency-operations-quick-reference-guide>) provides emergency phone numbers as well as information on how to respond to the various emergency situations most likely to occur at VUMC. Copies of the Red Book are available [on-line](#), in each of the animal facilities and in the ACUP and OAWA Administrative offices. Initial steps outlined in the Red Book should be followed in the event of an emergency. In addition, all employees responding to a disaster affecting the animal care program are expected to comply with procedures outlined in the [VUMC HR Emergency Preparedness Policy](#).

Emergencies affecting the Veterans Affairs Tennessee Valley Healthcare System (TVHS) will be managed as outlined in the TVHS Comprehensive Emergency Management Program.

**b. Secondary Response – Threats to Animal Health and Welfare**

**i. ACUP Management**

ACUP Leadership, together with the ACUP Emergency Coordinator, will assess and manage all ACUP responses to institution-wide and program-specific emergencies in accordance with institutional policies/procedures and this ACUP Disaster Plan.

**ii. Animal and Situational Triage**

Special consideration will be made for animals that are necessary for critical research activities or are irreplaceable; these considerations include, but are not limited to, consultations with research staff and priority status during triage.

VUMC Office of Clinical and Research Safety (OCRS) will be consulted regarding any event affecting an animal housing area that has a posted Animal Facility Hazard Communication Form, including any area designated ABSL2. Additional information can be found under Triage Guidance for Disaster Events.

**Vanderbilt University Medical Center**  
**Animal Care and Use Program**  
**EMERGENCY PREPAREDNESS AND RECOVERY PLAN (Disaster Plan)**

**iii. Restricted Access to Animal Facilities and/or Suspension of Research Activities**

During an emergency, it may be necessary to temporarily restrict access to animal facilities by ACUP employees and/or research faculty, staff and students. If access is anticipated to be restricted for greater than 12 hours, and/or in the case of an extended suspension of research activities, ACUP Leadership will consult with the ACUP Disaster Response Advisory Committee.

**iv. Relocation of Animals**

Relocation of animals is addressed in the Relocation and Transportation Plan under General Emergency Guidance.

**v. Euthanasia of Animals**

When necessary, euthanasia will be done in consultation with a veterinarian using a method consistent with the AVMA Guidelines on Euthanasia (2020). The cage cards of animals that are euthanized will be retained. Additional information can be found under Euthanasia Guidance for Disaster Events.

**c. Communication with the Research Community**

During any emergency affecting a Vanderbilt Animal Facility, communication with research personnel is key to addressing problems, expediting solutions and ensuring a controlled and thorough response.

ACUP Leadership will coordinate all communications with affected labs and the research community at large. Communications methods may include any or all of the following:

- Email
- Phone calls
- Meetings
- Signage
- Website

Additional information can be found in the General Emergency Guidance for Communication during Emergency/Disaster Event.

**IV. Recovery**

**a. Disaster/Emergency Event Log:**

An event log (Appendix C) is maintained of all unplanned utility outages or emergency situations that impact part of or an entire animal facility or that require a response by the DAC to ensure animal health and welfare. This includes situations that impact specialized equipment such as hypoxic chambers and/or bio-containment units. Procedures and responsibilities for the event log can be found in DAC SOP #FMG-603 "Record Keeping and Post-Response Reporting of Emergency Situations"

**Vanderbilt University Medical Center**  
**Animal Care and Use Program**  
**EMERGENCY PREPAREDNESS AND RECOVERY PLAN (Disaster Plan)**

**b. Internal Regulatory Reporting:**

ACUP Leadership provides a summary report to the IACUC regarding emergency situations that activate the ACUP Disaster Plan. The report is presented at the next IACUC Full Committee meeting.

**c. External Regulatory Reporting:**

Institutions are required to promptly report animal harm or deaths resulting from disasters. Regulatory reporting, when necessary, is the responsibility of the IO, with assistance of the IACUC or its designee in the OAWA.

**d. Public Relations Response:**

The VUMC Public Information Officer will develop a public relations response appropriate to the specific event. The Vice President of Animal Care should consult with the IO, ACUP leadership, VUMC and VU leadership, and communications staff in relevant areas depending on the nature of the issue.

In instances where ACUP-specific information should be communicated, a spokesperson knowledgeable about animal research but unaffiliated with the research enterprise should be appointed to speak on behalf of the institution. In most instances, the spokesperson will be the VUMC Public Information Officer or his/her designee.

**e. Post-Response Debriefing:**

Following a disaster, ACUP Leadership will assess the response and recovery efforts and, if indicated, make adjustments to response procedures and documents.

**Vanderbilt University Medical Center  
Animal Care and Use Program  
EMERGENCY PREPAREDNESS AND RECOVERY PLAN (Disaster Plan)**

**GENERAL EMERGENCY GUIDANCE**

ACUP Faculty and Staff Preparedness Information

ACUP Program Status Report Guide

ACUP Triage Guidance for Disaster Events

Communication during Emergency/Disaster Event

Animal Escapees

Euthanasia Guidance for Disaster Events

Evacuation from Large Animal Surgery, Imaging, and Special Procedure Areas

Relocation and Transportation Plan

Staffing and/or Supply Shortage Planning Guidance

Training Plan for Emergency Responders and Tradespeople

**Vanderbilt University Medical Center**  
**Animal Care and Use Program**  
**EMERGENCY PREPAREDNESS AND RECOVERY PLAN (Disaster Plan)**

**ACUP Faculty and Staff Preparedness Information**

A personnel training program using the ACUP Disaster Plan is critical to the outcome of specific situations. Subtle changes in routine operations may necessitate changes in the plan and require additional training of personnel.

In general, as an ACUP Faculty / Staff member, you should:

1. Read and understand the ACUP Disaster Plan.
2. Be familiar with your facility's floor plans, evacuation routes, rally location, and the VUMC Red Book.
3. Participate in practice scenarios - fire drills, power failure, animal escape, human-animal bite, chemical spill, eye splash, etc.
4. Prepare yourself and your family so they know and understand what to do, where to go, and how to cope if you are unable to return home immediately.
5. Read and familiarize yourself with the applicable SOPs, emergency phone numbers, and emergency procedures.
6. Know the location of the following:
  - Emergency information (guides, manuals, SOPs, telephone numbers)
  - Telephones (including red emergency phones)
  - Stairwells (avoid elevators)
  - Fire alarms and extinguishers
  - First Aid and Bite Kits
  - Eyewash stations
  - Tornado safe locations
7. Keep the following items on hand:
  - Flashlights and fresh batteries
  - Personal emergency telephone numbers, e.g. children's schools, next-of-kin, significant other, doctor, etc.
8. Keep the following items on hand and in a location known to appropriate supervisory staff:
  - Personal information that may be required by emergency response personnel, e.g., drug allergies, current medications, etc.

**Vanderbilt University Medical Center**  
**Animal Care and Use Program**  
**EMERGENCY PREPAREDNESS AND RECOVERY PLAN (Disaster Plan)**

**ACUP Emergency Initial Incident Report**

The intent of this form is to document basic information about the incident at the time of the emergency. Completed forms should be submitted to the Associate Director of Operations to be included with the Emergency Incident log.

Reported By:

Contact Information for person reporting incident (Provide best method: Phone, email, text, etc.):

Animal Facility Location of Event:

Date/Time of Report:

Event:

Facility Status (Structural Damage, HVAC, Water, Electricity etc.):

Personnel Status (Injuries, Appropriate Staffing Levels, etc.):

Animal Status (No Issues, Injuries, Compromised Biosecurity, Deaths, Unknown, etc.):

Support Needed (Personnel, Veterinary Care, Relocation, Food, Bedding, Water, etc.):

Other Comments/Issues:



**Vanderbilt University Medical Center  
Animal Care and Use Program  
EMERGENCY PREPAREDNESS AND RECOVERY PLAN (Disaster Plan)**

**ACUP Triage Guidance for Disaster Events**

**Initial Priorities in an Emergency:**

**1. Personnel Safety**

The safety of personnel is paramount in any emergency situation; animal care should be considered a secondary issue. The first priority is the emergency support and evacuation of personnel.

**2. Communication**

Report the situation to a supervisor as soon as possible. Communication is key in an emergency in order to ensure adequate and timely response. Initial incident information should be documented on the ACUP Emergency Initial Incident Report.

**3. Safety of the Area**

Assess the area for facility damage, equipment damage, utility status, and environmental conditions. Enter the area only if safe to do so.

**4. Welfare of the Animals**

- a. Identify animals with welfare concerns and prioritize them based on severity and immediacy of their condition.
  - i. Immediate: Requires immediate veterinary medical attention and will not survive if not seen soon.
  - ii. Delayed: Requires veterinary medical attention but can wait, may require stabilization.
  - iii. Minimal: Requires veterinary medical attention but can wait, does not require stabilization.
  - iv. Expectant: Little or no chance of survival. Palliative care (analgesia) and/or humane euthanasia
- b. Special consideration should be made for animals that are necessary for critical research activities or are irreplaceable.

**Priorities of Response Actions:**

Any emergency response should be focused on ensuring personnel safety, maintaining study integrity, conserving resources, and protecting animal life and well-being.

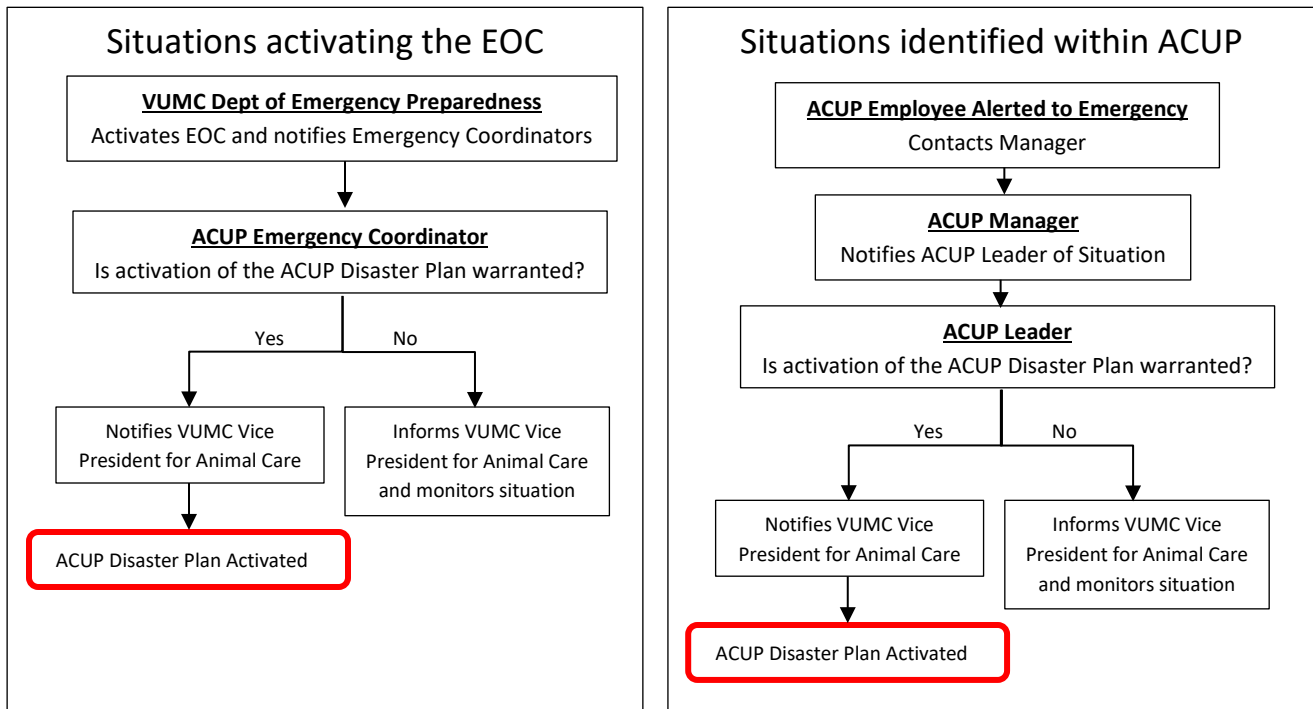
1. Stabilization of animals
2. Evacuation/Relocation (if necessary)
3. Re-establishment of stable animal environments
4. Husbandry

**Vanderbilt University Medical Center**  
**Animal Care and Use Program**  
**EMERGENCY PREPAREDNESS AND RECOVERY PLAN (Disaster Plan)**

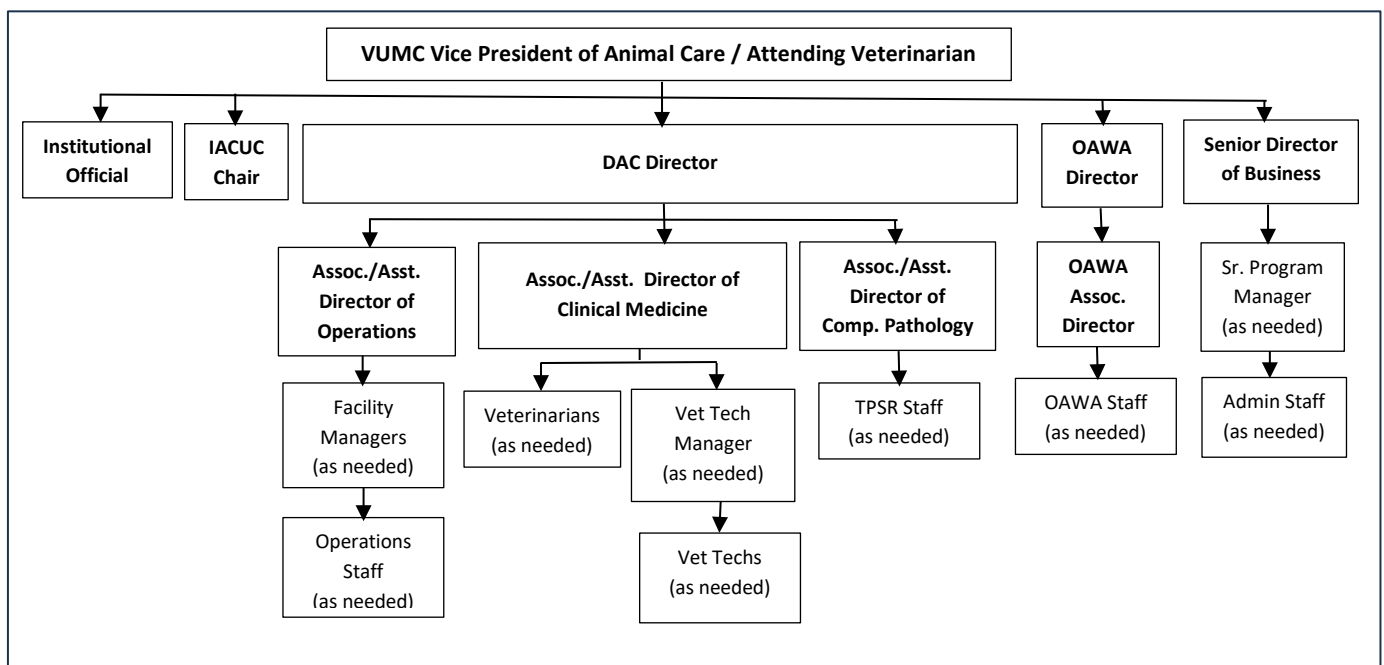
**Communication during Emergency/Disaster Event**

The following communication plans represent the best case scenarios and should be initiated and followed as closely as possible.

**Activation of ACUP Disaster Plan**



**ACUP Internal Communication Plan**



**Vanderbilt University Medical Center  
Animal Care and Use Program  
EMERGENCY PREPAREDNESS AND RECOVERY PLAN (Disaster Plan)**

**Animal Escape**

**Preparedness:**

**The safety of humans shall be the primary concern; and secondarily, the safety of the animals during any emergency or disaster response event.**

The DAC animal care and veterinary staff and staff members from Large Animal surgery (e.g., Wilson Hall, SR Light Surgical Research Lab, Imaging Animal Facility, and associated procedure spaces), Imaging (e.g., VUIIS, VUH), and Special Techniques Areas should be trained on their responsibilities in the scenario where an animal escapes from its enclosure, a procedural space outside of the animal housing facility, or during transport. An emergency kit with appropriate sedation and euthanasia supplies for that species should be available during transport of non-rodent animals. In the event of an animal escape, ACUP Leadership should be immediately contacted so that additional trained personnel can report to assist with capture of the animal.

An animal in an unfamiliar environment may exhibit atypical responses and reactions, so any loose and/or injured animal must be treated with extreme caution and respect. The animal should be considered dangerous and unpredictable, regardless of the human-animal bond that had been established prior to the incident. Euthanasia may be required.

**Response:**

If the animal escapes inside the confines of the animal housing facility:

1. Secure doors to the room/facility where animal escape occurs.
2. Evacuate all untrained personnel from the area.
3. Contact ACUP Leadership to dispatch personnel to assist with capture of animal.
4. Return animal to enclosure. Report to veterinarian for follow up assessment of the animal.

If the animal escapes during transport or outside of the animal housing facility:

1. Secure doors if inside building or vehicle.
2. Evacuate all untrained personnel from the area.

**Vanderbilt University Medical Center**  
**Animal Care and Use Program**  
**EMERGENCY PREPAREDNESS AND RECOVERY PLAN (Disaster Plan)**

3. Contact ACUP Leadership to dispatch personnel to assist with capture of the animal.
4. ACUP Leadership will contact Vanderbilt Police Department to help secure the premises.
5. Use appropriate restraint devices and transport enclosures for the species to safely capture and secure the animal. Provide sedation to the animal as appropriate on recommendation of the veterinarian.
6. Return animal to housing facility for follow up assessment by a veterinarian.

**Recovery:**

1. The area of the escape should be assessed and decontaminated as appropriate.
2. If the escape was from an enclosure, the equipment should be evaluated before further use.
3. The incident will be reviewed by ACUP Leadership and OCSR to determine if further incident analysis and/or corrective action is warranted.

**Vanderbilt University Medical Center**  
**Animal Care and Use Program**  
**EMERGENCY PREPAREDNESS AND RECOVERY PLAN (Disaster Plan)**

## **Euthanasia Guidance for Disaster Events**

The decision to euthanize animals and the selection of appropriate euthanasia methods requires careful consideration in all scenarios, but the urgency of these decisions is heightened in disaster-related events. Disaster events in a research animal setting often cause the loss of room access, environmental control, or safe working conditions which limit animal care and veterinary service support options. Euthanizing injured or distressed research animals in these situations may be the only way to relieve animal pain and suffering. Direction in this situation is frankly stated in the following excerpt from the 8th Edition of the Guide for Laboratory Animal Care and Use: “Animals that cannot be relocated or protected from the consequences of the disaster must be humanely euthanized.”

The AVMA Guidelines on Euthanasia address disaster-related instances where deviations from standard euthanasia methods are necessitated with the following statement: “Under unusual conditions, such as disease eradication and natural disasters, euthanasia options may be limited. In these situations, the most appropriate technique that minimizes human and animal health concerns must be used.” Euthanasia may be the only management option available to alleviate pain or distress in the aftermath of an animal facility disaster.

The identification, selection, and application of a method of euthanasia rests in the professional judgment of the Attending Veterinarian or their agents, e.g. Facility Veterinarians. In a disaster scenario, human safety, the animal species, and the urgency to relieve animal pain and distress outweigh study considerations such as data gathering, sample collection, and experimental endpoints. Consequently, the euthanasia method for a set of study animals based on experimental priorities may not be the appropriate euthanasia method to use on the same set of animals in a disaster event.

When circumstances allow, euthanasia decisions addressing the management of a large population of research animals following a facility disaster or emergency rest with the Attending Veterinarian in consultation with the ACUP Disaster Response Advisory Committee and ACUP Leadership. In the event that ABSL-2 animals must be euthanized, the VUMC Office of Clinical and Research Safety (OCRS) should also be involved.

### **Recommended Methods and Required Resources**

Disaster euthanasia methods should be selected which safely implement humane euthanasia and minimize human and animal health/safety concerns. The decision to utilize modified versions of acceptable euthanasia methods listed in the AVMA Guidelines on Euthanasia should be based on veterinary professional judgment, as indicated by overriding, disaster-related circumstances.

Disaster euthanasia resources required to conduct a large scale euthanasia procedure include personnel proficient or trained in the selected euthanasia method, specialized equipment, specific euthanasia drugs and materials, approved carcass disposal methods and carcass storage locations, and approved animal and carcass transportation assets. Several Federal Agencies possess Emergency Animal Care teams and/or resources capable of supporting large-scale euthanasia operations. These Federal Agencies may be able to

**Vanderbilt University Medical Center**  
**Animal Care and Use Program**  
**EMERGENCY PREPAREDNESS AND RECOVERY PLAN (Disaster Plan)**

supply euthanasia resources if requested. The Federal Agencies with animal euthanasia resources are the: Department of Health and Human Services, Federal Emergency Management Agency, National Disaster Medical System, United States Department of Agriculture, and Department of Defense.

**Vanderbilt University Medical Center**  
**Animal Care and Use Program**  
**EMERGENCY PREPAREDNESS AND RECOVERY PLAN (Disaster Plan)**

## **Evacuation from Large Animal Surgery, Imaging, and Special Procedure Areas**

### **Preparedness:**

**The safety of humans shall be the primary concern; and secondarily, the safety of the animals during any emergency or disaster response event.**

The staff members from the Large Animal Surgery (e.g., Wilson Hall, SR Light Surgical Research Lab, Imaging Animal Facility, and associated procedure spaces), Imaging (e.g. VUIIS, VUH) and Special Techniques Areas should be trained on their animal management responsibilities in a scenario where a facility evacuation is directed and animals are undergoing special procedures in these areas.

### **Response:**

**If there is immediate danger, all personnel must evacuate the surgical area and building immediately.**

**If evacuation is required by Emergency Responders, but there is not an immediate danger present -**

- 1. When possible and in consultation with Emergency Response personnel, the Facility Managers or their designees should conduct a brief search of all assigned areas and should report the location and the number of persons remaining in any surgical or procedure area.**
- 2. Surgical or anesthetic procedures in progress**
  - a. If surgical incision has not been made, the planned procedure should not proceed any further.** Based on the assessment of the Principal Investigator/Veterinarian the following responses are available:
    1. The animal should be euthanized with an overdose of an appropriate injectable anesthetic or euthanasia agent.
    2. The animal should be disconnected from gas anesthesia and any monitoring equipment and relocated to an empty cage. Staff may decide to evacuate the animal when they evacuate from the building and transport the animal to a safe housing location in consultation with ACUP.
  - b. If a surgical incision has been made or if the procedure is well under way, the procedure should be halted.** Based on the assessment of the Principal Investigator/Veterinarian, and in coordination with the Emergency Responders, the following responses are available:
    1. The animal should be euthanized with an overdose of an appropriate injectable anesthetic or euthanasia agent. This option is preferred if disaster/danger are imminent and response time does not allow surgical closure.
    2. The surgical site should be closed and protected. The animal should be taken off gas anesthesia and given an appropriate injectable anesthetic and/or analgesic. The animal should be relocated to an empty cage. Staff

**Vanderbilt University Medical Center**  
**Animal Care and Use Program**  
**EMERGENCY PREPAREDNESS AND RECOVERY PLAN (Disaster Plan)**

may decide to evacuate the animal when they evacuate from the building and transport the animal to a safe housing location in consultation with ACUP.

**Recovery:**

The Disaster/Emergency Event Log must include a description of the actions taken by personnel in the Large Animal Surgery, Imaging, and Special Technique Areas and any issue they faced during the event. The report will be reviewed by ACUP Leadership to determine if the preparedness or response plans need to be improved.



**Vanderbilt University Medical Center**  
**Animal Care and Use Program**  
**EMERGENCY PREPAREDNESS AND RECOVERY PLAN (Disaster Plan)**

**Relocation and Transportation Plan**

ACUP Leadership is authorized to use its professional judgment whenever an emergency results in the need to evacuate or relocate animals. ACUP Leadership will involve the ACUP Disaster Response Advisory Committee in decisions that require major relocation of animals.

**I. RELOCATION**

Under direction of the ACUP Leadership, animals may be temporarily or permanently relocated to other animal housing rooms, non-housing rooms, or hallways within the same animal facility or to another facility or building, on or off campus.

- A. Consideration will be given regarding the health status of the animals being relocated and health status of the animals in facility/area where relocated animals will be housed.
- B. Priority will be given to locations to which animals will be relocated in the following order:
  - a. Locations within the same facility;
  - b. Locations within the VUMC ACUP;
  - c. Off-site locations.
- C. Should relocation to off-site areas be necessary, a site has been approved for temporary housing until permanent housing is available.
  - a. Tusculum Feed Center has allocated approximately 500 square feet of climate-controlled warehouse facilities.
  - b. See Appendix B for location and contact information.
- D. Animals that cannot be relocated or protected from the consequences of the disaster will be humanely euthanized under the direction of the Attending Veterinarian in consultation with the DRAC.

**II. TRANSPORTATION**

All animal transportation will follow the IACUC SOP on Procedures for the Transport of Animals at VUMC and the established transportation routes, if at all possible.

- A. Some situations may require that alternate routes and/or methods of transportation be planned and implemented by ACUP Leadership.
- B. All animals transported via motor vehicle will be done by, or under the supervision of, DAC Staff utilizing VUMC vehicles, unless otherwise instructed by a member of ACUP Leadership.
- C. All animals should be safely secured during transport. Nonhuman primate cages must be securely latched with secondary means (e.g. lock or zip-tie) prior to movement.

**Vanderbilt University Medical Center  
Animal Care and Use Program  
EMERGENCY PREPAREDNESS AND RECOVERY PLAN (Disaster Plan)**

**Staffing and/or Supply Shortage Planning Guidance**

Staffing and supply shortages can be caused by pandemics, inclement weather, road closures, or public transportation outages.

**ACUP Mission during a Staffing Shortage:** Maintain the integrity of animal research through the provision of humane animal care, regulatory compliance, and responsible stewardship of institutional property.

**ACUP Services during a Staffing Shortage:**

Essential Services which will be maintained

1. Husbandry Care
2. Veterinary Clinical Care

All other Services will be maintained as staffing allows. Any suspended services will be communicated to the IACUC and others as applicable.

**ACUP Staffing Requirements:**

Core Personnel:

1. Veterinarians
2. Veterinary Technicians
3. Animal Care Technicians
4. Cage Wash Technicians
5. ACUP Managers
6. ACUP Leadership

Non-Core Personnel:

1. ACUP Administrative staff and managers
2. OAWA staff
3. Research Application Development staff and manager
4. TPSR Staff and manager

**Vanderbilt University Medical Center**  
**Animal Care and Use Program**  
**EMERGENCY PREPAREDNESS AND RECOVERY PLAN (Disaster Plan)**

**Preparedness:**

The following precautions should be taken:

- In preparation for adverse events that may cause staffing shortages, ACUP Leadership will proactively determine staffing needs and make arrangements for coverage of animal care areas. Consideration of altered work schedules comprised of shifts or teams to ensure continuation of mission critical activities may be necessary.
- Core Personnel are advised in advance of their essential status and counseled on their role and responsibility within the animal program during these events.
- Considerations should be made for cross-training personnel for multiple locations/job duties while ensuring that Occupational Health and Environmental Health and Safety requirements are met.
- Facility Managers will ensure that adequate amounts of food and water are available to support the animal colony for 5-7 days and may pre-stage husbandry supplies when possible.

**Response:**

- Implement staffing plans to maintain mission critical activities and monitor supply levels throughout event.
- If supply stockpile is low or inadequate, notify the Department of Emergency Preparedness so they can assist with obtaining necessary supplies in a timely manner.
- Individuals in non-core roles may be asked to volunteer to assist in other areas.

**Recovery:**

The Disaster/Emergency Event Log must include a description of the issues faced and actions taken during the event. The report will be reviewed by ACUP Leadership to determine if the preparedness or response plans need to be improved.

**Vanderbilt University Medical Center**  
**Animal Care and Use Program**  
**EMERGENCY PREPAREDNESS AND RECOVERY PLAN (Disaster Plan)**

**Training Plan for Emergency Responders and Tradespeople**

All individuals entering ACUP animal facilities are required to be informed of the risks and to meet minimum Occupational Health requirements; however, emergency situations may require that Emergency Responders (e.g. Emergency Medical Technicians, Police, and Fire Fighters) and/or Tradespeople (e.g. plumbers, electricians, and carpenters) must enter these facilities without following the normal training and Occupational Health compliance verification methods.

In these cases, the following plan will be followed:

Requirement	Animal Allergy and Zoonotic Disease Awareness Training
Required for	All personnel entering an animal facility
Training Method	Verbal training prior to entry
Trainer	A member of ACUP Leadership or an ACUP Manager
Frequency of Training	Once
Compliance Tracking Method	Training should be noted in the Emergency Incident Log or documented via email to the Associate Director of Operations Information to be documented: <ul style="list-style-type: none"><li>• Date of Training</li><li>• Trainer</li><li>• Training Given</li><li>• List of those trained</li></ul>
Compliance Confirmed	ACUP Leadership

Animal Allergy and Zoonotic Disease Awareness Training will include:

- 1) Information regarding animal allergies and risks
- 2) Species of animals in the facility (nonhuman primates, aquatics, rodents, large animals) and the associated zoonotic diseases and risks
- 3) PPE requirements to enter the facility/room
- 4) Decontamination requirements for fire/rescue equipment entering and leaving the building/room
- 5) If known, special hazards in the facility (name of hazards and their locations)

If any of the Emergency Responders or Tradespeople require ongoing access to the animal facilities as part of the recovery process, the individuals will be required to meet the training and Occupational Health requirements for Vendors and other Visitors with Extended Intermittent Access (Observation Only) as per the IACUC Visitors Policy.

**Vanderbilt University Medical Center  
Animal Care and Use Program  
EMERGENCY PREPAREDNESS AND RECOVERY PLAN (Disaster Plan)**

**INCIDENT-SPECIFIC RESPONSE PLANS**

Biohazard Spill or Exposure

Chemical Spill or Exposure

Critical Animal Room Temperatures (Watchdog® System and HVAC Failure)

Facilities Access Control Failure (Card Readers)

Fire

Flood/High Water

Medical Emergency

Natural Disasters: Earthquake, Tornado or Severe Storms

Radiation Spill or Exposure

Security Threats

Utility Failure – Electrical Power

Utility Failure – Information Technology Systems

Utility Failure – Phone Systems

Utility Failure – Water, Sewer

**Vanderbilt University Medical Center**  
**Animal Care and Use Program**  
**EMERGENCY PREPAREDNESS AND RECOVERY PLAN (Disaster Plan)**

**Biohazard Exposure**

**Preparedness**

ACUP Leadership, Facility Managers, and the VUMC Office of Clinical and Research Safety (OCRS) ensure that proper signage is posted in biohazard areas, including PPE, containment, and emergency response instructions. Training is provided regarding the proper handling and storage/containment of all biohazardous materials present in a facility.

ACUP Leadership and OCRS recognize that biohazard exposure in an animal facility is most likely to occur in an Animal Biosafety Level 2 (ABSL-2) area. Spill kits with detailed instructions are available in all ABSL-2 areas. Additionally, a Herpes-B exposure risk is associated with working with macaques and/or their tissues. Herpes-B Exposure Kits are located in all rooms where work with macaques or their tissues takes place, and a kit travels with the animal during transportation.

The Division of Animal Care has developed the following Health & Safety Standard Operating Procedures (SOPs) to prepare for and mitigate the effects of a biohazard exposure:

- H&S 105: Herpes B Virus – Maintenance of Exposure Kits and Signage
- H&S 101: Herpes B Virus – Personnel Exposure Management
- H&S 120: ACUP Bloodborne Pathogen (BBP) Exposure Control Program
- H&S 202: Operation & Maintenance of Eye Wash Equipment.

In addition, the OCRS provides all laboratories working with biohazardous materials the guidance document: *Responding to Personnel Exposures and Spills Involving Biological Materials*.

**Response:**

- Immediately administer first aid to contaminated area or wound. (See below)
- Advise personnel in the room/area of the spill, isolate the area and evacuate if necessary.
- Notify supervisor as soon as possible.
- For small spills, locate the nearest Spill Kit and follow the instructions.
- Contact OCRS for spills if you are unsure of how to clean them up safely or do not have the appropriate training, personal protective equipment, or supplies.
  - Monday-Friday, 8:00am to 4:30pm call 615-322-2057
  - For after-hours emergencies, please call 615-875-3779
- Triage any animals in proximity to the hazardous material spill for signs of exposure.
  - In some cases, extended monitoring may be required.
  - Animals exhibiting symptoms of exposure should be treated as directed by the veterinary staff and in consultation with the Principal Investigator.
- In consultation with OCRS, determine whether animals in proximity to the hazardous materials spill should be relocated either temporarily or permanently.
  - If necessary, follow the Relocation and Transportation Plan with special consideration for mitigating cross-contamination from the exposed animals to the new housing facility.

**First Aid:**

**Eye exposure:** Locate the nearest eye wash station and follow the instructions. Remove contacts. Hold eyelids

**Vanderbilt University Medical Center**  
**Animal Care and Use Program**  
**EMERGENCY PREPAREDNESS AND RECOVERY PLAN (Disaster Plan)**

open with thumb & fingers. Flush continuously with eyewash for 15 minutes. Roll eyes to thoroughly rinse.

**Mouth exposure:** Rinse mouth with plain water for at least 15 minutes. Do not swallow.

**Skin exposure:** Remove contaminated clothing & place in biohazard bag. Flush exposed skin with large amounts of water for 15 minutes.

**Herpes B exposure:** Locate the nearest Herpes B Exposure Kit and follow the instructions.

**Seek medical attention –**

- If individual is unstable, call 9-1-1.
- If the individual is stable and the incident occurs during normal business hours (Monday thru Friday between 7:00am–4:30pm): Report immediately to the VUMC Occupational Health Clinic (Medical Arts Building, 1211 21<sup>st</sup> Avenue South, Suite 640; phone: 615-936-0955).
- If the incident occurs outside normal business hours: Report immediately to the VUMC Hospital Adult Emergency Department (1210 Medical Center Drive. Phone 615-322-3391).

**Vanderbilt University Medical Center**  
**Animal Care and Use Program**  
**EMERGENCY PREPAREDNESS AND RECOVERY PLAN (Disaster Plan)**

**Chemical Spill or Exposure**

**Preparedness**

ACUP Leadership, Facility Managers, and the VUMC Office of Clinical and Research Safety (OCRS) ensure that proper signage is posted in chemical hazard areas, including PPE, handling, containment, and emergency response instructions. Training is provided regarding the proper handling and storage/containment for all chemicals present in each facility and Safety Data Sheets (SDS) are available.

The Division of Animal Care has developed the following Health & Safety Standard Operating Procedures (SOPs) to prepare for and mitigate the effects of a biohazard or chemical spill or exposure:

- H&S 120: ACUP Bloodborne Pathogen (BBP) Exposure Control Program
- H&S 202: Operation & Maintenance of Eye Wash Equipment.

In addition, OCRS provides all laboratories working with hazardous chemicals the guidance document: *Best Safety Practices for Hazardous Drugs and Other Hazardous Chemicals Associated with Animal Research*.

**Response:**

- Immediately administer first aid to contaminated area or wound. (See below)
- Advise personnel in the room/area of the spill, isolate the area and evacuate if necessary.
- Notify supervisor as soon as possible.
- Consult with the SDS for the chemical/drug and other published literature for proper procedures for responding to spills and exposures.
- Contact OCRS for spills if you are unsure of how to clean them up safely or do not have the appropriate training, personal protective equipment, or supplies.
  - Monday-Friday, 8:00am to 4:30pm call 615-322-2057
  - After hours, contact the OCRS emergency operator at 615-875-3779
- Triage any animals in proximity to the hazardous material spill for signs of exposure.
  - In some cases, extended monitoring may be required.
  - Animals exhibiting symptoms of exposure should be treated as directed by the veterinary staff.
- In consultation with OCRS, determine whether animals in proximity to the hazardous materials spill should be relocated either temporarily or permanently.
  - If necessary, follow the Relocation and Transportation Plan with special consideration for mitigating cross-contamination from the exposed animals to the new housing facility.



**Vanderbilt University Medical Center**  
**Animal Care and Use Program**  
**EMERGENCY PREPAREDNESS AND RECOVERY PLAN (Disaster Plan)**

**First Aid:**

**Eye exposure:** Locate the nearest eye wash station and follow the instructions. Remove contacts. Hold eyelids open with thumb & fingers. Flush continuously with eyewash for 15 minutes. Roll eyes to thoroughly rinse.

**Mouth exposure:** Rinse mouth with plain water for at least 15 minutes. Do not swallow.

**Skin exposure:** Remove contaminated clothing and PPE. Flush exposed skin with large amounts of water for 15 minutes.

**Seek medical attention – Take SDS, if possible.**

- If individual is unstable, call 9-1-1.
- If the individual is stable and the incident occurs during normal business hours (Monday thru Friday between 7:00am–4:30pm): Report immediately to the VUMC Occupational Health Clinic (Medical Arts Building, 1211 21<sup>st</sup> Avenue South, Suite 640; phone: 615-936-0955).

If the incident occurs outside normal business hours: Report immediately to the VUMC Hospital Adult Emergency Department (1210 Medical Center Drive. Phone 615-322-3391).

**Vanderbilt University Medical Center**  
**Animal Care and Use Program**  
**EMERGENCY PREPAREDNESS AND RECOVERY PLAN (Disaster Plan)**

**Critical Animal Room Temperatures**

*(HVAC and Edstrom's Watchdog® Vivarium Management System Failure)*

**Preparedness:**

Temperature in DAC centralized animal facilities is monitored and controlled by individual room or zone. Steam injection into the duct system adds humidity to supply air if needed. In the animal housing rooms, temperatures are monitored and recorded daily by animal care staff using maximum/minimum thermometers. Avidity WatchdogEX systems monitors and alarms on environmental conditions in a subset of facilities. In addition, temperature, and humidity levels, along with other HVAC functions, are monitored continuously by Medical Center Facilities Management via its Delta Operations Center (VUMC owned buildings) or by Vanderbilt University Maintenance and Operations(VUMO) through Building Systems Control (VU owned buildings). Alarms are activated and the DAC Associate Director of Operations and/or the DAC Facility Manager on call is notified if values fall outside predetermined acceptable ranges for the species housed.

Portable chillers and heaters are available from FacilitiesManagement/VUMO during an HVAC emergency event. All scheduled utility shutdowns are communicated to the DAC so that preparations for increased monitoring and alternative chilling or heating can be arranged.

**Response:**

- Notify the Facility Manager immediately, when:
  - Animal room temperature is outside the acceptable range and animal lives are at risk.
  - The WatchdogEX® system is not working properly or is in alarm status.
- Verify environmental conditions manually and determine how room temperatures, humidity levels, air-exchange rates, and positive/negative airflow have been affected.
- Veterinary staff (or available staff) should check all animals potentially affected by the failure status.
  - Temperature sensitive animals, such as rabbits and rats, should be evaluated first.
  - Animals exhibiting clinical signs of hyperthermia or hypothermia should be treated or euthanized in consultation with the Attending Veterinarian or designee.
- For situations in which room temperatures are increasing, DAC staff should obtain mobile air conditioning units and/or fans from Facilities Management or VUMO.
- For situations in which room temperatures are decreasing, DAC staff should obtain mobile heating units from Facilities Management or VUMO.
- If needed, doors should be propped open to facilitate air flow; however, OCRS should be consulted before propping open any doors posted with Animal Facility Hazard Communication forms.
- DAC staff should monitor temperatures, humidity, and air flow hourly (or more often if necessary) until environmental conditions can be stabilized.

Should it become necessary to evacuate/relocate animals, DAC staff should perform in accordance with the Relocation and Transportation Plan.

**Vanderbilt University Medical Center**  
**Animal Care and Use Program**  
**EMERGENCY PREPAREDNESS AND RECOVERY PLAN (Disaster Plan)**

**Facility Access Control Failure**  
*(Johnson Control and Delta Card Readers, & Security)*

**Preparedness:**

Johnson Control and Delta Card Readers enable the ACUP to control who enters an animal facility through ID badges. Should the system fail, due to malfunction or power failure, doors equipped with card readers will default to an unlocked status.

ACUP Leadership has identified critical areas and rooms where heightened security may be needed in the event the card swipe entry system fails.

**Response:**

- Verify the card swipe entry system has failed.
- Notify the Facility Manager of the incident/situation.
- Initiate actions to maintain or re-establish the correct facility security.
  - Report the issue to VUMC Facilities Management Operations Center (VUMC Buildings) and/or VU Commodore Card office (VU Buildings). After working hours, contact the VU Police Department.
  - Manually lock doors to rooms requiring heightened security or post personnel at entries.
    - These include: Wilson Hall facility entrances and MCN I facility entrances.

**Vanderbilt University Medical Center**  
**Animal Care and Use Program**  
**EMERGENCY PREPAREDNESS AND RECOVERY PLAN (Disaster Plan)**

**Fire**

**Preparedness:**

ACUP Leadership, along with ACUP Managers, have identified escape routes and rallying locations from each facility (see Appendix D). All egress routes are kept clear and are marked with directional signs. Flammables are kept in appropriate storage cabinets.

**Response:**

- Notify Fire Department immediately.
  - Pull/Activate the nearest fire alarm.
  - Identify locations of pull stations and fire extinguishers
- Evacuate if there is immediate danger or when ordered by the responding fire department.
  - Alert anyone in the immediate vicinity of the fire.
  - Do not use elevators. Walk to the nearest stairwell/exit & follow designated fire exit route to evacuate building.
  - Go to the designated rallying point.
  - Avoid smoke-filled air - "Get Low and Go".
  - If clothing catches fire - "Stop, Drop, and Roll".
- Complete safety actions as time permits.
  - Return flammables to safety cabinet.
  - Close all doors to confine the fire.
  - Extinguish the fire by using a fire extinguisher – "PASS – Pull the pin, Aim at the base of the fire, Squeeze the handle, Sweep the nozzle from side to side".

**Recovery:**

- Upon re-entry into the facility:
  - Do not re-enter the building until it is determined safe by emergency personnel
  - Assess structural and environmental conditions, triage animal status, and identify resources needed.

**Vanderbilt University Medical Center**  
**Animal Care and Use Program**  
**EMERGENCY PREPAREDNESS AND RECOVERY PLAN (Disaster Plan)**

**Flood/High Water**

**Preparedness:**

Emergency situations involving flooding or high water usually come from either external source such as storm surge or flooding rivers/streams or internal sources such as burst pipes or blocked drains.

In the case of external sources, ACUP Leadership has identified low-lying areas that could be impacted by flood waters. In addition, the Department of Emergency Preparedness monitors weather reports and alerts the VUMC community when threatening conditions are developing. ACUP Leadership will direct any situation-specific preparations (e.g. relocating animals and/or supplies from low-level areas).

In the case of internal sources, Facility Managers ensure that all floor drains are kept unobstructed. Plumbing issues are reported immediately to VUMC Facilities Management and/or VUMOs so that the problem can be fixed before causing extensive damage.

**Response:**

- Notify supervisor or ACUP Leadership of the situation. Provide building(s), room number(s), and the degree of water damage (volume, size of area, source of water).
- Proceed with extreme caution when attempting to enter floors or rooms that have water present. Even a small amount of water can increase the risk of electrical hazards.
- Evacuate personnel from compromised areas.
- Veterinarians or their designees will triage animal status and determine most appropriate course of action (e.g., treatment, relocation within facility, evacuation, euthanasia).
- Should it become necessary to evacuate/relocate animals, reference the Relocation and Transportation Plan.

**Flooded Areas (Pipe burst, drain failure, etc)**

- In addition to above:
  - Turn off water valves.
  - Move any food/water/bedding or supplies that are at risk of exposure.
  - Observe animal rooms for flooding or for potential of flooding. Take appropriate action to ensure cages/animals will not be exposed to contaminated and/or rising water.
  - Remove water by pushing to drain, or utilizing industrial wet-vac.

**Sewage Backup**

- In addition to the above:
  - Move any food/water/bedding or supplies that are at risk of exposure.
  - Remove water/sewage by pushing to drain, or utilizing industrial wet-vac.
  - Animals or stored supplies should not be moved back into the area until threat of exposure is over and area has been appropriately decontaminated.

**Vanderbilt University Medical Center**  
**Animal Care and Use Program**  
**EMERGENCY PREPAREDNESS AND RECOVERY PLAN (Disaster Plan)**

**Medical Emergency**

**Response:**

- Assess the situation.
  - Do not enter an unsafe accident scene at the risk of your own safety.
  - Avoid contact with blood or body fluids.
- Personnel certified to provide first aid or CPR may give emergency care.
- Notify supervisor and seek medical attention.
  - **Major Medical Emergency:** Severe illness or injury that requires immediate hospital care. Victim is in severe pain or distress and/or has life-threatening condition such as: severe bleeding, head injury, broken/dislocated joints or bones, heart attack or severe chest pains, unconscious and/or not breathing, anaphylaxis (life-threatening allergic reaction that often causes face/throat/tongue swelling, trouble breathing and/or swallowing, all-over itching, and/or chest pain among other symptoms), severe chemical burn, etc.

Call 911 or report to the VUMC Hospital Adult Emergency Department (1210 Medical Center Drive. Phone 615-322-3391). Request that emergency responders meet an ACUP representative at the rallying point for the facility/office where the ill/injured person is located (Appendix D). An ACUP representative should meet the first responders at the rallying point and escort them to the ill/injured person.

- **Minor Medical Emergency:** Minor illness or injury that does not require immediate hospital care. Victim not in severe pain or distress and does not have life-threatening condition, such as minor strains/sprains, allergic reaction (other than anaphylaxis), minor burns, etc.

If the individual is stable and the incident occurs during normal business hours (Monday thru Friday between 7:00am–4:30pm): Report immediately to the VUMC Occupation Health Clinic (Medical Arts Building, 1211 21st Avenue South, Suite 640. Phone: 615-936-0955).

If the incident occurs outside normal business hours: Report immediately to the VUMC Hospital Adult Emergency Department (1210 Medical Center Drive. Phone 615-322-3391).

For urgent questions after normal business hours, the Occupational Health on-call provider can be reached at 615-936-0955.

**Recovery:**

All personnel must follow the procedures as outlined in the VUMC Human Resource Policy, *Staff Work-Related Accident and Injury Reporting* (Policy #HR-011) and the DAC SOP, *Reporting Workplace Injury and Illness* (SOP H&S-102).

The incident will be reviewed by ACUP Leadership and OCRS at a regularly scheduled meeting to determine if further incident analysis and/or corrective action is warranted.

**Vanderbilt University Medical Center  
Animal Care and Use Program  
EMERGENCY PREPAREDNESS AND RECOVERY PLAN (Disaster Plan)**

**Vanderbilt University Medical Center**  
**Animal Care and Use Program**  
**EMERGENCY PREPAREDNESS AND RECOVERY PLAN (Disaster Plan)**

**Natural Disasters: Earthquake, Tornadoes or Severe Storms**

**Preparedness:**

ACUP Leadership, along with ACUP Managers, have identified escape routes and rallying locations from each facility (see Appendix D). All egress routes are kept clear and are marked with directional signs. Flammables are kept in appropriate storage cabinets.

The Department of Emergency Preparedness monitors weather reports and alerts the VUMC community when threatening conditions are developing. ACUP Leadership will proactively determine staffing needs and make arrangements for coverage of animal care areas in accordance with the Staffing and/or Supply Shortage Planning Guidance.

**Immediate Response:**

**Earthquake**

- Evacuate the building
  - Use the stairway checking for hazards along the way. Do not use elevators.
  - Move away from the building to avoid falling objects and go to the rally point.
  - Do not re-enter the building until it is determined safe by emergency personnel.
- If dangerous to evacuate, move to a safe location interior to the building.
  - Stay away from external walls and windows.
  - Find cover under a desk, table, or sturdy piece of furniture; if furniture is unavailable, crouch down against an interior wall and protect your neck and head with your arms. Hold on to the desk, table, or furniture until shaking stops. (Drop – Cover – Hold On)

**Tornadoes or Severe Storms or Inclement Weather**

- Remain inside, away from exterior walls and windows.
- During a prolonged storm, and if safe to do so:
  - Monitor animal room environmental parameters on a periodic basis.
  - Walk the animal facility and report any storm-related facility damage to the supervisor.
  - Provide essential animal husbandry services as directed by your supervisor.

**Follow-up Response:**

- Do not re-enter the building/area until it is determined safe by Emergency Responders.
- Notify supervisor and/or Emergency Responders of any personnel injuries.
- ACUP Leadership will identify individuals to assess the facility status who will:
  - Evaluate the facility and equipment for structural damage in order to ensure the safety of personnel and the animals.
  - Review the status of all utility services and environmental systems.
  - Prepare to relocate or evacuate animals or animal colony rooms facing life-threatening environmental conditions consequent to the event (flood, HVAC failure, electricity failure, structural damage, etc.).
  - Inventory animal population and account for any potentially escaped animals. Follow DAC SOPs and guidelines for handling escapees.
  - Perform triage of animals to determine most appropriate course of action (e.g., treatment, relocation within facility, evacuation, euthanasia).



**Vanderbilt University Medical Center**  
**Animal Care and Use Program**  
**EMERGENCY PREPAREDNESS AND RECOVERY PLAN (Disaster Plan)**

**Radiation Spill or Exposure**

**Preparedness:**

ACUP Leadership, Facility Managers, and the VUMC Office of Clinical and Research Safety (OCRS) ensure that proper signage is posted in radiation hazard areas, including required PPE, handling, containment, and emergency instructions. Training is provided for staff working with and around the hazards and includes the risks of the particular hazard, and emergency response and first aid procedures. In addition, OCRS provides all laboratories working with radioactive materials the guidance document: *VUMC Radiation Safety Manual*.

**Response:**

- Immediately administer first aid to contaminated area or wound. (See below)
- Advise personnel in the room/area of the spill and evacuate if necessary.
- Isolate the area to avoid the inadvertent spread of contamination.
- Notify supervisor as soon as possible.
- Contact OCRS.
  - Monday-Friday, 8:00am to 4:30pm call 615-322-2057
  - After hours, call the OCRS emergency number 615-875-3779
- Triage any animals in proximity to the hazardous material spill for signs of exposure.
  - In some cases, extended monitoring may be required.
  - Animals exhibiting symptoms of exposure should be treated as directed by the veterinary staff and in consultation with the Principal Investigator.
- In consultation with OCRS, determine whether animals in proximity to the hazardous materials spill should be relocated either temporarily or permanently.
  - If necessary, follow the Relocation and Transportation Plan with special consideration for mitigating cross-contamination from the exposed animals to the new housing facility.

**First Aid:**

**Skin exposure:** Remove contaminated clothing and PPE. Flush exposed skin with large amounts of tepid water.

**Seek medical attention –**

- If individual is unstable, call 9-1-1.
- If the individual is stable and the incident occurs during normal business hours (Monday thru Friday between 7:00am–4:30pm): Report immediately to the VUMC Occupational Health Clinic (Medical Arts Building, 1211 21<sup>st</sup> Avenue South, Suite 640. Phone: 615-936-0955).
- If the incident occurs outside normal business hours: Report immediately to the VUMC Hospital Adult Emergency Department (1210 Medical Center Drive. Phone 615-322-3391).

**Vanderbilt University Medical Center**  
**Animal Care and Use Program**  
**EMERGENCY PREPAREDNESS AND RECOVERY PLAN (Disaster Plan)**

**Security Threats**

Animal Activism Event, Threatening Caller or Bomb Threat, Suspicious Letter or Package,  
Vandalism, and/or Civil Disturbance

**Preparedness:**

Due to the controversial nature of biomedical research involving animals, the ACUP leadership recognizes the potential for Animal Activism affecting the Animal Facilities. ACUP Leadership works with the Vanderbilt University Police Department (VUPD) and the Metro Nashville Police Department to monitor for scheduled protests or events.

Should an event be planned near the VUMC or Vanderbilt campus, ACUP Leadership communicates with VUPD and coordinates additional security measures if necessary. In addition, an email is sent semi-annually to all ACUP faculty and staff, as well as the potentially affected research labs, with reminders regarding the following safety precautions:

- Vanderbilt University (VU) and VUMC employees and students should have their identification badges with them at all times when in animal research facilities. It is the responsibility of all VU and VUMC faculty and staff to question anyone seen without a badge in animal research facilities. Individuals without a valid identification badge will be asked to leave the facility.
- Access to animal research areas is limited to authorized personnel only.
  - Do not share access keys/codes/badges. When entering animal research areas, do not allow others to “slip in” behind you. If asked to provide access to an animal research area by an unknown person, ask them for their name, phone number, and address, and then refer them to the VUPD for assistance.
  - Do not prop open security doors or doors to animal housing rooms.
- Suspicious individuals and/or packages seen in animal research areas should be reported immediately to VUPD for appropriate follow-up.
- Any VU or VUMC faculty, staff, or students involved in animal research who are contacted directly by members of the news media asking questions about animal research are required by the Medical Center’s Media Access Policy, OP 10-10.06, to refer all inquiries to the VUMC Public Information Officer (615-322-4747). Similarly, calls from unidentified individuals asking questions about animal research should also be referred to the Medical Center News & Communications Office.

In the event that an animal research area is found vandalized, see vandalism section below.

**Vanderbilt University Medical Center**  
**Animal Care and Use Program**  
**EMERGENCY PREPAREDNESS AND RECOVERY PLAN (Disaster Plan)**

**Response:**

**Animal Activism Event:**

- Do NOT confront the individual(s).
- Move to a safe place or exit the facility (if this is occurring inside).
- If VUPD is not already on the scene, immediately notify VUPD - 911 from any campus phone; 615-421-1911 if from a cell phone.
- Notify supervisor as soon as possible.
- Do not touch any items left behind or anything suspicious.
- If it is safe to do so:
  - Take photographs of the activists and their activities.
  - Observe the route and means the activists use to leave the area.
  - Note the exit path and vehicle information, including license plate numbers.
  - Note any items or places physically touched by activists and protect those items/areas. If activists were not wearing gloves, law enforcement may attempt to get the activists' fingerprints.

**Suspicious Letter or Package:**

A suspicious letter or package may have the following characteristics:

- Be an unrequested delivery.
- Come from an unusual or unknown place of origin - Note the delivery postmark.
- Have an unusual type of writing not normally received on the address.
- Have loose contents or is heavier on one side than the other.
- Is excessively heavy for its volume/size.
- Have protruding wires, holes, grease marks, smell, etc.

The person who identifies a suspicious letter or package should follow these guidelines:

- Do not touch the package.
- Immediately notify VUPD - 911 from any campus phone; 615-421-1911 if from a cell phone.
- Evacuate everyone in the vicinity to a safe distance.
- Close doors or section off area.
- If package has been opened or is leaking,
  - Do not try to clean up powders or fluids.
  - Wash any exposed skin with soap and water.
  - Inform VUPD of the exposure.
- Notify supervisor as soon as possible.

**Threatening Call or Bomb Threat**

**Vanderbilt University Medical Center**  
**Animal Care and Use Program**  
**EMERGENCY PREPAREDNESS AND RECOVERY PLAN (Disaster Plan)**

- Be calm and take the caller seriously.
- If possible, have someone call VUPD (911 from any campus phone; 615-421-1911 if from a cell phone) on another line.
- Obtain as much information as possible from the caller.
  - Caller's name
  - Type of device and what it looks like
  - Where it's located
  - What time will the device detonate
- Take notes of the conversation.
  - Date and Time the call was received.
  - Gender of the caller and approximate age
  - Voice Characteristics
 

Calm	Excited	Angry	Crying
Slow	Normal	Rapid	Angry
Ragged	Slurred	Clearing Throat	Deep Breathing
Nasal	Crackling Voice	Stutter	Distinct
Soft	Loud	Raspy	Lisp
Laughing	Foreign	Disguised	Familiar
  - Background Noises
 

Street (cars)	Airplanes	PA System	Voices
Clear	Static	Motors (fans, etc)	Music
House Noises: dishes, TVs, etc		Factory Machinery	
Office Machinery		Other:	
  - Language
 

Well Spoken	Irrational/Foul	Incoherent	Taped Message
-------------	-----------------	------------	---------------
- If the threat is left on voicemail, do not delete it.
- Notify supervisor as soon as possible.

### Vandalism

In the event that an animal research area is found vandalized, the first person on the scene should follow these guidelines:

- For personal safety reasons, do not enter the area. Do not confront or attempt to prevent persons from leaving that may still be present in the area.
- Do not allow anyone to disturb the scene. Isolate the area.
- Report the situation to VUPD (911 from any campus phone; 615-421-1911 if from a cell phone).
- Use the following list to assist in gathering specific details for the Police:
  - Identify yourself as a person working at an animal research facility;
  - Location of the activity - including building, floor, room number(s), etc.;
  - Number of people involved;
  - Characteristics of the people (e.g., gender, type of clothing, distinctive features, etc.);
  - Type of activities being conducted (e.g., picketing, vandalism, releasing animals, etc.);

**Vanderbilt University Medical Center**  
**Animal Care and Use Program**  
**EMERGENCY PREPAREDNESS AND RECOVERY PLAN (Disaster Plan)**

- Type and number of weapons or other tools and equipment (e.g. bullhorns, rope, spray paint cans, electrical wiring, backpacks, gym bags, signs, etc.).

**Civil Disturbance (Intruder/Trespasser)**

- Use caution when approaching an individual that appears to be trespassing.
- Inquire in a non-confrontational manner if the person needs assistance.
- Suspicious persons and/or behavior should be report to the VUPD (911 from any campus phone; 615-421-1911 if from a cell phone)
- If the police have been called, try to detain the person until they arrive but do not put yourself or others at risk.
  - If the individual has a weapon, do not attempt to negotiate, apprehend, or intervene with the suspect.
  - Be sympathetic and make an effort to understand their concerns.
  - Remain calm and do not become confrontational.
- If the individual cannot be detained, write down any characteristics that you can recall – hair color, height, clothing, accent, items being carried, etc.

**Additional Follow-up Actions:**

- For staff who are distressed, contact the VUMC Employee Assistance Program:  
<https://www.vumc.org/health-wellness/worklife-connections-employee-assistance-program> or 615-936-1327.

**Vanderbilt University Medical Center**  
**Animal Care and Use Program**  
**EMERGENCY PREPAREDNESS AND RECOVERY PLAN (Disaster Plan)**

**Utility Failure – Electric Power**

**Preparedness:**

Emergency backup power is automatic in all facilities, except in parts of the MCN I facility. When functioning properly, emergency power should provide sufficient power to maintain the normal support systems (i.e. emergency lighting in hallway, normal animal room lighting, and animal facility HVAC systems). The MCN I facility is equipped with red outlets which provide emergency house power. Facility Managers know the location of breakers, emergency power outlet locations, and equipment and animal housing that may be impacted by power loss. In addition, all Animal Care Technicians are provided with a flashlight for such emergency situations.

**Response:**

NOTE: Emergency lights and outlets require 10 seconds for activation. If emergency backup power is working properly, no additional response should be necessary other than monitoring the facility to ensure properly functioning systems and communicating with affected research personnel.

**For all electrical failures affecting MCN I:**

- Notify the Facility Manager immediately.
- Allentown Biocontainment Units (BCUs)/Sealed Positive Pressure (SPP) Cages:
  - BCUs and SPPs have approximately an 8 to 10-hour battery supply and 20 minutes of back-up air within the cages after the back-up battery fails.
  - BCUs and SPPs are connected to emergency power. Should that circuit fail then the BCU or SPP should be redirected to an alternative location with house emergency power ASAP. The BCU or SPP rack systems may be moved to areas where power is available (after consultation with a DAC veterinarian and operations staff).
  - If moving the BCUs or SPPs is not possible, the animals must be moved into a different caging system immediately (either a ventilated rack unit or static microisolator caging).
- Ventilated Racks (other than BCUs) and Light Tight Boxes:
  - Monitor environmental conditions.
- Aquatic systems pumps for aquatic frog housing rooms:
  - These systems are on automatic back-up emergency power.
  - Ensure that system is functioning normally.
- If environmental conditions vary from acceptable ranges, handle as directed under Critical Animal Room Temperature/HVAC Failure plan.

**For a failure of Emergency Back-Up power in any facility:**

- Notify the Facility Manager immediately.
- Contact VUMO (Wilson Hall, MRB III, ESB) or VUMC Facilities Management (all other facilities) to inform them of the lack of emergency power.
- Using flashlights as necessary, check animals and room temperature and humidity. Contact VUMC Facilities Management/VUMO if additional flash/flood lights are needed.
- If environmental conditions vary from acceptable ranges, handle as directed under Critical Animal Room Temperature/HVAC Failure plan.

**Vanderbilt University Medical Center**  
**Animal Care and Use Program**  
**EMERGENCY PREPAREDNESS AND RECOVERY PLAN (Disaster Plan)**

**Utility Failure – Information Technology Systems**

*(Computer, Email, Inter/Intranet, Servers)*

**Preparedness:**

Information Technology (IT) failure can be due to various reasons – loss of electrical power, server outage, cyber-attack, etc. The following precautions should be taken:

- Ensure all critical applications are analyzed by Cyber Risk Insights (CRI) and have undergone VUMC IT security review. All application renewals and newly proposed applications must be approved by VUMC IT.
- Ensure there are chargers and or batteries for mobile computing devices (cell phones, iPads, , etc.) readily available.

ACUP IT support is provided by the VUMC IT.

Online Ticket Submission: <https://pegasus.vumc.org/User/Login?ReturnUrl=%2fess> 615-343-4357 (3-HELP)

Normal Hours of Operation: Mon–Fri: 7:30am–6:00pm (excluding VUMC Holidays)

After-hours, call 615-322-2954 and an on-call technician will be dispatched via the VUIT Network Operations Center.

**Response:**

In the event that a suspicious email is received, **do not open** any links or files associated with the file. Report any suspicious emails to VUMC IT by forwarding the email to [phishing@vumc.org](mailto:phishing@vumc.org)

If a cyber-attack or virus infection is suspected, report immediately to IT by calling 615-343-4357. Shut the suspected workstation(s) off, and do not email or transfer any files.

Alternate modes of communication such as fax machines, scanners, phone calls, instant messages, and texting may need to be utilized to transmit information until the issue is resolved.

**Recovery:**

The Disaster/Emergency Event Log must include a description of the issues faced and actions taken during the event. The report will be reviewed by ACUP Leadership to determine if the preparedness or response plans need to be improved.

**Vanderbilt University Medical Center**  
**Animal Care and Use Program**  
**EMERGENCY PREPAREDNESS AND RECOVERY PLAN (Disaster Plan)**

**Utility Failure – Phone Systems**

**Preparedness:**

Communication system failures by themselves are not anticipated to have dramatic impact on ACUP daily operations. However, a communication system failure in conjunction with another emergency situation could greatly affect the efficiency of the ACUP response. ACUP Leadership ensures staff contact lists are up to date and that printed copies are available.

**Response:**

- Report cell phone service interruptions that impact business operations to the HELP Desk 615-343-HELP (4357). For more detailed phone and voice support service information <https://www.vumc.org/it/phone-voice-support>
- Implement use of secondary communication devices (e.g. cell phones, text messages, email).
- Minimize use of cellular calls. Phone use should be limited to business only.
- Email staff and animal users to notify them of the outage and provide interim contact information on all digital boards.
- In the event of a multiple communication system failure, the EOC may be activated. The ACUP Emergency Coordinator should report to the EOC in person (if able).
- ACUP Leadership, in coordination with the EOC, will assess the situation and determine next steps. As needed, ACUP Leadership will identify and pick up additional responders and designate “runners” to deliver communications to/from the EOC.



**Vanderbilt University Medical Center**  
**Animal Care and Use Program**  
**EMERGENCY PREPAREDNESS AND RECOVERY PLAN (Disaster Plan)**

**Utility Failure – Water**

**Preparedness:**

A water or sewer utility failure may include flooded areas – from burst pipes, blocked drains, or sewage backup – and/or a water supply shortage. Any of these situations has the potential to impact multiple systems including cage washers, sterilizers, automatic watering systems, and the HVAC systems that require hot water and/or chilled water.

**Response:**

**Flood/Burst Pipes/Sewage Backup**

- See Incident Specific Response Plan for Floods

**Water Supply Failure**

- Notify the Animal Facility Manager immediately.
- Prioritize use of the available water for animal consumption and maintaining environmental conditions.

*HVAC system considerations* (conditioned air is dependent on hot water and/or chilled water):

- ACUP Leadership will assign DAC employees to monitor room temperatures.
- If environmental conditions vary from acceptable ranges, handle as directed under Critical Animal Room Temperature/HVAC Failure plan.

*Aquatic systems considerations:*

- Aquatic animal systems refill 10% fresh water daily. Change system settings to 100% recycled (closed) system.
- If water failure is expected to last longer than 23 hours, shut the systems down and monitor water quality 1-2 times daily.
- Replenish/restart systems as needed and when able to do so.
- If water quality is deteriorating and unable to be improved, ACUP Leadership will determine future actions.

*Potable water considerations:*

- Identify facility(s) that are impacted.
- Determine the current supply of available water bottles in all facilities.
- Automatic Watering Systems
  - MCN II (All), Neurobehavioral Core (Rats), Cage Wash
    - Water is supplied to these areas via the Avidity-Edstrom Reverse Osmosis (RO) water system. The system has a reservoir tank which holds approximately 600 gallons of RO water. This system is in the MCN AA6200 South side mechanical space. It supports the automatic watering system in MCN II, Neurobehavioral Rat Core and services the water bottle filler in the MCN II Cage Wash.

**Vanderbilt University Medical Center**  
**Animal Care and Use Program**  
**EMERGENCY PREPAREDNESS AND RECOVERY PLAN (Disaster Plan)**

- If a water outage is anticipated or when one occurs, the daily system flush should be disabled to conserve water for animal consumption.
  - A DAC Facility Operations Manager will log into the WatchdogEX program and disable the flushing sequence.
- PRB, MCNI, IAF, WH
  - All automatic watering systems in these facilities are serviced by the buildings domestic water system directly. If water pressure is lost, then the auto water distribution systems will not function.
- Manual Water Delivery Systems:
  - Determine the current supply of available water bottles in all facilities.
  - DAC Facility Operations will procure the following emergency supplies and store off site at the VUMC Warehouse.
    - Internal - Low profile bottle with bore hole and screw cap. (Lab Products rodent caging)
    - External - square bottle with stainless steel sipper tube cap. (Allentown rodent caging)
    - Carboys (2.5 – 5.0 gallon) mount on top of racks, connect to the water manifold supply inlet for a gravity fed water supply to the rack
    - Quip portable sanitizer – 20-gallon capacity, use to provide water to room/suite room distribution systems via pressure reduction station connections.
    - Hydrogel gel packs (Clear H<sub>2</sub>O)
- If supplies are limited and the water outage is expected to last longer than 12 hours,
  - ACUP Administrative & Finance Director and/or DAC Associate Director of Operations will notify the EOC and request a water tanker for animal drinking water.
  - The EOC will be asked to coordinate with Facility Management to provide connections to the potable water supply from the tanker to the affected facilities at the loading dock level.
  - DAC staff will fill bottles, carboys and 20-gallon containers on loading dock. Connections required include manual on/off valve with quick disconnect fittings for portable bottle fill manifolds and standard hose bib connections for filling carboys and 50-gallon containers. DAC staff should be prepared to provide manual water sources at the cage level by all possible means.

*Cage wash considerations:*

- If the building domestic water supply is offline, then the cage wash processing equipment will not be available for use.
- If the building steam supply is offline and domestic water is available, then cage wash processing equipment can be used with adjustments to the cycle parameters to allow for use of cold water only. DAC Assoc. Dir. of Ops and/or Facility Manager can create/modify cycles as needed.
- If wash cycle temperature guarantees cannot be met, then ATP monitoring and gross observation of caging components for cleanliness will be implemented.
- Alternate methods of sanitization should be discussed with ACUP Leadership.

**Vanderbilt University Medical Center**  
**Animal Care and Use Program**  
**EMERGENCY PREPAREDNESS AND RECOVERY PLAN (Disaster Plan)**

- Hand wash cages and rinse via dip tanks
  - Clean cage bottoms only with disinfectant wipes
  - Foam caging and rinse off with power washer.
  - Disposable caging and/or cage liners
- ACUP Leadership should make alterations in cage changing and cage washing schedules as needed and deemed appropriate to the specific situation.
- Waterless hand cleaner should be obtained from EOC.

**REFERENCES**

- A. [VUMC Human Resources Emergency Preparedness Policy.](#)
- B. Emergency Preparedness's Emergency Operations Quick Reference ("Red Book"; <https://www.vumc.org/emergency/emergency-operations-quick-reference-guide>)
- C. AVMA Guidelines on Euthanasia (2020)
- D. U.S. Department of Health and Human Services, National Institutes of Health IC Animal Program Disaster Plan Templates and Overview  
U.S. Department of Agriculture, Animal and Plant Health Inspection Service, Animal Care Tech Note, "Development Guide: Contingency Plans for Emergencies  
<https://www.aphis.usda.gov/sites/default/files/ac-tech-note-guide-contingency-plans-emergencies.508.pdf>

**Vanderbilt University Medical Center  
Animal Care and Use Program  
EMERGENCY PREPAREDNESS AND RECOVERY PLAN (Disaster Plan)**

*This page left blank.*

## APPENDIX A

### ACUP EMERGENCY RESPONSE CONTACT NUMBERS

VUMC Emergency Numbers	VUMC Phone	Other	Notes
Vanderbilt Police Department			
Emergency	911	615-421-1911	
Non-emergency	615-322-2745		
Business Line	615-343-9750		
VUMC Dept. of Emergency Preparedness			
Emergency Preparedness On-Call	615-943-2871		
Emergency Preparedness Department	615-343-3189		
Emergency Operations Center North – Langford	615-322-4362		Only operational during an emergency
Emergency Operations Center South – Wadlington Vanderbilt (Children’s Hospital)	615-936-6154		
VUMC Office of Clinical and Research Safety (OCRS)			
OCRS Department	615-322-2057		
OCRS After hours emergency number	615-875-3779		
Kevin Warren, Associate Vice President	615-322-0295		
Health Clinics			
Occupational Health Clinic	615-936-0955		
Student Health Clinic	615-322-2427		
VUMC Hospital Emergency Department Registration	615-322-3391		
VUMC Emergency Department	615-322-0145		
Physical Plant Services			
Facility Services (Medical Center) Emergency & Trouble Calls	615-322-2041		
Delta Operations Center	615-343-6825		
Gary Streaty, Vice President for Facilities Management	615-936-0691		
Vanderbilt University Maintenance & Operations (VUMO) Emergency Calls	615-343-9675		
Building Systems Control	615-322-2621		
Paul Goodman, Assistant Vice Chancellor of Maintenance & Operations	615-343-1862		
Public Affairs			
VUMC News & Communications On Call Information Officer	615-322-4747		
John Howser, Chief Communications Officer	615-322-4747		
VU Office of Strategic Communication	615-322-2706		
Nathan Green, Vice Chancellor for Government & Community Relations	615-343-7626		
Risk Management			
Office of Risk Management	615-936-0660		

Nashville Metro Emergency Numbers	Phone	Notes
Emergency Response Dispatch	911	
Nashville Police Department (Non-Emergency Calls)	615-862-8600	
Nashville Fire Department	615-862-5421	
Nashville Office of Emergency Management	615-862-8530	
Metro Public Health Department – Lentz Center	615-340-5616	
Poison Control Center	800-222-1222	

<b>ACUP Emergency Contacts</b>	<b>Name</b>	<b>VUMC Phone</b>	<b>Mobile</b>
ACUP – VP Animal Care, Attending Veterinarian	Jeanne Wallace	615-343-9380	615-715-5292
ACUP – Senior Director of Administration & Finance	Karen Jackson	615-936-0092	615-293-1453
IACUC – Chair	Ron Emeson	615-936-1688	615-479-4575
IACUC – Co-Chair	Eric Delpire	615-343-7409	615-414-2375
OAWA – Director (ACUP Emergency Coordinator)	Scott Bury	615-936-6997	816-206-0346
OAWA – Associate Director	Erica Armstrong	615-322-4808	615-971-3310
DAC--Director	Erin Yu	615-322-8499	615-887-5714
DAC – Assoc. Dir. Comparative Pathology	Katherine Gibson-Corley	615-322-6553	515-450-4838
DAC – Asst. Dir. Clinical Medicine	Nick Tataryn	615-322-1927	615-414-8652
DAC – Assoc. Dir. Operations	Jeremy Parker	615-322-9437	615-364-5438
ACUP – Sr. Program Manager	Printha McCallum	615-322-6852	615-347-2393
ACUP – Administrative Office	Darius Booth	615-875-4503	N/A
OAWA – Main Office	Angie Huddleston	615-936-8163	615-714-1740
<b>DAC Veterinarians</b>	<b>Name</b>	<b>VUMC Phone</b>	<b>Mobile</b>
Veterinarian	Courtney Hunter	615-322-9104	601-842-0722
Veterinarian	Michael McKinney	615-875-7976	865-809-5779
Veterinarian	Kate Shuster	615-343-1562	517-648-1660
Veterinarian – Pathologist	Sharon Yang		205-948-5699
<b>ACUP Managers</b>	<b>Name</b>	<b>VUMC Phone</b>	<b>Mobile</b>
Facility Manager – MCN I, Wilson Hall, IAF	Michael Impliazzo	615-936-0741	530-632-7824
Facility Manager – MCN II, 7 <sup>th</sup> floor	Wes Fox	615-322-7295	615-497-4249
Facility Manager – Barrier, Neuro, 8 <sup>th</sup> floor	Carlotta Brooks	615-322-7547	615-498-4538
Facility Manager – ESB, PRB, MMPC	Arrow Megginson	615-936-6272	562-235-1394
Veterinary Technician Manager	Avi Barlatier	615-936-4740	615-967-6999
<b>Satellite Housing Facilities</b>	<b>Name</b>	<b>VUMC Phone</b>	<b>Mobile</b>
PI – Chen (LH-727)	Wenbiao Chen	615-936-7390	971-340-3128
PI – Knapik (Light Hall – Room 109)			
PI – Creanza (MRB III – 4278B & 4280B)	Nicole Creanza Kate Snyder	615-875-8139 N/A	407-252-8361 440-488-8652
PI – Eric Skaar (MCN CC3310A)	Eric Skaar Nicole Lobdell	615-343-0002 615-343-8492	615-496-4272 615-513-0475
PI – James Dewar (LH – 622A)	James Dewar Darren Heintzman	615-322-3318 N/A	N/A 304-771-7271

## APPENDIX B

### LOCAL, STATE AND NATIONAL DISASTER RESPONSE RESOURCES

Alternative Off-site Housing Resources	
Tusculum Feed Center 5025 Nolensville Pike Nashville, TN 37211 615-832-1234 <a href="mailto:tusculumfeed@gmail.com">tusculumfeed@gmail.com</a>	Meharry Medical College Dr. Awadh Binhazim, Director, Animal Care Facility 615-327-6071 <a href="mailto:abinhazim@mmc.edu">abinhazim@mmc.edu</a>

Transportation Resources	
BioTrans, LLC 830 Fesslers Parkway, Suite 103 Nashville, TN 37201 774-251-5230 <a href="mailto:dispatch@biotranslogistics.com">dispatch@biotranslogistics.com</a>	Validated Courier 905 River Road, Suite F Granville, OH 43023 443-878-5514; 877-355-3773 Contact: Eric Syverson <a href="mailto:eric@vcgrc.com">eric@vcgrc.com</a> ; domestic@vcgrc.com
Animal Transportation Association 678 Bluebell Drive Terra Alta, WV 26764 USA- Ph-952-758-5811 <a href="mailto:info@animaltransportationassociation.org">info@animaltransportationassociation.org</a>	World Courier Inc. ( <a href="http://www.worldcourier.com">www.worldcourier.com</a> ) 1313 Fourth Avenue New Hyde Park NY, 11040 1-888-221-6600 <a href="mailto:liveanimal@worldcourier.com">liveanimal@worldcourier.com</a>

Husbandry (Food & Bedding) Resources	
Tusculum Feed Center 5025 Nolensville Pike Nashville, TN 37211 615-832-1234 <a href="mailto:tusculumfeed@gmail.com">tusculumfeed@gmail.com</a>	Purina Animal Nutrition Contact: Sarah Roberts Southeast Regional Acct Manager 765-914-9618 (cell) <a href="mailto:Sarah.Roberts@LabDiet.com">Sarah.Roberts@LabDiet.com</a>
Shepherd Specialty Papers Contact: Rene Ketelsen <a href="mailto:rketelsen@ssp.com">rketelsen@ssp.com</a> 615-239-4200 (cell)	Innovive (Disposable caging) 866-432-2437 <a href="mailto:info@innovive.com">info@innovive.com</a> Regional Sales Rep: Warren Riley 858-309-6653 (office) <a href="mailto:warren@innovive.com">warren@innovive.com</a>

Potable Water Resources	
Vanderbilt Dept of Emergency Preparedness 615-343-3189	Innovive (prefilled water bottles) See contact info above

<b>Veterinary Services Resources</b>	
Tennessee Veterinary Medical Assoc. (TVMA) PO Box 803 Fayetteville, TN 37334 1-931-438-0070	Tennessee State Veterinarian Tennessee Department of Agriculture PO Box 40627 Nashville, TN 37204 615-837-5120
United States Dept of Agriculture (USDA) 1400 Independence Avenue SW Washington, DC 20250 Information Hotline: 202-720-2791	Tennessee State Public Health Veterinarian Tennessee Department of Health Communicable and Environmental Disease Services Cordell Hull Bldg, 4th floor Nashville, TN 37247-4911 Phone 615-741-7247

<b>Regional Laboratory Animal Medicine Resources</b>	
UT Knoxville – College of Veterinary Medicine Office of Laboratory Animal Care General number: 865-974-8387	University of Kentucky Dept of Laboratory Animal Resources Room 204 Health Science Research Bldg Lexington, KY 40536-0298 859-323-5885
University of Louisville Office of Research Services 511 South Floyd Street Louisville, KY 40202 502-852-6512	University of Alabama-Birmingham Animal Resources Program 205-934-8213
St. Jude Children’s Research Hospital- Animal Resources Center 262 Danny Thomas Place MS400 Memphis, TN 38105 ARC Office: 901-595-2674 Director: <a href="mailto:Harshan.pisharath@stjude.org">Harshan.pisharath@stjude.org</a> Fax: 901-595-1040	University of Tennessee-Memphis 956 Court Ave, Box 17 Memphis, TN 38163 Ph-901-448-5500



State and National Disaster Relief Resources	
Federal Emergency Management Agency (FEMA) 500 C Street SW Washington, DC 20472 Disaster assistance 1-800-621-FEMA	Tennessee Emergency Management Agency (TEMA) 3041 Sidco Drive Nashville TN 37204-1502 615-741-0001
Nashville Office of Emergency Management (Nashville OEM) 2060 15 <sup>th</sup> Avenue South Nashville, TN 37212 (615) 862-8530	Tennessee Disaster Animal Response Team (DART), Dept of Agriculture <a href="http://www.tn.gov/agriculture/regulatory/dart.shtml">www.tn.gov/agriculture/regulatory/dart.shtml</a> Contact State Veterinarian (615-837-5120) or Nashville OEM (615-862-8530) for information on DART activation.

State and National Animal Care Organizations Resources	
United States Dept of Agriculture (USDA) 1400 Independence Avenue SW Washington, DC 20250 Information Hotline: 202-720-2791	Office of Laboratory Animal Welfare (OLAW) 6705 Rockledge Drive, Suite 360 Bethesda, MD 20892 Dr. Axel Wolff 301-496-7163
American Veterinary Medical Association (AVMA; <a href="http://www.avma.org">www.avma.org</a> ) Emergency Preparedness and Response 1931 N Meacham Road, Suite 100 Schaumburg, IL 60173 Phone 1-800-248-2862 ext 6632	Tennessee Veterinary Medical Assoc. (TVMA) PO Box 803 Fayetteville, TN 37334 1-800-697-3587 931-438-0070
AVMA Veterinary Medical Assistance Teams ( <a href="http://www.vmat.org">www.vmat.org</a> )	American Veterinary Medical Foundation ( <a href="http://www.avmf.org">www.avmf.org</a> )
American Association of Laboratory Animal Science (AALAS; <a href="http://www.aalas.org">www.aalas.org</a> ) 9190 Crestwyn Hills Drive Memphis, TN 38125 Phone: 901-754-8620	American College of Laboratory Animal Medicine (ACLAM; <a href="http://www.aclam.org">www.aclam.org</a> ) 96 Chester Street Chester, NH 03036 Phone 603-887-2467 Fax 603-887-0096
American Society of Laboratory Animal Practitioners (ASLAP; <a href="http://www.aslap.org">www.aslap.org</a> ) 11300 Rockville Pike, Suite 1211 Rockville, MD 20852-3035 901-333-0498	Tennessee Department of Agriculture ( <a href="http://www.state.tn.us/agriculture/">www.state.tn.us/agriculture/</a> )

**APPENDIX C**  
**ACUP Emergency Incident Log**

<b>Disaster/Emergency:</b>	
<b>Location:</b>	
<b>Event Date and Time:</b>	<b>Reported by:</b>
<b>Date and Time Reported:</b>	<b>Reported to:</b>
<b>Initial Response:</b> This section should be a brief record of the initial actions taken. Detailed information is on page 2.	
<b>Detailed Report</b>	
<b>Species of Animals Affected:</b>	<b>Protocols Affected:</b>
<b>Number of Animals Affected:</b>	<b>PIs Affected:</b>
<b>Veterinary/Husbandry Response:</b> This should include level of animal impact, treatment plans, relocations or schedule alterations, and/or the involvement of outside departments.	
<b># of Personnel Affected*:</b>	<b>Injuries/Illnesses Reported*:</b>
<b>HR Response:</b> This should include notes about reporting, staffing impact, and/or the involvement of outside departments.	
<b>Damage to Facilities/Structural Damage:</b>	
<b>Damage to Equipment/Supplies:</b>	
<b>Facilities/Operations Response:</b> This should include notes about repairs made and/or the involvement of outside departments or vendors.	
<b>Recommendations</b>	
<b>Recommendations for ways to avoid similar situations:</b>	
<b>Recommendations for changes to preparedness plan or response plan:</b>	
<b>Completed by:</b>	<b>Completion Date:</b>
<b>Reviewed by:</b>	<b>Reviewed Date:</b>

Reportable Event: Any unplanned utility outage or emergency situation that impacts part of or an entire animal facility or that requires a response by the DAC to ensure animal welfare and safety. This includes situations that impact specialized equipment such as hypoxic chambers and/or bio-containment units. If VUMC Emergency Operations Center activated, then form is completed by ACUP Emergency Coordinator. Otherwise, form is completed by DAC Assoc. Director of Operations.

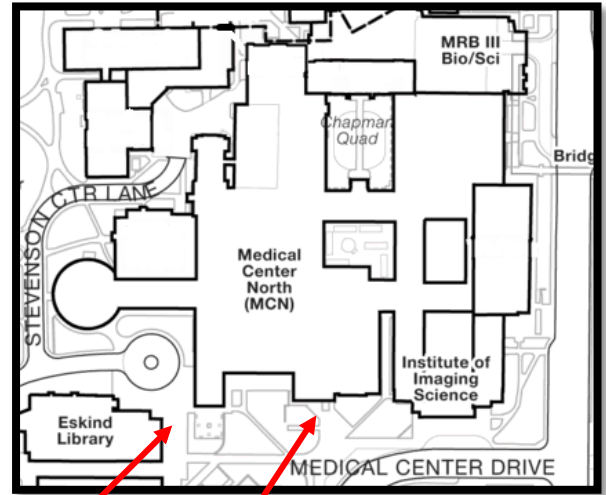
**Additional Information:**

## APPENDIX D

### ANIMAL CARE AND USE PROGRAM EMERGENCY RALLYING POINTS

#### Rallying Points by Facility:

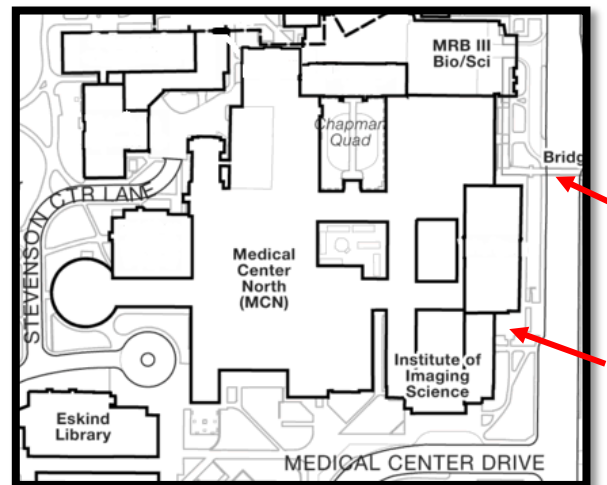
Facility	Rallying Point	Alternate Location
MCN I	Brown Awning on Medical Center Dr.	In front of Eskind Library
TPSR		
MCN S-1316 Offices		
Barrier, Neuro, IAF		



Alternative

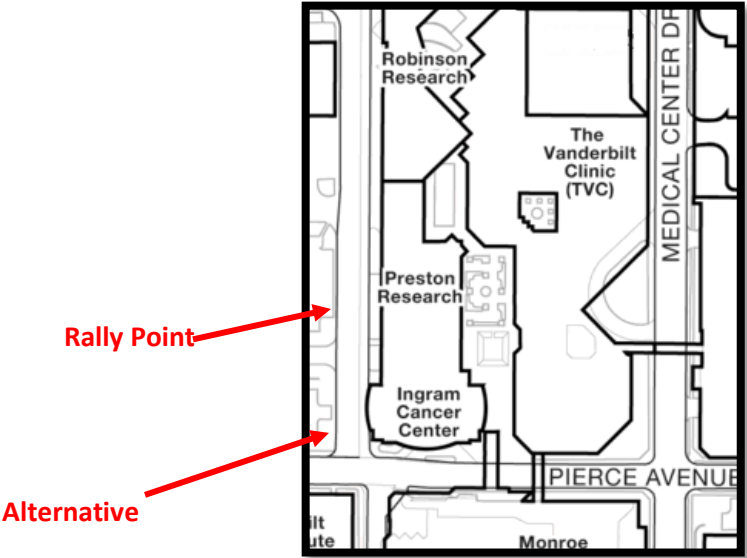
Rally Point

Facility	Rallying Point	Alternate Location
MCN II & 6 <sup>th</sup> Floor Offices	1 <sup>st</sup> Floor Patio on 21 <sup>st</sup> Ave	Bridge at 21 <sup>st</sup> and Edgehill Avenue

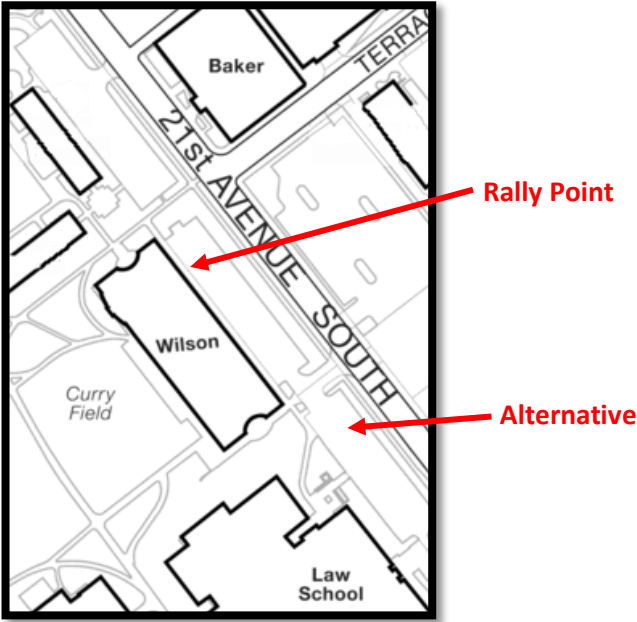


Rally Point

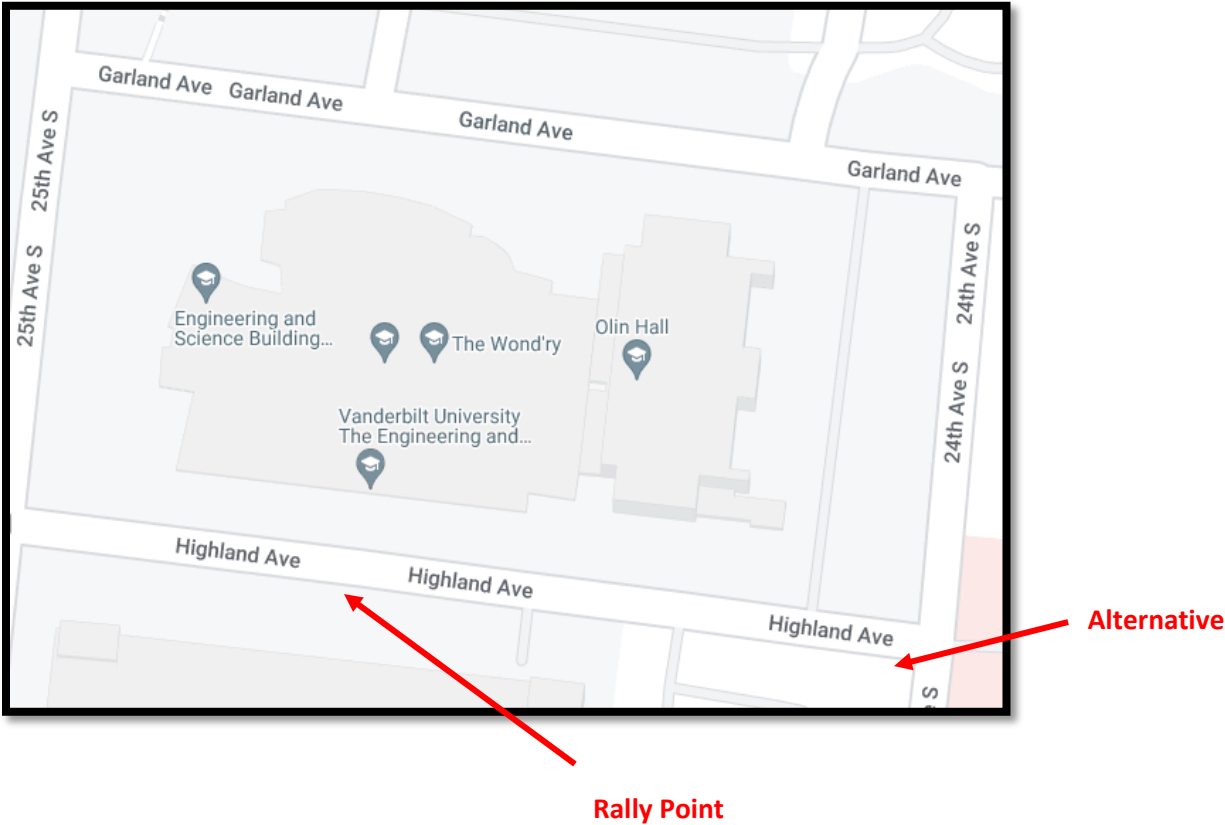
Facility	Rallying Point	Alternate Location
PRB	VA Parking Lot across from PRB loading dock	Corner of Pierce and Loading Dock Alley (across the street from Eye Institute)



Facility	Rallying Point	Alternate Location
Wilson Hall	Parking lot outside North entrance	21 <sup>st</sup> Avenue parking lot for the Law School

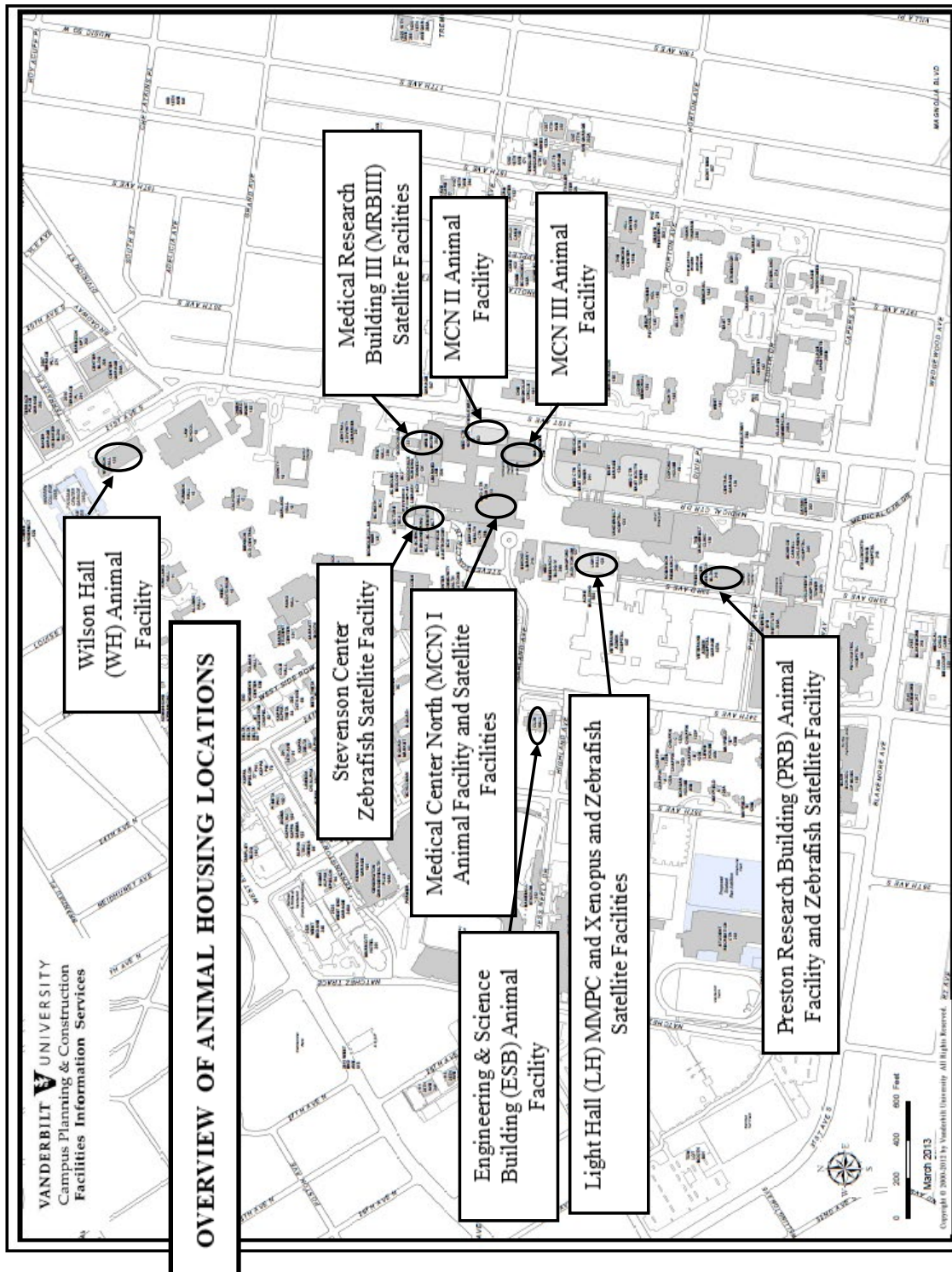


Facility	Rallying Point	Alternate Location
Engineering and Science Building (EBS)	25 <sup>th</sup> Avenue Garage Shuttle Stop (Across Highland Ave)	VA Parking Lot (Corner of Highland Avenue and 24 <sup>th</sup> Avenue)



## APPENDIX E

### ANIMAL CARE AND USE PROGRAM ACUP Centralized and Satellite Housing Facilities



<b>ANIMAL HOUSING FACILITY</b>	<b>LOCATION</b>
MCN I	MCN 1 <sup>st</sup> Floor (S corridor)
MCN II 7 <sup>TH</sup> FLOOR	MCN 7 <sup>th</sup> Floor (AA corridor)
MCN II 8 <sup>TH</sup> FLOOR	MCN 8 <sup>th</sup> Floor (AA corridor)
MCN III – BARRIER	VUIIS 8 <sup>th</sup> Floor
MCN III – NEUROBEHAVIOR CORE	VUIIS 9 <sup>th</sup> Floor
MCN III – IMAGING ANIMAL FACILITY	VUIIS Basement
PRB	PRB 8 <sup>th</sup> Floor
ESB	Engineering and Science Building Mezzanine
WILSON HALL	Wilson Hall Basement
MMPC	Light Hall 8 <sup>th</sup> Floor
SATELLITE - CHEN	Light Hall 7 <sup>th</sup> Floor
SATELLITE – CREANZA	MRB III 4 <sup>th</sup> Floor
SATELLITE – DEWAR	Light Hall 6 <sup>th</sup> Floor
SATELLITE – KNAPIK	Light Hall 11 <sup>th</sup> Floor
SATELLITE – ZEBRAFISH CORE	Light Hall Basement
SATELLITE – ZEBRAFISH QUARANTINE	PRB 3 <sup>rd</sup> Floor
SATELLITE – SKAAR	MCN 3 <sup>rd</sup> Floor