



**Missouri
State**
UNIVERSITY

MSU ANIMAL DISASTER PLANS

Missouri State University (MSU) and its Institutional Animal Care & Use Committee (IACUC) is committed to an animal care and use program of the highest quality. Missouri State recognizes its responsibilities involving the care and use of animals including, but not limited to the humane care and use of animals used in educational and research programs at MSU, the need to educate faculty, staff, and students of the importance of humane care and use of these animals, and compliance with all applicable federal laws and implementing regulations.

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New IACUC EAP for Animal Facilities

I. General information

Emergencies can occur at any time. During an emergency, communication between individuals and preparedness is essential to minimizing the effects of emergency situations on the health and well-being of people and animals. This disaster plan is designed to:

- A. Prepare laboratory/farm animal staff and animal users for potential emergencies
- B. Guide laboratory/farm animal staff and animal users during emergencies
- C. Assist laboratory/farm animal staff and animal users in the avoidance and anticipation of dangerous situations
- D. All laboratory/farm animal staff and animal users are strongly encouraged to read the entire disaster plan carefully.
- E. All personnel should be aware of their facility floor plan and evacuation routes. Evacuation routes should be posted in the main corridor of facilities near the main entrances.

II. Purpose

The purpose of developing an animal emergency response plan for Missouri State University (MSU) is to make certain that the Office of Research Administration (ORA) and all centers and departments can continuously fulfill their moral and legal obligations to provide humane care for animals used in teaching and research at MSU in the event of an emergency.

A. Animal Preservation

- i. In all emergencies, human life and safety will take precedence over animal life. The laboratory animal staff or animal users must not put themselves or their colleagues in danger in order to evacuate animals. The lab animal staff will work together with the Manager of Animal Research Facilities to determine appropriate actions based on the individual emergency situation. In the event of a large-scale disaster, euthanasia of animals may be necessary. Euthanasia will be a last resort and will be conducted under the direction of the Attending Veterinarian (AV) using methods classified in the 2020 AVMA Guidelines for the Euthanasia of Animals as “acceptable” or “acceptable with conditions” provided that all criteria for application of methods can be met. Questions concerning emergency animal care may be directed to the AV or the Manager of Animal Research Facilities.
- ii. During a disaster, MSU personnel will work to preserve animal health and welfare. Every attempt will be made to preserve animal lives. If facilities or housing areas are damaged and deemed unsuitable for housing animals, animals will be relocated as necessary to other housing rooms and campus vivaria/buildings.
- iii. If there are significant effects on staffing or facility integrity, research projects and breeding of animals may be halted. MSU personnel will work to continue to provide daily care and health checks.

- iv. In the event all animal lives cannot be preserved, the AV and ORAS personnel will work with investigators whenever possible to determine which animals are irreplaceable or necessary for critical research.
- v. Once irreplaceable animals are identified, the following triage scheme will be utilized for the remaining animals to determine the rescue order:
 1. Dogs, cats, horses
 2. Swine, cattle
 3. Rabbits, rodents
 4. Birds, amphibians, reptiles and fish
- vi. MSU investigators are responsible for ensuring that their research and data are not compromised by a disaster. Investigators are encouraged to cryopreserve unique rodent models and back-up research data.

B. Evacuation and Re-Entry

- i. MSU personnel must evacuate a facility when instructed to do so. The facility manager or supervisor is responsible for notifying husbandry personnel and research staff working in the animal facility of the evacuation. If any personnel choose not to evacuate, it is NOT the responsibility of the facility manager or supervisor to force evacuation.
- ii. Personnel should NOT change out of facility issued clothing prior to evacuation.
- iii. Personnel should evacuate and assemble at a predetermined assembly point.
- iv. The facility supervisor or manager will verify that all employees are present and notify a First Responder if anyone is missing.
- v. Employees should NOT re-enter the facility until permitted by First Responders. Police, fire and other emergency officials will assess the safety of the facility before granting personnel access.
- vi. Once re-entry is permitted, husbandry personnel and research staff should assess the conditions within the facility and respond according to the procedures outlined in this plan.

C. Facility Evaluation

- i. Once staff are able to access a facility, the animals and physical plant will be assessed.
- ii. Staff will note any sick/injured animals and report this to the AV veterinarian(s) and ORA. The responding veterinarian(s) will examine the animals, provide treatment, or euthanize as necessary.
- iii. Staff will note if any animals are loose and report this to the facility supervisor/manager/OAR veterinarian. Instructions for how to capture and identify loose animals will be provided to the staff.
- iv. Any dead animals will be placed in the facility cooler/freezer.
- v. Rooms will be evaluated for usability. This evaluation should include assessment of any damage to racks, caging, ceiling, walls, floors, or HVAC equipment. Any issues will be communicated to the facility supervisor/manager/AV veterinarian and ORA.

D. Personnel Staffing

- i. Facility supervisors/managers will determine the number of staff needed to carry out critical operations and will contact personnel to determine who is able to report to work.
- ii. In the event all animal care responsibilities are unable to be performed, tasks will be prioritized with staff checking animal health, food and water first. Cage changes and enclosure sanitization may be delayed until additional personnel are available to provide care. Decisions on which duties to prioritize will be made by the Facility Supervisors/Manager.

III. Disasters

The following are additional guidelines specific for each type of emergency.

A. Utility Failures

The most common facility issues that impact laboratory animals are utility failures such as: heating and cooling systems, ventilation systems, humidification systems, and power outages. If at any time environmental conditions cannot be restored to acceptable ranges, animals should be relocated under the direction of the AV and Manager of Animal Research Facilities.

i. Readiness

1. Know the temperatures that animal rooms are supposed to be maintained.
2. Know the location of back-up equipment (i.e., humidifiers, fans, heaters, flashlights, etc.)
3. Know how to read monitoring equipment (i.e., thermometers, hygrometers, monitoring software, etc.)

ii. Response Actions

1. Contact MSU Facilities Management (417-836-8400) as soon as the utility failure is identified.
2. Notify the Manager, Animal Research Facilities (or ORA staff) of the reported utility failure and animal health status.
3. Contact MSU University Safety at (417-836-5509) if alarm systems will be affected.
4. Check animals, environmental conditions, and provide back-up equipment as applicable and possible.

i. Special Considerations

1. Heating and Cooling
 - a. If temperatures are outside of an acceptable range (too cold), supplemental heaters should be provided.
 - b. If temperatures are outside of an acceptable range (too hot), supplemental cooling should be provided.
2. Ventilation
 - a. If ventilation is outside of an acceptable range, room doors should be opened, and fans should be placed to help air circulation.

3. Humidification
 - a. If humidity is outside of an acceptable range, supplemental humidifiers should be provided.
4. Power outages
 - a. If the power fails and emergency back-up power does not come on quickly or back-up power is not available, take action to remedy the immediate danger.
 - b. Locate a flashlight.
 - c. Any animals that are physically dependent upon electrical power to support their life and well-being should be checked on first (i.e., aquatic systems, animals in sealed chambers, or temperature sensitive animals in enclosed rooms) and assistance provided.
 - d. Unplug all computers, monitors, printers, cage washers, and the autoclave to prevent damage from an electrical surge when the power is restored.

B. Equipment Malfunctions

Even when equipment is maintained properly, equipment malfunctions can and will occur. If at any time an equipment malfunctions threaten the life of an animal, the animal should be relocated under the direction of the AV and Manager of Animal Research Facilities.

i. Readiness

1. Know where owner's manuals are kept in each facility.
2. Know the manufacturer specifications, how to properly turn on/off/set, and maintain each piece of equipment you work with.
3. Know where the model and serial number are located on each piece of equipment you work with.
4. Know where the list of Service Companies is kept in each facility and which company to call for each piece of equipment.

ii. Response Actions

1. Notify the Manager of Animal Research Facilities (or ORA staff) of the equipment malfunction as soon as it is found.
2. Check animals (if applicable). If their life and well-being is or could be affected by the equipment malfunction (i.e., aquatic systems, animals in sealed chambers, or temperature sensitive animals in enclosed rooms), provided assistance or move animals as directed by the AV and Manager, Animal Research Facilities.
3. Contact the appropriate Service Company or, if applicable, MSU Facilities Management (417-836-8400).

C. Winter Storms

Occasionally, major winter storms in Springfield are associated with large amounts of snow fall or ice. Road conditions may preclude staff from arriving to work on time or not at all. The safety of human life is always the priority in this situation.

i. Readiness

1. It is a good idea to have winter safety equipment in personal vehicles, including sand, a shovel, tire chains, a broom, snow boots, insulated coveralls or other

warm clothing, gloves, safety flares, potable water, and food. Keep important family phone numbers in case you are snowed in at work and cannot get home.

2. Know your work schedule. If you are scheduled but are not able to make it to work due to weather restrictions, contact the Manager, Animal Research Facilities to make other arrangements.

ii. Response Actions

1. If a storm occurs during a regular work week when bedding changes and full cage washes are scheduled and limited employees are available for work, daily health checks (food and water replenishment and updating health records) should be performed on all animals.
2. AFTER daily health checks have been done, if time allows, do the scheduled bedding changes and full cage washes. If an entire room or rack cannot be completed, be sure to write a note as to where the bedding changes stopped.
3. Notify the AV and Manager of Animal Research Facilities to inform him/her of the status of the animals and the facility.

D. Tornado

Personnel should always move to a safe area as soon as they are aware of a tornado in the area, typically by hearing a tornado warning issued. Damages to a facility vary widely by each tornado situation.

i. Readiness

1. Identify a “safe area” in the facility to go during a tornado. This area should be located away from windows and heavy objects that could fall on top of you.
2. Identify at least 2 evacuation routes that lead safely outside the building. Review the floor plan maps for your facility regularly; a map is posted in the main corridor near the entrance.
3. Locate the designated assembly place outside of your building.
4. Notify the Manager of Animal Research Facilities if you have a disability that may limit or impede your ability to evacuate the building in a timely manner; assistance will be arranged to provide for your safe evacuation.

ii. Response Actions

1. Direct occupants to move quick and orderly to the nearest shelter area in the building.
2. Instruct occupants not to leave the building.
3. Turn off all lights and electronic equipment in the room.
4. Provide help to those with disabilities.
5. Go with occupants to the nearest designated shelter area in the building.
6. Remain in the shelter area until notified the warning has expired.

E. Fire

Smoke, heat, and toxic gases from a fire are the most common causes of fire-related deaths and injuries, not flames. Be aware that these deadly fire elements rise and collect at ceiling levels, pushing cooler, cleaner air toward the floor. While toxic gases and heat are often fire's invisible killers, rising smoke may cover and hide exit signs above doorways. To get out of the building safely, you must be able to find the exits even if the signs are covered by smoke.

i. Readiness

1. Locate building exits, fire extinguishers, and the fire alarm nearest your work area.
2. Identify at least 2 evacuation routes that lead safely outside the building. Review the floor plan maps for your facility regularly; a map is posted in the main corridor near the entrance.
3. Locate the designated assembly place outside of your building.
4. Notify the Manager of Animal Research Facilities if you have a disability that may limit or impede your ability to evacuate the building in a timely manner; assistance will be arranged to provide for your safe evacuation.
5. Properly store chemicals (i.e., under fume hoods, in cabinets).
6. Keep hallways and access to fire extinguishers clear.

ii. Response Actions

1. Pull fire alarm.
 - a. Call 911 then, notify MSU University Safety (417-836-5509).
2. Procedures during a minor fire
 - a. Use the fire extinguisher to control the fire, if possible.
3. Procedure during a large fire
 - a. Activate the building alarm and walk to the nearest marked exit. Ask others to do the same.
 - b. Evacuate all rooms and close all doors to confine the fire and reduce oxygen.
 - c. Exit the building and assist people with impairments in exiting the building.
 - e. Move to the evacuation location or a clear area at least 500 feet away from the building.
 - f. Stay outside the building unless told to re-enter by an official.
4. Smoke is the greatest danger in a fire, stay near the floor, do not lock doors, do not use elevators, do not panic.
5. After the fire marshal approves the building for re-entry, the Manager of Animal Research Facilities (or ORA staff) will assess the situation and contact PI's whose animals are affected. Relocation, treatment, or euthanasia will be assigned as needed.

F. Earthquake

In accordance with MSU University Safety Procedures if an earthquake occurs, Personnel that are outdoors should stay in the open away from building, structures, and utility wires. Personnel that are indoors should seek shelter in a doorway or under a desk, away from windows, shelves and heavy equipment.

- i. Assist people with disabilities to the exit.
- ii. Do not use elevators.
- iii. Once outside, move to a clear area that is 500 feet away from the building.
- iv. Keep streets, fire lanes, hydrants and walkways clear for emergency vehicles and crews.
- v. Do not return to an evacuated building unless instructed to do so.
- vi. After any evacuation, report to your designated campus area assembly point. Stay there until an accurate head count is complete.
- vii. The building coordinator or resident assistant will take attendance and verify all building occupants are safe.

- viii. After the initial shock, evaluate the situation and call University Safety if you have an emergency.
- ix. Report damaged facilities to maintenance.
- x. A campus emergency command post may be set up near the disaster site. Keep clear of the command post unless you have official business.

G. Security Threats

i. Animal Activist Demonstration

Employees need to be aware of their surroundings at all times and of unauthorized or suspicious persons attempting to gain access to animal facilities. Activists may pretend to have authority to gain access or may claim to "have a delivery," an "appointment," or to have left their card/key elsewhere. All animal areas should be treated and kept as secure areas.

1. Response Actions

- a. Remain calm.
- b. Be courteous.
- c. Avoid an incident.
- d. If you arrive during a disturbance, leave the area at once.
- e. If you are inside the building, stay in your office or work area.
- f. If you are inside the building and need to leave, request an escort from MSU University Safety, 417-836-5509 (local police department if off campus facility).
- g. Use the stairs to exit the building rather than the elevators.
- h. If you learn of animal activists targeting MSU in any way, including researchers' homes, main facilities, or satellite facilities, alert MSU University Safety and notify the Manager of Animal Research Facilities (or ORA staff).

ii. Bomb threat, Bomb or Suspicious Item Found

Bomb threats are usually received by telephone but can also come by note or letter. Most telephoned bomb threats are made by callers who want to create an atmosphere of general anxiety and panic, but all such calls are to be taken seriously and handled as though an explosive is in the building. If you receive a bomb threat by telephone, do not hang up. It is important that you remain calm and try to prolong the conversation to get as much information as possible, refer to the bomb threat checklist [DHS bomb threat checklist](#). After the call has ended, immediately call MSU University Safety (836-5509).

- 1. Actions to take immediately after call
 - a. Call University Safety and provide the information.
 - b. Conduct a Hasty Search to determine whether there is anything suspicious in the room.
 - 1. If there, immediately evacuate, including others.
 - 2. If not, wait for instructions.
 - c. University Safety will meet with you upon arrival.
 - d. University Safety will evaluate the situation and determine further steps.

iii. Hostile intruder

In accordance with guidance from the MSU Hostile Intruder Policy, personnel experiencing an active threat in a facility should quickly determine the most reasonable way to respond—run, hide or fight.

1. **Run** away from the threat if you can.
 - a. Do not run in a straight line.
 - b. Use cars, trees, and bushes to block your view from the hostile person.
 - c. If you can get away from the immediate area of danger, get help and warn others, but do not use a fire alarm. It may cause others to go out into danger.
2. If you cannot get away, **Hide** in a room.
 - a. Lock the door, turn off the lights, silence your cell phone, stay out of sight.
 - b. Consider barricading the door with desks, chairs, cabinets, anything to make it hard to enter.
 - c. Call 9-1-1 if you can do so safely.
3. The last option is to **Fight** back.
 - a. Use anything at your disposal...backpacks, computers, books, etc. to disrupt the intruder to give you time to get away or to subdue them.
 - b. If you are with a group, swarm the intruder all at once.
4. Once the police arrive, obey all commands.
 - a. This may involve being handcuffed or putting your hands in the air. This is for safety reasons.
 - b. Once police evaluate circumstances, they will give you further directions.

H. Pandemic

- i. The biggest concerns with a pandemic are staff and supply shortages. Plans will be put into place to maintain critical operations and prevent the spread of disease amongst employees.
- ii. Each facility should determine the minimum number of personnel needed to maintain daily facility operations (husbandry, veterinary care, cage wash, etc). Staggered schedules may be put into place to utilize the minimum number of personnel and prevent overlap of employees as much as possible.
- iii. Care staff should be cross-trained on all species and facility functions to ensure flexibility in work assignments.
- iv. Group meetings will be performed via zoom or in environments where social distancing is possible. Staff working at the same time will coordinate breaks to avoid personnel congregating in shared spaces.
- v. Supplies of feed, bedding, personal protective equipment (PPE), and disinfectant should be evaluated and critical items determined. Extended lead times should be anticipated for orders. Additional amounts of critical items should be ordered by facility supervisors and stockpiled (1–2-month supply when possible) if directed by the Facility Manager. Alternative sources of these items may need to be evaluated.
- vi. Staff will be educated on disease prevention techniques and encouraged to NOT report to work if any disease symptoms are noted.
- vii. In times of significant staff shortage, extended cage change intervals and sanitization schedules may be necessary. Any departures from the Guide for the Care and Use of Animals will be evaluated and approved by IACUC.
- viii. Plans will be implemented to conserve PPE and extend the use of items such as lab coats and masks whenever possible.

I. Foreign Animal Disease

If foreign animal disease (i.e., Foot and Mouth Disease) or other types of animal health emergencies are identified in the United States, MSU will follow guidelines established by the United States Department of Agriculture – Animal and Plant Health Inspection Service (USDA - APHIS). [National Animal Health Emergency Management System \(NAHEMS\) Guidelines](https://www.aphis.usda.gov/animal-health/emergencies/nahems-guidelines) will be used to establish a coordinated response. Guide documents can be accessed at <https://fadprep.lmi.org/>.

An emergency response will have the following components:

- i. Determine the nature of the outbreak/emergency
- ii. Initiate an appropriate response
- iii. Eliminate or control the disease
- iv. Facilitate recovery

Each Farm owned and operated by MSU will have its own Emergency Response Plan and Team. The team will be utilized to assist other emergency management personnel in enforcing biosecurity protocols. Whether dealing with an outbreak of disease, contamination of feed or milk, or a suspicious intruder, the team will know what authorities to notify, how to secure the premises, and how to quarantine the area involved.

i. Response Actions

1. Assess the situation
2. Contact the appropriate responder
 - a. Local Veterinarian for a disease concern.
 - b. MSU University Safety, 417-836-5509 or Local Police Department for intruder concern.
 - c. Always contact the MSU AV and/or Manager of Animal Research Facilities (or ORA staff) to notify them of the situation.
3. If a disease or other contamination is suspected:
 - a. Contact MSU AV and Local Veterinarian.
 - b. Secure all points of access to and from the operation.
 - c. Cancel hauling of cattle from or to the operation.
 - d. Cancel any tours and prohibit all visitors; only authorized officials should have access to the property.
 - e. Take steps to prevent birds, rodents, dogs, cats, and other wildlife from entering the premises.

J. Medical Injuries

Know who has first aid training and where the first aid kit(s) and automatic external defibrillator (AED) are located.

i. Minor Medical Emergencies

1. Administer first aid and seek physician treatment if applicable (i.e., MSU Magers Health and Wellness, private physician, or urgent care).

- a. MSU Magers Health and Wellness (417-836-4000)
2. Notify Manager of Animal Research Facilities (or ORA staff) of the injury.

ii. Major Medical Emergencies

1. Call Local Emergency Medical Services (911) and state that you need medical aid. Stay on the phone with the dispatcher and answer as many questions as possible so that additional information can be transmitted to the responding aid unit. Give first aid if it is safe to do so.

iii. Basic Procedures

1. Check the scene for safety first; do not risk your own life if danger still exists.
2. Call for help.
 - a. When calling for help, you should stay with the victim and send someone else to call for help unless you are the only other person present.
3. Care for the victim, if the safe to do so.
 - a. Never move a person who is injured or unconscious.
 - b. Wear gloves.
 - c. CPR - Start breathing by opening the airway. Move the lower jaw open while maintaining the position of the head and neck. If victim is still not breathing, begin assisting ventilation if you are trained to do so.
 - d. Bleeding - Stop bleeding by applying direct pressure to the wound using clean bandage material, paper towel, or gloved hand. Have the victim sit or lie down. Elevate the injured body part above the level of the heart.
 - e. Chocking - Determine if the victim can speak or cough. Encourage coughing to dislodge the obstruction. If the victim is conscious and unable to cough or breathe, perform the Heimlich maneuver if you are trained to do so.
 - f. AED – Adults who have experienced a heart attack require immediate trained medical attention; call for help before administering first aid. Check the carotid artery in the neck for a pulse. If there is no pulse, send a volunteer in the area for the AED. Do not use the AED unless you are trained to do so.

K. Chemical Spills

i. Response Actions

1. Warn fellow workers and supervisors.
2. Evacuate the area and preclude inadvertent intrusion until the spill is eliminated.
3. Notify MSU Environmental Management (836-8334) and University Safety.
4. Take action to contain the spill if possible, without jeopardizing person well-being.
5. Administer First Aid as necessary and possible.

See individual facility plans (below) for additional information.

Roy Blunt Hall (SCNC) Vivarium

Roy Blunt Hall (SCNC) Vivarium in collaboration with Office of Research Administration (ORA), provides animal procurement, husbandry, health care, and scientific support for several programs using animals in teaching and research. The Manager of Animal Research Facilities, its personnel, and ORA are responsible for emergency planning and implementation regarding research animals housed within the facility. This serves as an addendum to the MSU Animal Emergency Operations Plan and to other emergency procedures established by Missouri State University.

1. Potential Emergencies Covered by this Plan

Earthquake
Fire
Flooding
Pandemic
HVAC Failure
Security Threats
Winter Storms
Tornado

2. Emergency Contacts

Emergency Point Person: Mgr. of Animal Research Facilities, Angela Goerndt, 836-8405
Emergency Point Person: Attending Veterinarian, Dr. Michael Stafford,
Emergency Point Person: Director of Compliance, Johnna Pedersen, 417-836-3737
Fire (EMERGENCY): 911
Fire (non-emergency): 417-874-1500
Police (EMERGENCY): 911
Police (non-emergency): 417-864-1810
Electrical (8am-5pm): MSU Facilities Management, 417-836-8400
Electrical (after hours): MSU Facilities Management, 417-836-5133
Water (8am-5pm): MSU Facilities Management, 417-836-8400
Water (after hours): MSU Facilities Management, 417-836-5133

3. Personnel to Whom This Document Applies

All laboratory animal care staff

4. Assembly Point(s) in the Event of an Emergency

Manager of Animal Research Facilities Office, SCNC 160

5. Power Supply, Light, and Ventilation

The most common facility issues that impact laboratory animals are utility failures such as: heating and cooling systems, ventilation systems, humidification systems, and power outages. If at any time environmental conditions cannot be restored to acceptable ranges, animals should be relocated under the direction of the Attending Veterinarian and Manager of Animal Research Facilities.

Readiness

- Know the environmental conditions that animal rooms are supposed to be maintained.
 - Temperature
 - Mouse, rat, hamster, gerbil, guinea pig
 - 68-79 degrees Fahrenheit
 - Rabbit
 - 61-72 degrees Fahrenheit
 - Snake
 - 70-85 degrees Fahrenheit
 - Amphibian
 - varies depending upon species and stage of life
 - Aquatic salamanders
 - Temperatures above 75 degrees Fahrenheit are distressing
 - Temperatures above 78 degrees Fahrenheit can be lethal
 - animals must be moved to a cooler location (e.g., a controlled environmental chamber or cooler room)
 - Terrestrial salamanders
 - Temperatures above 75 degrees Fahrenheit are distressing
 - It is critical to keep the substrate moist
 - Attempts must be made to cool the animals
 - Pour off any excess warm water from the substrate and pour a little cool water onto the substrate
 - Temperatures above 78 degrees Fahrenheit can be lethal
 - Animals must be moved to a cooler location (e.g., a controlled environmental chamber or cooler room)
 - For both aquatic and terrestrial species, it is critical that temperatures do not change too abruptly (e.g., adding water that is very cold) or temperature shock could result, which can also lead to death
 - Fish
 - varies depending upon species
 - Zebrafish
 - 78.8 – 83.3 degrees Fahrenheit
 - Freshwater-cool water-river fish
 - 44 – 67 degrees Fahrenheit
 - Temperatures above 68 degrees Fahrenheit are stressful
 - Temperatures above 75 degrees Fahrenheit for an extended period can be lethal
 - Humidity
 - 30% - 70%

- Lighting
 - Animal rooms are kept on a 12 hour on/off schedule unless otherwise specified by the PI
- Air changes
 - Animal rooms must have a minimum of 10 to 15 fresh air changes per hour
- Differential air pressure
 - Animal rooms will maintain negative air pressure to the hallway unless otherwise specified by the Attending Vet
- Know the location of back-up equipment (i.e., humidifiers, fans, heaters, flashlights, etc.)
 - Supplemental heaters and humidifiers located in animal rooms
 - Box fans located in procedure room or other storage areas at JVIC
 - Additional supplemental heaters and humidifiers located at JVIC
- Know how to read monitoring equipment (i.e., thermometers, hygrometers, monitoring software, etc.)

Response Actions

- Contact MSU Facilities Management (417-836-8400) as soon as the utility failure is identified.
- Notify the Manager of Animal Research Facilities (or ORA staff) of the reported utility failure and animal health status.
- Contact MSU Safety and Transportation (417-836-5509) if alarm systems will be affected.
- Check animals, environmental conditions, and provide back-up equipment as applicable and possible.

Special Considerations

- Heating and Cooling
 - If temperatures are outside of an acceptable range (too cold), supplemental heaters should be provided.
 - If temperatures are outside of an acceptable range (too hot), supplemental cooling should be provided.
- Ventilation
 - If ventilation is outside of an acceptable range, room doors should be opened (excluding barrier and containment rooms), and fans should be placed to help air circulation.
- Humidification
 - If humidity is outside of an acceptable range (too low), supplemental humidifiers should be provided.

- If humidity is outside of an acceptable range (too high), contact MSU Facilities Management to resolve the issue.
- Power Outages
 - If the power fails and emergency back-up power does not come on quickly or back-up power is not available, take action to remedy the immediate danger.
 - Locate a flashlight.
 - Any animals that are physically dependent upon electrical power to support their life and well-being should be checked on first (i.e., aquatic systems, animals in sealed chambers, or temperature sensitive animals in enclosed rooms) and assistance provided.
 - Unplug all computers, monitors, printers, cage washer, and the autoclave to prevent damage from an electrical surge when the power is restored.
- Lighting
 - If a light bulb is burnt out, submit a work order with MSU Work Management to have the bulb replaced.
 - If the lights are on or off when they should not be, steps should be taken to remedy the situation.
 - If the lights are on when they should be off, check to see if the supplemental light switch has been turned on and switch it off.
 - If the supplemental light switch is off, then there may be a problem with the software program and Rees Environmental Monitoring will need to be contacted to resolve the issue.
 - If the lights are off when they should be on, there may be a problem with the software program and Rees Environmental Monitoring will need to be contacted to resolve the issue. In the meantime, the supplemental lights should be turned on.

6. Food and Bedding

- Food and bedding should be stored in a separate area in a way that minimizes the introduction of diseases, parasites, potential disease vectors (e.g., insects and other vermin) and protected from the risk of contamination from toxic or hazardous substances.
- Areas used for food storage should not be subject to elevated temperatures or relative humidity for prolonged periods.
- There should always be enough food and bedding on hand to provide adequate care to the animals in the facility for a minimum of two weeks should there be a delay in shipment.
- Outdated, but unspoiled, food should be disposed of unless there is no other option available while waiting for a new shipment.
- Spoiled, moldy, or contaminated food must be disposed of immediately and another option provided.
- Moldy or contaminated bedding must be disposed of immediately and replaced with another option.
- Animals being fed ad lib should always have a minimum of two-days-supply of food in their hoppers as a precaution should circumstances prevent animal care staff from attending to the animals.

7. Water

- Animals should have access to potable, uncontaminated drinking water according to their requirements.
- Water can be treated or purified to minimize or eliminate contamination.
- Under a boil water advisory, water must be autoclaved prior to giving it to the animals.
- Bottled water may be shipped in should circumstances require.
- Animals should always have a minimum of two-days-supply of water in their bottles as a precaution should circumstances prevent animal care staff from attending to the animals.

8. Transportation

- In the event animal removal/relocation from the vivarium is needed
 - traditional laboratory animals (e.g., rodents, rabbits, etc.) will be moved to other like animal-approved facilities on campus if possible (e.g., KMPT or JVIC).
 - Aquatic animals (e.g., fish, turtles, salamanders, etc.) will be moved to other like animal-approved spaces or facilities on or off campus if possible.
 - Resident wildlife (e.g., bats, snakes, etc.) may be more difficult to relocate. If possible, these animals will be moved to other like animal-approved spaces or facilities on or off campus if possible.
- Animals will be transported in appropriate transportation containers in a climate-controlled vehicle - either MSU-owned or employee's personal vehicle.

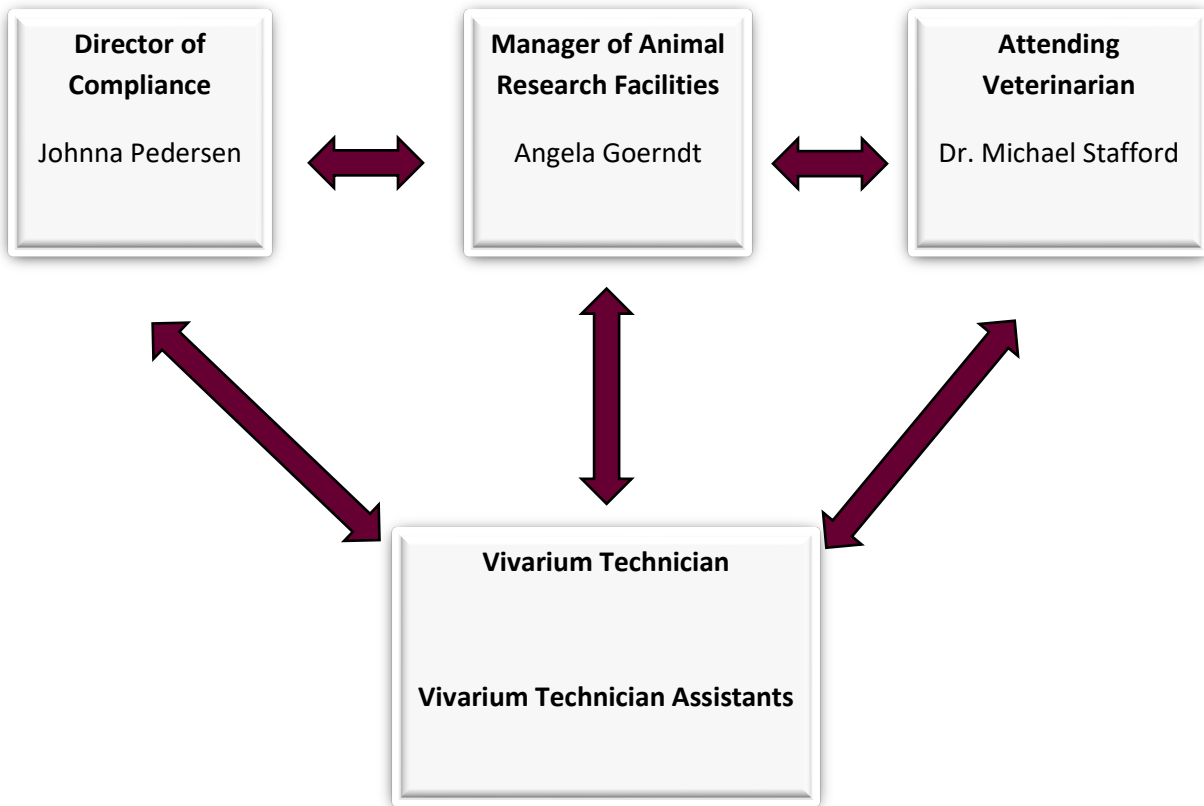
9. Euthanasia and Disposal of Dead Animals

- If it becomes necessary to euthanize animals, trained personnel will accomplish this, under the direction of the AV using approved AVMA guidelines.
- Animals will be appropriately disposed of according to established SOPs.

10. Emergency Equipment and Supplies on Hand

- Supplemental heaters
- Supplemental humidifiers
- Flashlights
- Box fans
- Animal transportation containers
- First Aid Kit
- Emergency call button in aquatic holding room 3 (a.k.a. 172 or the snake room)
- Additional food in storage (SCNC, KMPT, JVIC)
- Additional bedding in storage (SCNC, KMPT, JVIC)
- Additional pre-filled water bottles (SCNC, KMPT, JVIC)

Emergency Call Tree



Kampeter Health Sciences Hall (KMPT) Vivarium

Kampeter Health Sciences Hall (KMPT) Vivarium in collaboration with Office of Research Administration (ORA), provides animal procurement, husbandry, health care, and scientific support for several programs using animals in teaching and research. The Manager of Animal Research Facilities, its personnel, and ORA are responsible for emergency planning and implementation regarding research animals housed within the facility. This serves as an addendum to the MSU Animal Emergency Operations Plan and to other emergency procedures established by Missouri State University.

1. Potential Emergencies Covered by this Plan
 - Earthquake
 - Fire
 - Flooding
 - Pandemic
 - HVAC Failure
 - Security Threats
 - Winter Storms
 - Tornado

2. Emergency Contacts
 - Emergency Point Person: Mgr. of Animal Research Facilities, Angela Goerndt, 836-8405
 - Emergency Point Person: Attending Veterinarian, Dr. Michael Stafford,
 - Emergency Point Person: Director of Compliance, Johnna Pedersen, 836-3737
 - Fire (EMERGENCY): 911
 - Fire (non-emergency): 417-874-1500
 - Police (EMERGENCY): 911
 - Police (non-emergency): 417-864-1810
 - Electrical (8am-5pm): MSU Facilities Management, 417-836-8400
 - Electrical (after hours): MSU Facilities Management, 417-836-5133
 - Water (8am-5pm): MSU Facilities Management, 417-836-8400
 - Water (after hours): MSU Facilities Management, 417-836-5133

3. Personnel to Whom This Document Applies
 - All laboratory animal care staff

4. Assembly Point(s) in the Event of an Emergency
 - Manager of Animal Research Facilities Office, SCNC 160
 - Vivarium preparation room, KMPT 368

5. Power Supply, Light, and Ventilation

The most common facility issues that impact laboratory animals are utility failures such as: heating and cooling systems, ventilation systems, humidification systems, and power outages. If at any time environmental conditions cannot be restored to acceptable ranges, animals should be relocated under the direction of the Attending Veterinarian and Manager of Animal Research Facilities.

Readiness

- Know the environmental conditions that animal rooms are supposed to be maintained.
 - Temperature
 - Mouse, rat, hamster, gerbil, guinea pig
 - 68-79 degrees Fahrenheit
 - Humidity
 - 30% - 70%
 - Lighting
 - Animal rooms are kept on a 12 hour on/off schedule unless otherwise specified by the PI
 - Air changes
 - Animal rooms must have a minimum of 10 to 15 fresh air changes per hour
 - Differential air pressure
 - Animal rooms will maintain negative air pressure to the hallway unless otherwise specified by the Attending Vet
- Know the location of back-up equipment (i.e., humidifiers, fans, heaters, flashlights, etc.)
 - Supplemental humidifier plumbed into the wall
 - Supplemental heaters located at SCNC and JVIC
 - Additional supplemental heaters and humidifiers located at SCNC and JVIC
 - Box fans are stored at JVIC
- Know how to read monitoring equipment (i.e., thermometers, hygrometers, monitoring software, etc.)

Response Actions

- Contact MSU Facilities Management (417-836-8400) as soon as the utility failure is identified.
- Notify the Manager of Animal Research Facilities (or ORA staff) of the reported utility failure and animal health status.
- Contact MSU Safety and Transportation (417-836-5509) if alarm systems will be affected.
- Check animals, environmental conditions, and provide back-up equipment as applicable and possible.

Special Considerations

- Heating and Cooling
 - If temperatures are outside of an acceptable range (too cold), supplemental heaters should be provided.

- If temperatures are outside of an acceptable range (too hot), supplemental cooling should be provided.
- Ventilation
 - If ventilation is outside of an acceptable range, the animal room door should be opened to the prep room, and fans should be placed to help air circulation.
- Humidification
 - If humidity is outside of an acceptable range (too low), supplemental humidifiers should be provided.
 - If humidity is outside of an acceptable range (too high), contact MSU Facilities Management to resolve the issue.
- Power Outages
 - If the power fails and emergency back-up power does not come on quickly or back-up power is not available, take action to remedy the immediate danger.
 - Locate a flashlight.
 - Animals that are housed in Individually Ventilated Cages (IVC) on IVC racks are physically dependent upon electrical power to support their life and well-being.
 - Cages should be moved off the IVC rack
 - Animals should be put into static cages
 - Unplug all computers, monitors, printers, and cage washer to prevent damage from an electrical surge when the power is restored.
- Lighting
 - If a light bulb is burnt out, submit a work order with MSU Work Management to have the bulb replaced.
 - If the lights are on or off when they should not be, steps should be taken to remedy the situation.
 - If the lights are on when they should be off, check to see if the light switch has been turned on and switch it off.
 - If the light switch is off, there may be a problem with the analog light controller.
 - Check the dial in the light controller to see if the unit has been turned off or if the time points have slipped or been moved and readjust as needed.
 - If the lights are off when they should be on, there may be a problem with the analog light controller.
 - Check the dial in the light controller to see if the time points have slipped or been moved and readjust as needed.

6. Food and Bedding

- Food and bedding should be stored in a separate area in a way that minimizes the introduction of diseases, parasites, potential disease vectors (e.g., insects and other vermin) and protected from the risk of contamination from toxic or hazardous substances.
- Areas used for food storage should not be subject to elevated temperatures or relative humidity for prolonged periods.

- There should be always enough food and bedding on hand to provide adequate care to the animals in the facility for a minimum of two weeks should there be a delay in shipment.
- Outdated, but unspoiled, food should be disposed of unless there is no other option available while waiting for a new shipment.
- Spoiled, moldy, or contaminated food must be disposed of immediately and another option provided.
- Moldy or contaminated bedding must be disposed of immediately and replaced with another option.
- Animals being fed ad lib should always have a minimum of two-days-supply of food in their hoppers as a precaution should circumstances prevent animal care staff from attending to the animals.

7. Water

- Animals should have access to potable, uncontaminated drinking water according to their requirements.
- Water can be treated or purified to minimize or eliminate contamination.
- Under a boil water advisory, water must be autoclaved prior to giving it to the animals.
- Bottled water may be shipped in should circumstances require.
- Animals should always have a minimum of two-days-supply of water in their bottles as a precaution should circumstances prevent animal care staff from attending to the animals.

8. Transportation

- In the event animal removal/relocation from the vivarium is needed
 - traditional laboratory animals (e.g., rodents, rabbits, etc.) will be moved to other like animal-approved facilities on campus if possible (e.g., SCNC or JVIC).
- Animals will be transported in appropriate transportation containers in a climate-controlled vehicle - either MSU-owned or employee's personal vehicle.

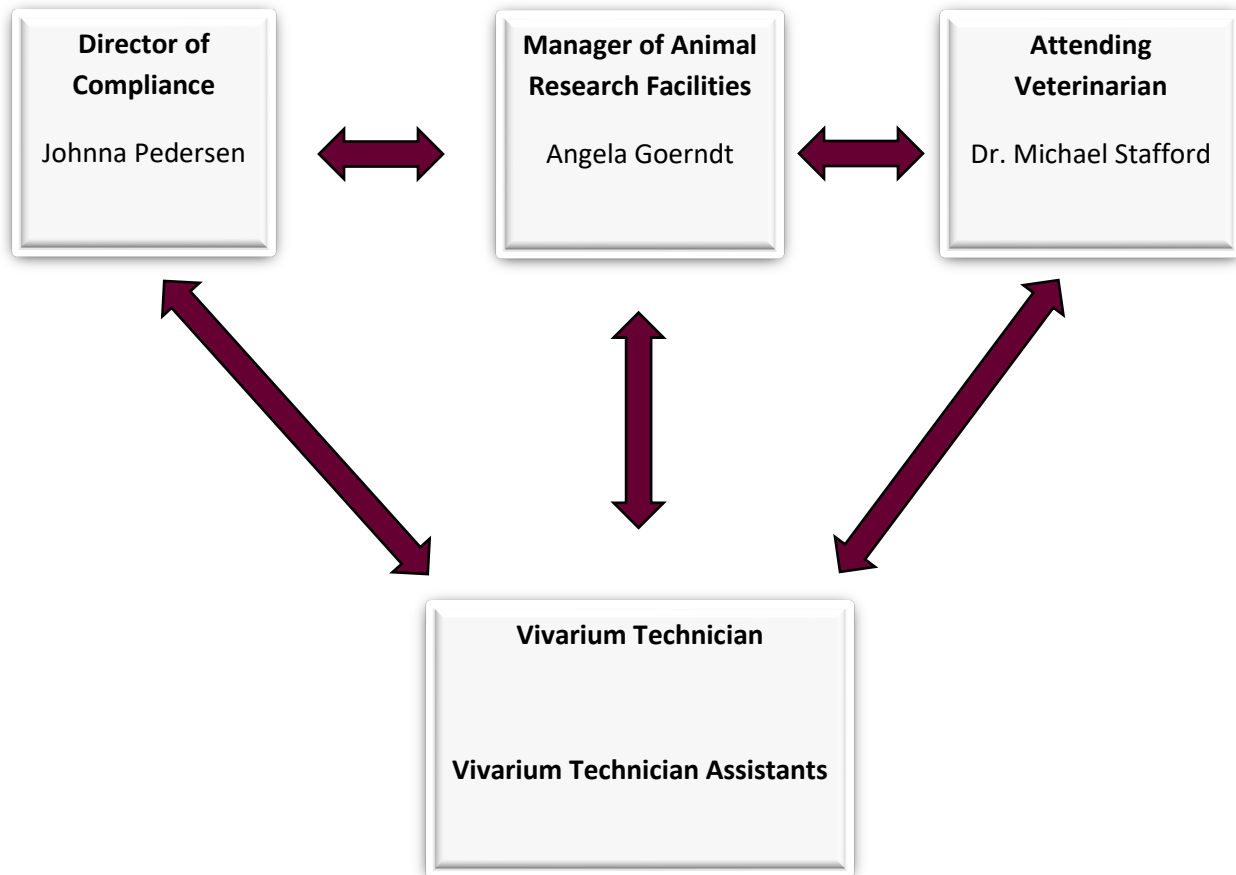
9. Euthanasia and Disposal of Dead Animals

- If it becomes necessary to euthanize animals, trained personnel will accomplish this, under the direction of the AV using approved AVMA guidelines.
- Animals will be appropriately disposed of according to established SOPs.

10. Emergency Equipment and Supplies on Hand

- Supplemental heaters
- Supplemental humidifiers
- Flashlights
- Box fans
- Animal transportation containers
- First Aid Kit
- Additional food in storage (SCNC, KMPT, JVIC)
- Additional bedding in storage (SCNC, KMPT, JVIC)
- Additional pre-filled water bottles (SCNC, KMPT, JVIC)

Emergency Call Tree



Jordan Valley Innovation Center (JVIC) Vivarium

Jordan Valley Innovation Center (JVIC) Vivarium in collaboration with Office of Research Administration (ORA), provides animal procurement, husbandry, health care, and scientific support for several programs using animals in teaching and research. The Manager of Animal Research Facilities, its personnel, and ORA are responsible for emergency planning and implementation regarding research animals housed within the facility. This serves as an addendum to the MSU Animal Emergency Operations Plan and to other emergency procedures established by Missouri State University.

1. Potential Emergencies Covered by this Plan

- Earthquake
- Fire
- Flooding
- Pandemic
- HVAC Failure
- Security Threats
- Winter Storms
- Tornado

2. Emergency Contacts

- Emergency Point Person: Mgr. of Animal Research Facilities, Angela Goerndt, 836-8405
- Emergency Point Person: Attending Veterinarian, Dr. Michael Stafford,
- Emergency Point Person: Director of Compliance, Johnna Pedersen, 836-3737
- Fire (EMERGENCY): 911
- Fire (non-emergency): 417-874-1500
- Police (EMERGENCY): 911
- Police (non-emergency): 417-864-1810
- Electrical (8am-5pm): MSU Facilities Management, 417-836-8400
- Electrical (after hours): MSU Facilities Management, 417-836-5133
- Water (8am-5pm): MSU Facilities Management, 417-836-8400
- Water (after hours): MSU Facilities Management, 417-836-5133

3. Personnel to Whom This Document Applies

- All laboratory animal care staff

4. Assembly Point(s) in the Event of an Emergency

- Manager of Animal Research Facilities Office, SCNC 160
- Security desk, JVIC lobby

5. Power Supply, Light, and Ventilation

The most common facility issues that impact laboratory animals are utility failures such as: heating and cooling systems, ventilation systems, humidification systems, and power outages. If at any time environmental conditions cannot be restored to acceptable ranges, animals should be relocated under the direction of the Attending Veterinarian and Manager of Animal Research Facilities.

Readiness

- Know the environmental conditions that animal rooms are supposed to be maintained.
 - Temperature
 - Mouse, rat, hamster, gerbil, guinea pig
 - 68-79 degrees Fahrenheit
 - Rabbit
 - 61-72 degrees Fahrenheit
 - Humidity
 - 30% - 70%
 - Lighting
 - Animal rooms are kept on a 12 hour on/off schedule unless otherwise specified by the PI
 - Air changes
 - Animal rooms must have a minimum of 10 to 15 fresh air changes per hour
 - Differential air pressure
 - Animal rooms will maintain negative air pressure to the hallway unless otherwise specified by the Attending Vet
- Know the location of back-up equipment (i.e., humidifiers, fans, heaters, flashlights, etc.)
 - Supplemental heaters and humidifiers located in animal rooms
 - Box fans located in procedure room or storage areas
 - Additional supplemental heaters and humidifiers located at SCNC
- Know how to read monitoring equipment (i.e., thermometers, hygrometers, monitoring software, etc.)

Response Actions

- Contact MSU Facilities Management (417-836-8400) as soon as the utility failure is identified.
- Notify the Manager of Animal Research Facilities (or ORA staff) of the reported utility failure and animal health status.
- Contact MSU Safety and Transportation (417-836-5509) if alarm systems will be affected.
- Check animals, environmental conditions, and provide back-up equipment as applicable and possible.

Special Considerations

- Heating and Cooling
 - If temperatures are outside of an acceptable range (too cold), supplemental heaters should be provided.
 - If temperatures are outside of an acceptable range (too hot), supplemental cooling should be provided.
- Ventilation
 - If ventilation is outside of an acceptable range, the animal room doors should be opened, and fans should be placed to help air circulation.
- Humidification
 - If humidity is outside of an acceptable range (too low), supplemental humidifiers should be provided.
 - If humidity is outside of an acceptable range (too high), contact MSU Facilities Management to resolve the issue.
- Power Outages
 - If the power fails and emergency back-up power does not come on quickly or back-up power is not available, take action to remedy the immediate danger.
 - Locate a flashlight.
 - Any animals that are physically dependent upon electrical power to support their life and well-being should be checked on first (e.g., animals in sealed chambers, or temperature sensitive animals in enclosed rooms) and assistance provided.
 - Unplug all computers, monitors, printers, cage washer, and autoclave to prevent damage from an electrical surge when the power is restored.
- Lighting
 - If a light bulb is burnt out, submit a work order with MSU Work Management to have the bulb replaced.
 - If the lights are on or off when they should not be, steps should be taken to remedy the situation.
 - If the lights are on when they should be off, check to see if the supplemental light switch has been turned on and switch it off.
 - If the supplemental light switch is off, then there may be a problem with the software program and Rees Environmental Monitoring will need to be contacted to resolve the issue.
 - If the lights are off when they should be on, there may be a problem with the software program and Rees Environmental Monitoring will need to be contacted to resolve the issue. In the meantime, the supplemental lights should be turned on.

6. Food and Bedding

- Food and bedding should be stored in a separate area in a way that minimizes the introduction of diseases, parasites, potential disease vectors (e.g., insects and other vermin) and protected from the risk of contamination from toxic or hazardous substances.
- Areas used for food storage should not be subject to elevated temperatures or relative humidity for prolonged periods.
- There should be always enough food and bedding on hand to provide adequate care to the animals in the facility for a minimum of two weeks should there be a delay in shipment.
- Outdated, but unspoiled, food should be disposed of unless there is no other option available while waiting for a new shipment.
- Spoiled, moldy, or contaminated food must be disposed of immediately and another option provided.
- Moldy or contaminated bedding must be disposed of immediately and replaced with another option.
- Animals being fed ad lib should always have a minimum of two-days-supply of food in their hoppers as a precaution should circumstances prevent animal care staff from attending to the animals.

7. Water

- Animals should have access to potable, uncontaminated drinking water according to their requirements.
- Water can be treated or purified to minimize or eliminate contamination.
- Under a boil water advisory, water must be autoclaved prior to giving it to the animals.
- Bottled water may be shipped in should circumstances require.
- Animals should always have a minimum of two-days-supply of water in their bottles as a precaution should circumstances prevent animal care staff from attending to the animals.

8. Transportation

- In the event animal removal/relocation from the vivarium is needed
 - traditional laboratory animals (e.g., rodents, rabbits, etc.) will be moved to other like animal-approved facilities on campus if possible (e.g., SCNC or KMPT).
- Animals will be transported in appropriate transportation containers in a climate-controlled vehicle - either MSU-owned or employee's personal vehicle.

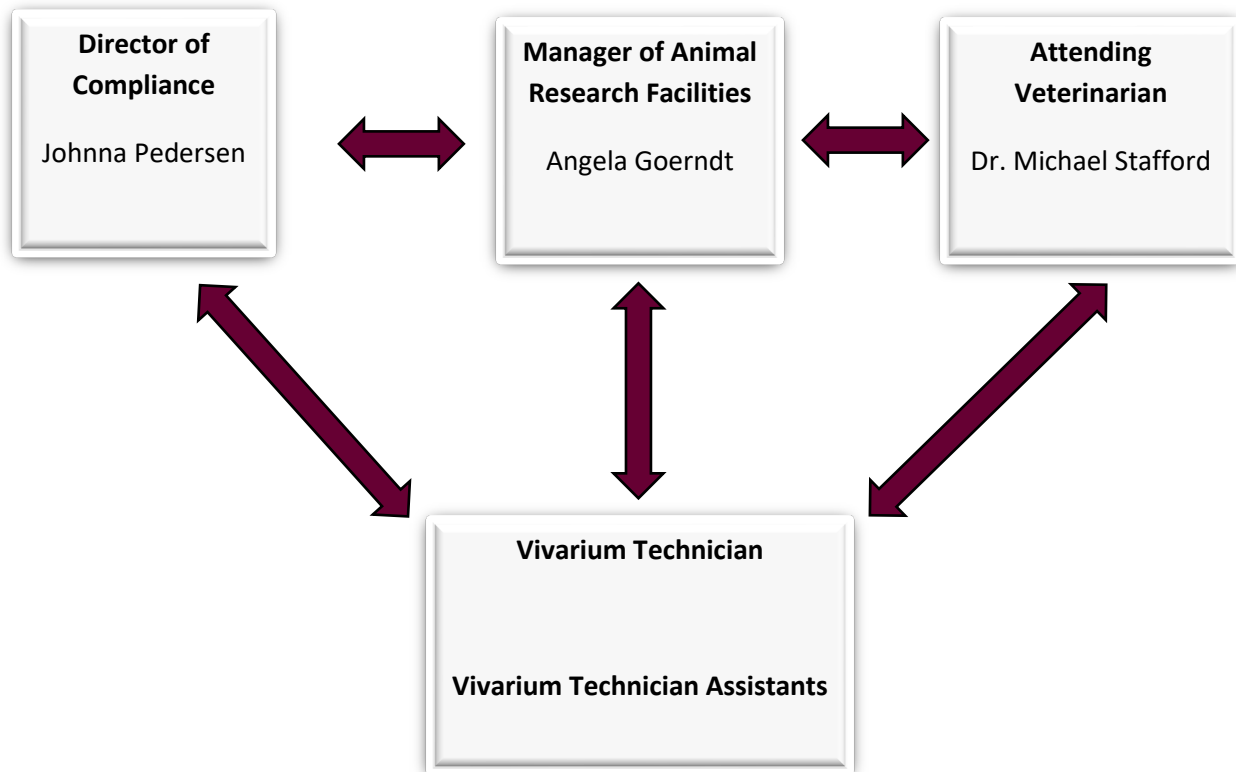
9. Euthanasia and Disposal of Dead Animals

- If it becomes necessary to euthanize animals, trained personnel will accomplish this, under the direction of the AV using approved AVMA guidelines.
- Animals will be appropriately disposed of according to established SOPs.

10. Emergency Equipment and Supplies on Hand

- Supplemental heaters
- Supplemental humidifiers
- Flashlights
- Box fans
- Animal transportation containers
- First Aid Kit
- Additional food in storage (SCNC, KMPT, JVIC)
- Additional bedding in storage (SCNC, KMPT, JVIC)
- Additional pre-filled water bottles (SCNC, KMPT, JVIC)

Emergency Call Tree



By signing below, you indicate that you have read and fully understand the Institutional Animal Care and Use Committee's (IACUC) Emergency Action Plan (EAP) for Animal Facilities and subsequent emergency plans for the Blunt Hall (SCNC), Kampeter Health Sciences Hall (KMPT), and Jordan Valley Innovation Center (JVIC) Vivaria.

PRINT

SIGN

DATE

Journagan Ranch

The Darr College of Agriculture provides animal procurement, husbandry, health care, and scientific support for agriculture programs using animals in teaching and research. The Journagan Ranch Manager, Marty Lueck, is responsible for emergency planning and implementation regarding research animals housed within the facility. This serves as an addendum to the MSU Animal Emergency Operations Plan and to other emergency procedures established by Missouri State University.

1. Potential Emergencies Covered by this Plan

Earthquake
Fire
Flooding
Pandemic
HVAC Failure
Security Threats
Winter Storms
Tornado

2. Emergency Contacts

Emergency Point Person – Marty Lueck
Fire – Mt. Grove Fire Dept. 417-926-3142 or 911, Eastern Douglas Co. Volunteer Dept. 417-683-1020 or 417-349-1549
Police – Mt. Grove Police Dept. 417-926-3142, Douglas Co. Sheriff 417-683-1020, MO Highway Patrol 1-800-525-5555
Electrical – SE-MA No Electric 417-924-3243, Howell-Oregon Electric 417-256-2131
Water – same as electric outages

3. Personnel to Whom This Document Applies

Marty Lueck

4. Assembly Point(s) in the Event of an Emergency

West side of Shop Building

5. Power Supply, Light, and Ventilation

Generators

6. Food and Bedding

We have hay stored at different locations around the Ranch. We generally have a week's worth of grain on hand.

7. Water

Our emergency water sources is ponds.

8. Transportation

We have vehicles at the homes on the Ranch and around our shop facilities. We have access to three trailers.

9. Euthanasia and Disposal of Dead Animals

We have a Veterinarian, Dr. Gourley. We consult with the Vet and dispose on the Ranch by burial.

10. Emergency Equipment and Supplies on Hand

We have generators, portable panels, and electric fencing supplies. We also have First Aid supplies for personnel and livestock.

Emergency Call Tree

Darr Agricultural Center

The Darr College of Agriculture provides animal procurement, husbandry, health care, and scientific support for agriculture programs using animals in teaching and research. The Darr Agriculture Center Manager Garret Kirk, Equine Herd Manager Natalie Mook and Dr. Gary Webb, Beef Cattle Professor Dr. Adam McGee and Small Animal Facility Manger Dr. Lacy Sukovaty are responsible for emergency planning and implementation regarding research animals housed within the facility. This serves as an addendum to the MSU Animal Emergency Operations Plan and to other emergency procedures established by Missouri State University.

1. Potential Emergencies Covered by this Plan

Earthquake
Fire
Flooding
Pandemic
Security Threats
Winter Storms
Tornado

2. Emergency Contacts

Emergency Point Persons Cell #'s: **Dr. Gary Webb ; Garrett Kirk : Natalie Mook ; Dr. Adam McGee**

Fire: Springfield Fire Department 911 for emergency or 417-874-2300.

Police: Springfield Police 911, MSU Public Safety 417-836-8870

Electrical For power outages **1-888-863-9001**

Water: Same as for Power Outages

3. Personnel to Whom This Document Applies: **Gary Webb, Natalie Mook, Garrett Kirk, Lacy Sukovaty**

4. Assembly Point(s) in the Event of an Emergency

Pinegar Arena-West Parking Lot

5. Power Supply, Light, and Ventilation

Each facility has gas powered generators, Animals are housed outdoors, in open sided holding pens, or in stalls with manual windows.

6. Food and Bedding

In addition, to what is stored on site hay is also stored at all 3 facilities therefore, in the event of a disaster event at one facility hay could be transported from another university facility. There is generally 3- 10 days of concentrate feed on hand at the Darr Center.

7. Water

This facility is on City Water therefore, power outages, tornados etc., do not affect water supply for other water outages see emergency contacts.

8. Transportation

The university owns several trucks and livestock trailers this are located at the Darr Center, Shealy farm and Journagan Ranch and the MSU Fruit Station in Mt. Grove. In the event vehicles are destroyed at one site the ones available at the other two facilities are available.

9. Euthanasia and Disposal of Dead Animals

Euthanasia will be conducted under the direction of the Attending Veterinarian (AV) using methods classified in the 2020 AVMA Guidelines for the Euthanasia of Animals as “acceptable” or “acceptable with conditions” provided that all criteria for application of methods can be met. They are buried either at the Shealy farm or the Journagan Ranch

10. Emergency Equipment and Supplies on Hand

Each facility has gas powered generators.

Multiple ropes and halters are available as well as portable panels in the event temporary fencing is needed.

Supplies for first aid treatment of personnel or animals is available on site.

11. Emergency Call Tree

Shealy Farm

The Darr College of Agriculture provides animal procurement, husbandry, health care, and scientific support for agriculture programs using animals in teaching and research. The Shealy Farm Manager, Josiah Piotrowski, is responsible for emergency planning and implementation regarding research animals housed within the facility. This serves as an addendum to the MSU Animal Emergency Operations Plan and to other emergency procedures established by Missouri State University.

1. Potential Emergencies Covered by this Plan

Earthquake
Fire
Flooding
Pandemic
HVAC Failure
Security Threats
Winter Storms
Tornado

2. Emergency Contacts

Emergency Point Persons Cell #'s: **Josiah Piotrowski ; Dr. Adam McGee 837-2506; Dr. Stafford**
Fire: **911 for emergencies or Polk County Fire Department 417-777-3911**
Police: **911 for emergencies or Polk County Sheriff's Department 417-777-9020**
Electrical: **For power outages Southwest Electric Cooperative 417-326-5244**
Water: **All structures utilize wells for the main source of water, MSU maintenance 417-636-5000**

3. Personnel to Whom This Document Applies: **Josiah Piotrowski**

4. Assembly Point(s) in the Event of an Emergency: **West-side parking lot by main shop building (emergency related to Holo's or shop), Equipment lot across the driveway south of the main barn (emergencies on the farm)**

5. Power Supply, Light, and Ventilation

The farm is equipped with a portable gas-powered generator and a stationary diesel-powered generator in case of power outages.

The animals are housed outdoors and/or in barns that are open-sided and equipped with fans for each holding pen.

6. Food and Bedding

Bulk feed is stored in large grain bins outside the main barn and a limited supply of bagged feed is stored on pallets in the main shop. Hay is stored on-site at Shealy Farm and three other University locations. In the event of an emergency, any feed or hay can be transported to another university facility.

7. Water

The farm utilizes 4 well heads for the main source of water. In the event that all of them fail or lose power, there is a portable water tank on-site that can be transported to a water source to collect water.

8. Transportation

Missouri State University owns several trucks and livestock trailers at each location (Darr Center, Shealy Farm, Journagan Ranch, and the Fuit Station). In the event all vehicles at one location are inoperable, ones that are available at the other site can be used.

9. Euthanasia and Disposal of Dead Animals

Euthanasia will be conducted under the direction of the Attending Veterinarian (AV) using methods classified in the 2020 AVMA Guidelines for the Euthanasia of Animals as “acceptable” or acceptable with conditions” provided that all criteria for the application of methods can be met. They are buried at Shealy Farm or Journagan Ranch.

10. Emergency Equipment and Supplies on Hand

**Portable water tank with hoses
Portable gas-powered generator with multiple extension cords
Stationary Diesel powered generator
First Aid kits are located on-site (shop, office, and handling facilities)
Ropes and panels for temporary fencing if needed**

Emergency Call Tree

Bull Shoals Field Station

Missouri State University's Biology Department provides a location and facilities for faculty, students, and visiting scientist to conduct research and educational programs that increase public understanding of southwest Missouri ecosystems. The Manager of Bull Shoals Field Station and the Biology Department are responsible for emergency planning and implementation regarding the facility. This facility holds not animals and is only used for field studies. This serves as an addendum to the MSU Animal Emergency Operations Plan and to other emergency procedures established by Missouri State University.

1. Potential Emergencies Covered by this Plan

Earthquake
Fire
Flooding
Pandemic
HVAC Failure
Security Threats
Winter Storms
Tornado

2. Emergency Contacts

Emergency Point Person – Sean Maher 417-836-6916; Patricia Reed 417-836-6867
Fire (EMERGENCY): 911
Fire (non-emergency): 417-874-1500
Police (EMERGENCY): 911
Police (non-emergency): 417-864-1810
Electrical (8am-5pm): MSU Facilities Management (for Drury house -solar powered) 417-836-8400
OEC- White River Valley Electric Coop 417-335-9335
Electrical (after hours): MSU Facilities Management, 417-836-5133
Water (8am-5pm): MSU Facilities Management, 417-836-8400
Water (after hours): MSU Facilities Management, 417-836-5133

3. Personnel to Whom This Document Applies

Bull Shoals Field Station staff.

4. Assembly Point(s) in the Event of an Emergency

At the Drury House, north of house at sign. At Ozarks Education Center, west entrance from Wolf Creek Rd.

5. Power Supply, Light, and Ventilation

We do not keep animals at BSFS.

6. Food and Bedding

We do not keep animals at BSFS.

7. Water

We do not keep animals at BSFS.

8. Transportation

BSFS currently has two trucks, one minivan, and one ATV. All can be used in the event of a disaster.

9. Euthanasia and Disposal of Dead Animals

We do not keep animals at BSFS.

10. Emergency Equipment and Supplies on Hand

We do not keep animals at BSFS.

Emergency Call Tree

BSFS Director – Sean Maher

BSFS Manager – Patricia Reed

By signing below, you indicate that you have read and fully understand the Institutional Animal Care and Use Committee's (IACUC) Emergency Action Plan (EAP) for Animal Facilities and subsequent emergency plans for Bull Shoals Field Station.

Emergency and Disaster Preparedness Plan

Small Animal Education Facility

Version 7/7/2023

The Small Animal Education Center provides animal procurement, husbandry, health care, and scientific support for agriculture programs using animals in teaching. The Small Animal Education Facility Manager Lacy Sukovaty, Darr Center Manager Garret Kirk, Equine Herd Manager Natalie Mook, Dr. Gary Webb, Beef Cattle Professor Dr. Adam McGee and Shianne Walther Animal Science instructor are responsible for emergency planning and implementation regarding teaching animals housed within the facility. This serves as an addendum to the MSU Animal Emergency Operations Plan and to other emergency procedures established by Missouri State University.

1. Potential Emergencies Covered by this Plan

Earthquake

Fire

Flooding

Pandemic

Security Threats

Winter Storms

Tornado

2. Emergency Contacts

Lacy Sukovaty 417-837-2513

To be contacted in the Event that the Facility Manager/Clinical Veterinarian cannot be contacted:

Emergency Point Persons Cell Numbers: Dr. Gary Webb 417-837-2503; Garrett Kirk 417-837-2511; Shianne Walther ; Natalie Mook 417-837-2500; Dr. Adam McGee 417-837-2506

3. Emergency Phone Contacts

First Contact when the Emergency involves building issues, security issues, or repair issues.

Public Safety will contact Facility Management:

MSU dispatch at 417-836-5509

MSU Campus Public Safety 417-836-8870

MSU Facility Management 417-836-8400

Fire: Springfield Fire Department 911 for emergency or 417-874-2300.

Police: Springfield Police 911, MSU Public Safety 417-836-8870

Electrical For power outages: 1-888-863-9001

Water: 1-888-863-9001

For animal care technicians, investigators, and research staff -First contact when the Emergency involves the Small Animal Education Facility and can be handled directly by the Facility Manager and staff without assistance from Public Safety or Facility Management should be the Facility Manager, second call after calling Public Safety to start the response process for all other types of emergencies.:

Facility Manager/Facility Veterinarian:

Lacy Sukovaty cell

To be contacted in the Event that the Facility Manager/Clinical Veterinarian cannot be contacted:

Emergency Point Persons Cell Numbers: Dr. Gary Webb; Garrett Kirk; Shianne Walther; Natalie Mook
Dr. Adam McGee

To be contacted by the DACA staff immediately if animals are injured or there is a health or welfare concern:

Facility Veterinarian:

Lacy Sukovaty, DVM 417-837-2513

University Attending Veterinarian:

Michael Stafford, DVM

To be contacted, simultaneously, if the Emergency directly impacts the health and welfare of the animals, especially if it results in unexpected animal death or injury, noncompliance, or an event that must be reported to OLAW:

IACUC office staff:

Interim Director of Compliance in the Office of Research Administration

Johnna N. Pedersen 417-836-3737

To be contacted if there is a need for assistance from the College to respond to the Emergency:

Interim Dean, Darr College of Agriculture

Melissa Bledsoe 417-836-5638

4. Type of Emergency or Disaster: Categories and Levels

The Federal Emergency Management Agency (FEMA) describes 3 categories of emergencies:

- Natural disasters & emergencies: Earthquake, Winter Storms, Flooding
- Technical emergencies: Facility malfunctions such as HVAC, power failures, hazardous material spills
- Civil emergencies: Bomb Threats, Animal Rights Demonstrations Emergencies may also be ranked by the level of impact, ranging from limited equipment failure to catastrophic building damage. The operational organization necessary for responding to each level of emergency depends upon the size and complexity of the emergency and the facility impacted by the emergency. The Missouri State University Emergency Action Plans.

<https://www.missouristate.edu/Safety/emergency-action-plans.htm>

3. Personnel to Whom This Document Applies: Lacy Sukovaty, Gary Webb, Garrett Kirk, Michael Stafford

4. Assembly Point(s) in the Event of an Emergency

Pinegar Arena-East Parking Lot

5. Power Supply, Light, and Ventilation

General Readiness

- Animal care staff and users of the facility should know the location of flashlights and back-up batteries.
- The Dog and Cat SOPs should document the normal range temperatures, humidity, and general needs for the animal so that these variables can be easily monitored by the animal care staff on hand in the case of an emergency.

General plans of action

- Reporting: Monday through Friday during working hours: Call MSU Public Safety to notify them of the emergency. After hours and weekends or holidays, call MSU Public Safety to notify them of the emergency.

o Describe the problem, location of the problem using building addresses and names, specific room numbers, and what specific services are required.

- Room conditions: Animal care staff should check room temperature and humidity readings and report values that are out of range to the DACA Facility Manager.

- Animal health checks: Animals should be monitored for the need to take action in order to maintain the health and well-being of the animals. Any equipment that requires power should be checked and verified that emergency back-up power sources are properly connected and working.
- Food and water supplies: For short term power failures, food and water supplies should be unaffected. If power remains out for an extended period of time that creates shortages of sanitized food receptacles, water bottles, food, or potable water, it may be necessary to make additional arrangements in order to meet the needs of the animals.
- Sanitation: Loss of power could affect the level of sanitation by allowing bacteria and viruses to accumulate on the equipment. Alternate strategies, such as hand washing equipment may have to be used. Also, cage changing intervals may need to be extended, or spot cleaning may need to be employed instead of cage changes. The Facility Manager will need to determine how to provide the optimum sanitation procedures under the prevailing conditions. When the power returns, animal care staff need to ensure that all equipment that requires it is RESET.

Specific Response Actions for Planned Power/HVAC Loss

Many events may cause a loss of power or HVAC, but not all of these events are emergencies. There may be planned power outages for short periods of time in order for Facility Operations to conduct necessary building maintenance. In these instances, the Facility Manager should be contacted prior to the planned maintenance so that s/he is aware of the time frame for the expected power/HVAC outage and s/he can put in place procedures to monitor the facility and animals for any need to take action to prevent any health or safety concerns for the animals. The Facility Manager should notify all investigators and animal staff about the planned power loss. In the event of short power outages there may be no need to take any action.

Specific Response Actions for Power/HVAC Loss Caused by an Emergency or Disaster

In the event of a power failure or HVAC loss that affects the building, the person discovering the power/HVAC loss should contact MSU Public Safety. Public Safety will contact Facility Management, which will assess the cause of the power/HVAC failure, the estimated time period for the power/HVAC failure, and what, if any, actions need to occur to fix the problem. Next, the facility manager should be notified. In some cases, the power/HVAC loss will be short-term and there may be no need to take action other than monitoring the facility and the animals housed inside for any problems.

In the event the power/HVAC loss is estimated to last longer than 4 hours, Facility Management will start the generator. The generator will be used to power the specific systems needing extended emergency power. Facility Management will monitor the generators as needed. The external generator is capable of supplying power and HVAC support for an extended period of time.

6. Food and Bedding

- All animals should have access to uncontaminated food. The appropriate food for the species and research needs should be provided in adequate quantities and in uncontaminated form. If the usual food is not available, professional judgment should be used to identify acceptable substitutes.

If an emergency lasts 24 hours or more, the following additional functions should be maintained:

- Animal cages or other containment vessels should be cleaned as needed. The goal should be to provide approximate normal sanitation schedules, depending upon the available resources.
- Perishable food should be kept at 4 degrees C or lower.
- Veterinary care should be provided, including care for post-surgical animals.

7. Water

It is possible that plumbing or water supply lines may burst or leak. Additionally, it is possible that the water supply to a building may be affected by external city water line repairs, or internal building repairs. In the event of a planned shut off of the water to the Small Animal Education Facility, Facility Management should communicate the necessary information regarding date and time to the Facility Manager so that arrangements can be made to ensure adequate water supplies. Depending upon the cause of the loss of the water supply, it is possible to obtain water from nearby buildings. In the event of an unplanned emergency or disaster involving the plumbing or water supply, the following actions should occur.

General plans of action

- Reporting: Monday through Friday during working hours: Call University Safety. After hours and weekends or holidays, call University Safety to notify them of the emergency.

o Describe the problem, location of the problem using specific room numbers, and what specific services are required.

- Room conditions: Animal care staff should check the rooms for any damage or concerns related to the problem and report the problem to the Facility Manager or designee.
- Animal health checks: Animals should be monitored for the need to take action in order to maintain the health and well-being of the animals. Animals that may be directly in the path of leaking pipes, etc. or in danger of being affected by the problem should be moved or relocated temporarily inside the same animal room, if possible, until the problem is fixed. If the animals need to be relocated to another room until the repair is completed, then the IACUC should be contacted, and the investigator and animal care staff will need to ensure appropriate conditions (light, humidity, and temperature controls) can be obtained in the new location (crates in Pinegar locker room).
- Food and water supplies: Food supplies should be checked to ensure that they will remain dry. Water supplies should also be inspected to ensure they do not become contaminated by leaks, or in the event of the loss of the water supply that emergency stores of water are adequate.

- Sanitation: The ability to wash and sanitize cages, etc. may be hindered temporarily by the loss of water supply. Alternative mechanisms or ways of sanitizing equipment may need to be arranged.

8. Transportation

The university owns several vans located at the Darr Center with transport crates available.

In the event vehicles are destroyed at Darr Center, vehicles available at other facilities will be utilized.

9. Euthanasia and Disposal of Dead Animals

Any animals suffering from an injury should be examined as quickly as possible and assessed for treatment or euthanasia at the discretion of the Clinical/Institutional Veterinarian using AVMA approved methods of euthanasia. Animals will be cremated or buried at Shealy Farm.

10. Emergency Equipment and Supplies on Hand

Each facility has gas powered generators.

Multiple leashes and collars will be available with transport crates as temporary housing.

Supplies for first aid treatment of personnel or animals is available on site.