**LARC Emergency Plan**

**Life Science Building (LSB), Eyring Science Center (ESC), Spencer W. Kimball Tower (KMBL)**
**Updated: July 2019**

Contact Us:

University Attending Veterinarian (protocol consultation and animal health and welfare)

Sandy Garrett DVM

Associate LARC Director

University Attending Veterinarian

1104 B LSB

801-422-2262

sgarrett@byu.edu

LARC Manager (facility and space management)

Russ Matheson

LARC Manager

1104 D LSB

801-422-3979

Russm@byu.edu

LARC Assistant Manager (animal care and husbandry)

Sarah Coffin

LARC Assistant Manager

1104 A LSB

Office: 801-422-1229

Email: sarah\_coffin@byu.edu

**General Requirements:**

* In case of disaster, the elevators should not be used unless authorized by BYU emergency personnel.
* All guidelines set forth in this LARC Emergency Plan will be followed.
* All personnel will follow all commands of BYU and non-BYU emergency personnel.
* The following functions shall be maintained in all emergencies:
	+ Air temperature surrounding the animals shall remain between 68-74°F
	+ The air surrounding the animals shall be free of harmful contaminants.
	+ All animals shall be observed periodically, with the interval depending on conditions, but at least once every 24 hours, to the extent possible.
	+ Animal identification must be retained.

If the emergency lasts 6 hours or more, the following functions shall be maintained:

* Air ventilation shall be available by the ventilation system or portable fans.
* All animals shall have access to potable water, through gel pack, water bottle, or back up Edstrom water in the automated watering system.
* All animals shall have access to uncontaminated food.

If the emergency lasts 24 hours or more, the following functions shall be maintained:

* Animals’ cages shall be cleaned as needed.
* A breeding pair of every non-readily available strain will be moved to an easy access location.

**Preparations for Emergencies:**

* Flashlights and extra batteries shall be located within the animal facilities. All staff and faculty who work in the animal facility shall know where they are located.
* A large amount of potable water shall be kept in a location with access to the animal facility. The quantity shall be sufficient to provide drinking water for all the animals for at least one week.
* A quantity of feed will be maintained to feed the animals until additional feed can be obtained from the feed supplier. The quantity shall be sufficient to provide uncontaminated food to all animals for at least two weeks.
* A quantity of bedding will be maintained so all cages can be changed at least twice.
* Large fans shall be stored in a location with access to the animal facilty to provide air circulation if ventilation is lost.

**Order for Reporting after a Disaster:**

1. LARC Manager, Russ Matheson: (801) 592-7278
2. University Police: (801) 422-2222
3. University Veterinarian, Dr Sandy Garrett: (801) 372-7479
4. LARC Assistant Manager, :
5. IACUC Administrator, Jason Jay: (801) 422-3629

*\*A global disaster should be reported to all listed.*

*\*\*An emergency phone number list is found at the beginning of this document.*

**Individual Emergency Responses**

* **Earthquake**
	+ Personal Safety during an Earthquake
		- Check to see that your co-workers are safe and uninjured. Do not move an injured person unless they are in imminent life-threatening danger.
		- Do not use candles, matches, or flames. Do not turn electrical equipment on or off. Flames and electrical sparks can cause leaking gas to ignite or explode.
		- Leave the building as soon as the earthquake has stopped. Re-enter the building only after approval is given by University Police.
		- Remember to use caution when trying to go home. Roads and bridges may be damaged and unsafe.
	+ Leaving the Building after an Earthquake
		- Leave the building by the identified escape route as soon as possible and meet at the designated meeting area for the building.
		- If other workers are injured, offer to help them evacuate if they can be moved. If they cannot be moved, have someone stay with them and notify the University Police.
	+ Re-entering the Building
		- PERSONNEL SHALL NOT ENTER THE ANIMAL FACILITY IF THEIR OWN OR OTHERS HEALTH MAY BE JEOPARDIZED. HUMAN HEALTH SHALL TAKE PRECEDENCE OVER ANIMAL HEALTH.
		- Re-enter the building only after approval is given by the University Police.
	+ Determining the Danger to the Animal Population
		- Determine if the building is damaged to the point that entrance is not possible.
		- Determine if lighting, heat/cooling, ventilation, and automated watering are operating.
		- Determine if supplies of food and water are available and uncontaminated.
		- Determine if equipment, like cage washer and changing stations and BSCs, can be used to care for the animals.
	+ Restoring the Animal Environment
		- If the condition of the building allows animals to stay, but lighting, heating/cooking, ventilation, or automated watering are not working, notify the LARC Manager who will call Physical Facilities personnel for help in restoring those needs.
		- If personnel have limited time to move or otherwise take care of animals, or there is not time to take care of all animals, then the animals shall be helped with the following priority:
			* Breeding pairs of non-readily available strains
			* Animals actively participating in long term studies
			* Animals actively participating in short term studies
			* All other animals
		- If animals are to remain in the animal facility without ventilation and all animals are in IVC cages, then all doors within the animal facility shall remain open to improve air movement within the facility. Large fans may be employed to move air.
			* A person must be posted at all times within the facility while the doors are open.
		- If animals are to remain in the animal facility without ventilation for an extended period and the outside air is cooler and all animals are in IVC cages, then the outside door may remain open and fans used to circulate the air. At least one person must remain at the entrance of the animal facility whenever the outside door remains open.
	+ Moving Animals
		- If the animals cannot stay in their assigned rooms or building, the LARC Manager will determine if there is another facility that can be used for housing them.
		- If only a portion of the animals can be saved, the LARC Manager and University Veterinarian will determine which animals will be euthanized. If there is time, they will consult with the Investigators involved.
		- Animals that are irreplaceable will be identified by the researcher and the cage cards will be marked by the researcher. Animals considered as the priority are those that cannot be obtained from any commercial vendor or from another university.
			* The common system of marking will be a star in the right upper corner of the cage card for priority animals and a circle in the right upper corner of the cage card for research animals that must be maintained.
			* The maximum number of priority cages will be 10 per protocol.
			* Animals that must be maintained for a research project must be approved by the IACUC through application by the researcher.
	+ Euthanizing Animals
		- Animals shall be euthanized as soon as possible if they are suffering and not expected to recover (see the Guide pg 35).
		- Depending on the number of animals that will need to be euthanized, the LARC Manager will contact available investigators and ask them to euthanize their animals with investigator equipment and (if possible) by the means approved in their protocols.
		- If this procedure is not possible, then the University Veterinarian will direct LARC Lab Technicians to euthanize the animals as needed.
* **Fire**
	+ Personal Safety during a Fire
		- Remember that the air has less smoke close to the floor.
		- Clear the animal facility and ensure that all users are safe and uninjured. Do not move an injured person unless they are in imminent life-threatening danger.
		- Leave the building immediately. Re-enter the building only after approval is given by University Police.
		- Leave the building by the identified escape route as soon as possible and meet at the designated meeting area for the building.
		- If other workers are injured, offer to help them evacuate if they can be moved. If they cannot be moved, have someone stay with them and notify the University Police.
	+ Re-entering the Building
		- PERSONNEL SHALL NOT ENTER THE ANIMAL FACILITY IF THEIR OWN OR OTHERS HEALTH MAY BE JEOPARDIZED. HUMAN HEALTH SHALL TAKE PRECEDENCE OVER ANIMAL HEALTH.
		- Re-enter the building only after approval is given by the University Police.
	+ Determining the Danger to the Animal Population
		- Determine if the building is damaged to the point that entrance is not possible.
		- Determine if lighting, heat/cooling, ventilation, and automated watering are operating.
		- Determine if supplies of food and water are available and uncontaminated.
		- Determine if equipment, like cage washer and changing stations and BSCs, can be used to care for the animals.
	+ Restoring the Animal Environment
		- If the condition of the building allows animals to stay, but lighting, heating/cooking, ventilation, or automated watering are not working, notify the LARC Manager who will call Physical Facilities personnel for help in restoring those needs.
		- If personnel have limited time to move or otherwise take care of animals, or there is not time to take care of all animals, then the animals shall be helped with the following priority:
			* Breeding pairs of non-readily available strains
			* Animals actively participating in long term studies
			* Animals actively participating in short term studies
			* All other animals
		- If animals are to remain in the animal facility without ventilation and all animals are in IVC cages, then all doors within the animal facility shall remain open to improve air movement within the facility. Large fans may be employed to move air.
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	+ Moving Animals
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		- If this procedure is not possible, then the University Veterinarian will direct LARC Lab Technicians to euthanize the animals as needed.
* **Flood**
	+ Flood within the Building
		- Contact the LARC Manager
		- Determine if any animal cages have been flooded and rescue any animals that are in danger.
		- Remove any animals that may have died and note the cages that they were removed from. Report to the investigators and the University Veterinarian.
		- If the cage bedding is wet, replace with clean dry bedding and feed.
		- If necessary, move cages to higher locations on the rack to protect the animals from water.
	+ Flood outside the Building
		- Determine if the outside flooding will reach any animal housing areas.
		- Contact the LARC Manager, who will contact Physical Facilities to determine if any utilities may be affected.
* **Power Failure**
	+ Determining the Danger to the Animal Population
		- Determine which utilities are working: lighting, heat/cooling, ventilation, and automated watering.
		- Determine which utilities are supported by the emergency generating capacity.
		- Call Physical Facilities personnel for help with the generator equipment.
	+ Restoring the Animal Environment
		- If the condition of the building allows animals to stay, but lighting, heating/cooking, ventilation, or automated watering are not working, notify the LARC Manager who will call Physical Facilities personnel for help in restoring those needs.
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		- If this procedure is not possible, then the University Veterinarian will direct LARC Lab Technicians to euthanize the animals as needed.
* **Heat or Cooling Failure**
	+ Restoring the Animal Environment
		- If the condition of the building allows animals to stay, but lighting, heating/cooking, ventilation, or automated watering are not working, notify the LARC Manager who will call Physical Facilities personnel for help in restoring those needs.
		- If personnel have limited time to move or otherwise take care of animals, or there is not time to take care of all animals, then the animals shall be helped with the following priority:
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		- If this procedure is not possible, then the University Veterinarian will direct LARC Lab Technicians to euthanize the animals as needed.
* **Pandemic**

Firstly, we will defer to the University Pandemic Policy in general.

* + Cross-training for personnel from other areas may be necessary.
	+ Animal health checks: Animal health is checked by on-site personnel. If the animal care staff is small, some outside individuals may be reassigned on an emergency basis to check animals in facilities.
	+ Food and water supplies: Several days’ supply of food is kept on hand at all times, so re-supply should be possible within a reasonable time. If stocks are running low before normal transportation is likely to be restored, supervisory personnel will decide on the most appropriate course of action. This may entail moving feed from one facility to another. If it is necessary to save animals’ lives, feed may be obtained from the nearest source, including grocery or pet stores. Efforts should be made to keep animals on species-specific diets if possible.
	+ Sanitation: Sanitation may be compromised by a lack of personnel. On-site personnel, under the direction of LARC Manager, attempt to approximate normal sanitation schedules with available resources. Increasing cage change intervals, spot cleaning instead of whole-cage changes, changing bedding instead of clean cages, hand washing some equipment, or deferring activities such as floor mopping may be required. Decisions must be made by the professionals on-site to perform sanitation activities which benefit the animals most, if all activities are not possible due to unusual conditions.
	+ Environmental support: It is not expected that the environment will be affected. If so, actions necessary to restore the environment should be taken as outlined in other areas of this document.
	+ Personnel: Personnel are expected to make significant efforts to report to work. If staff shortages occur due to transportation problems or street blockage, available staff may be pressed into service to perform duties outside their normal job descriptions in order to provide for essential animal care needs. The LARC Manager makes this decision.
* **Bomb Threat**
	+ Bomb threats are usually received by telephone but can also come by note or letter. Most telephones 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 receive as much information as possible.
		- After the call has ended, immediately call University Police.
	+ ALWAYS PRESUME THAT BOMB THREATS ARE REAL.
	+ Check mail and packages for anything that appears out of place, such as unusual packaging, lack of return address, or signs of stains or leakage on the package. Carefully survey all mail after a bomb threat has been received by phone, note, or email. Note any package, foreign object, or odd device located in an unusual place.
	+ Building evacuation may be necessary after a bomb threat or the finding of a suspicious package or item. Evacuation should proceed along established fire evacuation routes.
* **Break Ins or Disturbance**
	+ Animal health checks: Any animals loose in the facility will be captured, identified, held in cages labeled with the room in which they were found, and returned to their home cages or euthanized depending on their condition. Any animals killed as a result of vandalism will be disposed of according to federal regulations.
	+ If the necropsy freezer is damaged by vandalism, the dead animals will be taken to a dedicated freezer or refrigerator in another facility.
	+ All animals in the effected facility will be evaluated by the University Veterinarian and LARC Lab Technicians for health status and usefulness for research and treated as their condition warrants.
	+ Animals suffering ill effects may be euthanized at the discretion of the University Veterinarian using AVMA-approved methods.
	+ Special consideration will be given to all animals that may have been contaminated and bio-hazardous animals that may have shed contamination as a result of the break-in.
* **Training and Implementation**
	+ The training and implementation of the BYU LARC Emergency Plan will be done by the LARC Manager and occur in two separate venues:
		- LARC Assistant Manager, University Veterinarian, and IACUC Administrator
		- LARC Lab Technicians, as appropriate.
	+ The IACUC will receive a copy of the LARC Emergency Plan to read. It will be voted on in a regular committee meeting. All voting members will sign and date to acknowledge that they have read and understand the plan. Subsequent to this initial adoption, the plan will be kept on file.
	+ One of the monthly IACUC newsletters fill focus on the BYUL ARC Emergency Plan as appropriate for PIs. A digital copy will be available through the BYU IACUC website.
	+ A copy of the LARC Emergency Plan will be distributed to the BYU Risk Management and Compliance Committee.
	+ A copy of the LARC Emergency Plan will be kept on file in the BYU Police Department with the University Emergency Program Manager.
	+ A copy of the LARC Emergency Plan will be kept in the front entry way of all animal facilities, along with emergency contact numbers and SDS sheets.