

OLAC Disaster Plan Updated August 2023

Table of Contents

Pg 1	Table of Contents
Pg 2	Introduction Responsibilities Buildings that house animals Chain of Command
Pg 3	PI Responsibilities Cryopreservation resources Chain of Communication
Pg 4	Training Immediate Emergency Notification Contacts
Pg 5	Stored Supplies by Species
Pg 6	Definitions and Acronyms
Pg 7	Earthquake
Pg 11	PG&E Outage
Pg 14	Pandemic
Pg 17	Fire - Specific Building
Pg 19	Fire - Hills
Pg 20	Fire - Bad Air Days
Pg 22	Active Shooter/Terrorist Attack
Pg 25	Bomb Threat
Pg 26	Faulty HVAC System Animal Escapes
Pg 28	OLAC Initial Assessment of Facilities Form
Pg 29	OLAC Emergency Contact Tree

Animal Facility Disaster Action Plan

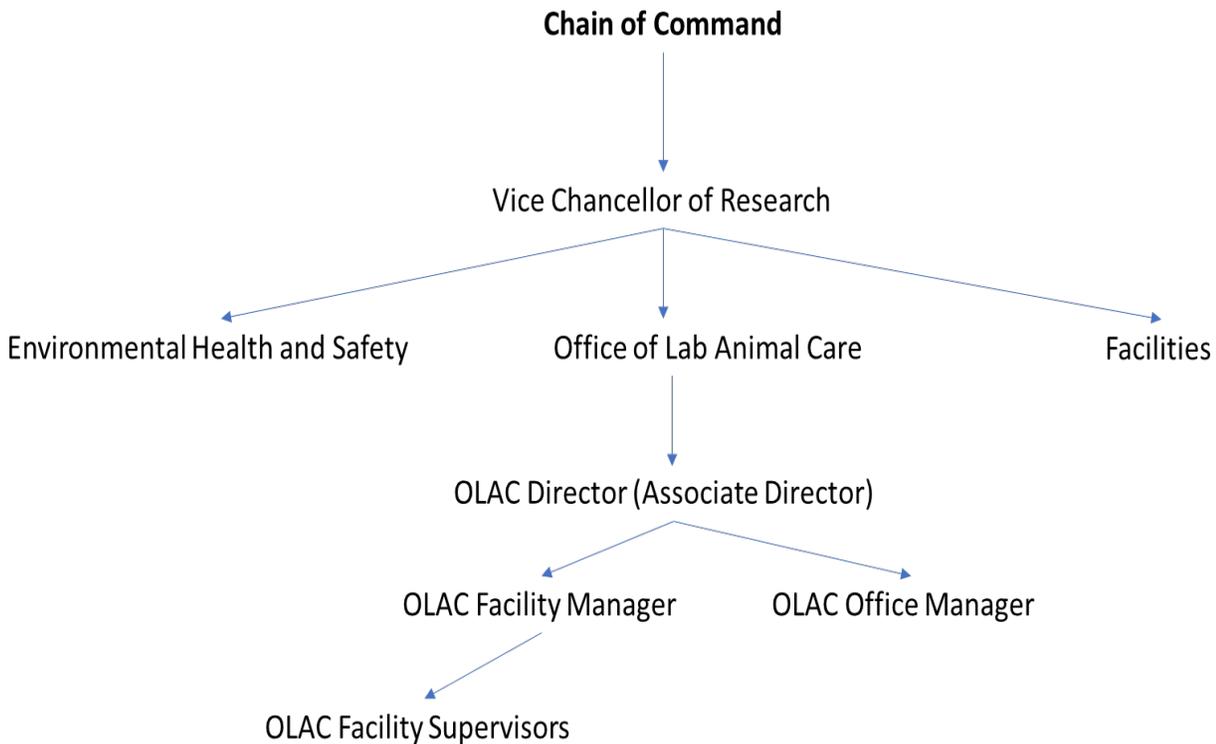
Office of Laboratory Animal Care

Disaster = any event that threatens the health, safety, and/or security of animals and personnel.

The Office of Laboratory Animal Care (OLAC) is responsible for the husbandry and care of all animals used in research and teaching on the Berkeley campus. All vertebrate animals on campus are housed within OLAC managed centralized facilities and are located within the following buildings: NAF-B (Northwest Animal Facility), LKS Basement and 2nd floor, Weill Hall 6th floor and Basement (aka LSA-6, LSA-B), Minor Hall, Valley Life Science Building (VLSB), and FSSBER.

For Campus related information and evacuation guidelines for specific campus locations:

1. Review Campus Evacuation Information for specific buildings
Find the campus buildings that you commonly visit on the [UC Berkeley Access Guide](#) (link is external), and review their evacuation information
2. UCB **WarnMe** is UC Berkeley's mass emergency alerting system
Register at warnme.berkeley.edu (link is external)



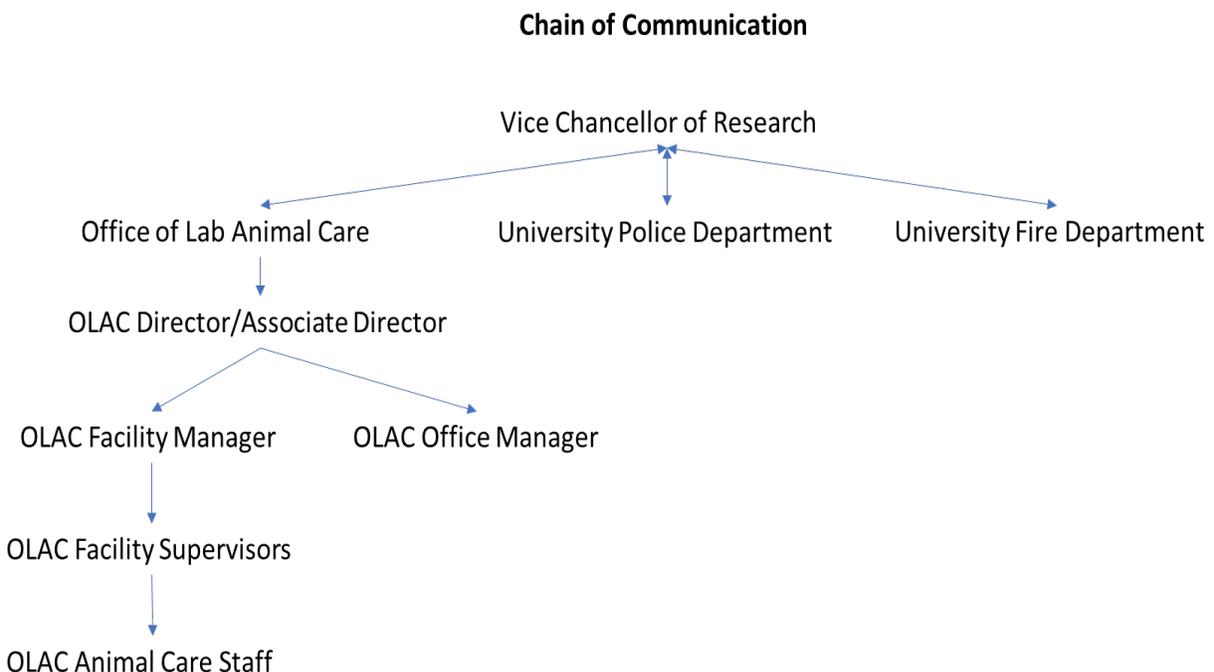
OLAC maintains a comprehensive personnel Emergency Plan, in collaboration with the UCB Office of Emergency Management. In the event of a major or catastrophic disaster, OLAC has a direct reporting line to the Environment Health and Safety (EH&S) Departmental Operations Center (DOC) which, in turn, directly communicates any requests for assistance, supplies, or equipment to the central campus Emergency Operations Center (EOC).

For emergency situations that fall outside of the major disaster category, the VCR office, in communication with all emergency operating centers, will communicate directions to the OLAC director.

PI Responsibilities

Investigators are responsible for maintaining their critical animal lines through cryopreservation. The university cannot be held responsible for saving animal lives over human lives if the situation gets dire. Resources include:

- <https://mmrc.ucdavis.edu/cryo-archive-from-the-mmrc-at-uc-davis/>
- <https://www.criver.com/sites/default/files/resources/MouseEmbryoandSpermCryo%20preservationTechnicalSheet.pdf>
- <https://www.jax.org/jax-mice-and-services/cryo-and-strain-donation/cyorecovery>



OLAC has been identified as an essential care provider for the Berkeley campus and will, therefore, receive the highest priority in the event of a disaster. It is imperative to keep an updated list of essential employees with the UCPD.

Training

- New staff must be trained within 30 days of hire.
- All staff must be trained within 60 days of when the plan is initially put into place.
- Significant changes made to the plan need to be documented and communicated through training within 30 days
- The Plan must be reviewed annually
- Records of proof of training are required
- The facility must provide training for its personnel regarding their roles and responsibilities as outlined in the plan.

Immediate Emergency Notification

HUMAN LIFE-THREATENING EMERGENCY NUMBERS:

911 from a public or campus telephone,
510-642-3333 from a cell-phone

NON-LIFE-THREATENING EMERGENCY NUMBERS:

OLAC Veterinary Staff 510-643-VETS (643-8387) vetstaff@lists.berkeley.edu

University Police (police.berkeley.edu) 510-642-6760

Environment, Health & Safety (ehs.berkeley.edu) 510-642-3073

Physical Plant - Campus Services (physicalplant.berkeley.edu) 510-642-1032

California Fish and Wildlife Regional Office 707-944-5500

Medical Facilities

Tang Center Clinic (Campus), 2222 Bancroft Way (uhs.berkeley.edu) 510-642-2000

Monday - Friday, 8 am-5 pm (Last appointment 4:00 pm).

Closed 11:45 am-12:45 pm.

Tang Center Urgent Care 642-3188 8:00 am to

5:00 pm Monday – Friday (Last appointment 4:00 pm).

(During the summer, Urgent Care is not open on the Weekends.)

Alta Bates Medical Center (Off Campus), 2450 Ashby Avenue 510-204-1303 Open
24 hours, 7 days a week.

Each facility maintains an evacuation /disaster Standard Operating Procedure (SOP) for personnel specific to the facility.

Stored Supplies for Emergency Purposes

Each facility maintains a 1 month stock of the following supplies for emergency purposes:

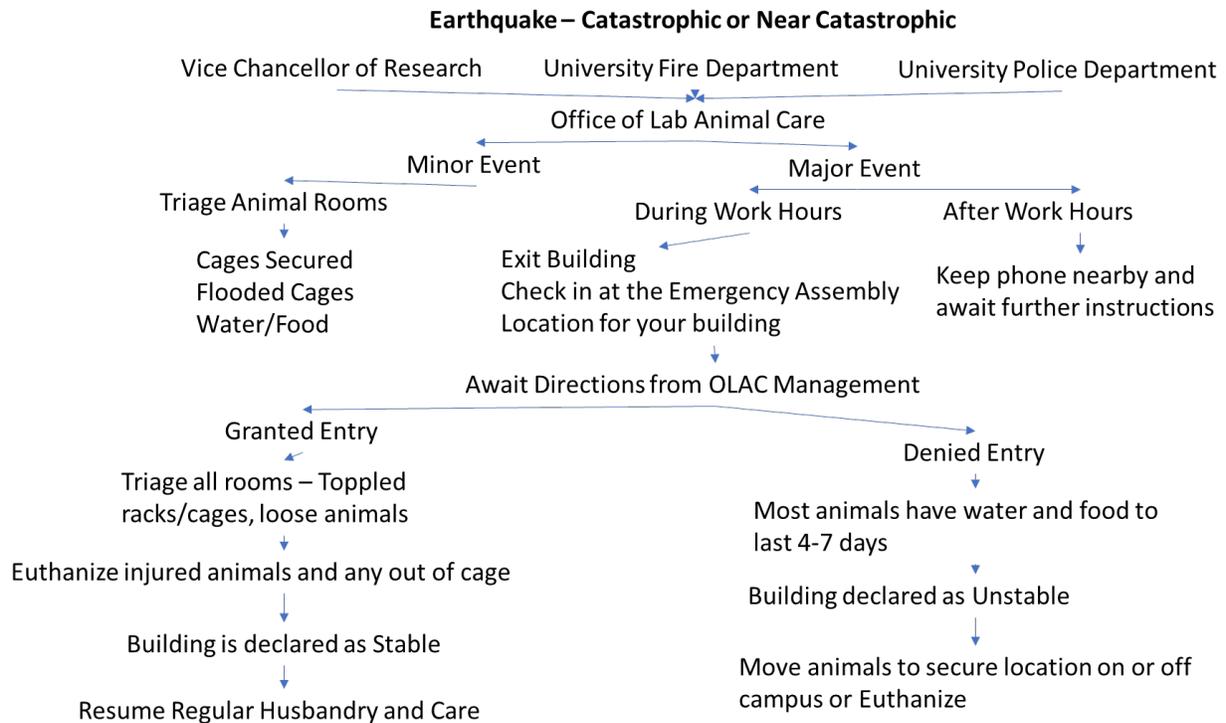
1. Rodents
 - a. One month supply of Hydropac water
 - b. 2 week supply of rodent chow
2. Primates
 - a. Biscuits
 - b. Water
3. Guinea Pigs
 - a. One month supply of Timothy Hay cubes
 - b. Water - Hydropacs
4. Aquatics
 - a. One month supply of frog brittle.
5. Tucos
 - a. This species does not need supplemental water if produce is provided
 - b. One month of Timothy Hay cubes and rodent chow can be provided in place of fresh produce if produce is not available
6. Reptiles
 - a. Two weeks of Crickets are maintained.
 - b. Hydropac water will be used
7. Chickens
 - a. In the event of a catastrophic emergency all chickens would be euthanized but for the short term Hydropac water would be used
 - b. Two weeks minimum of diet
8. Bats
 - a. Water will be supplied via hydropac
 - b. A two-week supply of pelleted fruit substitute will be stored
 - i. Mazuri pelleted feed for Iron Sensitive Soft Billed Birds
 - ii. Bats will eat a pelleted fruit substitute in case of emergency situations per an in-house OLAC study

Definitions and Acronyms

1. Essential Worker Designation: Due to the necessity for animal care and husbandry, OLAC staff are considered “Essential Workers” and are required to work during many emergency situations.
2. EH&S or EHS: Environment Health and Safety
3. UCPD: University of California Police Department
4. DOC: Departmental Operations Center
5. EOC: Emergency Operations Center
6. EOM: Emergency Operations Management
7. SOP: Standard Operating Procedures
8. SAP: Safety Assessment Program: evaluators are certified building inspectors, licensed civil/structural engineers and architects activate by the OES
9. OLAC: Office of Laboratory Animal Care
10. PG&E: Pacific Gas and Electric
11. EAA: Emergency Assembly Area
12. AHU’s: Air Handling Units. Supply fan and AHU are used interchangeably
13. SF: Supply Fan
14. EF: Exhaust Fan
15. NIOSH: National Institute for Occupational Safety and Health
16. PSPS: Public Safety Power Shutoff
17. Cal OES: California Office of Emergency Services
<https://www.caloes.ca.gov/businesses-organizations>
18. Disaster or Other Emergency: a natural disaster, accident, serious staffing shortage, or any other incident which presents an imminent threat of widespread or severe damage to an animal facility or directly to laboratory animal health or safety.
19. Major or Catastrophic Emergency: ex. Major earthquake or fire
20. Outside of Major Emergency: ex. PG&E outage, bad air day
21. N95 is Recommended: In these cases, EHS does not designate a specific manufacturer, style or fit testing of a mask
22. N95 is Required: In these cases, EHS is mandating NIOSH standards and fit testing
23. Buildings Containing Animals:
 - a. Li Ka Shing (LKS)
 - b. Northwest Animal Facility (NAF)
 - c. Weill Hall (previously known as Life Sciences Addition or LSA)
 - d. Valley Life Science Building (VLSB)
 - e. Minor Hall
 - f. FSSBER: Field Station for the Study of Behavior, Ecology and Reproduction

24. Safety, Security and Anti-Terrorism (SSAT) Committee: Assess the University's overall security and vulnerability to all types of physical threats including natural hazards, technological hazards, terrorist acts, and human-caused events

Earthquake (Catastrophic or near catastrophic)



If you are on campus during regular work hours:

1. Inside of a Building:
 - a. If you can make it to a stairwell, that is one of the most secure places
 - b. Get on the floor and protect yourself under a table, desk or other solid object = Drop, Cover and Hold On
 - c. Brace yourself in a doorway or in a stairwell if there is nothing to secure under
2. Outside of a Building:
 - a. Best to move to an open area away from trees, buildings etc.
 - I. Glass, bricks etc can break away from buildings
 - II. Trees can lift from the ground or lose large branches
3. Once the major quake has subsided, quickly leave the building and go to the

designated OLAC meeting site aka Emergency Assembly Area (EAA) for the building you are in.

- a. VLSB, Weill Hall = large open lawn area across from VLSB and Weill Hall
 - b. NAF, LKS = large open lawn across from LKS on Oxford
 - c. NEVER stand under Eucalyptus trees or near buildings where bricks, glass or other elements of the building's facade could be weakened and fall.
4. Remember that aftershocks are common and can worsen structural damage
 5. Safety for self and others is of utmost importance.
 6. After checking in at the EAA, await for further directions before leaving the EAA or campus.
 7. Following check-in at the EAA, OLAC manager, supervisors, assistant supervisor, and veterinary staff will meet in an area considered "safe" to begin an Initial Assessment of the situation.

After Hours

1. If the disaster occurs outside of regular work hours the Director will initiate communications with EOM and OLAC staff. See the Emergency Phone Tree located in Google Sheets. (https://docs.google.com/document/d/1P8gKTWt-JiukS9E9LkK_8YCGlhxmefbXz1ZTsA0Zspk/edit) pgs 15-16.
2. The following items will be assessed:
 - a. Access of OLAC personnel to the campus facilities
 - b. Number of animal care staff available for duty
 - c. Mobility of personnel around the campus and between facilities

Structural Conditions:

The structural soundness of facilities will be assessed by DOC SAP evaluators and communicated to OLAC. SAP evaluators will assess the condition of the building, especially its structural system - whether or not a building is safe to occupy. If the animal facilities are not structurally sound and cannot be cleared for OLAC staff access, arrangements to move animals may be initiated by the OLAC Director. Animals that can be moved, will be moved to the closest structurally sound animal facility or holding unit that is available and appropriate for that species. Options include: LBL, UC Davis, UCSF, Children's Hospital.

If the building is deemed safe to enter, facilities services will inspect, identify or quantify damages to the electrical, HVAC, plumbing systems etc. At the same time, the campus EOC will convene to discuss the groups that can and will be allowed into the buildings.

Facility Assessments

Once the facility has been evaluated and deemed structurally sound enough to enter, EH&S will address the proper PPE to wear when entering the facility. OLAC teams as determined by the director, veterinary staff and facilities manager will enter to perform a rapid assessment of the animal housing areas. A designated group leader will lead a team into each of the facilities to do the following:

1. Secure Enclosures

- a. All rodent cages that have been tipped, or displaced from their shelves with animals still secured within their cage, will be returned to the appropriate rack and the animals inside evaluated for health.
 - I. Cages containing mice with minor injuries will be tagged for treatment and all with more severe injuries will be euthanized.
 - II. Any mice outside of their cage will be euthanized if their cage of origin cannot be easily identified..
2. For the ABSL-3 area, no one should enter without the full PPE required for that area.
 - a. Live traps should be set to catch any loose animals and all captured should be euthanized.
3. If nonhuman primates are out of their enclosures the area should NOT be entered.
 - a. The area should be secured, and the veterinary staff will determine the best approach to capturing animals and returning them to their enclosures with or without the use of sedation.
 - b. Animals will be evaluated individually for injuries and sedated and treated accordingly.
 - c. If an animal has escaped the nonhuman primate corridor, the LKS corridor will be closed off from the NAF, and all exits secured. All effort will be made to encourage the primates to return to their main corridor where they can be secured. Nets and sedation will be used as recommended by and directed by a veterinarian.
4. If Bats are outside of their primary enclosure, all doors to the area will be secured and veterinarians will be contacted to determine the safest method to capture them and return them to their enclosure.
 - a. Any bats with injuries that impair their ability to fly and perform normal functions will be euthanized following veterinary directives.
5. TucoTuco that are found outside of their primary enclosure will be returned to their original enclosure or placed individually in a holding cage until the animal can be identified and returned to its original location.
6. Aquatic animals found on the floor for any reason will be euthanized and all other

caging will be secured and their enclosure inspected for water holding integrity.

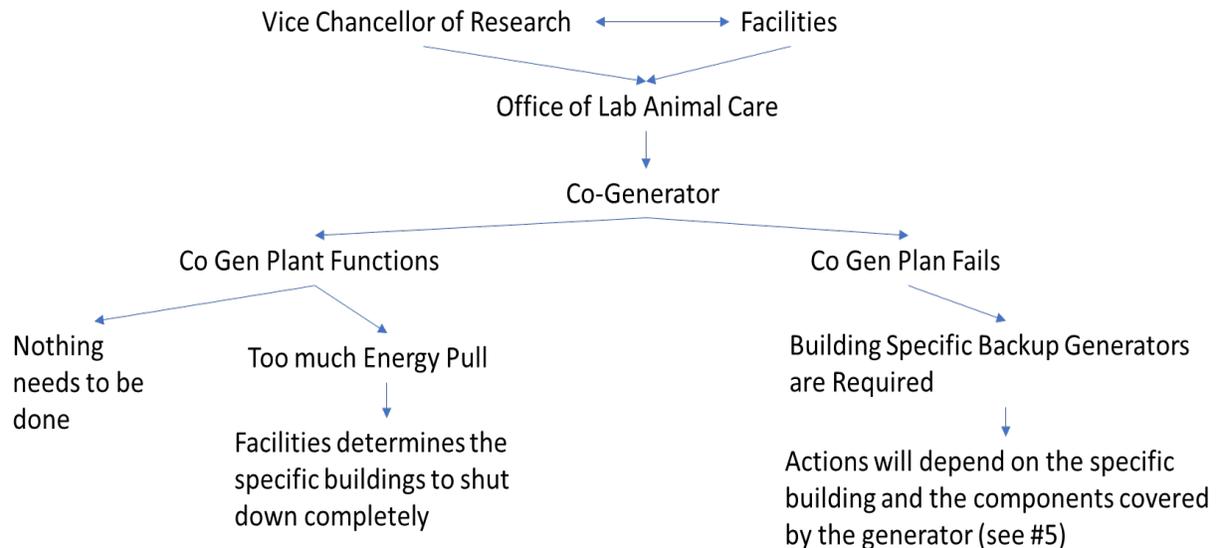
- a. Animals within leaking enclosures will be transferred into secured tanks

2. Check Animal Food and Water Supply

1. Food and water will be checked in all cages during the initial assessment in case access to the animal facilities is limited.
2. Food during cage change will not be discarded unless it is moldy. Cages will be spot cleaned only.
3. Water will need to be monitored daily for animals receiving daily water vs those on water bottles that will supply water for 2-4 days at a time. 1) Non-human primate rooms LKS B180, B182A, B184 and, 2) Minor Hall Poultry room 599K.
4. All animals will be assessed for health, food and water on a daily basis or as allowable based on the directions of EOM.

In the event of an emergency with an unforeseeable resolution, and includes blocked facility entry, and no ability to perform animal care and husbandry, OLAC will be communicating and will be directed by the VCR on a day to day basis. In severe cases, when animals cannot be moved or salvaged, the VCR, in direct communication and agreement with the OLAC director, may elect to euthanize animals in any or all facilities. Animals will be euthanized by veterinary staff upon instruction by the OLAC Director using a combination of available methods; isoflurane overdose, CO2, pentobarbital.

PG&E Outage



1. Communications from PG&E
 - a. Shut Off Watch: A notice sent 2 days prior to and again 1 day prior to a potential shut off
 - b. Shut Off Warning: When the forecasted weather conditions indicate that a safety shut off is needed and is likely to happen soon. Indication to keep vigilant for a Shut Off Watch
2. The director will be in direct contact with the VCR office.
 - a. The VCR will advise all campus groups and will be considered the command central for all given directions.
 - b. Notice is generally given prior to an outage by PG&E.
 - i. PI's will be notified for any need to move animals from the facility they are in
 1. Instances will exist where communication is not possible due to timing. OLAC will always have the animals' health and safety in mind.
3. Considerations will include:
 - a. When the power is to be cut off
 - b. How long the power will be out
 - c. The capacity of the Co-Generation plant to handle the needs of campus
 - d. Whether buildings will need to be powered by backup generators
4. If the Co-Gen plant is functional, it will supply enough power to keep building systems functional to protect critical research, computing clusters and collections. It does not provide enough power for any other activities to occur.

- a. If the campus exceeds the capacity of the cogeneration plant during a PSPS, we will be without either PG&E or cogeneration power. The campus will go dark, leaving key functions such as research at risk.
 - b. When taxed, the institution will cut access and energy needs to less dependent buildings, thus sparing energy for areas of critical research.
 - c. OLAC will revert to the weekend/holiday schedule to conserve power.
 - d. It is important to note for safety reasons departments are not allowed to rent generators and connect to the electrical grid.
5. If the Co-Gen plant is non-functional or cannot handle the needs of the campus, backup generators will need to be used. Each building has its own limitations, and each will be evaluated based on its own merits.
- a. **NAF**
 - i. Building was specifically designed to house animals and is most capable of housing animals in an outage emergency.
 - ii. Backup generators can handle all of the power needs of the facility.
 - b. **LKS**
 - i. Basement was specifically designed to house animals and is also capable of housing animals in an outage emergency.
 - ii. Backup generator can handle all of the power needs of the basement vivarium.
 - iii. The labs on floors 1-5 are served by different air handling units (AHU's) and EFs, which are programmed to run at reduced speed while on generator power. Animal rooms on the 2nd floor will have less air flow.
 - c. **Weill Hall**
 - i. Both the 6th floor and basement have limited capabilities and are not as equipped as NAF or LKS to handle an outage emergency when running on backup generators.
 - ii. When functioning under generator power:
 - iii. SF-1, SF-3, and EF-7 are on emergency power but are programmed to run at reduced speed while on generator power. The basement and the 6th floor will have less air flow.
 - iv. The chiller and heat exchangers are not on emergency power, so heating and air conditioning is not available.
 - v. Animal rooms have a limited number of outlets that are on emergency backup power. Only these labeled outlets are functional.
 - vi. One elevator is on emergency power.

d. VLSB

- i. When functioning under generator power:
- ii. AHU-9, EF-12, and EF-12A are on emergency power. They will continue to provide mechanical ventilation for suite 5189.
- iii. The chiller and heat exchangers are not on emergency power, so heating and air conditioning is not available.
- iv. Room 3099 has outlets that are on emergency backup power. This room will not have mechanical ventilation.
- v. One elevator is on emergency power.

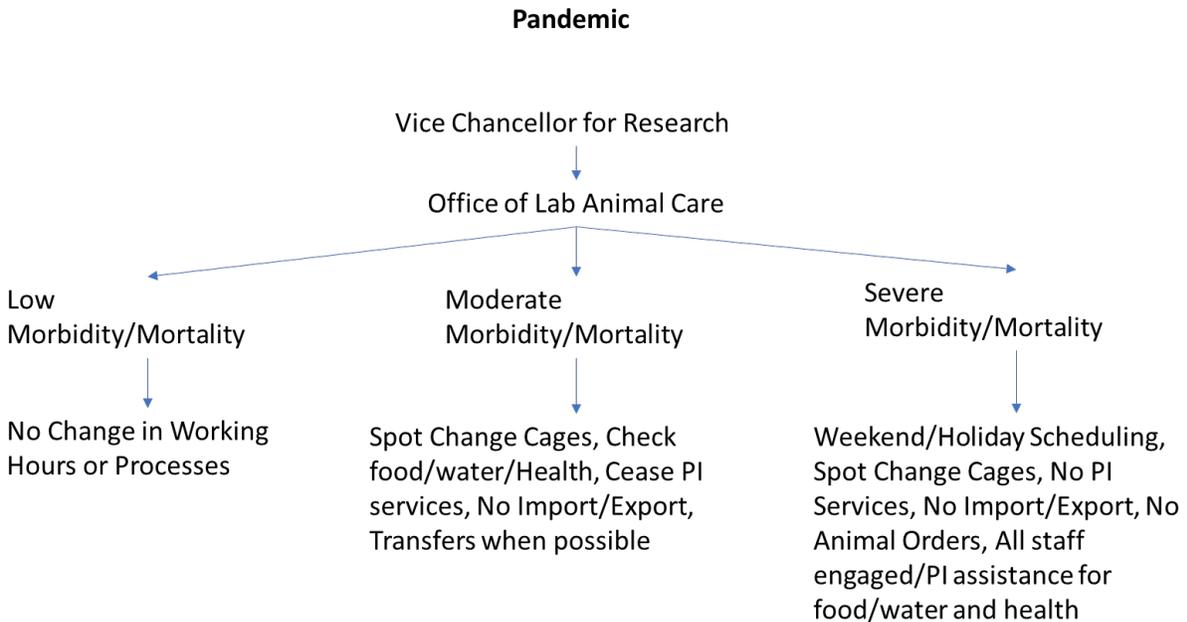
e. Minor Hall

- i. When functioning under generator power:
- ii. No heating, no air conditioning, no ventilation.
- iii. Animal rooms have a limited number of outlets that are on emergency backup power. Only these labeled outlets are functional.
- iv. Elevators are not on emergency power

f. FSSBER

- i. The current generator is aging and in need of replacement
- ii. The generator will maintain energy to all areas of the field station. Because most areas are not in use, there will be no problems in maintaining the lights
- iii. Currently, all animals at the field station can be maintained with natural lighting, and no heat.

Pandemic



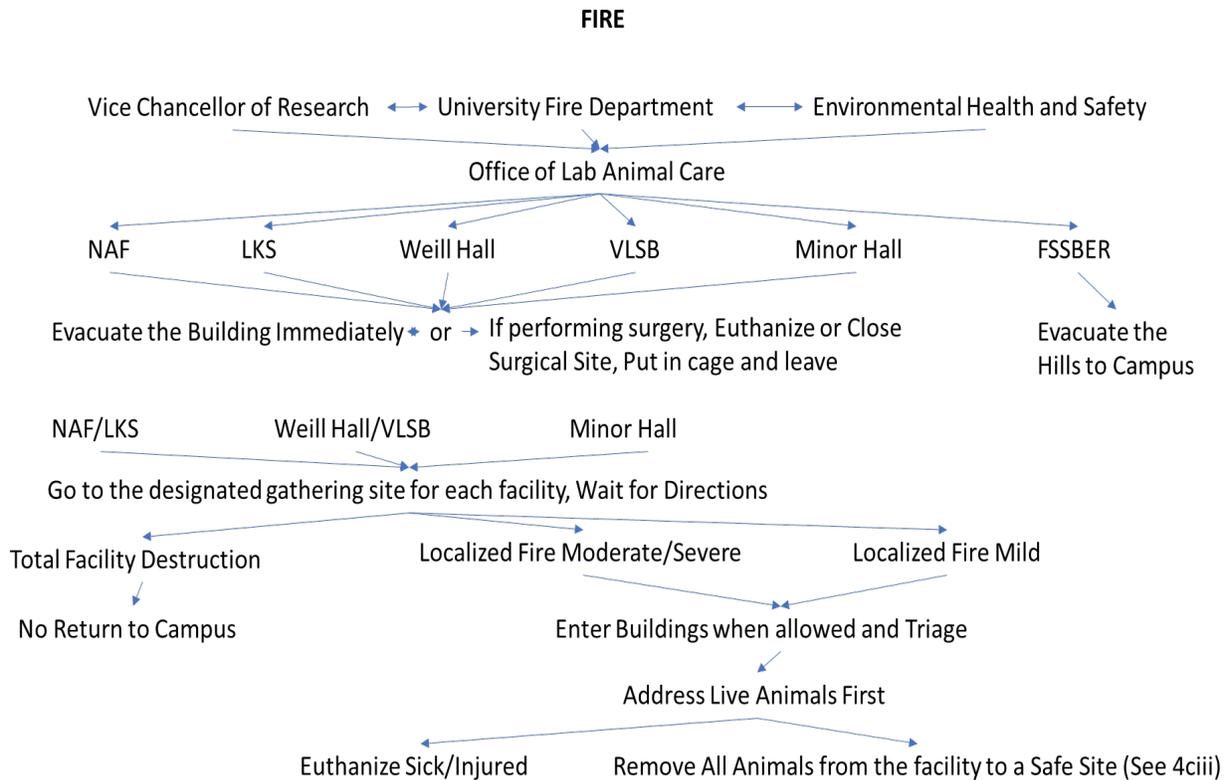
1. All OLAC animal care staff are considered “Essential”
 - a. No one will enter the building if they feel sick in any way
 - b. Administrative staff members can work from home if approved, to reduce human density
2. PPE
 - a. Everyone entering the facility MUST wear a facial covering - Facial coverings are to protect those around you, they are not to protect you from others
 - i. Facial coverings must cover the mouth and nose and are best made from a multiple ply material
 - ii. Surgical masks will be provided by OLAC if supplies are available
 1. Supplies could be limited secondary to human medical use
3. Directional Flow of Foot Traffic
 - a. Each building, based on design, will have directional arrows within corridors to limit cross traffic. The flow will be determined by the building facilities manager
 - b. When directional traffic is not possible, individuals will hug the wall and turn their heads as they pass.
4. Physical Distancing
 - a. Animal housing and procedure rooms will have occupancy limits one person per cage change station or bench top

- i. When more than one person is required for the activity, both individuals will wear a facial covering and a facial shield, and limit their distance as much as possible.
 - b. No more than one person in an elevator at any time
 - c. No more than one person in the restrooms
 - d. No more than two people in a locker room where barriers exist otherwise one person
- 5. Contact Tracing
 - a. The UHS Occupational Health Team works with Berkeley Public Health to conduct contact tracing. Anyone who is identified as a close contact to a person who has tested positive for the infectious agent will be notified. Personal information will be kept confidential to the extent required by law during a pandemic.
 - b. Individuals that have come within 6 feet of the infected person for a total of 15 minutes within a 24 hour period will be identified as a potential infectious agent carrier and will be quarantined at home for approximately 2 weeks.
- 6. Response based on Infection rate
 1. **Minor Impact on Staffing:** In this scenario the disease does not affect large numbers of staff and is spotty on campus.
 - a. Staff will continue to work as usual. OLAC often functions with fewer individuals than are employed.
 2. **Moderate Impact on Staffing:** In this scenario up to half of the staff is infected and asked not to come to work during their illness.
 - a. Cages will be spot cleaned - only those cages that are in need of changing will be addressed.
 - b. Food and water will be observed daily during the daily health check period and will be addressed at that time.
 - c. Overtime pay will be used as needed.
 - d. We will suspend all PI related services, and will have the PI's and their staff perform those responsibilities until staffing is back to normal.
 - e. Ancillary Staff will fill Hydropac pouches to ensure their availability.
 - f. Non- essential functions will be addressed as staffing allows.
 - i. Essential functions will be defined as all tasks associated with the health and wellbeing of the animals in our charge at the time.
 1. Ex. water, food, health, clean caging based on the SOP for spot changing cages.
 - g. All animal orders, transfers, imports and exports will be suspended and no new animal orders will be made until OLAC staffing is back to normal

- i. Transfers may be completed for on-going studies
- 3. **Severe Impact on Staffing:** In this scenario a majority of the OLAC staff are out sick.
 - a. OLAC will default to weekend/holiday scheduling. This means that 2-6 staff members will do health/food and water/cage soiling checks for all animal facilities. There will be no intense cleaning of any NPH or bat areas.
 - b. Work priorities will be focused on Essential Functions
 - i. Essential functions will be defined as all tasks associated with the health and wellbeing of the animals in our charge at the time.
 - 1. Ex. water, food, health, clean caging based on the SOP for spot changing cages.
 - c. Investigators may be asked to reduce the number of animals within their colony to limit the extent of animal care
 - d. Overtime will be offered to staff and office staff will be asked to help where needed including after hours and weekends.
 - e. Office staff will shadow experienced staff and take directions from those experienced staff members.
 - i. Ancillary Staff will be responsible for health check, cage check, hydropacs, cage changing
 - ii. Hire temporary staff through APEX to help cover caging material prep and cleaning, making extra water etc.
 - f. For work with Primates and Bats, emergency OHSS clearance would have to be obtained for all ancillary workers to cover Tuberculosis and Rabies.
 - g. OLAC will suspend all PI related services including training, both internal and external in order for these staff members to shadow experienced animal technician staff.
 - h. All animal orders, transfers, imports and exports will be suspended.
 - i. Should the outbreak continue or infect more employees, we would rely on help from contracting agencies such as Apex, rely on PI staff or share staff between campuses - UCSF, UCD, UCSC or UCM. Consider that this will be voluntary and people may not want to come to a place that has already seen infection.

Fire

Specific Building



1. OLAC staff will leave the building and proceed to the designated meeting site for that specific area (EAA).
2. OLAC management will wait for direction from the UCFD.
3. When possible, animals will be removed from the facility and moved to a safe building.
4. Possible Outcomes
 - a. Facility is engulfed and all animals are lost
 - i. OLAC will not be granted access to the facility until safe to enter
 1. Key OLAC management and staff will enter the facility, make assessments of rooms and whether or not live animals are present.
 - a. Live animals will be assessed for health and survivability and if necessary will be humanely euthanized.
 - b. Localized Fire - Moderate to Severe
 - i. OLAC will not be granted access to the facility until safe to enter.
 1. Key OLAC management and staff will enter the facility, make

assessments of rooms and whether or not live animals are present.

a. Live animals will be assessed for health.

i. Those that can be saved will be moved to a safe facility

1. These animals will be reassessed, treated if necessary and monitored closely

ii. Those that cannot be saved will be humanely euthanized.

c. Localized Fire - Minimal

i. A fire emergency will require PI's performing surgical procedures to react based on the situation:

1. to euthanize the animal they are working with

2. to rapidly close any wound, and place back in their cage

3. During regular business hours, researchers performing procedures on NHPs will coordinate directly with veterinary staff and facility supervisors to determine actions based on the situation

ii. For PI's performing injections and other less invasive procedures must place the animal back within its cage, and place the cage back on the cage rack or leave the cage on the countertop and immediately exit the building.

iii. Local UC's and other privately owned facilities will be contacted to identify potential "safe locations" until the damage can be assessed and the facilities repaired.

1. LBL, UC Davis, UCSF, Children's Hospital,

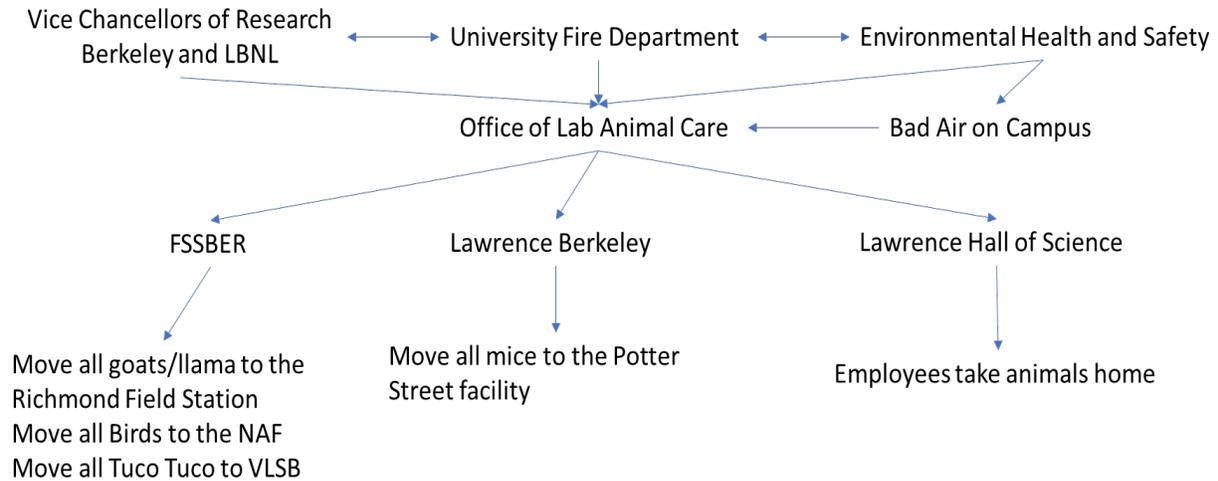
iv. Once OLAC is granted access to the facility, all animals will be evacuated from that building.

1. Current space availability will determine the location animals will be moved to.

2. Triage will include removing animals closest to the area of most severe fire damage and smoke intrusion

a. Aquatics and animals in caging that are not easily moved will be monitored in place, moved to static tanks in a safe location or euthanized if necessary.

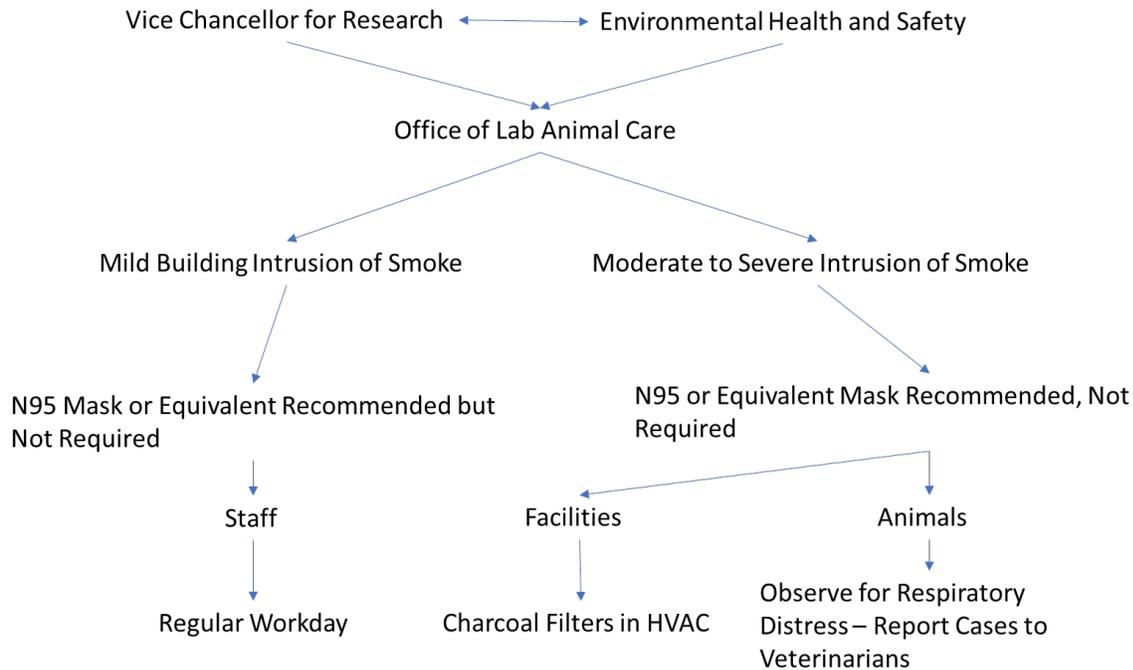
Hill Fire Evacuation



1. In situations where the Berkeley hills are ablaze, and expectations are to evacuate the facilities, OLAC management will be in direct contact with the UCFD and EH&S to determine the best way to move forward.
 - a. First concern will be the following:
 - i. FSSBER
 1. How close is the fire to the facility
 2. 12-24 hour expectations
 3. Will need enough time to move the fire mitigation goats to a safe area
 - a. Richmond Field Station
 4. Triage other animal species based on the work being done at that time -
 - a. Zebra finch/Canaries - capture and move to the NAF
 - b. Starlings - release
 - ii. LBL
 1. Potter street
 - iii. Lawrence Hall of Science
 1. Employees can take some animal species home with them
 2. UC Berkeley quarantine rooms and rooftop VLSB, UCSF, UC Davis as needed
 - b. EHS will advise on proper PPE
 - i. Smoke will be an issue within the buildings - N95 or equivalent mask will be recommended and employed on a voluntary use basis
 - c. UCFD and EHS will advise the VCR on the safety of staff being on campus and this will be relayed to OLAC

2. OLAC staff will be managed similar to the section on Bad Air Days
 - a. N95 masks will be recommended
 - b. Regular work days unless OLAC management is instructed differently by EHS/UCFD/VCR.
3. Investigators
 - a. Any surgical procedure that is in progress will be completed.
 - i. Future procedures will only occur under the auspices of the UCFD, EHS, Facilities and, OLAC
 - b. Entry of Investigator staff will be limited by the UCPD if needed by controlling key card access.
 - c. Animal care, breeding, weaning and on-going studies will only be interrupted if directed by UCFD, UCPD, or the VCR.

Smokey/Bad Air Days



1. Each of the animal rooms within the buildings receive 100% outside air. Because of this, smoke odors are easily detected within the animal facilities.
 - a. If you can smell smoke, you will be inhaling particulate matter from the air

- b. The NAF has 2" MERV-11 pre-filters and 12" MERV-13 filters. If needed, use pre-filter options that are MERV-8 or MERV-11, with carbon coating. Each building is different and needs to be evaluated building-by-building.
 - i. Upgrading the filter, without considering duct static pressure, could use up fan capacity and possibly decrease supply airflow.
 - ii. Consult with facilities representative for the animal facilities
 - iii. Carbon filters do not remove particulate matter

2. Human Safety

a. PPE

- i. N95 masks will block 95% of non-oil based particulate matter and will provide more protection than a surgical mask.
 - 1. Wearing an N95 or equivalent is voluntary, thus a fit tested mask is not required.
 - 2. It is always better to wear a fit tested mask sized to your face size and shape for maximum benefit of the mask
- ii. KN95 (China), AS/NZ P2 (Korea 1st class), DS/FFR (Japan), FFP2 (Europe) are equivalent to our NIOSH approved N95.

3. Animal Safety

- a. Rodents and other species housed on IVC racks and static cages with microisolator lids
 - i. The air entering the cages is HEPA filtered
 - ii. The air curtain for the cage changing stations is HEPA filtered
- b. All other species
 - i. There is no HEPA filtration of any air within the building
 - ii. Animals will be exposed to fine particulates in the air
 - iii. Filter changes in the building intakes will alter the air exchanges and the positive/negative pressure gradients throughout the building thus will not likely be addressed (see #1)

4. Smoke Intrusion

- a. Mild: Smokey outside but the smell of smoke inside the building is minimum or barely detectable
 - i. N95 or equivalent mask is recommended
- b. Moderate to Severe: Very dense smoke outside and the smell of smoke is easily detected inside the buildings
 - i. N95 or equivalent mask is recommended

Active Shooter/Terrorist Attack

Active Shooter:

1. Typically, a single individual within a single confined and populated facility, though the person could move from one site to another.
2. Occurs with no warning and individuals will have little time to think let alone react
3. Typically, there is no pattern or method to their selection of victims - the individual just wants to kill or make others hurt.
4. The person will be unpredictable and the situation will evolve quickly
5. Assume that any popping sound in succession is gunfire until proven otherwise
6. An active shooter is actually anyone with a weapon set out to do harm: gun, knives, blunt objects, physical force or explosives.
7. Keep in mind: A cell phone ring or vibration is a beacon that will direct the shooter to you. Turn it off. Keep yourself safe. Others will be alerting law enforcement.
8. If you hear shots fired on campus or if you witness an armed person actively shooting or threatening people (Active Shooter), immediately choose the best way to protect your life and do one of the following below:

1. Run, Hide, Fight

- i. **Run:** When there is an active threat, run away from the danger. Once you are safe call the University police or 911
 1. If calling 911, be ready to provide them with:
 - i. the number of shooters,
 - ii. physical description,
 - iii. number and type of weapons and
 - iv. where you saw the shooter.
 2. Get out of the building if possible
 3. Take others with you
 4. Raise your hands to show law enforcement they are empty and you are not the suspect
- ii. **Hide:** If escape is not possible
 1. Find a secure place to hide:
 - a. A location with a locked door: it is important to remember that if the person is within the vivarium they may have card key access to your location
 - b. Doors within the vivarium open inward: Block the door so it cannot be opened.
 - c. Many doors have a window - keep out of sight by staying close to the walls on either side of the door.
 - d. Shut off the lights if possible

- e. Critical again - Silence your phone
 - f. Stay there and silent until you receive an all clear - Remember that the active shooter could use the same terms. Be confident that it is coming from a safe group.
- iii. **Fight:** Only as a last resort and if your life is in danger
- 1. Carry something to fight with if possible - caging, animal racks, brooms, mops, fire extinguishers - there are many objects within the animal facilities that can be used as a weapon.

Terrorist Attack

1. Terrorist attacks include but are not limited to:
 - a. chemical and biological threats,
 - b. conventional and radiological explosive events,
 - i. A dirty bomb is a conventional bomb containing radiation elements
 - c. nuclear blasts
 - d. Other
2. May require sheltering in place for 72 hours to allow time for the state, county and federal emergency officials to render aid
3. Most important: remain calm, and clear headed as possible - important that you use common sense in your response.
4. **Chemical Events**
 - a. Get as far away as possible and upwind if possible
 - b. If possible, remove clothing and wash thoroughly. - look for a hose or faucet or other source of water.
 - i. Use plenty of soap and rinse well - 15 min if possible
 - ii. Do not scrub your skin - could drive an agent into your system - the skin is a barrier.
 - c. Cover your nose and mouth with layers of fabric (cotton T-shirts, handkerchiefs, tissue paper or paper towels)
5. **Conventional Explosive Events**
 - a. An explosive event that does not include the release of biological, chemical, or radiological materials
 - b. May cause serious injury or death by way of debris flying violently from the source of the explosion, from sub and supersonic shock waves as a result of the explosion, building collapses and or fires.
 - c. Call 911 or Campus police 510-642-3333
 - d. Get away from the source of explosion as soon as possible - upwind if possible

- e. Cover your nose and mouth with layers of fabric (cotton T-shirts, handkerchiefs, tissue paper or paper towels)

6. Radiological Explosion

- a. Aka Dirty Bomb - a conventional bomb used to disperse radiological agents.
- b. Effects may take hours or days to manifest upon people
- c. You will not know if radiation material is present in the bomb.
- d. Get as far away, upwind of the explosion as possible
- e. Cover your nose and mouth with layers of fabric (cotton T-shirts, handkerchiefs, tissue paper or paper towels to prevent contamination of your respiratory system.
- f. If possible, remove clothing and wash thoroughly for at least 15 min (clothing as well if possible)
- g. Record any personal health issues to your physician.

Note on Nonhuman Primate Researchers Response to an Emergency Alarm

Due to the sensitive nature of research with nonhuman primates, the following procedures are to be followed for any researchers working with nonhuman primates outside their home cage at the time of an emergency alarm:

- 1) If the animal is awake (i.e. not anesthetized), return them to their enclosure and follow evacuation procedures for the type of emergency that has stricken the facility.
- 2) If the animal is awake and in a restraint device (e.g. training), stop the training session and immediately return the animal to its home cage, then evacuate the building.
- 3) If the animal is undergoing surgery or a recording session, response will depend upon the time frames listed below:
 - a) Monday-Friday, 8AM-5PM:
 - i) During surgery: coordinate directly with veterinary staff present to determine the immediate threat and initiate surgical site closure.
 - ii) During recording: use the approved texting application (i.e., SLACK) channel to contact veterinary staff and facility supervisors to determine the immediate threat.
 - iii) Begin to close the craniotomy site/recording chamber immediately. As soon as the site is closed return the animal to its cage and

- evacuate.
- iv) If it is determined that there is an immediate threat to human safety (e.g., fire or after a major earthquake), you will be instructed to evacuate.
 - v) If at any time you are informed that there is a serious threat to human health remove electrodes and place a sterile, protective covering over the craniotomy site/recording chamber and evacuate.
 - vi) If no one is available to determine the immediate threat, then remove electrodes and place a sterile, protective covering over the craniotomy site and evacuate.
- b) Weekends, holidays, and after 5PM:
- i) Remove electrodes and place a sterile, protective covering over the craniotomy site and evacuate.

If at any time you deem that there is an immediate threat to your safety, evacuate immediately.

Bomb Threat

Packages etc.

1. A suspicious looking box, package, object or container in or near your work area could be a bomb or explosive material and should be reported to the UC Police.
2. DO NOT TOUCH IT.
 - a. It is better to report suspicious materials and allow experts to decide if they are dangerous or not rather than finding out for yourself.
3. Move away from the object and if possible, place something around it to warn others and to direct the police.
4. DO NOT activate the fire alarm or operate power switches until the area is cleared

Letter/Phone Call

1. Letter: Contact the University Police and give them the original letter
 - a. Might be good to make a copy for the department or issues of loss
 - b. Take direction from the UC Police
 - c. Save everything associated with the letter, including the envelope and any content
2. Phone Call:
 - a. Stay calm and pay close attention to details including voice, background

sounds

- i. Speech patterns: accent, tone
 - ii. Emotional state: agitated, angry, calm
 - iii. Background noise: traffic, people, music, trains
 - iv. Age, gender
- b. Record the date and time of the call
 - c. Record any information provided by the caller and if possible question the caller regarding:
 - i. Where is the device?
 - ii. Time to go off?
 - iii. What does it look like?
 - iv. Who is the target?
 - v. Person's name? May not be the person that placed the device but do they know who did?

Faulty HVAC Systems

1. Contact Facility Services to evaluate and address the issue
2. Heat: Move chillers into the facility until the issue is resolved
3. Cold: Move heaters into the facility until the issue is resolved
4. All IVC caging systems are vented into the HVAC system. HVAC failure could result in elevated ammonia levels in the room. If so, cages can be cleaned on a more frequent basis until the issue is resolved.

Animal Escapes

The primary species housed at UC Berkeley include: Bats, Primates, Xenopus frogs.

1. Bats
 - a. Bats are housed in the NAF and LKS.
 - b. In most areas, the housing area is separated from the corridor by an Anteroom.
 - i. If a bat were to escape the anteroom, signage would be placed

on the elevator, the exit door and the closed door to LKS to contain it within the NAF facility.

1. The NAF animal facility is in the basement with three exits: the elevator, the door between the NAF and LKS and the stairway to the first floor.

2. Primates

- a. All primates are housed in a primate specific corridor.
- b. If a primate escapes the cage environment, the housing room doors will keep it contained.
 - i. There is an anteroom between the housing room and the corridor
 - ii. If the animal gets past the anteroom, the primate corridors are closed off by “key card” access only doors. These doors are closed at all times.
 1. Food will be used to encourage a loose primate back into their cage
 2. If food is not successful, a net will be used to capture the primate.
 - iii. If the primate makes it past the primate corridor, the door between LKS and the NAF will be closed, tagged to state an animal is loose and the animal will be contained. The only exit is the elevator from this facility.

3. Xenopus spp. Frogs

- a. Xenopus spp. Are a detrimental species and escape is focused on prevention as opposed to capturing once escaped.
- b. The primary method of escape would be through facility plumbing systems and most likely in the form of fertilized ova.
- c. Tank water is always poured through a sieve to trap any frog ova.
- d. Trenches leading to drains are covered by plastic grids to prevent adult frogs from entering drains.

4. Sea Lamprey

- a. The sea lamprey are in large tanks in the basement of Weill Hall. All drains are grated with slats too narrow for a sea lamprey to pass through.
- b. All sea lamprey that enter the facility are at the end of their life cycle.
 - i. Though they will produce eggs, those must be fertilized outside the body, thus for any escaped animal, the ova would not be fertile.
- c. All water removed from the tanks passes through a sieve to catch any ova that may have been released.

OLAC Facility Initial Assessment Form

OLAC Answering Service – 643-8387 (3-VETS) or 510-895-2222

DATE: _____ TIME: _____

TEAM MEMBERS: _____

Are there injured personnel who must be removed from the building? [If yes, convey this information immediately.] Ambulatory? Non-ambulatory? Note their condition and location.

The condition of the facilities will be initially determined by facilities. OLAC staff must be aware that failures can be identified later as building settle etc.:

- Structural damage
- Electricity
- Lighting
- Heating Ventilation Air Conditioning
- Water availability
- Water leaks
- Stems leaks
- Unusual odors
- Gas leaks
- Unusual sounds

The condition of the animal enclosures by room numbers:

- General health status of animals - note whether any animals are out of cages.
- Access to food and water
- Cages are upright and closed
- Are there any immediate hazards in the room?
- Rooms are secure, doors are closed

***** **NOTE:** All team members must return to the NAF together at the designated time. Continually monitor the emotional and health status of all team members. Do NOT leave a team member in a building alone.

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