

**VA NORTHEAST OHIO HEALTHCARE SYSTEM
Louis Stokes Cleveland DVAMC
Medical Research Service
Subcommittee on Research Safety Policy**

Effective Date: NOVEMBER 18, 2020

SOP Title: EMERGENCY PREPAREDNESS

Policy Number: SRS--019

Policy Version: .14

Author:

Name: John M. Schaffer, B.A
Title: Research Safety Coordinator
Department: Medical Research Service

John M. Schaffer, B.A.

Reviewed By:

Chair/Subcommittee on Research Safety:

Krisztina M. Papp-Wallace, Ph.D.

Approved By:

Associate Chief of Staff/Research

Neal S. Peachey, Ph.D.

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1. PURPOSE: To minimize/prevent personnel injuries and/or facility damage. Employees will follow the procedures outlined herein, without hesitation, when an emergency alert is sounded.

2. POLICY: This policy outlines responses to emergency situations, e.g., power failure, failure of air supply, temperature and/or humidity controls, fire, flood, evacuation of personnel and animals, entry of animal rights activists, and hazardous material incidents impacting Medical Research Service. For additional information, refer to Medical Center Policy 138-038 (Comprehensive Emergency Management Plan) dated June 15, 2012.

3. DEFINITIONS:
 - a. ARF – Animal Research Facility
 - b. EPP – Emergency Preparedness Procedure.
 - c. ERC – Emergency Response Cascade: The Emergency Response Cascade formulates employee response in the event of an emergency. It also outlines the chain of command in which emergency information is reported to personnel.
 - d. HVAC – Heating, Ventilation, and Air Conditioning.
 - e. MOU – Memorandum of Understanding.
 - f. RSC – Research Safety Coordinator.
 - g. SDS – Safety Data Sheet
 - h. OSHA – Occupational Safety and Health Administration

4. PROCEDURES: If an emergency occurs, notify the Associate Chief of Staff/Research and Administrative Officer/Research at extension 4660 during working hours and otherwise via the VA Police Service at extension 4207.
 - a. Environmental Support

- (1) Environmental support is dependent upon continuous electric power and a functional Heating Ventilation Air Conditioning (HVAC) system. For emergency power outages, there is a back-up generator that supports the Medical Center; the emergency generator covers air supply, ventilation, lighting, and emergency power outlets (one per room) in the ARF. Laboratory and Administrative spaces are equipped with emergency outlets for sensitive equipment (freezers, incubators). Every third light through the corridors will function during a power failure.
- (2) Maintains the temperatures and humidity levels within targeted thermo-neutral zones, i.e., 68 - 75° F and 30 and 70%, respectively. Complete air exchanges range between 15 and 17 changes per hour; air is not recycled. Adequate ventilation is required to protect personnel and minimize exposure to allergenic aerosols. HVAC system disruption may cause health problems (respiratory disease), as well as an accumulation of annoying odors and/or harmful fumes. A long-term interruption of the steam supply during the colder months may cause a drop in room temperature. If a steam outage occurs, request portable space heaters from Engineering Service.

b. Contamination Control

- (1) Control of contamination is maintained by established sanitation procedures and the supply of 100% fresh air exchange. Equally important are the proper disposal of biohazardous waste, refrigeration of biological agents (blood, urine), adequate clean water supply, and sewer support.
- (2) The spread of contamination will be minimized by establishing a “staging area” where equipment, supplies, etc. will be secured and safely decontaminated (chemical, biological, etc.); biohazards are placed into biohazard bags for disposal through Environmental Management Service; hazardous chemical spills are performed as noted in Section 5, part g, Hazardous Material Spill Procedure, hazardous chemical waste is segregated, labeled as “Hazardous Waste”, and disposed of through the Facility Safety Office; radioactive material spills are addressed in the Louis Stokes Cleveland VA Medical Center Radiation Emergency Response, which is located on page 8 of this policy.
- (3) Failure to maintain contamination control may result in significant health problems in employees and animals. Control is dependent in part upon personnel following established sanitation procedures; the Research Safety Coordinator will work with laboratory personnel and services within the Medical Center during and following an emergency.

c. Security

- (1) Maintain at all times the security of laboratories that house biological, chemical, radioactive, and select agents (USA Patriot Act of 2002). A computerized magnetic security system (or keyed lock) protects all laboratory space and the ARF at all times. This constitutes a constant state of “lock down”, i.e., a state of containment and restriction of progression. Only VA employees and Without Compensation (WOC) employees with appointments who have completed all mandatory training are given proximity key card and key access.

- (2) When suspicious individuals are seen in laboratory space, administrative areas, and/or the ARF, contact the VA Police Service at extension 4207.

d. Research Support

Investigators are contacted when health problems, power outages, temperature changes, etc. may affect their research and/or the condition of their animals housed in the ARF. In an imminent situation, investigators are contacted as soon as possible. If contact with an investigator is not possible, necessary changes to maintain power to sensitive equipment and proper animal care may be made without their input. This action will help to prevent the loss of important data, specimens, and/or animals for research projects.

e. Research Data

Investigators are contacted when research data may be jeopardized. In an imminent situation, investigators are contacted as soon as possible. If contact with an investigator is not possible, necessary changes to maintain power to sensitive equipment, i.e. computer systems, will be made without their input. This action will help to prevent the loss of important data.

f. Research Specimens

Investigators are contacted when research specimens may be jeopardized. In an imminent situation, investigators are contacted as soon as possible. If contact with an investigator is not possible, necessary changes to maintain the power to units that house sensitive research specimens, i.e. UltraLow Freezers, refrigerators, etc, will be made without their input. If the unit is failing, specimens will be moved into another unit until the original unit has been repaired or replaced. This action will help to prevent the loss of important data.

5. EMERGENCY PROCEDURES:

a. Fire

- (1) In the event of a fire or fire drill, the **RACE** Procedure must be implemented:

Remove yourself and others from danger;
Activate an alarm pull box or call extension 2222;
Confine the fire by closing doors; and
Evacuate personnel from the area.

When the fire alarm system is activated:

- A. The fire alarm siren and audio location identification will have four cycles; thereafter, the siren and audio locator will be limited to the floor of origination.

- B. Strobe lights throughout the corridors will flash throughout the entire medical center until the Cleveland Fire Department renders the situation “clear”.
- C. A pager, which must be worn by hearing-impaired personnel, will vibrate when the fire alarm system is activated; the pager screen will display the floor of origination.

The OSHA Standard on Employee Alarm Systems:

1910.165(b)(1)

The employee alarm system shall provide warning for necessary emergency action as called for in the emergency action plan, or for reaction time for safe escape of employees from the workplace or the immediate work area, or both.

1910.165(b)(2)

The employee alarm shall be capable of being perceived above ambient noise or light levels by all employees in the affected portions of the workplace. Tactile devices may be used to alert those employees who would not otherwise be able to recognize the audible or visual alarm

- D. Employees will evacuate their work area/building until the VA Police Service or Cleveland Fire Department issues further instructions. Any alterations in routine work schedules will be addressed.

- (2) Investigators will be notified regarding the status/condition of their laboratories, equipment, etc. as soon as possible. In the event that a fire has occurred *after hours*, an attempt will be made to notify investigators whose laboratories have been affected. The Associate Chief of Staff/Research and Administrative Officer/Research will also be notified by Police Services to assess the situation. The Consulting Veterinarians will be notified if the ARF is affected.
- (3) If the water supply is affected, Hydropac Pouches are stored in sufficient supply to provide water for all animals for a three-month period. If this is insufficient water will be brought in from another facility.
- (4) Electrical power and the ventilation system are the responsibility of the Engineering Service. If electrical power is lost, the emergency generators will be activated.
- (5) Certain aspects of contamination control will be handled by the Environmental Management Service, i.e., cleans up of any smoke and/or water damage. If the air handling system is functional, Engineering Service will change all air filters in the affected areas.
- (6) A combined two-hour fire-rated partition/smoke barrier exists along the north and south walls in Medical Research. This wall separates the “K” wing from the Medical Center. If a fire occurs east of this fire/smoke partition, laboratory/administrative space and the ARF (except Room D-34) would not be at risk.

b. Flooding

- (1) If flooding is anticipated, equipment, supplies, and animals (if applicable) will be relocated. Investigators will be notified regarding the status of their laboratories, equipment, etc. as soon as possible.
- (2) If a flood occurs *after hours*, an attempt will be made to notify investigators whose laboratories have been affected. The Associate Chief of Staff/Research and Administrative Officer/Research will also be notified by Police Services to assess the situation. The Consulting Veterinarians will be notified if the ARF is affected.
- (3) If a flood occurs and sewage is involved, personnel will be evacuated to prevent the spread of contamination. Environmental Management Service (EMS) and Engineering Services will be notified as soon as possible. Personnel will not re-enter the affected room(s) until Engineering Service, Environmental Management Service (EMS), and Infection Control personnel grant clearance.
- (4) If a water main break occurs and flooding is severe, personnel will not enter the affected room(s) until Engineering Service personnel grant clearance. Any alterations in routine work schedules will be addressed.
- (5) Engineering Service will provide sandbags to aid in keeping water from entering non-affected rooms.
- (6) The City of Cleveland will test the quality of the water if widespread flooding occurs. Hydropac Pouches are stored in sufficient supply to provide water for all animals for a three-month period. If this is insufficient bottled water may need to be brought in until the City of Cleveland has determined that the water supply is safe for consumption.
- (7) Floors, equipment, etc. will be cleaned, disinfected, and dried immediately by Environmental Management Services, laboratory personnel, and/or the ARF staff. This will aid in the prevention of possible contamination. If an area is unable to dry within 24 – 72 hours, Engineering Service, Environmental Management Service (EMS), and Infection Control personnel will address the situation.

c. Tornado

- (1) In the event of a tornado, all personnel will be informed of the impending storm via overhead announcement. In outlying areas, employees must move into center corridors against walls and away from doorways and windows.
- (2) In the event of a tornado *after hours*, an attempt will be made to notify investigators whose laboratories have been affected. The Associate Chief of Staff/Research and Administrative Officer/Research will also be notified by Police Services to assess the situation. The Consulting Veterinarians will be notified if the ARF is affected. Any alterations in routine work schedules will be addressed.
- (3) If a tornado disrupts the water supply to the ARF, Hydropac pouches are stored in sufficient supply to provide water for all animals for a three-month period. If this is insufficient water will be transported in from other facilities.
- (4) The HVAC Shop will be contacted immediately to assess the air handling system. Large fans and cooling units will be used until the necessary repairs have been made.

d. Bomb Threat/Bombing

- (1) If a bomb threat is received, the call must be immediately reported to the VA Police Service at extension 2222. All employees must evacuate the facility if:
 - (a) A bomb threat has been received; or
 - (b) A bombing occurs.
- (2) Employees will evacuate the area/building until the VA Police Service issue further instructions. Any alterations in routine work schedules will be addressed at this time. Investigators will be notified regarding the status of their laboratories, equipment, etc. as soon as possible.
- (3) If a bombing occurs *after hours*, an attempt will be made to notify investigators whose laboratories have been affected. The Associate Chief of Staff/Research and Administrative Officer/Research will also be notified by Police Service to assess the situation. The Consulting Veterinarians will be notified if the ARF is affected.
- (4) If the water supply is disrupted to the ARF, Hydropac pouches are stored in sufficient supply to provide water for all animals for a three-month period. If this is insufficient water will be transported in from other facilities.
- (5) Electrical power and the ventilation system are the responsibility of Engineering Service. If electrical power is lost, the emergency generators will be activated.
- (6) Certain aspects of contamination control will be handled by the cleaning up of any bomb residue, smoke, and/or water damage by Environmental Management Services, laboratory personnel, and/or the ARF staff. If the air handling system is functional, the HVAC Shop in Engineering Services will change all air filters in the affected areas.

e. Protests by Animal Rights Activists/Threats of Terrorism

In the event of a scheduled protest, an unscheduled protest, or receipt of a threat by an animal rights activist, the VA Police Service is to be contacted immediately at extension 4207. VA Police Service will determine what action should be taken in such an event.

Personnel are not to approach anyone who may cause harm to themselves, animals, or the facility.

f. Break-In

- (1) If a break-in occurs *after hours*, an attempt will be made to notify investigators whose laboratories have been affected. The Associate Chief of Staff/Research and Administrative Officer/Research will also be notified by Police Services to assess the situation. The Consulting Veterinarians will be notified if the ARF is affected.
- (2) If the water supply is disrupted to the ARF, water will be transported in from other facilities.

- (3) The HVAC Shop (Engineering Service) is responsible for the ventilation and heating/cooling systems. If vandalism to this system has occurred, they shall be contacted immediately.
- (4) The VA Police Service will be contacted at extension 4207. They will determine what action should be taken in such an event.

g. Hazardous Material Spill Procedure

(1) Mercury:

(a) *Only* Environmental Management Service personnel, extension 4270, are service-trained to safely clean up a mercury spill. This is performed with a Mercury Spill Kit that collects the mercury, which is turned over to the Facility Safety Office for Hazardous Material Pick-up.

(b) The RSC/CHO, extension 4263, provides a Spill/Release Incident Report form to be filled out by the employee(s) involved. This report is filed with the RSC/CHO and the Facility Safety Office (791-2300 extensions 6158, 6159, or 6157). For spills that occur after-hours, call the Boiler Plant at extension 4180.

(3) Radioactive Materials: Medical Research employees who cause or are otherwise affected by a radioactive material spill must respond in accordance with the Louis Stokes Cleveland VA Medical Center Radiation Emergency Response, which is located on page 8 of this policy.

(4) Hazardous Chemicals: To comply with OSHA 29 CFR 1910.120, Hazardous Waste Operations and the Emergency Responses Standard, the Department of Veterans Affairs Medical Center has established Medical Center Policy 138-048, Control of Small Hazardous Material Spills. This procedure is designed to establish guidelines for emergency and non-emergency spills.

(a) Emergency Spills: Non-incident hazardous chemical spills require an *Operations Level* response. Medical Research employees are trained during an annual Research Safety In-service to follow these steps in the event of an emergency spill:

1. Evacuate all personnel from the area.
2. If a splash to the face or to the body occurs, personnel are instructed to proceed directly to an Emergency Eyewash or Shower Station (located throughout the corridors in Medical Research Service). Dilute eyes and/or body for five minutes and report directly to Personnel Health, room E-109 (x3557), for treatment.
3. Close doors to contain airborne contaminants and to prevent entry to the affected area. If possible, fume hoods should be utilized to remove hazardous fumes as quickly as possible.

4. Refer to Medical Center Policy 138-038, Comprehensive Emergency Management Program, which will ensure effective response to disasters and emergencies, including the four phases of emergency management activities: mitigation, preparedness, response and recovery.
 5. Secure a SDS sheet. Wait outside the room, *out of danger*, until help arrives.
- (b) Non-emergency Spills: Incidental hazardous chemical spills, minor in size, *do not* require an Operations Level response. Employees are trained during New Employee Safety Orientation and annually thereafter to follow these steps for non-emergency spills:
1. Contain the spill by applying the proper absorbent for the hazardous material. A *Universal Absorbent* is used with most spills, and is required to be in every laboratory. Spill Kits, wall-mounted throughout the Research Building, are to be used (instead of a *Universal Absorbent*) for the following hazardous spills: acid, caustic, solvent, and formaldehyde. Each kit contains neoprene gloves, goggles, plastic bags, twist ties, spatula, and canisters specific to the type of spill. The absorbent used should be applied around the edge of any liquid chemical spill to prevent it from spreading. The spilled chemical must be completely absorbed. Both absorbents are inert and will not react with the chemical. Remember that the absorbents *will not neutralize the chemical!* Dispose of the absorbed chemical following these steps:
 - A. Wear appropriate Personal Protective Equipment; scoop the absorbed chemical into a plastic bag with a spatula.
 - B. Tie bag with twist tie.
 - C. Place bag into a box and seal with tape.
 - D. Label box with name of chemical/what it has been absorbed with.
 - E. Safely store box in lab until the next Hazardous Material Pick-up, organized through the Facility Safety Office.
 2. Close doors to contain airborne contaminants, and use fume hoods and fans to remove hazardous fumes as quickly as possible. (Fans should blow fumes toward a fume hood for expulsion.).
 3. Identify material and secure a SDS sheet.
 4. Notify the RSC/CHO. At that time, the steps already taken will be reviewed and a Spill/Release Incident Report will be filed with the RSC and the Facility Safety Office.
 5. Contact E.M.S. to have the area thoroughly cleaned.
- h. Intentional Release of a Dangerous Chemical or Hazardous Material:

When a person knowingly releases a dangerous chemical or hazardous material with intent and for the purpose of causing harm to persons, animals or the environment (directly or indirectly),

this shall be considered the use of a weapon of mass destruction. The release of dangerous chemicals or hazardous materials for *any* purpose shall remain subject to regulation under federal and state environmental laws.

i. Research Laboratories at Case Western Reserve University

A Memorandum of Understanding (MOU) between Case Western Reserve University and the Louis Stokes Cleveland DVA Medical Center states that each party agrees to follow applicable policies and rules, including those relating to laboratory safety and environmental safety.

6. REFERENCES: VHA Handbook 1200.6 "Control of Hazardous Agents in VA Research Laboratories", "Emergency Procedure for the Animal Research Facility" (Medical Research service SOP), and Medical Center Policy 138-038 (Comprehensive Emergency Management Plan) dated June 15, 2012.
7. RESCISSION: Medical Research Service Safety Policy SRS-019 dated July 6, 2005. The rescission date of this policy is November 10, 2021.
8. FOLLOW-UP: Research Safety Coordinator/Chemical Hygiene Officer

Louis Stokes Cleveland VA Medical Center Radiation Emergency Response

Radioactive Spill:

Immediately notify Radiation Safety if there is:

- Any personnel body/skin contamination.
- Any spill greater than 5 uCi.
- Large area contamination with any radioactivity.
- Fire or flood in a radioactive material use or storage area.

Radiation Safety Officer Phone Numbers:

- During normal business hours (8:00 AM – 4:30 PM, Monday – Friday) call ext. 3096
- Cell phone (216) 313-3046

When you call, please have the following information ready:

Your name: _____ Location where you are calling from:

Phone number where you can be reached: _____ Any personal contamination? (Y/N)

Possible contamination: Radionuclide: _____ Estimated amount of spill (uCi)

Stay calm, and do the following:

1. Notify all persons in the area that a spill has occurred.
2. Prevent the spread of contamination. Place absorbent material over the spill.
3. If personal contamination has occurred remove contaminated clothing, especially contaminated shoes. Begin decontamination of skin with soap and water. Do not abrade the skin or use solvents.
4. Report the spill to Radiation Safety immediately (see above).
5. Confine the movement of potentially contaminated personnel and equipment to prevent unnecessary spread of contamination.
6. If area is confined, begin to decontaminate at your discretion. Wearing gloves, carefully remove the absorbent material and place in a yellow plastic waste bag. Make sure not to spread the contamination. Place all contaminated materials into the plastic bag and store/dispose of as radioactive waste.
7. Do not leave the site with contaminated items, including personal clothing, or if you are contaminated, (skin, etc.).

Radiation Safety will direct the area and personnel decontamination and final survey.

Theft and Misplaced Sources:

- During normal business hours (8:00 AM – 4:30 PM, Monday – Friday) call ext. 3096
- Cell phone (216) 313-3046.

Suspicious Individuals:

Report suspicious individuals to the Louis Stokes police force - 2222