



REPLY TO
ATTENTION OF

**United States Army Medical Component
Armed Forces Research Institute of Medical Sciences
APO, AP 96546
315/6 Rajvithi Road, Bangkok10400, Thailand**

MCMR-UWQ-A (100)

24 March 2015

MEMORANDUM FOR SEE DISTRIBUTION

SUBJECT: DVM Emergency Response Plan, Policy Statement No. 15-03

1. **GENERAL INFORMATION:** The *Guide for the Care and Use of Laboratory Animals* (NRC, 2011) requires that institutions develop disaster plans that take into account both the well-being of animals and consideration of personnel during unexpected events that compromise ongoing animal care. The plan should define the actions necessary to prevent animal pain, distress and deaths. Designations of responsibilities and personnel training in the disaster response, consideration of significant personnel absences, training, and institutional policies and procedures are important aspects of a disaster plan.

2. **PURPOSE:** This Policy Statement describes the Department of Veterinary Medicine Emergency Response Plan. It identifies potential adverse conditions, emergencies or disaster situations that could affect the Department of Veterinary Medicine (DVM); describes the procedures to be followed in the event of such an emergency; and identifies appropriate personnel and resources required before, during and after such emergency.

All emergency response efforts will focus on the following areas: 1) ensuring that all emergency response activities minimize personnel injury, property damage, and animal loss and maximize the continuation of mission-critical activities; 2) ensuring that DVM staff members are aware of communication procedures used by emergency response personnel during emergencies; and 3) providing event-specific guidance and information resources.

System failures include, but are not limited to, computer system, electrical power, emergency generator, fire alarm system, sewer stoppage, sewer leakage, water supply system, water shortage, steam/hot water system, telephones, HVAC system, and air conditioning unit failure.

Emergencies include, but are not limited to: bomb threats, fire, chemical spills, civil disturbances, transportation emergencies, natural disasters or other violent situations.

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4. REFERENCES

- a. AR 40-33/SECNAVINST 3900.38C, "The Care and Use of Laboratory Animals in DOD Programs," February 2005
- b. DoD Directive Number 3216.1, 17 April 1995, re-issued as DoD Instruction 3216.01, 13 September 2010, "Use of Animals in DoD Programs."
- c. *Guide for the Care and Use of Laboratory Animals*, 8th Edition. (Institute of Laboratory Animal Resources, National Research Council, National Academies Press), revised 2011. The Thai translated version is also available.
- d. *United States Public Health Service Policy on the Care and Use of Laboratory Animals*, 2015. Office of Laboratory Animal Welfare (OLAW), National Institutes of Health, Bethesda, MD 20892
- e. Health Research Extension Act of 1985, PL 99-158, "Animals in Research", November 1985
- f. U.S. Government Principles for the Utilization and Care of Vertebrate Animals Used in Testing, Research, and Training. 1985. Office of Laboratory Animal Welfare (OLAW), National Institutes of Health, Bethesda, MD 20892
- g. American Veterinary Medical Association (AVMA) Guidelines for the Euthanasia of Animals: 2013 Edition
- h. 7 USC 2131-2156, Animal Welfare Act, as amended.
- i. 9 CFR, Chapter 1A, Parts 1-4, Animal Welfare Regulations, promulgated by the United States Department of Agriculture (USDA), as updated.
- j. *Institutional Animal Care and Use Committee Guidebook*, Office of Laboratory Animal Welfare (OLAW) and Applied Research Ethics National Association (ARENA), 2nd Edition, 2002
- k. *Institutional Administrator's Manual for Laboratory Animal Care and Use*. DHHS Publication 88-2959, 1988. Office of Laboratory Animal Welfare (OLAW), National Institutes of Health, Bethesda, MD 20205
- l. *Occupational Health and Safety in the Care and Use of Research Animals*

(Institute of Laboratory Animal Resources, National Research Council, National Academy Press), 1997. The Thai translated version is also available.

m. *Ethical Principles and Guidelines for the Use of Animals for Scientific Purposes*. The National Research Council of Thailand, 2006

5. DEFINITIONS/ABBREVIATIONS

After-Action Report (AAR)

Assistant Chief, Research and Laboratory Animal Medicine (AC, RLAM) – serves as the Veterinary Care Coordinator (VCC) during an emergency situation.

Assistant Chief, DVM (AC, DVM)

Attending Veterinarian (AV) – The Attending Veterinarian has delegated program authority for all activities involving animals within the program, including disasters/emergency situations, and must ensure delivery of timely adequate veterinary care, as well as providing oversight of all other aspects of animal care and use for all animals within the program. This includes the decision to euthanize a large population of research animals for health and welfare issues following a disaster or emergency. The role of Attending Veterinarian is generally filled by either the Chief, DVM, or Assistant Chief, DVM.

Automated External Defibrillator (AED)

Building Automation Systems (BAS)

Cardiopulmonary Resuscitation (CPR)

Chief, Department of Veterinary Medicine (C, DVM) – The C, DVM, directs the AFRIMS' emergency response effort with regard specifically to animal care, evacuation, and disposition. In the absence of the C, DVM, the AC, DVM will assume this role. If both of these are absent, the AC, RLAM will assume this role.

Clinical Veterinarian – DVM staff member who is qualified and authorized to practice veterinary medicine in species within animal research program. The Clinical Veterinarian provides direct animal care and will provide support as requested by AC, RLAM during an emergency.

Commander, USAMC-AFRIMS (CDR)

Department of Veterinary Medicine, USAMC-AFRIMS (DVM) – The Department of Veterinary Medicine is the department which directly provides humane animal care and protocol support for all AFRIMS animal research projects. The DVM Organizational Chart is provided as Appendix A.

Deputy Commander, Administration (DCA)

Deputy Commander, Science (DCS)

DVM Emergency Points of Contact Roster – This is a list of emergency points of contact for the AFRIMS' animal facility. The list is maintained on the V: drive and is provided as Appendix B. The IACUC administrator is responsible for updating and maintaining the information maintained on the site. For more information on access or making roster changes, contact the DVM administrative offices at Extension 4802.

Emergency Responders – Local police, Bangkok Fire & Rescue Department, and other emergency services that respond to an emergency situation.

Environmental Monitoring (EM)

First Responders - AFRIMS Staff, Emergency personnel, designated.

Freedom of Information Act (FOIA)

Foreign Service National, Locally Employed (FSN LE)

Guide for the Care & Use of Laboratory Animals, 2011 (Guide)

Heating, Ventilation, Air Conditioning (HVAC)

Incident Commander (IC) – The individual responsible for the overall management of the response. Upon arriving at an incident, the higher ranking person will either assume command as the IC, maintain command as-is, or transfer command to a third party. In some situations, a lower ranking but more qualified person (i.e., a Safety Officer) may be designated as the IC.

Institutional Animal Care and Use Committee (IACUC)

Metropolitan Waterworks Authority (MWA)

Noncommissioned Officer In-Charge (NCOIC) – Senior enlisted individual on the DVM staff.

Nonhuman Primate (NHP)

Office of Laboratory Animal Welfare (OLAW) – NIH Office of Extramural Research regulatory office that provides guidance and interpretation of the Public Health Service Policy and monitors compliance of PHS Assured institutions.

Officer in Charge (OIC)

Personal Protective Equipment (PPE)

Safety Data Sheets (SDS) – formerly Material Safety Data Sheets (MSDS)

Safety Officer, DVM – Coordinates with DVM staff and communicates information from AFRIMS first responders or emergency responders.

Security Officer, AFRIMS (SO)

Standard Operating Procedure (SOP)

United States Army Medical Component – Armed Forces Research Institute of Medical Sciences (USAMC-AFRIMS, or AFRIMS)

Veterinary Care Coordinator (VCC) – Assistant Chief, Research and Laboratory Animal Medicine (AC, RLAM) serves as VCC to ensure continued humane care of individual animals during an emergency. In the absence of the AC, RLAM, any DVM veterinarian can perform this role. In the event that no veterinarian can be contacted, any Veterinary Technician (VT) may assume this role temporarily. The VT is authorized to provide first-aid treatment within the limits of their ability and training, until a veterinarian arrives to relieve them of that responsibility.

Veterinary Technician (VT)

Vivarium Quality Control Engineer (QCE)

6. APPLICABILITY: This policy letter applies to all AFRIMS' employees.

7. CONCEPT

a. Four Phases of Emergency and Disaster Management

(1) **Preparedness phase** takes place before an emergency happens. It consists of making plans or preparations to save lives and prevent additional property damage. Pertinent aspects of preparedness should be practiced or discussed on a regular, ongoing basis as part of the Animal Program Preparedness Training Program (Appendix C). Information critical to Employee Preparedness should be provided as well (Appendix D, Animal Program Staff Preparedness Information).

(2) **Response phase** takes place during the emergency. It includes the actions that are taken to save lives and prevent additional property damage.

(3) **Recovery phase** occurs after the emergency, and it includes actions that are taken to return to a normal or safer state.

(4) **Mitigation phase** occurs both before and after the emergency, and decreases the likelihood that an emergency will happen or reduces damaging effects of unavoidable emergencies.

b. Communication during an Emergency/Disaster Event

(1) The objective of First Responders, such as the Fire Department and Police, is to resolve the immediate problem which resulted in the disaster/emergency.

(2) First Responders will request the following information from the C, DVM, or other senior facility staff member upon arrival:

(a) Location of the emergency (Reference Appendix E, Animal Facility Floor Plans)

(b) Status of personnel in the facility (numbers present and their location)

(c) Special hazards in the building (name of hazards and their locations)

(d) Species of animals in the facility (nonhuman primates, rodents, other animals)

(e) PPE requirements to enter the facility/room

(f) Decontamination requirements for fire/rescue equipment entering and leaving the building/room

(3) Communications should flow according to the Emergency Command and Response Structure (Appendix F), providing information that will be important to the C, DVM and/or IC (Appendix G, Animal Program Status Report Information). Because the AFRIMS' Building 5 is part of the RTA campus, joint communication and cooperation with RTA sponsors is also an important component of an effective response plan. The Emergency Points of Contact Roster (Appendix B) provides updated telephone numbers for pertinent RTA personnel.

(4) Any event requiring an Emergency Response should be reported to the C, DVM, as soon as possible. At no point in time are employees allowed to discuss any disaster situation with the media. All contacts with media or FOIA requests are to be handled in accordance with guidance provided in Appendix H, Media and FOIA Inquiries.

c. General Disaster Response Procedures

(1) Response Phase: The emergency command system is activated to direct the emergency response as depicted in the Emergency Command and Response Structure (Appendix F).

The C, DVM will provide an initial assessment of the situation and work with available staff to secure and safeguard the welfare of the staff and animals. The C, DVM, will report to the IC, providing important information as described in Appendix G, Animal Program Status Report Information. This information will help direct the response effect by coordinating the actions of other responders.

(2) The IC has the authority to: assess the situation; secure the site; remain in charge at the site until the emergency is declared to be over; and identify the Command Center.

(3) The AC, RLAM will coordinate with the C, DVM, and will take all actions necessary for proper veterinary treatment of animal casualties.

(4) Section supervisors will provide direct oversight for all husbandry and animal care actions required for animals.

(5) After the emergency, all actions are taken to return to a normal or safer

state. The emergency recovery phase is usually managed by the AC, RLAM.

d. Euthanasia Guidance for Disaster Events

(1) The decision to euthanize animals and the selection of appropriate euthanasia methods requires careful consideration in all scenarios, but the urgency of these decisions is heightened in disaster-related events. Disaster events in a research animal setting often cause the loss of room access, environmental control, or safe working conditions which limit animal care and veterinary service support options. Euthanizing injured or distressed research animals in these situations may be the only way to relieve animal pain and suffering. Direction in this situation is frankly stated in the following excerpt from the 8th Edition of the Guide for Laboratory Animal Care and Use (2011): ***“Animals that cannot be relocated or protected from the consequences of the disaster must be humanely euthanized.”***

(2) In the AVMA Guidelines on Euthanasia (2013), the AVMA identified that depopulation, or the “rapid destruction of large numbers of animals in response to emergencies, such as the control of catastrophic infectious diseases or exigent situations caused by natural disasters,” is one area needing additional guidance. Techniques will be addressed in a document “AVMA Guidelines for the Depopulation of Animals” (currently being drafted). Once published, this document will provide guidance for disaster-related instances where deviations from standard euthanasia methods are necessitated. Euthanasia may be the only management option available to alleviate pain or distress in the aftermath of an animal facility disaster.

(3) The identification, selection, and application of a method of euthanasia which minimizes or removes both human and animal health concerns rests in the professional judgment of the C, DVM or designated agent (e.g. AC, RLAM).

(4) In a disaster scenario, human safety, the animal species, and the urgency to relieve animal pain and distress outweigh study considerations such as data gathering, sample collection, and experimental endpoints. Consequently, the euthanasia method for a set of study animals based on experimental priorities may not be the appropriate euthanasia method to use on the same set of animals in a disaster event.

(5) Disaster euthanasia decisions addressing the management of a large population of research animals following a facility disaster or emergency rest with the C, DVM who should, to the extent possible, work closely with the CDR, DCS,

IACUC Chair, and other DVM veterinarians. Depending on the type of disaster or emergency, the nature of the animal injuries and the amount of available time; the decision to euthanize a large population of research animals for health and welfare issues should first be communicated to the CDR, DCS, and IACUC Chair. In the event that BSL-2 or BSL-3 animals must be euthanized, the Occupational Health and Safety Departments should also be notified.

(6) Disaster euthanasia resources required to conduct a large-scale euthanasia procedure include personnel proficient or trained in the selected euthanasia method, specialized equipment, specific euthanasia drugs and materials, approved carcass disposal methods and carcass storage locations, and approved animal and carcass transportation assets. Because of difficulties associated with procurement of euthanasia resources in Thailand, the C, DVM, will ensure that a sufficient supply of resources are maintained in stock at all times to euthanize all animals within the facility.

(7) Disaster euthanasia plans are included in this DVM Emergency Response Plan, as Appendix I. The Euthanasia Plan outlines the requirement for personnel performing euthanasia to have been trained to proficiency and also outlines the equipment, drugs, supply, transportation, and carcass disposal items required to support a large-scale euthanasia event. Euthanasia plans should be reviewed annually by the DVM leadership and updated as necessary to reflect the species maintained. DVM staff should regularly survey euthanasia resources to ensure that adequate supplies are maintained.

(8) Disaster euthanasia methods should be selected which safely implement humane euthanasia and minimize human and animal health/safety concerns. To the extent possible, any euthanasia procedures will be performed in accordance with VET-VC-207 and VET-VC-208. The decision to utilize modified versions of acceptable euthanasia methods listed in the AVMA Guidelines on Euthanasia (2013) should be made by the C, DVM or designated agent (e.g. AC, RLAM) based on veterinary professional judgment, as indicated by overriding, disaster-related circumstances.

e. Staffing Shortage Planning Guidance

(1) DVM Mission during a staffing shortage: Maintain the integrity of AFRIMS' animal research through the provision of humane animal care, regulatory compliance, and responsible stewardship of government property.

- (2) Essential DVM Services during a staffing shortage
 - (a) Basic husbandry
 - (b) Veterinary Care, including:
 - Intensive care
 - Pharmacy services
 - Rodent and NHP colony support
- (3) Optional DVM services during a staffing shortage (note – determinations of feasibility are based on staffing levels and capabilities)
 - (a) Technical and logistical support services for selected, ongoing animal research activities.
 - (b) Veterinary Clinical Diagnostic Laboratory services
 - (c) Sentinel Animal testing
 - (d) Veterinary Pathology services
- (4) DVM supply requirements during a staffing shortage
 - (a) Loading dock access to trucks delivering supplies
 - (b) Personnel to receive and manage supplies.
 - (c) A mechanism to pay supply vendors during the staffing shortage period.
 - (d) A system to communicate supply needs and resources between programs.
- (5) Equipment and facility repair requirements during a staffing shortage
 - (a) Purchase and receipt procedures for procuring essential parts, equipment, maintenance, and contract services.
 - (b) AFRIMS' campus access to vendors and contractors working on critical equipment or facility projects.

f. Utility Interruption/HVAC failure

(1) The AFRIMS' animal care program has developed standardized animal facility alarm set points for animal room temperatures, humidity, and air changes. During normal animal facility hours (Monday – Friday, 0700 – 1600) animal technicians from the NHP and Small Animal sections are responsible for monitoring and reporting any abnormal animal room parameters to their supervisor. The QCE is responsible for checking the BAS operation mode at the BAS to ensure it is working properly. The QCE and the Engineering Technician monitor these parameters after-hours and on weekends and holidays through the use of message alarms that are forwarded to cellular telephone numbers. Coverage for physical plant problems is available 24 hours/day and seven days/week. Acceptable temperature and humidity ranges are listed in SOP VET-QC-006 (Monitoring of Temperature, Humidity, and Air Pressure in Animal Rooms by Building Automation System). If the animal environment is determined to be out of range, the QCE notifies the responsible supervisor immediately and then contacts service personnel. Occasionally there are utility interruptions to the animal facility. Emergency power is provided by emergency generators. Most utility interruptions are corrected within 2 to 4 hours. Staff should know where emergency outlets, which are labeled E220V or E110V, are located.

(2) Primary Goal: Whenever a power failure occurs, the primary goals are to assess the impact on the area and to report the situation to the QCE and C, DVM.

(3) Response

(a) NEVER use an open flame such as a match or lighter for a light source.

(b) Emergency flashlights are located in the first-floor and second-floor hallways, beside each emergency lighting fixture. Extra batteries and flashlights are stored in the QCE office.

(c) Be aware of what equipment is on back-up power.

(d) For facility issues, contact the QCE or the Engineering Technician and/or the on-duty supervisor. Contact information is included in Appendix B.

(e) As appropriate, turn off sensitive equipment to prevent possible damage from power surges that may occur when service is restored.

(f) Careful monitoring of rodents housed in static microbarrier cages is required.

During HVAC failure, air replacement and gas exchange are compromised in these cages. This may require the cages to be converted to static microbarrier cages with filtered lids or the removal of the cage lids entirely if sufficient numbers of filtered static lids are unavailable. In this circumstance, intra-cage temperature monitoring is critical. Temperature monitoring on cages in the top row of the rack should be instituted immediately using a room thermo-hygrometer. All available animal caretakers will be deployed to replace or remove lids from cages if the C, DVM or designated agent (e.g. AC, RLAM) makes the determination that this is necessary.

(g) Animal Food: A breakdown of the air handling system for extended periods of time may result in higher or lower levels of humidity and temperature. These altered levels could affect the quality of feed. All feed will be closely monitored for spoilage. Spoiled or contaminated feed will be discarded and replaced immediately.

(h) Use stairs and hallways to exit the building.

g. Telephone bomb threat procedures

(1) In the event that a bomb threat is received by telephone at work, any information that can be gathered will assist the Security Office in managing the incident

(2) Instructions: Be calm, courteous, and listen. Do not interrupt the caller, but attempt to gather as much information as possible using the Bomb Threat Report Form in Appendix N as a reference.

(3) Notify the Regional Security Office, U.S. Embassy (Tel. 66-2-205-4472), and follow any further instructions.

h. Fire

(1) SOP VET-LS-003 (Fire Prevention and Safety) covers specific fire and safety procedures for DVM staff.

(2) Damage to the animal holding areas or disruptions of electric and water service would result in animals being removed from these areas to alternative housing areas as soon as possible. Animals will only be evacuated after the Fire Marshal or Safety Personnel, in consultation with Bangkok Fire and Rescue Department Officer, approve re-entry into the building. Animals will be relocated using established animal transportation routes to new holding locations within

Building 5. If necessary, other research institutions in the city of Bangkok may be asked to provide temporary housing for some research animals.

(3) Primary Goal: The safe and orderly evacuation of all personnel from the building.

(4) Response

(a) Pull the fire alarm and alert the people in your immediate area.

(b) Leave the area using designated fire escape routes. DO NOT use elevators.

(c) DO NOT delay evacuations by trying to rescue animals.

(d) The Department Fire Wardens or supervisors check all rooms to ensure that all personnel have evacuated from the building. All DVM staff will assemble in designated location (Appendix J, Fire Safety Meeting Area) to ensure all personnel are accounted for. Department Floor Monitor will take accountability of personnel and report to the Safety Officer or C, DVM and/or the Fire Marshal.

(e) DO NOT re-enter the building until given authorization from the Fire Marshal or Safety Personnel.

(f) Containment Suite Emergency Exit

- Staff accessing the containment suite will be trained on emergency procedures before initial entry into the suite.

- When the audible fire alarm sounds, personnel in B-wing must remove soiled gloves and exit room in the containment suite. They will gather in Corridor 6 and await instruction from outside the suite, either by phone or through the windows in the airlock at room B7.

- The Safety Officer or Fire Warden will contact the personnel inside the suite by calling extension 4882 and inform them whether to stay (in case of false alarm) or evacuate. If the phones are not working, information will be passed by signaling through windows at room B7.

- In case there is evidence of real disaster or fire (e.g. damage or smoke) personnel should quickly remove gloves and lab coats and exit the containment suite through the nearest airlock (room B7 or B10). Please note that, if the interlocking door mechanisms do not function during power failure, the manual switches above

the doors may be used to unlock the door.

- Personnel should then immediately leave the building through the nearest emergency exit and move to the waste storage house. They will utilize the safety shower located outside waste storage house for decontamination.

- If not decontaminated, employees who have exited B-wing should not congregate with other employees unless absolutely necessary (such as in order to prevent loss of life, limb, or eyesight). Remain there until further instructions are provided by the Fire Marshal or Safety Personnel.

(5) Evacuation from Surgical Suite

(a) Preparedness

- The safety of humans shall be the primary concern; and secondarily, the safety of the animals during any emergency or disaster response event. Pertinent aspects of preparedness should be practiced or discussed on a regular, ongoing basis as part of the Animal Program Preparedness Training Program (Appendix C). Information critical to Employee Preparedness should be provided as well (Appendix D, Animal Program Staff Preparedness Information). Aspects of the training program should include:

- Practice of facility clearance, evacuation, marshalling, and personnel accountability procedures as approved by the Lab Operations Department.

- Discussion with the DVM staff members about their animal management responsibilities in a scenario where a facility evacuation is directed and animals are undergoing surgical procedures.

- Discussion of animal facility plan to evacuate and account for personnel with AFRIMS' Security Manager.

(b) Response

- The surgical team and all personnel must evacuate the surgical area and building immediately if fire or smoke is detected in or near the surgery suite. If there is imminent danger to the surgical staff, the surgical team should evacuate immediately. If time permits, the animal should be euthanized with an overdose of an appropriate injectable anesthetic or euthanasia agent.

- If a surgical team evacuation is required and there is not an immediate danger present, the team should evaluate options based on whether a surgical incision has been made. If a surgical incision **has not been made** at the time of the alarm, the surgeon should not proceed any further with the planned procedure. The animal will be disconnected from anesthesia and any monitoring equipment and

relocated to an empty cage. The cuff on the endotracheal tube will be deflated and the tube removed. If a surgical incision **has been made** or if the procedure is underway, the surgical team should halt the procedure and begin an emergency closure or protection of the surgical site affected to ready the animal for relocation. The following animal management options are recommended: i) The veterinarian will decide if the animal shall be taken off gas anesthesia and given an appropriate injectable anesthetic; ii) If appropriate, the surgical site should be covered with saline moistened sterile gauze, and an appropriate antibiotic should be given if not already administered; iii) If appropriate, the animal should be placed in an appropriate transport cart and evacuated out of the building with the surgical staff. Appropriate emergency supplies and a wound closure kit should accompany the animal; iv) If not appropriate for evacuation, considerations should focus on a safe site within the building. If no safe site exists, euthanasia may be the most viable option.

- When an evacuation is announced: i) Non-essential personnel should immediately evacuate the building through the nearest exit if fire or smoke is detected in the building and move to their pre-determined assembly area (Appendix J, Fire Safety Meeting Area); ii) The Safety Officer/AC, RLAM/QCE will conduct a brief search of all assigned areas, and then report the evacuation status of their area(s) to C, DVM; iii) If applicable, the AC, RLAM should report the location and the number of persons remaining in the surgery suite to the C, DVM; iv) The C, DVM or designee will be the point-of-contact to give status reports to the Incident Commander; v) If possible, the Safety Officer or the Fire Marshal will provide situation updates to the Surgical Team Leader if the surgical team remains in the surgery suite.

(c) Recovery: Prepare an AAR immediately after the incident describing the issues facing the surgery team during the event. Review and discuss the AAR with the DVM, Safety, and Security staffs. See Appendix K (Animal Program After-Action Report) for a list of considerations to be included in the report.

i. Flooding

(1) Background: Bangkok lies in the Chao Phraya River basin, which covers about 35% of Thailand and has an average elevation just 1 - 2 meters above sea level. Large floods have occurred along Bangkok's Chao Phraya River in 1942, 1978, 1980, 1983, 1995, 1996, 2002, 2006, and 2011. The rise of sea levels, which has averaged 7 inches world-wide during the 20th century and is predicted to be at least that high during the 21st century, is a concern. Higher sea levels block the flow of flood waters out of the Chao Phraya River, backing up these waters into the city, putting stress on levees and raising flood heights.

(2) Preparedness

(a) Building 5, Yothi annex, has a ground-floor that is approximately 1 meter above street level. Water is fed to Building 5 from the Bangkok city water system. The pump that feeds water from the pumphouse to the vivarium is currently positioned at about 0.5 meter above street level. Therefore, it is the most vulnerable aspect of emergency response during a flooding situation and must be protected with concrete barriers or other means of protection.

(b) Maintain a current inventory list of supplies. Ensure adequate amounts of food and water are available to support the animal colony for at least 5–7 days. Pre-stage husbandry supplies when possible.

(c) In preparation for flooding situations that may close roads and impact public transportation, all essential employees must be advised in advance of their essential status and counseled on their role and responsibility within the animal program during these events. Consideration of altered work schedules comprised of shifts or teams to ensure continuation of mission critical activities may be necessary.

(d) Considerations need to be made in the event that essential personnel are required to shelter in place during the event. Overnight accommodations may be needed. In the event that local restaurants and food services are not accessible, food and water for up to a 3-day period should be kept on-hand for essential personnel.

(e) Personnel that utilize public transportation should have alternate transportation plans in place in the event that public transportation is impacted or shut down.

(3) Primary Goal: The protection of personnel and animals from flooding hazards and the prevention of widespread contamination due to floodwaters.

(4) Response: Critical concerns during a flood situation include the following:

(a) Access to potable water for animals

- If the water supply provided by the Metropolitan Waterworks Authority (MWA) has been affected and water quality testing is necessary, bottled water may need to be purchased until the water is tested and proven safe for consumption. Emergency potable water trucks or carboys may be requested from MWA.

- More details about animal water requirements are provided in Appendix L, Calculating Minimum Water Requirements. Details about water storage and use are outlined in Appendix M, Animal Program Triage Plan.

(b) Transportation of staff and supplies

- Timely processing of animal deliveries is necessary to avoid loss of life or injury to animals. This is a routine function that becomes critical in a disaster situation. The C, DVM or designee should contact animal suppliers and inform them of the emergency and identify where to redirect animal shipments if they cannot reach personnel or delivery areas.

- Implement staffing plans to maintain mission critical activities and monitor supply levels throughout emergency event.

- If supply stockpile is low or inadequate, notify C, DVM or AC, RLAM so they can coordinate with Logistics to obtain necessary supplies in a timely manner.

j. Massive Chemical Spill

(1) SOP CMD-LS-001 (Chemical Safety) covers specific chemical safety procedures for the Institute.

(2) Most chemicals used in the animal care and use program are innocuous, but several substances used in bulk may be hazardous to the environment, to our animal populations, or to personnel working in the area. These include: chemicals used in the cleaning of cages or in the sanitation and disinfection of the animal housing areas; hydrochloric acid used to acidify the water supply; and volatile anesthetics used for anesthesia and/or euthanasia. Chemical spill kits will be stored and maintained near areas with potentially hazardous chemicals.

(3) Primary Goal: The protection of personnel and animals from exposure and the prevention of widespread environmental contamination.

(4) Response

(a) Give first aid, in case of personal injury, as appropriate. Supervisors must ensure that emergency eyewash and/or showers are ready to use immediately.

(b) Personnel should leave the immediate area of the spill and close and seal the doors of the room involved.

(c) Safety Office should be contacted immediately at ext. 4147 to 4149.

(d) Personnel should be prepared to provide the name of the chemical involved, hazards that it may present (consult the SDS), the exact location of the spill, the approximate volume of the spill and information about the human and animal occupants in the immediate and adjacent areas.

(e) Notify people working in adjacent areas and coordinate their evacuation if so instructed by the Safety Officer.

k. Civil Disturbances or (Threatened or Actual) Acts of Terrorism

(1) Political upheaval is the civil disturbance of primary concern; however, animal rights demonstrations or activities are possibilities. Employees must be on the alert for unauthorized persons attempting to gain access to animal facilities for any reason. Political uprisings may impede DVM staff ability to access to public transportation or highways, thereby resulting in a staffing shortage (see section 7.e for "Staffing Shortage Planning Guidance"). Animal activists may pretend to have authority to gain access or may claim to "have a delivery", an "appointment" or to have "left their access card or ID elsewhere". Security staff, as well as DVM staff and research personnel, should always question those seeking entry carefully to avoid being duped by these ploys.

(2) Terrorism is defined as a systematic use of terror as a means of coercion, and destructive acts related to radical animal rights activity now fit the legal definition of terrorism. Terrorism ultimately causes intense fear, anxiety, and in extreme cases, death. Acts of terrorism can take many forms such as chemical, biological or explosive.

(3) Primary Goal: Immediately notify the Local Guard force and SO in the event of the detection of an intruder, any public protest that has not been anticipated by the institution, or animal activist threat of any type. Upon notification, the SO will assess the situation and determine further actions.

(4) Response

(a) The situation will dictate the appropriate level of response required, e.g. local Royal Thai Police and or Royal Thai Armed Forces.

(b) Remain calm.

(c) Be courteous.

(d) Avoid an incident and do not antagonize the intruder or resist if threatened.

(e) If you arrive during a disturbance, leave the area at once.

(f) If you are inside the building, stay in your office or work area and stay out of the lobby and away from windows.

(g) If you are inside the building and need to leave, request an escort from coworkers or police.

I. Transportation Emergencies and Supply Failure (examples include weather, road blocks, public transportation outage)

(1) Preparedness

(a) Road closures and inclement weather, such as flood conditions, can prevent transportation of staff and supplies. Maintain a current inventory list of supplies. Ensure adequate amounts of food and water are available to support the animal colony for at least 5 – 7 days. Pre-stage husbandry supplies when possible.

(b) In preparation for adverse events that may close roads and impact public transportation, all essential employees must be advised in advance of their essential status and counseled on their role and responsibility within the animal program during these events. Consideration of altered work schedules comprised of shifts or teams to ensure continuation of mission critical activities may be necessary.

(c) Considerations need to be made in the event that essential personnel are required to shelter in place during the event. Overnight accommodations may be needed. In the event that local restaurants and food services are not accessible, food and water for up to a 3-day period should be kept on-hand for essential personnel.

(d) Personnel that utilize public transportation should have alternate transportation plans in place in the event that public transportation is impacted or shut down.

(e) In case of emergencies the American Embassy-Thailand will notify mission members via SMS service, email announcements, and webpage banners. FSN LE

staff members are able to receive notices in the Thai language.

(2) Response

(a) Implement staffing plans to maintain mission critical activities and monitor supply levels throughout event.

(b) If supply stockpile is low or inadequate, notify C, DVM or AC, RLAM so they can coordinate with Logistics to obtain necessary supplies in a timely manner.

(3) Recovery

(a) Prepare an AAR immediately after the incident describing the issues facing staff members during the transportation emergency or supply failure. Review and discuss the AAR with the DVM, Safety, Logistics, and Security staffs. See Appendix K (Animal Program After-Action Report) for a list of considerations to be included in the report.

(b) Resume normal operations.

(c) Implement corrective actions.

m. Triage Guidance for Disaster Events: The determination of priorities for action in an emergency (i.e., treatment, evacuation, husbandry)

(1) Preparation

(a) Establish a clear chain of decision-making authority for the triage of animal support activities during an emergency response.

(b) Establish emergency action (treatment, evacuation, and husbandry) priority lists. The triage lists may be based on: program services, animal species, animal ages, injury types, studies, animal health and infection status, and/or facility functions.

(c) Discuss the facility's triage priorities with the facility's supervisors and emergency response coordinators.

(d) Review the emergency support priorities during the facility's annual disaster plan review. Methods of calculating minimum water requirements are outlined in

Appendix L, (Calculating Minimum Water Requirements).

(e) Identify alternative housing and transportation options.

- In an emergency situation, animals will be relocated to other areas in the facility if the condition of the original room is not appropriate and may threaten the animals' lives or well-being. If at all possible, animals will be maintained in established groups.

- If the disaster is severe and the C, DVM or IC decide that all animals in the facility must be evacuated, the animals will be evacuated as prioritized in the list provided in the Animal Program Triage Plan (Appendix M). The temporary remote location should provide an appropriate environment for each species of animals.

(2) Response

(a) Assess the situation: facility damage, facility support capability, emergency equipment availability, and animal colony status

(b) Focus emergency support to ensuring personnel safety, maintaining study integrity, conserving resources, and protecting animal life and welfare.

(c) Provide emergency support to the animal colony utilizing the AFRIMS' DVM emergency support triage plan until directed otherwise by DVM supervisory staff, in consultation with the C, DVM.

(3) Recovery

(a) Re-establish stable animal environments.

(b) Re-establish pre-emergency food, medications, equipment, and supply levels.

(c) Review the effectiveness of the triage plan during the emergency response with the AFRIMS' DVM supervisors and leadership, and incorporate these findings in Animal Program After-Action Report (Appendix K).

MCMR-UWQ-A (100)

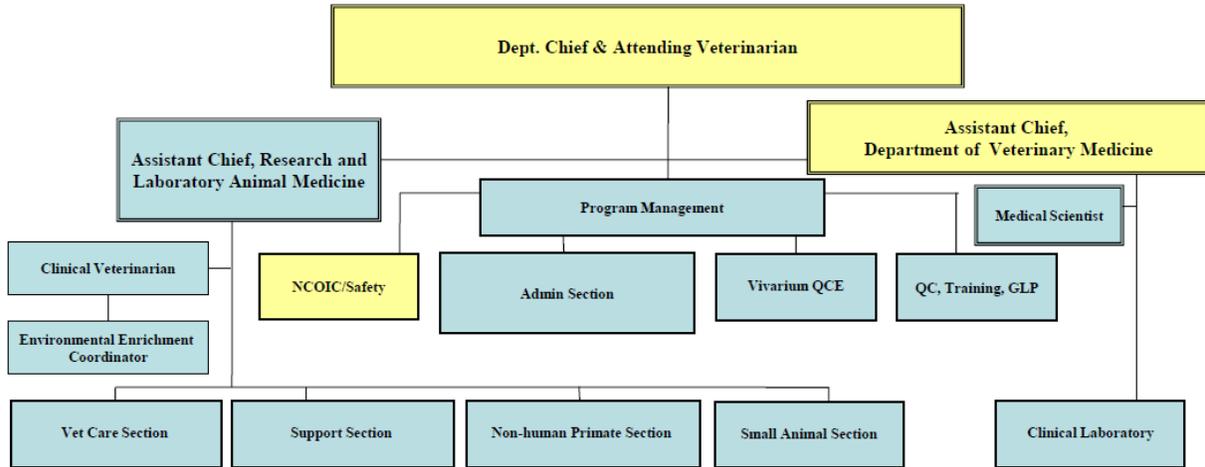
SUBJECT: DVM Emergency Response Plan, Policy Statement No. 15-03

(d) Adjust the triage plan as needed.

8. POINT OF CONTACT: Chief, Department of Veterinary Medicine

//ORIGINAL SIGNED//
WILLIAM E. GEESEY
COL, MS
Commanding

Appendix A
DVM Organizational Chart



Appendix B
Emergency Points of Contact (POC) Roster

Non-DVM POCs:

Point of contact (AFRIMS)	Tel. No.
AFRIMS SO	4190
RTA Security Office	1101
Embassy Security	02-205-4472, 02-205-4108
RTA, AFRIMS Security	6360
RTA Guard, AFRIMS HQ	1201
RTA Vet Med Security	4871
Computer Section	4112, 4113
Maintenance Branch, supervisor	4229, 081-633-9217
Lab Operations Dept (Safety Office)	4471, 4472, 4147, 4148, 4149
Water Works Service (Maensee)	02-298-6740, 02-298-6739 or 1125
Fire Department (Phyathai)	02-354-6858 or 199
Police Station (Phyathai)	02-354-6957 to 61 or 191
Electricity Authority (Samsen)	02-242-5211, 02-243-0131, 02-241-5409
Dept. of Logistics,	4201
USAMC-AFRIMS DCS or DCA	4107, 4103

DVM POCs: For telephone numbers, see current Alert Roster on V drive at:

<V:\Dropbox\DVM Emergency Roster>

C, DVM
AC, DVM
AC, RLAM
QCE
Department Floor monitor
Engineering Technician
NCOIC

Clinical veterinarian
Fire marshal
Department Fire warden
Section supervisors
Clinical Lab supervisor
Safety Officer, DVM

MCMR-UWQ-A (100)

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Appendix C

Animal Program Preparedness Training Program

DVM staff must review the emergency plan within 30 days of employment and at least annually or as often as needed. Supervisory staff must ensure that their subordinates understand the emergency plan. Drills for common and serious emergencies such as a fire drill should be conducted at least annually. The administrative assistant must ensure that all telephone lists are accessible and accurate.

Appendix D
Animal Program Staff Preparedness Information

Sufficient preparation is critical to successful mitigation of emergencies. Each individual should review and be familiar with workplace evacuation routes, emergency response procedures, equipment, and supplies before an actual emergency occurs.

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

It is also important for staff to develop their own personal response plans at home so that they are assured that their family and loved ones know how to respond and are safe during an emergency situation.

Staff should:

1. Read and understand the AFRIMS' DVM Emergency Response Plan.
2. Be familiar with the building's floor plans, evacuation routes, rally location (Appendix J).
3. Participate in practice scenarios - fire drills, power failure, animal escape, human-animal bite, chemical spill, eye splash, etc.
4. Prepare themselves and their family so they know and understand what to do, where to go, and how to cope if they are unable to return home immediately.
5. Read and familiarize themselves with the applicable SOPs, emergency phone numbers, and applicable emergency procedures.
6. Know the location of the following:
 - Emergency information (guides, manuals, SOPs, telephone numbers)
 - Telephones
 - Stairwells (avoid elevators)
 - Fire alarms and extinguishers
 - First aid and bite kits
 - Emergency Shower
 - Eyewash stations

Appendix D

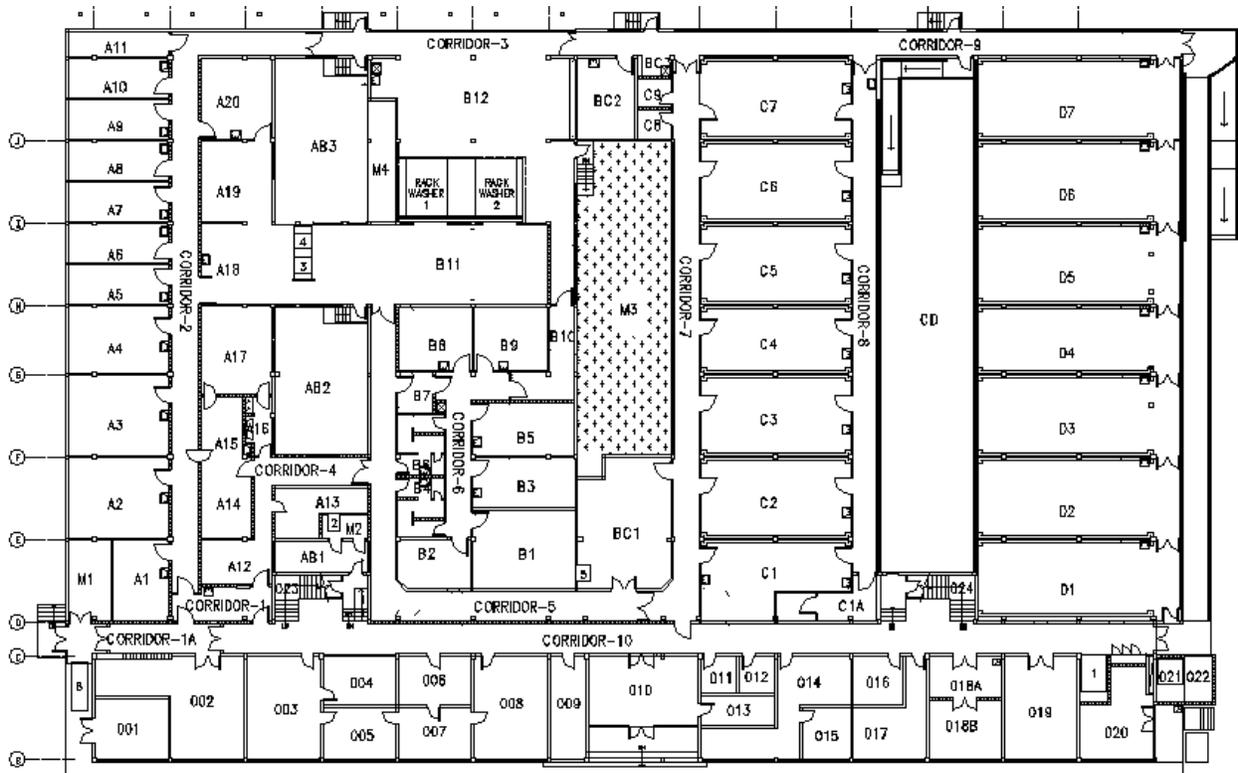
Animal Program Staff Preparedness Information, Continued

7. Keep the following items on hand and in a location known to all employees:
 - Flashlights and fresh batteries
 - Portable radio and fresh batteries
 - Personal emergency telephone numbers, e.g. children's schools, next-of-kin, significant other, doctor, etc.

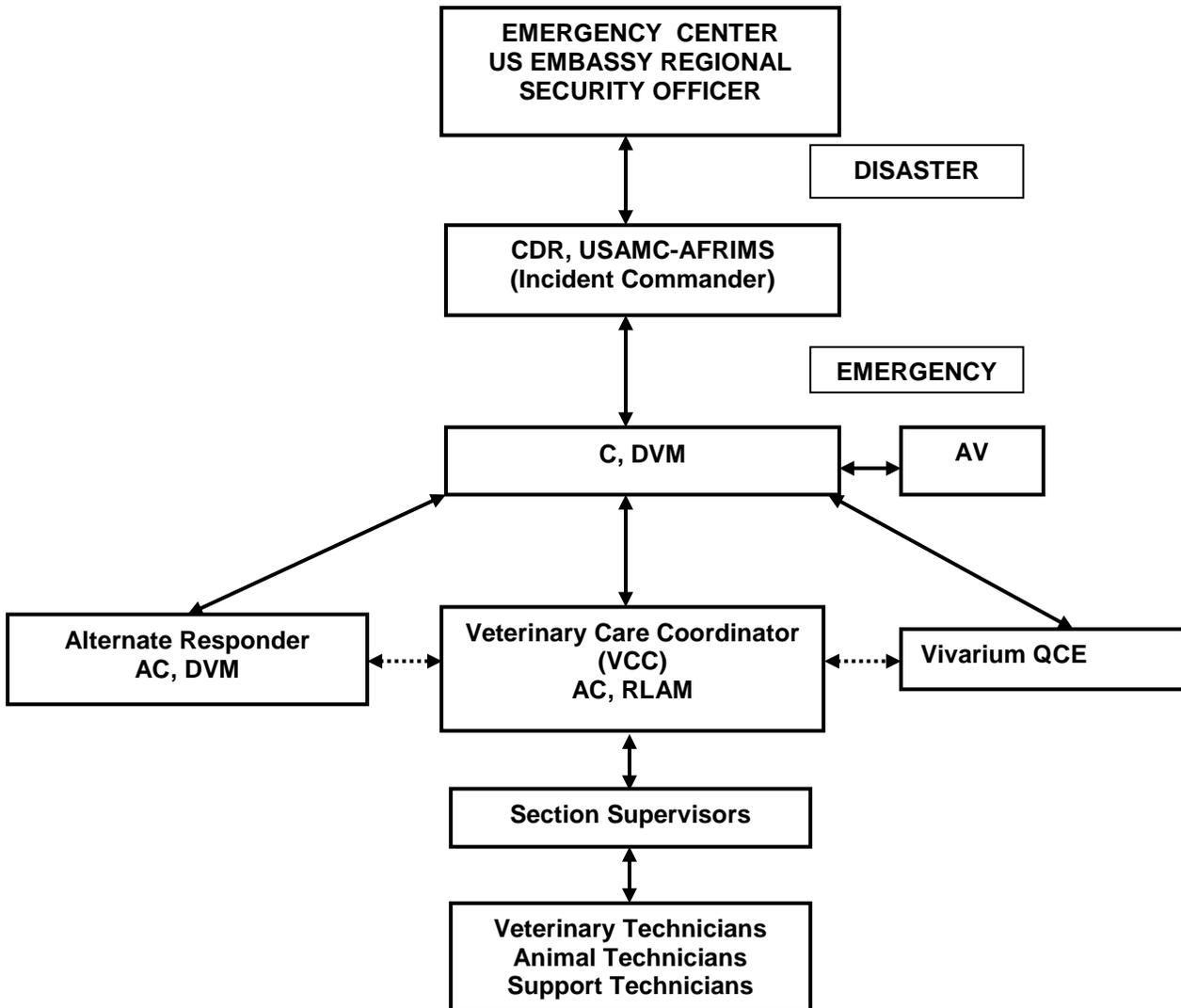
8. Ensure appropriate supervisory staff are aware of:
 - Personal information that may be required by emergency response personnel (e.g. drug allergies or current medications).
 - Location of critical medications
 - Contact information for emergency contacts

In preparation for a prolonged evacuation event, each staff member should have a prepared "Go-Bag" that contains items that they may need for an extended evacuation period. It may contain items such as medication, drinking water, extra clothing, umbrella, etc. Re-entry may be delayed, so employees should also take personal items such as car keys, wallets, purses, and identification badges.

Appendix E Animal Facility Floor Plan



Appendix F
Emergency Command and Response Structure



Appendix G
Animal Program Status Report Information

When an emergency unfolds, collecting information on the needs of affected animals and staff is a crucial step for quickly orienting the response and mobilizing resources.

The template below aims at helping data gathering and reporting in a quick and standardized way. Therefore, anyone who makes a report (verbal, email, or written) to the C, DVM or IC during an emergency event should include the following information:

- Emergency type
- Location
- Name of person making report (sender)
- Contact Information (note: provide best method to contact sender, such as email, text, or phone #)
- Date/Time of Report
- Facility Status (e.g., structural damage, HVAC, water, steam, electricity)
- Personnel Status (e.g., appropriate staffing level, injuries, shelter-in-place status)
- Animals (e.g., no issues, injured, compromised biosecurity, deaths, unknown)
- Is additional support required? (e.g., food, bedding, water, veterinary care, relocation, personnel)
- Other Comments/Updates

MCMR-UWQ-A (100)

SUBJECT: DVM Emergency Response Plan, Policy Statement No. 15-03

Appendix H Media and FOIA Inquiries

Preparedness:

Phone call inquiries about any AFRIMS' employee or scientific project should be directed to the DCS or C, DVM.

Facility personnel should not answer any questions which are inflammatory in nature. Refer these questions immediately to DCS or C, DVM.

Ensure all facility personnel are familiar with the above procedures.

Be certain that all individuals who answer the facility phone and admit personnel into the facility are aware of any impending problems.

Response:

Do not answer any media inquiries or general questions concerning scientific projects, individual staff members, or Freedom of Information Act (FOIA) inquiries.

Threatening or Inflammatory Inquiries –

Do not be rushed or provoked into making a wrongful statement

Calmly refer the caller to the DCS or C, DVM

Report the incident to the Security Officer

FOIA (Freedom of Information Act) Inquiries –

Refer the caller to the DCS or C, DVM

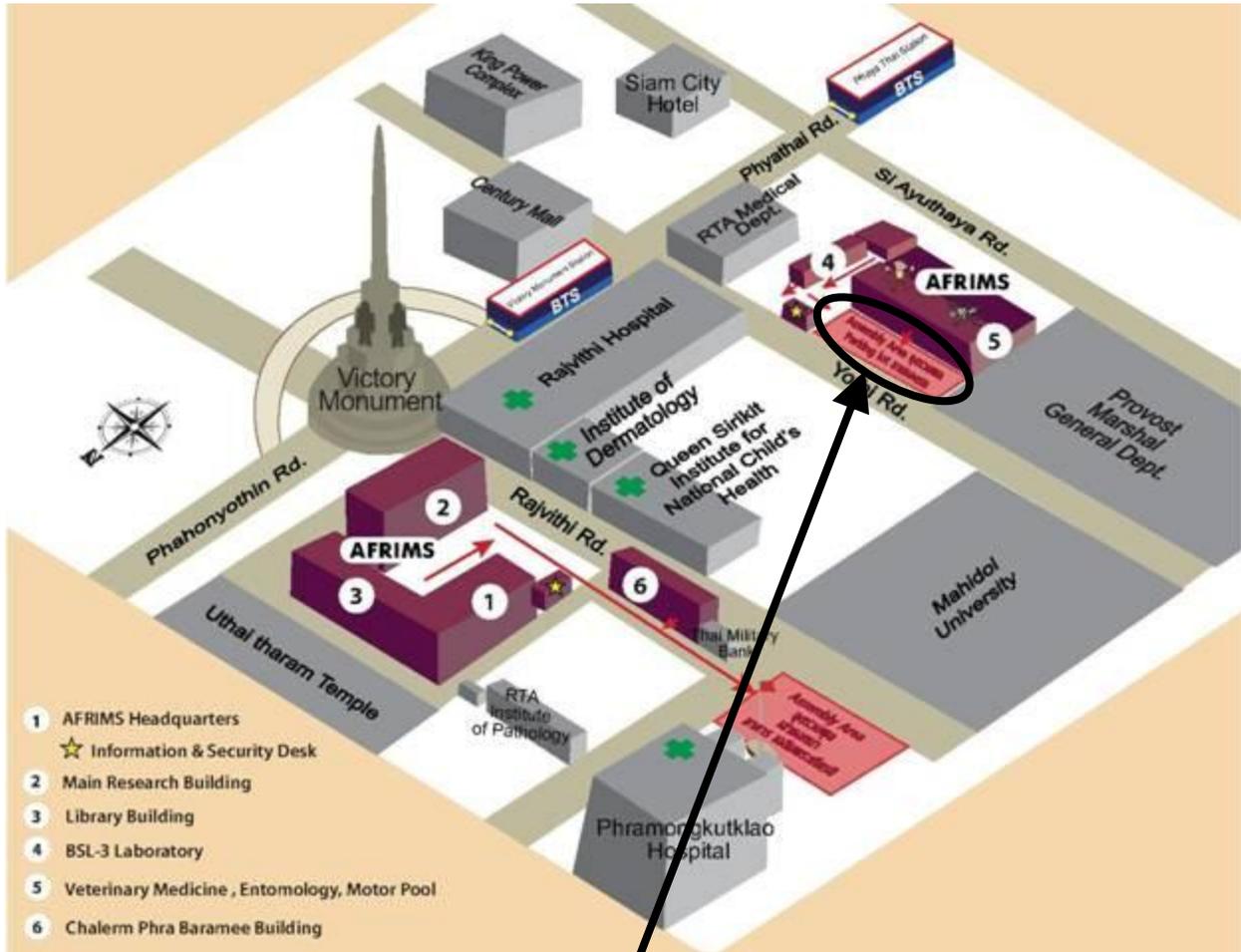
Appendix I
Animal Program Euthanasia Plan

A large-scale euthanasia event is exceedingly unlikely. Such an event would only be necessitated in the most severe of emergency scenarios; however, our duty as advocates of humane animal care and use requires preparation for this unlikely event. Even in the event of a large-scale euthanasia event, any person performing euthanasia must be technically proficient, use humane handling methods, understand the reasons for euthanasia, and be trained with the method of euthanasia being employed.

To the extent possible, all procedures will be IAW SOPs VET-VC-207 (Euthanasia of Rodents) and VET-VC-208 (Euthanasia of Nonhuman Primates and Other Small Mammals). Drugs for anesthesia (e.g.; Ketamine) and euthanasia (e.g.; CO₂, Euthasol®, Beuthanasia®, Fatal-plus®, or equivalent) must be maintained in sufficient quantities for all animals within the colony. This requirement is of particular note because of potential delays (sometimes several weeks to several months in duration) in resupply of these critical drugs. Expiration dates must be closely monitored, as expired drugs may never be used for euthanasia or anesthesia. Intracardiac injection must only be used when the animal is heavily sedated, unconscious, or anesthetized.

After properly euthanizing the animal, the carcass will be placed in double plastic bags and stored in a refrigerator before disposal by incineration. If the refrigerator is damaged, the animal carcasses will be taken to a cold room in another AFRIMS' building and stored until arrangements can be made for pick-up and proper disposal. If possible, the Krungthep Thanakom Company will be contacted at 02-328-7874 or 02-726-0300 to schedule a mass pick up.

Appendix J Fire Safety Meeting Area



Assembly point for DVM personnel

Appendix K
Animal Program After-Action Report

The After-Action Report should be generated after any extensive emergency or disaster. It should fully describe the incident, immediate effects, methods used to resolve the situation and how the problem may be averted in the future. This will help prevent future emergencies, decrease the likelihood that an emergency will happen, and reduce damaging effects of unavoidable emergencies. The report is written by the AC, RLAM and submitted to the C, DVM for review. Include the following descriptions:

- Circumstances resulting in the disruption of normal operations
- Date
- Time
- Location
- Personnel affected - animals/species involved
- Physical plant damage
- Equipment affected
- Did the incident compromise the health, safety or welfare of any animals or personnel?
- Were any animals relocated or evacuated?
- Was this reported to the C, DVM and/or IC?
- Describe how operations were restored. If only temporary or partial, when will operations be fully restored?
- Describe any loss of holding space for animals and how it was replaced.
- Describe any loss of equipment and how it is expected to be replaced.
- Describe how the incident impacted the research mission.
- Was there permanent loss of data, or must experiments be repeated?
- Was there loss of founder animals with/without offspring?
- Estimate the costs to the organization.
 - Personnel
 - Animals
 - Facility
 - Equipment
- Were there any premonitory signs that could have forewarned of the impending emergency?
- Were there some preparations for this type of emergency (mitigation) that could have prevented or lessened the detrimental effects on the operations of the facility?

MCMR-UWQ-A (100)

SUBJECT: DVM Emergency Response Plan, Policy Statement No. 15-03

Appendix K

Animal Program After-Action Report, Continued

- Was the disaster management plan consulted to resolve issues associated with the emergency?
- Was the evacuation plan needed during the emergency, was it followed, and did it work?
- What other preparations would be useful to ensure the health and safety of personnel and animals?

Appendix L Calculating Minimum Water Requirements

Preparedness:

Animal drinking water estimation should be performed during annual emergency plan review.

Use the average facility census to allow management to conduct proactive planning for water supplies and logistics.

Adjustments up or down can then be made after an actual water emergency has occurred.

Calculations:

To figure the daily drinking water needs for gravity or pump administered water, count the number of animals in the building for each species and multiply by the approximate total number of each species by the approximate average daily water consumption by that species.

Average daily water consumption by species:

- Mice - 6.7 ml per adult (225 ml/kg)
- Rat - 45 ml per adult (80 – 110 ml/kg)
- Hamster - approximately 15 ml per adult (14 ml/100 gm)
- Rabbit - 400ml per adult (100 ml/kg)
- Guinea Pigs - 90 ml per adult (100ml/kg)
- Cats - 300 ml per adult
- Primate - 600 ml per adult
- Dog (beagle size) - 1000 ml per adult
- Dog (Fox hound size) - 2000 ml per adult
- Other large animals (rule of thumb - 30 ml or 1 oz per pound per day)

Add the total average daily water by species. This equals the total volume of water in milliliters required per day for the entire facility.

Example:

- There are 1,000 cages of mice (5 per cage), and 100 cages of rats (3 per cage) in the facility.
- $(5 \text{ mice/cage} \times 1,000 \text{ cages} \times 6.7 \text{ ml/mouse}) + (3 \text{ rats/cage} \times 100 \text{ cages} \times 45 \text{ ml/rat}) = 47,000 \text{ ml} = 47 \text{ liters} = 12.42 \text{ gallons}$ (There are 3,785 ml/gallon.)

The volume of the water in the supply lines must be determined if the water failure results in facility supply lines being drained. This volume must be calculated and

Appendix L
Calculating Minimum Water Requirements, Continued

adequate water made available to fill the lines. This volume would usually be needed to add to the total needed only one time in emergency situations.

Note: One cubic centimeter equals the same volume as 1 ml of water, 3,785 ml = 1 Gallon, Pi = 3.14, and radius = diameter divided by 2

The formula for calculating volume for a water line = Pi x radius of the pipe squared x length of the pipe. Remember, 1 cubic centimeter (cc) = 1 ml. Therefore, working in centimeters will make for easy conversion. For example, to determine the volume in a water line that is 1.6 cm in diameter and 100 meters long: Pi = 3.14, the radius would be ½ the diameter or .8cm, and the length is 10,000 cm. Therefore, the calculations are: $3.14 \times (0.8\text{cm}) \times (0.8\text{ cm}) \times 10,000\text{ cm} = 10,096\text{ cc}$ or 5.3 gallons. Add to this amount, the value from number 3.

It may be useful to double the total amount calculated to account for varying rates of use and waste.

Reference: Laboratory Animal Medicine 2nd edition; Fox, J.G., et al

Appendix M
Animal Program Triage Plan

Locally significant information about a memorandum of understanding with transport companies, evacuation sites, contact info, etc. belongs in this section. THIS IS THE LOCAL, SPECIFIC EMERGENCY PLAN.

Table 1.—Animal Evacuation and Priority

Priority	Group
1	Valuable breeding rodent colonies
2	Monkeys in on-going non-infectious research studies
3	Weanling monkeys
4	Young adult monkeys
5	All monkeys in the breeding colony
6	Rodents in non-infectious studies
7	Monkeys and/or rodents in on-going infectious studies
8	Other rodents

Table 2.—Location of Emergency Assets

Asset	Location
Climate Control Equipment – chillers, dehumidifiers	VM-020, VM-A10, Roof
Communication – 2-way radios	None
Extension cords, batteries	VM-020
Light Sources – flashlights, headlamps, light trees	VM-017, Corridor 10
Transportation – vehicles, electric mules	Motor pool
Euthanasia - equipment, CO ₂ , drugs	VM-A13, VM-A14, VM-018A
Capture – nets, tranquilizer darts/guns	VM-A13, VM-C8
Personal Protective Equipment – Tyvek, masks, gloves, shoe covers, goggles	VM-019, VM-A11, Corridor 1
Animal food, bedding, water supplies	VM-002, VM-A19, VM-A20
Shelter-in-Place – food, cots, blankets	VM-103 (second floor)

Appendix M
Animal Program Triage Plan, Continued

Table 3.—Time-based Assessment of Emergency Concerns

Hours after animal facility closure:	0 hrs (at building closure)	6 hrs	12 hrs	18 hrs	24 hrs	48 hrs
Critical Concerns: (Concerns are cumulative over time, until full staff access to the facility is re-established and the impact of the closure event is determined.)	Concerns listed at previous timepoints PLUS:					
	Room access to treat injuries and evacuate animals if needed Air quality Room and cage security Biosecurity	Room access to assess animal health Cage temperatures Electricity to ventilated cages or isolators	Room access to treat clinical and surgery patients Room light control	Room access to provide limited husbandry care Food and water availability Study integrity	Room access to provide full husbandry care and monitor animal health Cage sanitation	All concerns listed at previous timepoints
FACTORS MODIFYING CRITICALITY OF ANIMAL PROGRAM CONCERNS:	Emergency or disaster event (e.g., fire, flood, weather, criminal activity, explosion) Weather Conditions (e.g., rainstorm, monsoon, tornado, seasonal temperature) Time of Day (e.g., normal operating hours, morning, afternoon, evening, weekend, holiday) Species and Strains Housed (nonhuman primate, rodent, other) Type of research program (infectious disease, surgery) Operational procedures of the animal program (e.g., contractor, cage wash, weekend staffing level) Animal caging systems (e.g., open rack, wall-mounted, ventilated racks, Horsfall, cubicles, specialty, isolators) Facility design (e.g., multi-floor/story, biohazard, chemical hazard, barrier containment, elevators) Relocation resources (e.g., transportation, crating, loading dock access, relocation space availability) Institute mutual aid agreements (e.g., animal relocation, communication, access, security, personnel) Personnel availability (e.g., contract specifications, temporary housing, technical qualifications, communications) Public relations (e.g., public awareness, public concerns) AFRIMS Emergency status (e.g., concurrent emergency events, event response plan detail, reserve assets) Community road networks (e.g., clogged access roads, temporary/permanent closures) Supplies (e.g., reserve levels, delivery schedules, storage spaces, security requirements, accounting systems)					

Appendix M
Animal Program Triage Plan, Continued

Table 4.—List of Lessons Learned from 2009/2013 Protests and 2011 Floods

1. Calculate animal drinking water requirements. For example, at time of Emergency Plan development, approximately 3400 liters of potable animal water is in tanks on roof. One monkey consumes, on average, about 0.5 liters/day. If monkey quantity is about 550 monkeys, water will last for 12 days. Note that water system for NHP drinking water is currently separate from rest of water system and, therefore, does not require electricity.
2. Calculate water use for cleaning. Normal daily activities require approximately 80 cubic meters per day. For minimal cleaning, assume use of 10 cubic meters/day. Therefore, water will last for 8 days. Note that this assumes continued electrical power. Without electrical power, pumps will not get ANY water to building, resulting in no capability for cleaning with water. Therefore, preservation of electrical power must be an integral part of all aspects of planning.
3. Obtain access to additional water, such as a water truck to be parked onsite. The Public Water Works Department (Tel 1552) may be contacted to have a truck deliver water to our building storage tanks. Note requirement for continued electrical power to pump water into building.
4. Calculate how much diesel fuel is stored onsite (i.e., how many hours can the generators run before running out of fuel?) The tanks hold approximately 11,200 liters of diesel when filled. The three generators consume about 200 liters/hour, so they will backup power up to 56 hours or about 2 days. If animals are removed from A and B wings, the HVAC system to those areas can be shut down, which will dramatically extend the life of the generator diesel fuel ration. Note that this is a critically important factor, as water cannot be pumped without electrical power.
5. Verify adequate supplies of appropriate anesthesia and euthanasia solution for all animals in the facility.
6. Are personnel staying in the building? If so, calculate the use of an additional 2 cubic meters of water daily.
7. If required, research how to order a portable toilet (“portable latrine”).
8. Contact vendors to adjust feed delivery schedule.
9. Ensure that diesel tanks are full.
10. Ensure adequate staffing to support animal husbandry and essential protocol support activities.

Appendix N
Bomb Threat Form

<p><i>THIS IS A SAMPLE TELEPHONE BOMB THREAT REPORT FORM. YOU SHOULD ADAPT THIS FORM TO MEET THE SPECIFIC NEEDS OF YOUR POST OR FACILITY.</i></p> <p>TELEPHONE BOMB THREAT REPORT FORM</p> <p>INSTRUCTIONS: BE CALM AND COURTEOUS. LISTEN; DO NOT INTERRUPT THE CALLER. NOTIFY SUPERVISOR/SECURITY OFFICER OF YOUR ACTIVITY BY PREARRANGED SIGNAL WHILE CALLER IS ON THE LINE.</p> <p>DATE _____ TIME _____</p> <p>EXACT WORDING OF THREAT:</p>		
QUESTIONS TO ASK:		
WHEN IS THE BOMB GOING TO EXPLODE?		
WHERE IS THE BOMB RIGHT NOW?		
WHAT KIND OF BOMB IS IT?		
WHAT DOES IT LOOK LIKE?		
WHAT WILL CAUSE THE BOMB TO EXPLODE?		
DID YOU PLACE THE BOMB?		
WHY?		
WHAT IS YOUR NAME?		
ARE YOU CALLING FROM A PAY PHONE?		
LOCATION AND/OR NUMBER		
SEX OF CALLER: <input type="checkbox"/> M <input type="checkbox"/> F	RACE OF CALLER:	AGE OF CALLER:

Appendix N
Bomb Threat Form, Continued



การขู่วางระเบิด (Bomb Threat)

กรณากลับเอกสารแผ่นนี้ไว้ได้เครื่องโทรศัพท์

คำถามที่ท่านต้องถาม:

1. ระเบิดตั้งไว้ที่เวลาอะไร?
2. ขณะนี้ระเบิดอยู่ที่ไหน?
3. ลักษณะของวัตถุระเบิดเป็นอย่างไร?
4. เป็นวัตถุระเบิดชนิดใด?
5. อะไรจะเป็นขบวนการให้วัตถุระเบิดนี้ระเบิดขึ้น?
6. คุณเป็นผู้นำวัตถุระเบิดนี้มาวางไว้หรือไม่?
7. เพราะเหตุใด?
8. ขอทราบที่อยู่ของคุณ?
9. คุณชื่ออะไร?

บันทึกคำขู่โดยละเอียด:

เพศของผู้โทรเข้า: _____ ชนิด: _____

อายุ: _____ ระยะเวลาในการสนทนา: _____

หมายเลขที่โทรศัพท์ที่ท่านรับสาย: _____

เวลา: _____ วันที่: _____ / _____ / _____

น้ำเสียงของผู้เรียกเข้า:

- | | |
|--------------------------------------|---|
| <input type="checkbox"/> ไม่ตื่นตัว | <input type="checkbox"/> ชัยภูมิ |
| <input type="checkbox"/> กระวนกระวาย | <input type="checkbox"/> สะอึกสะอื้น |
| <input type="checkbox"/> คื่นคั่น | <input type="checkbox"/> ไม่ชัด พูดแบบเสียด ๆ |
| <input type="checkbox"/> ช้า ๆ | <input type="checkbox"/> แหวน ๆ |
| <input type="checkbox"/> เร็ว ๆ | <input type="checkbox"/> ลึก ๆ |
| <input type="checkbox"/> บ่นบ่น | <input type="checkbox"/> ขาดเป็นห่วง ๆ |
| <input type="checkbox"/> ดัง | <input type="checkbox"/> กระแอมกระไอ |
| <input type="checkbox"/> ขบขัน | <input type="checkbox"/> หายใจลึก ๆ |
| <input type="checkbox"/> ปั่นกระชั้น | <input type="checkbox"/> เสียงแตก |
| <input type="checkbox"/> ปกติ | <input type="checkbox"/> เสสเส็ง |
| <input type="checkbox"/> ซัดเจน | <input type="checkbox"/> แปล่ง ๆ |
| <input type="checkbox"/> ซื่อแล้ว | <input type="checkbox"/> ห้วน ๆ |
| <input type="checkbox"/> กระซิบ | |

หากเสียงฟังดูสั้น ๆ คุณคิดว่าน่าจะเป็นใคร?

เสียงแทรก:

- | | |
|--|--|
| <input type="checkbox"/> บทกวี | <input type="checkbox"/> เครื่องจักรในโรงงาน |
| <input type="checkbox"/> เสียงกระทบของชิ้นส่วน | <input type="checkbox"/> เสียงสัตว์ |
| <input type="checkbox"/> เสียงพูด | <input type="checkbox"/> ไม่มีเสียงแทรก |
| <input type="checkbox"/> ระบบเครื่องเสียง | <input type="checkbox"/> เครื่องใช้ไฟฟ้า |
| <input type="checkbox"/> เสียงเพลง | <input type="checkbox"/> ขอร้องสั้น |
| <input type="checkbox"/> จากในบ้าน | <input type="checkbox"/> ทางไกล |
| <input type="checkbox"/> เครื่องยนต์ | <input type="checkbox"/> จากห้องแยก ๆ |
| <input type="checkbox"/> อุปกรณ์สำนักงาน | <input type="checkbox"/> อื่น ๆ _____ |

ข้อมูลที่เกี่ยวข้อง:

- | | |
|---|---|
| <input type="checkbox"/> ซัดอัยยัคค้ำ | <input type="checkbox"/> ไม่ปะติดปะต่อ |
| <input type="checkbox"/> (ผู้มีความรู้) | <input type="checkbox"/> เสียงจากทป |
| <input type="checkbox"/> หยาบคาย | <input type="checkbox"/> เป็นการอ่านจากบันทึกของผู้รับขู่ |
| <input type="checkbox"/> ปร่าจากเหตุสุด | |

ความคิดเห็น: _____

รายงานข้อมูลที่ได้รับโดยทันทีไปยัง:

หมายเลขโทรศัพท์ผู้รับแจ้ง: _____

วันที่: _____ / _____ / _____

ชื่อ: _____

ตำแหน่ง: _____

หมายเลขโทรศัพท์: _____