

# NAHEMS GUIDELINES: HEALTH AND SAFETY

## FAD PReP

Foreign Animal Disease  
Preparedness & Response Plan

## NAHEMS

National Animal Health  
Emergency Management System



United States Department of Agriculture • Animal and Plant Health Inspection Service • Veterinary Services

APRIL 2011

The Foreign Animal Disease Preparedness and Response Plan (FAD PRéP)/National Animal Health Emergency Management System (NAHEMS) Guidelines provide a framework for use in dealing with an animal health emergency in the United States.

This FAD PRéP/NAHEMS Guidelines was produced by the Center for Food Security and Public Health, Iowa State University of Science and Technology, College of Veterinary Medicine, in collaboration with the U.S. Department of Agriculture Animal and Plant Health Inspection Service through a cooperative agreement.

This FAD PRéP/NAHEMS Guidelines was last updated April 2011. Please send questions or comments to:

Center for Food Security and Public Health  
2160 Veterinary Medicine  
Iowa State University of Science and Technology  
Ames, IA 50011  
Phone: 515-294-1492  
Fax: 515-294-8259  
Email: [cfsph@iastate.edu](mailto:cfsph@iastate.edu),  
Subject line: FAD PRéP/NAHEMS Guidelines

National Center for Animal Health  
Emergency Management  
USDA Animal and Plant Health Inspection Service,  
Veterinary Services  
4700 River Road, Unit 41  
Riverdale, Maryland 20732-1231  
Telephone: (301) 734-8073 Fax: (301) 734-7817  
E-mail: [FAD.PReP.Comments@aphis.usda.gov](mailto:FAD.PReP.Comments@aphis.usda.gov)

While best efforts have been used in developing and preparing the FAD PRéP/NAHEMS Guidelines, the U.S. Government, U.S. Department of Agriculture and the Animal Plant and Health Inspection Service, and Iowa State University of Science and Technology (ISU) and other parties, such as employees and contractors contributing to this document, neither warrant nor assume any legal liability or responsibility for the accuracy, completeness, or usefulness of any information or procedure disclosed. The primary purpose of the FAD PRéP/NAHEMS Guidelines is to provide guidance to those government officials responding to a foreign animal disease outbreak. It is only posted for public access as a reference.

The FAD PRéP/NAHEMS Guidelines may refer to links to various other Federal and State agencies and private organizations. These links are maintained solely for the user's information and convenience. If you link to such site, please be aware that you are then subject to the policies of that site. In addition, please note that USDA does not control and cannot guarantee the relevance, timeliness, or accuracy of these outside materials. Further, the inclusion of links or pointers to particular items in hypertext is not intended to reflect their importance, nor is it intended to constitute approval or endorsement of any views expressed, or products or services offered, on these outside web sites, or the organizations sponsoring the web sites. Trade names are used solely for the purpose of providing specific information. Mention of a trade name does not constitute a guarantee or warranty of the product by USDA or an endorsement over other products not mentioned.

USDA prohibits discrimination in all its programs and activities on the basis of race, color, national origin, sex, religion, age, disability, political beliefs, sexual orientation, or marital or family status. (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at (202) 720-2600 (voice and telecommunications device for the deaf [TDD]).

To file a complaint of discrimination, write USDA, Director, Office of Civil Rights, Room 326-W, Whitten Building, 1400 Independence Avenue SW, Washington, DC 20250-9410 or call (202) 720-5964 (voice and TDD). USDA is an equal opportunity provider and employer.

Iowa State University does not discriminate on the basis of race, color, age, religion, national origin, sexual orientation, sex, marital status, gender identity, disability or status as a U.S. Veteran. Any persons having inquiries concerning this may contact the Director of Equal Opportunity and Diversity, 3280 Beardshear Hall, ISU, Ames, IA 50011 (515) 294-7612.

## THE IMPERATIVE FOR FOREIGN ANIMAL DISEASE PREPAREDNESS AND RESPONSE

### Why Foreign Animal Diseases Matter

Preparing for and responding to foreign animal diseases (FADs), like highly pathogenic avian influenza (HPAI) and foot-and-mouth disease (FMD), are critical measures to safeguard our nation's animal health, public health, and food supply.

There are significant potential consequences of an FAD outbreak in the United States. For example, the 2001 FMD outbreak in the United Kingdom cost an estimated £8 billion (\$13 billion) and reduced the British gross domestic product by 0.2 percent. Studies have projected a likely cost of between \$6 billion and \$14 billion for a U.S. outbreak contained to California. In addition to the economic impact, the social and psychological impact on both producers and consumers would be severe.



### Challenges of Responding to an FAD Event

An FAD outbreak will be challenging to all stakeholders. For example, there will be disruptions to interstate commerce and international trade. Response activities are complex, and significant planning and preparation must be conducted before an outbreak. Outbreaks can become large and widespread. Large, geographically dispersed and diverse teams will need to be assembled rapidly and must react quickly. The response effort must have the capability to be rapidly scaled up, involving many times more resources, personnel, and countermeasures. As such, responding to an FAD—large or small—may be a very complex and difficult effort.

### Lessons Learned from Past FAD Outbreaks

Past outbreaks both in the United States and other countries have allowed us to learn important lessons that can be applied to preparedness and response efforts. To achieve successful outcomes in future FAD outbreaks, it is vital to identify, understand, and apply these lessons learned:

- Provide a unified State-Federal-Tribal-industry planning process that respects local knowledge
- Ensure the unified command sets clearly defined and obtainable goals
- Have a unified command that acts with speed and certainty to achieve united goals
- Employ science-based and risk-management approaches that protect public health and animal health, stabilize animal agriculture, the food supply, and the economy
- Ensure guidelines, strategies, and procedures are communicated and understood by responders and stakeholders

- Acknowledge that high expectations for timely and successful outcomes require the:
  - Rapid scale-up of resources and trained personnel for veterinary activities and countermeasures
  - Capability to quickly address competing interests before or during an outbreak
- Execute FAD tracing, which is essential for the efficient and timely control of FAD outbreaks

### FAD PReP Mission and Goals

The significant threat and potential consequences of FADs and the challenges and lessons-learned of effective and rapid FAD response have led to the development of the Foreign Animal Disease Preparedness and Response Plan, also known as “FAD PReP.” The mission of FAD PReP is to raise awareness, expectations, and develop capabilities surrounding FAD preparedness and response. The goal of FAD PReP is to integrate, synchronize, and de-conflict preparedness and response capabilities as much as possible before an outbreak, by providing goals, guidelines, strategies, and procedures that are clear, comprehensive, easily readable, easily updated, and that comply with the National Incident Management System.

In the event of an FAD outbreak, the three key response goals are to: (1) *detect, control, and contain the FAD in animals as quickly as possible*; (2) *eradicate the FAD using strategies that seek to stabilize animal agriculture, the food supply, the economy, and protect public health*; and (3) *provide science- and risk-based approaches and systems to facilitate continuity of business for non-infected animals and non-contaminated animal products*.

### FAD PReP Documents and Materials

FAD PReP is not just one, standalone FAD plan. Instead, it is a comprehensive U.S. preparedness and response strategy for FAD threats. This strategy is provided and explained in a series of different types of integrated documents, as illustrated and described below.

#### FAD PReP Suite of Documents and Materials



Note: APHIS=Animal and Plant Health Inspection Service, NAHEMS = National Animal Health Emergency Management System, SOP = standard operating procedures.

- Strategic Plans—Concept of Operations
  - *APHIS Framework for Foreign Animal Disease Preparedness and Response*: This document provides an overall concept of operations for FAD preparedness and response for APHIS, explaining the framework of existing approaches, systems, and relationships.
  - *National Center for Animal Health Emergency Management (NCAHEM) Stakeholder Coordination and Collaboration Plan*: This plan describes NCAHEM strategy for enhancing stakeholder collaboration and identifies key stakeholders.
  - *NCAHEM Incident Coordination Group Plan*: This document explains how APHIS headquarters will organize in the event of an animal health emergency.
- NAHEMS Guidelines
  - These documents describe many of the critical preparedness and response activities, and can be considered as a competent veterinary authority for responders, planners, and policy-makers.
- Industry Manuals
  - These manuals describe the complexity of industry to emergency planners and responders and provide industry a window into emergency response.
- Disease Response Plans
  - Response plans are intended to provide disease-specific information about response strategies. These documents offer guidance to all stakeholders on capabilities and critical activities that would be required to respond to an FAD outbreak.
- Critical Activity Standard Operating Procedures (SOPs)
  - For planners and responders, these SOPs provide details for conducting 23 critical activities such as disposal, depopulation, cleaning and disinfection, and biosecurity that are essential to effective preparedness and response to an FAD outbreak. These SOPs provide operational details that are not discussed in depth in strategic documents or disease-specific response plans.
- Continuity of Business Plans (Developed by public-private-academic partnerships)
  - *Secure Egg Supply (SES) Plan*: The SES Plan uses proactive risk assessments, surveillance, biosecurity, and other requirements to facilitate the market continuity and movement of eggs and egg products during an HPAI outbreak.
  - *Secure Milk Supply (SMS) Plan*: Currently under development, the SMS plan will help facilitate market continuity for milk and milk products during an FMD outbreak.
- Outbreak Response Tools
  - Case definitions, appraisal and compensation guidelines and formulas, and specific surveillance guidance are examples of important outbreak response tools.
- State/Tribal Planning
  - State and Tribal planning is essential for an effective FAD response. These plans are tailored to the particular requirements and environments of the State or Tribal area, taking into account animal populations, industry, and population needs.
- Industry, Academic, and Extension Planning
  - Industry, academia, and extension stakeholder planning is critical and essential: emergency management is not just a Federal or State activity.
- APHIS Emergency Management
  - APHIS directives and Veterinary Services Memorandums provide critical emergency management policy. APHIS Emergency Management documents provide guidance on topics ranging from emergency mobilization, to the steps in investigating a potential FAD, to protecting personnel from highly pathogenic avian influenza.

These documents are available on the FAD PReP collaboration website: <https://fadprep.lmi.org>. For those who have access to the APHIS intranet, these documents are available on the internal APHIS FAD PReP website: <http://inside.aphis.usda.gov/vs/em/fadprep.shtml>.

## **PREFACE**

The Foreign Animal Disease Preparedness and Response Plan (FAD PReP)/National Animal Health Emergency Response System (NAHEMS) Guidelines provide the foundation for a coordinated national, regional, state and local response in an emergency. As such, they are meant to complement non-Federal preparedness activities. These guidelines may be integrated into the preparedness plans of other Federal agencies, State and local agencies, Tribal Nations, and additional groups involved in animal health emergency management activities.

The Health and Safety Guidelines are a component of APHIS' FAD PReP/NAHEMS Guideline Series, and are designed for use by APHIS Veterinary Services (VS), and other official response personnel in the event of an animal health emergency, such as the natural occurrence or intentional introduction of a highly contagious foreign animal disease in the United States.

The Health and Safety Guidelines provide guidance for USDA employees, including National Animal Health Emergency Response Corps (NAHERC) members, on health and safety principles for animal health emergency deployments. This Guideline provides information for the Safety Officer and other personnel associated with health and safety activities. The general principles discussed in this document are intended to serve as a basis for making sound decisions regarding health and safety. As always, it is important to evaluate each situation and adjust procedures to the risks present in the situation.

The FAD PReP/NAHEMS Guidelines are designed for use as a preparedness resource rather than as a comprehensive response document. For more detailed response information, consult the FAD PReP Standard Operating Procedures (SOP): 8. Health and Safety/PPE and plans developed specifically for the incident. Additional Health and Safety resources are included in the Appendix and in the references at the end of this document.

## APHIS DOCUMENTS

This “FAD PReP/NAHEMS Guidelines: Health and Safety” has a corresponding disease-specific FAD PReP Standard Operating Procedures (SOP): 8. Health and Safety/Personal Protective Equipment.

Several key APHIS documents complement this “FAD PReP/NAHEMS Guidelines: Health and Safety” and provide further details when necessary. This document references the following APHIS documents:

- APHIS Motor Vehicle Manual (Chapter 4)
- FAD PReP/NAHEMS Guidelines:
  - Biosecurity (2011)
  - Cleaning and Disinfection (2011)
  - Personal Protective Equipment (2011)
- FAD PReP/NAHEMS Web Modules:
  - Introduction to the National Animal Health Emergency Response Corps (NAHERC)
  - Personal Protective Equipment
- FAD PReP Standard Operating Procedures (SOP):
  - 7. Communications
  - 8. Health and Safety/Personal Protective Equipment
  - 9. Biosecurity
  - 15. Cleaning and Disinfection
- USDA-APHIS Emergency Deployment Generic Health and Safety Plan (Generic HASP) available at: [http://www.aphis.usda.gov/emergency\\_response/hasp/employee\\_health.shtml](http://www.aphis.usda.gov/emergency_response/hasp/employee_health.shtml)

Many of these documents are available on the FAD PReP collaboration website at: <https://fadprep.lmi.org>  
Username and password can be requested.

# Table of Contents

<b>1. Introduction.....</b>	<b>1</b>
<b>2. Health and Safety Overview.....</b>	<b>1</b>
2.1 Statutory Authority.....	1
2.2 Health and Safety Responsibilities within the Incident Command System .....	2
2.2.1 Incident Commander.....	2
2.2.2 Safety Officer .....	2
2.2.3 Operations Section.....	2
2.2.4 Logistics Section .....	2
2.2.5 Supervisors .....	2
2.2.6 Responders .....	3
2.3 Worker Rights and Responsibilities .....	3
<b>3. Pre-Deployment Preparation .....</b>	<b>3</b>
3.1 Personal Health.....	3
3.2 Personal Packing List.....	4
3.3 Personal Safety .....	5
3.4 Health and Safety Training.....	5
3.4.1 APHIS Basic Health and Safety Training .....	6
<b>4. Health and Safety While on Deployment.....</b>	<b>7</b>
4.1 Work Settings and Shifts.....	7
4.1.1 Extended and Unusual Shifts .....	7
4.1.2 Work/Rest Periods .....	8
4.2 Know Your Limits .....	8
4.3 Specific Hazards.....	8
4.3.1 Physical Hazards.....	9
4.3.2 Environmental Hazards.....	11
4.3.3 Psychological Hazards .....	14
4.4 Site Security and Safety.....	18
4.4.1 ICS Role.....	18
4.4.2 Control of Work Zones .....	18
4.4.3 Accountability.....	20
4.4.4 Buddy System .....	20
4.4.5 Medical Monitoring.....	21
<b>5. Communication of Health and Safety Information .....</b>	<b>21</b>
5.1 Mobilization Briefing .....	21
5.2 Communicating During the Response.....	21
5.2.1 Arriving at the Incident Site .....	21
5.2.2 Initial On-Site Briefing .....	22
5.2.3 Training .....	22
5.2.4 Daily Safety Briefings .....	22
5.2.5 Team Leader Role.....	22
5.3 Emergency Response/Contingency Plan .....	22
5.3.1 Emergency Response Preparations .....	22
5.3.2 Evacuation Procedures .....	23
5.3.3 Shelter-in-Place Procedures .....	23
<b>6. Responses to Particular Emergencies.....</b>	<b>23</b>
6.1 Fire or Explosion .....	23

6.2 Dust Explosions.....	23
6.3 Hazardous Materials Release.....	24
6.4 Severe Weather .....	24
6.5 Injuries .....	25
<b>7. Demobilization.....</b>	<b>25</b>
<b>8. Recognizing and Reporting Safety Issues.....</b>	<b>26</b>
8.1 Reporting Safety Concerns.....	26
8.2 PPE.....	26
8.3 Driving and Vehicle Use.....	26
8.4 Motor Vehicle Accidents.....	27
8.5 Interacting with Non-Cooperative Owners .....	28
8.6 Procedures for Encountering Belligerent/Threatening Persons .....	28
8.7 What to Do if Threatened .....	28
<b>9. Job-Related Injuries.....</b>	<b>29</b>
9.1 Incident Reporting .....	29
9.2 Accident and Injury Reports.....	29
9.3 Workers' Compensation .....	29
<b>10. References.....</b>	<b>31</b>
<b>11. For More Information.....</b>	<b>34</b>
<b>12. Acknowledgments.....</b>	<b>35</b>
<b>13. Photo and Illustration Credits .....</b>	<b>37</b>
<b>Glossary .....</b>	<b>39</b>
<b>Acronyms .....</b>	<b>40</b>
<b>Appendix A: Pre-Deployment Checklist/What to Pack .....</b>	<b>41</b>
<b>Appendix B: Form ICS 221 .....</b>	<b>43</b>

## Guidelines: Health and Safety

### 1. INTRODUCTION

In the event of a major animal health emergency, such as an outbreak of a highly contagious animal disease in the United States, the United States Department of Agriculture Animal and Plant Health Inspection Service (APHIS), in its role as the lead Federal response agency in the event of an animal disease outbreak, is authorized to deploy personnel to assist with response and recovery efforts. APHIS employees as well as members of the National Animal Health Emergency Response Corps (NAHERC) may be deployed to assist during the emergency.

The Health and Safety Guidelines focus on health and safety issues responders might encounter while deployed to an animal health emergency. Its purpose is to provide guidance to responders on health and safety issues they may encounter while on deployment, and prepare them to recognize unsafe working situations and to report unsafe conditions and injuries. It was written with the assumption that the Incident Command System (ICS) will be used to manage the emergency situation and, therefore, refers to the titles of officials and groups in terms of the ICS structure. Furthermore, these Guidelines were written under the assumption that a Health and Safety Plan (HASP) will be developed for the incident based upon the USDA-APHIS Emergency Deployment Generic Health and Safety Plan (Generic HASP) found on the APHIS website: [http://www.aphis.usda.gov/emergency\\_response/hasp/employee\\_health.shtml](http://www.aphis.usda.gov/emergency_response/hasp/employee_health.shtml) and the *FAD PReP Standard Operating Procedures (SOP): Health and Safety/Personal Protective Equipment (PPE)*.



For information specific to health and safety policies and procedures for a particular animal health emergency response, refer to the Incident Health and Safety Plan and contact your supervisor or the Safety Officer.

### 2. HEALTH AND SAFETY OVERVIEW

Protecting the health and safety of personnel assigned to emergency response activities is everyone's responsibility. Everyone, from each team member to the Incident Commander, is responsible for maintaining safe working conditions. Individuals must be aware of their own health status and physical limits and should follow safe work procedures, correctly use the prescribed Personal Protective Equipment (PPE), report unsafe actions and conditions, and report all injuries to supervisors.

Supervisors are responsible for the health and safety of their team members and must be alert to changes in the situation or working conditions which may affect employee health and safety. The Incident Commander and Safety Officer are responsible for the health and safety of all personnel assigned to an animal health emergency response.

#### 2.1 Statutory Authority

The Occupational Safety and Health Act of 1970, Section 5(a)(1) states that "each employer shall furnish to each of his employees employment and a place of employment which are free from recognized hazards that are causing or are likely to cause death or serious physical harm to his employees." (APHIS Directive 68001.1 May

10, 2006) Additional regulations are found in the Occupational Safety and Health Administration General Industry Regulations found at 29 CFR §§1910.120; 1910.132; 1910.134.

## 2.2 Health and Safety Responsibilities within the Incident Command System

The Incident Command System (ICS) is used to organize the emergency response and efficiently manage people and resources. The ICS (Figure 1) utilizes a flexible command structure that can be modified and used for any type of incident. The following is a discussion of elements of the ICS involved in ensuring the health and safety of responders and the public during an animal health emergency.



### 2.2.1 Incident Commander

The Incident Commander (IC) is responsible for the overall management of the incident, including the health and safety of responders.

### 2.2.2 Safety Officer

The Safety Officer is a member of the Command Staff and reports directly to the Incident Commander. The Safety Officer has the authority to issue an immediate stop-work order to halt unsafe activities which are an immediate threat to life and health.

The Safety Officer

- Identifies hazards in the response at headquarters and field sites, and seeks ways to abate hazards;
- Establishes safe work procedures;
- Issues communications, conducts meetings and briefings for Section Chiefs and response personnel to discuss health and safety information;
- Assesses the need for PPE and assures proper PPE use, cleaning and maintenance;
- Performs inspections and ensures safe working procedures are followed;
- Provides training;
- Reports to and briefs the IC on the health and safety status of the deployment;
- Prepares a Health and Safety Plan (HASP) specific to the Incident; and
- Ensures that safety related supplies are on hand.

The Safety Officer works closely with the Operations Section to ensure that responders adhere to the requirements of the Incident Specific Health and Safety Plan.

### 2.2.3 Operations Section

The Operations Section manages field operations for the response. Since most hazardous activities occur in the field, the Operations Section must work closely with the Safety Officer to ensure safe working conditions for responders.

### 2.2.4 Logistics Section

The Logistics Section provides services and support to meet incident needs. It contains the Medical Unit which develops a medical plan and provides first aid to personnel assigned to the incident.

### 2.2.5 Supervisors

Each supervisor is responsible for ensuring safety procedures are followed, safety training has been conducted and documented, and unsafe conditions and injuries are reported to the Safety Officer.

## 2.2.6 Responders

Each responder is expected to follow safe work procedures, report unsafe conditions and actions, and report all injuries to his/her supervisor.

## 2.3 Worker Rights and Responsibilities

While employers are responsible for providing a safe and healthful workplace for their employees, it is the responsibility of employees to comply with established work rules and to properly use assigned PPE.

Workers must adhere to the following work rules:

- Follow employer's safety and health policies at all times.
- Follow supervisors' instructions and adhere to the chain of command.
- Follow personnel accountability instructions: check-in and check-out, buddy system.
- Obtain vaccinations in compliance with the employer's medical directions.
- Promptly report all injuries, accidents, and near misses. Seek medical attention as needed.
- Report all unsafe conditions. Do not perform tasks until proper safety and health controls have been put into place.
- Refuse to perform tasks that pose an imminent danger.
- Wear all personal protective equipment needed for the task.
- Maintain constant awareness of their surroundings.

## 3. PRE-DEPLOYMENT PREPARATION

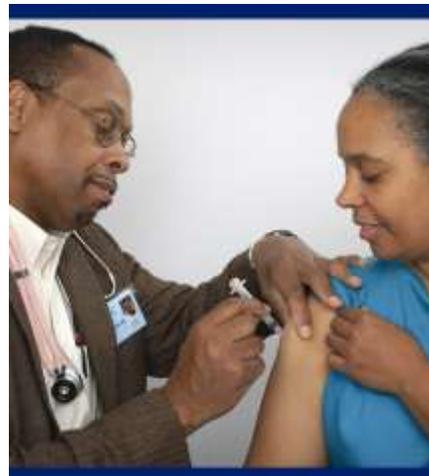
Because emergency situations may arise quickly, personnel with emergency response duties (APHIS employees and NAHERC members) should maintain a certain level of readiness.

### 3.1 Personal Health

Responders reporting for duty must be in physical and mental condition to perform their assigned duties. To comply with this requirement, responders are encouraged to have regular physical examinations to assess their current health status. Personnel found to be unable to respond and contribute to the animal emergency response operation will be deemed unable to participate in the field operation and will be required to leave the incident scene.

The following items are recommended for emergency response personnel:

- Current tetanus/diphtheria booster
- Know rabies vaccination status and titer.
- Seasonal influenza vaccination (Highly encouraged if responding to avian or novel H1N1 influenza outbreaks. Note: The seasonal flu vaccine will not protect against infection with avian or novel H1N1 flu strains. However, vaccination against seasonal influenza is encouraged under the theory that it will help prevent simultaneous infection with the avian or novel H1N1 and a human influenza strain, and decrease the risk of a highly infectious influenza strain developing from a mixture of the strains).
- Pneumococcal vaccine is recommended for persons over 65 years of age or persons with health conditions affecting the pulmonary or immune systems, such as diabetes, AIDS, renal dysfunction, or chronic lung disease.
- In the event of an international deployment, additional vaccines may be required.



- Responders should be aware of any chronic disease conditions which may affect their ability to perform tasks in the field. Assignments to other less physically demanding functions can be made.
- Pregnancy may impair one's ability to perform some tasks, and some tasks may put the fetus at risk.

Responders with conditions requiring medication or medical supplies should assume they will not have access to a pharmacy while on deployment and should bring at least a 30-day supply of items to the deployment.

Responders should discuss medical issues of concern with their personal physicians and the NAHERC Coordinator. Responders who have a medical condition which may limit their activity in the field should discuss the issue with their supervisor. Less physically demanding assignments may be available.

In addition to the physical challenges imposed by deployment to an emergency response, employees may experience mental health issues associated with deployment. Disruption of regular work and family schedules, being away from home and family, harsh working conditions, working in an unfamiliar environment and with new people, and working in disaster or animal health emergency situations are some of the things which may contribute to increased stress and mental health issues. It is important to recognize the signs of mental health distress and know where to seek support and assistance. This topic will be discussed in detail later in this guidance document.

### 3.2 Personal Packing List

Preparation for deployment should begin prior to receiving a deployment notification. Emergency response personnel are expected to be self-sufficient with respect to personal supplies, equipment, and some Personal Protective Equipment (PPE). PPE may also be provided at deployment based on hazard analysis. Many of these items can be assembled and stored in anticipation of a deployment.

Items to consider packing for deployment include the following:

- 30-day supply of prescription medicines
- Sunscreen
- *N,N*-diethyl-3-methylbenzamide (DEET) containing insect repellent
- Lip balm
- First aid kit
- Non-prescription medications (e.g., pain relievers, allergy medications, cold medication, anti-diarrheal medication, etc.)
- Clothing appropriate to climate, weather conditions (e.g., rain gear, gloves, hat, or cap), and PPE requirements
- Footwear and extra socks appropriate to climate, weather conditions and PPE requirements
- Alarm clock (not electric)
- Flashlight and extra batteries
- Cell phone charger and extra battery
- Extra glasses or contact lenses
- Sunglasses
- Sleep aids (e.g., ear plugs, eye shields, etc.)
- Medical and safety information: Emergency Management Response System (EMRS) information (it is your responsibility to keep information current), medical clearances (PPE clearance, fit test, etc.)
- Documentation of training (e.g., fire extinguisher training, driver's training, etc.)



A more comprehensive general packing list is provided in Appendix A: Pre-Deployment Checklist/What to Pack and the *Introduction to NAHERC* web module.

Emergency deployment worksites may be in remote locations or areas with limited access to facilities and amenities. Other conditions such as weather, terrain or the presence of biological, chemical, or radiological hazards may affect working and living conditions. Responders must be prepared to live and work in areas with limited access to electricity, running water, shelter, air conditioning, telephone, internet, or other services. Upon notification of deployment, responders will receive information identifying specific personal items and equipment, including PPE, they will need to bring to the site. For additional information, see *FAD PReP/NAHEMS Guidelines: Personal Protective Equipment (PPE) (2011)*; *FAD PReP/NAHEMS Personal Protective Equipment (PPE)* web module; and Incident-specific PPE guidance.

### 3.3 Personal Safety

While traveling to and from a deployment site, responders should remain alert to their surroundings and use care to assure that they arrive safely at their destination. If driving, be sure to stay aware of road and weather conditions, take rest breaks, and do not drive when fatigued.

### 3.4 Health and Safety Training

Pursuant to the Occupational Safety and Health Administration Hazardous Waste Operations and Emergency Response (HAZWOPER) Standard, 29 CFR 1910.120(q), all personnel involved in an emergency deployment are to be trained in certain items pertinent to health and safety before they are permitted to take part in actual emergency operations at an incident. Training shall be based on the duties and functions to be performed by each responder of an emergency response organization. There are five (5) categories of responder training.

1. **First Responder, awareness level:** Individuals who are likely to witness or discover a hazardous substance release and who have been trained to initiate an emergency response sequence by notifying the proper authorities of the release. They would take no further action beyond notifying the authorities of the release. This training is required of all responders regardless of their duties or function within the response. This training is available through the USDA learning management system: AgLearn (Course title: APHIS Basic HAZWOPER Awareness Course).
2. **First Responder, operations level:** Responds to releases or potential releases of hazardous substances as part of the initial response to the site for the purpose of protecting nearby persons, property, or the environment from the effects of the release. They are trained to respond in a defensive fashion without actually trying to stop the release. Their function is to contain the release from a safe distance, keep it from spreading, and prevent exposures. Training at this level requires awareness level training plus at least 8-hour HAZWOPER training. Examples of individuals in this category include: foreign animal disease diagnosticians, individuals performing surveillance, and site control and security personnel.
3. **Hazardous materials technician:** Responds to releases or potential releases for the purpose of stopping the release. They assume a more aggressive role than a first responder at the operations level in that they will approach the point of release in order to plug, patch, or otherwise stop the release of a hazardous substance. Training at this level requires awareness level training plus at least 24-hour HAZWOPER training which includes one day actual field experience under the direct supervision of a trained and experienced supervisor. Specific competencies for this level are listed in the standard and known to trainers. Examples of individuals in this category include cullers, cleaning and disinfection personnel, carcass disposal personnel, transporters, and heavy equipment operators.
4. **Hazardous materials specialist:** Responds with and provides support to hazardous materials technicians. Their duties parallel those of the hazardous materials technician; however, those duties require a more directed or specific knowledge of the various substances they may be called upon to contain. The hazardous materials specialist also acts as the liaison with Federal, state, local, and other government authorities with regards to site activities. Training at this level requires awareness level training plus at least 24-hour HAZWOPER training which includes one day actual field experience under the direct supervision of a trained and experienced supervisor. Specific competencies for this level are listed in the standard and are known to trainers. Examples of individuals in this category include on-site supervisors and managers, and command staff.

5. **On-Scene Incident Commander:** Incident commanders who will assume control of the incident scene beyond the first responder awareness level shall receive 40-hour HAZWOPER training which includes three days of supervised field experience. Specific competencies for this level are listed in the standard and known to trainers. (Note that this training is above the level outlined in the standard.)

All training is valid for one year. First responders at the awareness level (1) shall take the online AgLearn course annually. All other responder categories are required to take the 8-hour HAZWOPER refresher course annually.

### 3.4.1 APHIS Basic Health and Safety Training

The USDA APHIS Emergency Deployment Generic Health and Safety Plan (HASP) contains the basic health and safety training requirements discussed below. This document may be accessed at:  
[http://www.aphis.usda.gov/emergency\\_response/hasp/health\\_safety\\_hs\\_training.shtml](http://www.aphis.usda.gov/emergency_response/hasp/health_safety_hs_training.shtml)

OSHA's HAZWOPER standard 29 CFR 1910.120 calls for all personnel involved with an emergency deployment to be trained on certain items pertinent to health and safety. The amount and level of training required is dependent on the tasks the employee will perform and the risks associated with these tasks.

To assure the health and safety of all APHIS team members and to assure compliance with 29 CFR 1910, all APHIS personnel working a deployment (including temporary employees) will receive the following training:

- Hazard Communication
- How to Report an Injury
- Emergency Communication
- Evacuation Procedure
- Shelter in Place
- Relevant sections of the APHIS HASP Document (e.g., Medical Monitoring)

The information in the USDA APHIS Emergency Deployment Generic Health and Safety Plan, the Deployment Work Plan, and other sources (e.g., MRPBS Emergency Responder Manual) will be used to develop the final curriculum of the training.

Personnel involved in fieldwork may require additional training including:

- Recognition of Permit Required Confined Spaces
- PPE Use (inspection, donning, doffing and disposal)
- Fire Extinguisher use
- Defensive Driving
- Material Handling
- Job Task Training
- The personnel will also be trained on the Job Hazard Analysis (JHA) appropriate for their tasks and on specific site procedures. (For information on JHA, see [http://www.aphis.usda.gov/emergency\\_response/hasp/hasp\\_jhas.shtml](http://www.aphis.usda.gov/emergency_response/hasp/hasp_jhas.shtml))
- In addition to the above, APHIS Field Team members who investigate chemical contamination and who perform field activities associated with hazardous chemicals must have completed the initial 40-hour Hazardous Waste Operations training course (as required by OSHA regulations, 29 CFR 1910.120), and an annual 8-hour refresher course within the past 12 months.

APHIS Supervisors and Managers must also be trained on the following:

- The reporting of employee injuries (for Worker's Compensation)
- Managers and supervisors directly responsible for hazardous substance emergency activities must complete an 8-hour Supervisor Training course in addition to the 40-hour basic course and 8-hour refresher course.
- Any additional roles called for Supervisors in other sections of this HASP

The Incident Safety Officer will decide on the training needed for the various personnel involved with the deployment. Training certificates for all personnel (including subcontractors) performing activities must be maintained in the project file.

Training need not be repeated if the employees can provide documentation that they have received equivalent training during the past 12 months. Each employee will be given training on site-specific elements prior to beginning work at the site. As part of the site-specific training session, the Safety Officer will conduct a Health and Safety (H&S) briefing covering the major items found in this HASP and the Work plan. All personnel directly working in or supporting site operations must be briefed prior to reporting for work.

The Safety Officer will establish the training delivery and tracking system. Records will be kept of all the training delivered.

Training and briefings will be conducted before job start-up and as needed.

The Safety Officer will initiate training prior to job start-up to ensure that employees have a thorough understanding of the HASP, standard operating procedures (SOP), and physical and chemical hazards of the affected area. This training will be conducted as necessary as new employees are involved with the deployment.

## **4. HEALTH AND SAFETY WHILE ON DEPLOYMENT**

### **4.1 Work Settings and Shifts**

#### **4.1.1 Extended and Unusual Shifts**

A normal work shift is considered to be a period of no more than eight consecutive hours during the day, five days a week with at least an eight-hour rest period between shifts. Any shift incorporating more hours, more consecutive days, or work in the evening should be considered extended or unusual.

During emergency response activities, responders should expect to be asked to work extended or unusual shifts. The need to work extended or unusual shifts may often arise quickly and without warning.

Working extended or unusual shifts may be stressful physically, mentally, and emotionally. Extended or unusual shifts may disrupt the body's regular schedule causing increased fatigue, stress, and reduced concentration which may lead to an increased risk of operator error, injuries, and accidents. Acclimating to night shift work takes considerable time. Some studies indicate that it may take up to 10 days to adapt to a night time work schedule. Workers moving to a night shift may experience disrupted sleep patterns resulting in sleep deprivation.



Fatigue is caused by the body's need for rest. If one cannot get adequate rest, fatigue can increase to the point of becoming distressing and debilitating. The physical and mental symptoms of fatigue vary from person to person and with the degree of fatigue.

Some signs of fatigue include:

- Weariness
- Sleepiness
- Irritability
- Reduced alertness, lack of concentration and memory
- Lack of motivation
- Increased susceptibility to illness
- Depression
- Headache
- Giddiness
- Loss of appetite and digestive problems

#### 4.1.2 Work/Rest Periods

Managing work and rest periods is important to maintaining a safe and productive work force. Supervisors must manage work and rest periods, assignment duration, and the length of shifts to ensure employee safety and productivity.

The following are minimum guidelines. These guidelines may be adjusted with the approval of the Incident Commander.

- It is the supervisor's responsibility to see that employees are provided with adequate rest time. Supervisors should observe their employees for the physical and mental signs of fatigue which indicate the need for additional time off.
- Employees assigned on a continuous rotational basis (21 days) are required to receive a minimum of one unpaid day off in the middle of the assignment.
- Employees assigned for 30 days or more must receive a minimum of two unpaid days off which must be taken within the 30 day period.
- Supervisors have the discretion to require an individual to take additional unpaid days off if needed, or to order employees to work on their scheduled day off, if the workload warrants it.

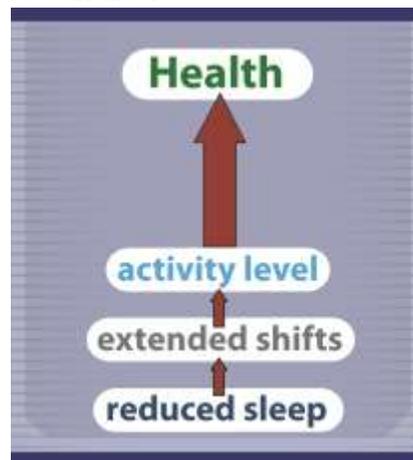
#### 4.2 Know Your Limits

For some responders, duty assignments on a deployment may involve a higher level of physical activity than their normal daily activities. Responders must be aware of their current fitness level and recognize that an increased activity level, working extended shifts, and reduced sleep may have an effect on their personal health and safety. Responders should know their limits and strive to work within their limits to avoid endangering themselves or their coworkers.

Responders may refuse to perform a task if they do not feel comfortable performing it.

#### 4.3 Specific Hazards

There are many different types of workplace hazards a responder may encounter on a deployment. The types of hazards encountered depend on the nature of the emergency (e.g., natural disaster, animal disease outbreak, terrorism incident) as well as the location of the disaster site, time of year, and weather conditions. The following section describes some hazards responders may encounter while on deployments. This is not a comprehensive list and responders should refer to the Incident-Specific Health and Safety Plan, Job Hazard Analysis (JHA) prepared for the incident and the Safety Officer for details regarding hazards specific to the deployment site. For additional information on personal protection during an animal disease outbreak, especially against zoonotic disease (a disease transmissible between animals and humans), see *FAD PReP/NAHEMS Guidelines: Personal Protective Equipment (PPE) (2011)* and the Incident-specific HASP.



### 4.3.1 Physical Hazards

#### Lifting

Back injuries are one of the most common work-related injuries. When lifting, use proper techniques. If the object is too heavy or awkward, ask another person for help or use a mechanical device (dolly or hoist).

Safe lifting techniques:

- Before lifting, assess the object to be moved. Is it too heavy or awkward for one person? How far does it have to be carried? How high does it have to be lifted? Will this be a regular part of the job?
- Check for tags on loads.
- Before lifting, always test the load for stability and weight.
- For loads that are unstable and/or heavy, follow management guidelines for:
  - Equipment use
  - Reducing the weight of the load
  - Repacking containers to increase stability
- Plan to lift.
  - Wear appropriate shoes to avoid slips, trips, or falls.
  - If you wear gloves, choose the size that fits properly. Depending on the material the gloves are made of and the number of pairs worn at once, more force may be needed to grasp and hold objects.
  - Lift only as much as you can safely handle by yourself.
  - Keep the lifts in your power zone (i.e., above the knees, below the shoulders, and close to the body), if possible.
  - Use extra caution when lifting loads that may be unstable.
- Get close to the load.
- Keep yourself in an upright position while squatting to pick up the object.
- Tighten your stomach muscles.
- Lift with your legs.
- Pivot, don't twist. Turn with your feet, not your back.



#### Slips and Falls

Slips, trips, and falls may occur when walking on uneven, wet or icy surfaces, or over rough terrain. Wearing Personal Protective Equipment (PPE) may limit your range of motion and vision or affect your balance. Use additional care when walking while wearing PPE.

- Watch for hoses, cables, or other items in your path.
- Clean up spills as quickly as possible.
- Ensure adequate lighting in work areas.
- Block or mark areas around known hazards such as holes, overhead hazards, and uneven surfaces.
- Keep electrical cables, hydraulic hoses, cords, and other lines out of walkways.

#### Sharps

During an animal emergency response, responders may work with needles or other sharp instruments. Needlesticks are one of the most common occupational injuries in veterinary practice.

Recapping needles is a common cause of injuries. Avoid recapping needles. Directly dispose of the needle into an approved sharps container without recapping.

Do not use lightweight plastic containers (e.g., beverage containers) as sharps containers. Needles and scalpel blades can easily puncture these containers, injuring the handler. Rigid sharps disposal containers are available in a variety of shapes and sizes.

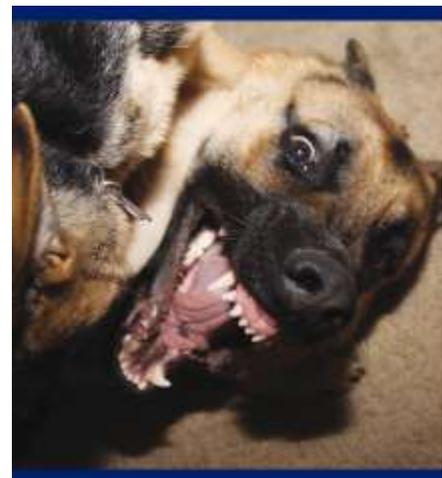
Dispose of suture needles and single-use disposable scalpel blades in a rigid sharps container. Account for items before and after a procedure and prior to clean up to help prevent inadvertent injuries.



## Dogs

Response personnel may encounter dogs. Dog bites are a serious threat. The following guidelines have been established when encountering dogs:

- As part of the PPE for employees who may encounter dogs, each employee should be provided a Bite Terminator® (<http://www.bite-terminator.com/>) or a similar product and be trained in its use.
- When approaching premises or entering yards, stay alert and stop to observe your surroundings.
- Do not enter premises alone. Always enter with another person.
- If you can hear a dog barking on the premises, but no animal is visible, do not enter the premises.
- Ask owners if dogs are present. Do not enter a work area where there are unrestrained dogs. Require owners to restrain or remove dogs or other potentially dangerous animals from the work area. If the owner will not restrain or remove the dog, contact law enforcement or animal control.
- If confronted by a dog, do not stare into its eyes.
- If threatened by a dog, stop, back away slowly, and place a barrier (e.g., fence, or gate) between yourself and the dog. Do not turn and run away.
- If you fall or are knocked to the ground by a dog, curl into a ball, place your hands over your head and neck, and protect your face.
- If bitten by a dog, seek medical treatment for wounds. Secure and observe the offending dog. Report the incident to the Team Leader, Safety Officer, and local authorities. If unable to restrain the dog, provide a thorough description of the animal to aid in attempts to locate the animal. Consult with a physician regarding the need for post-exposure rabies prophylaxis.



## Wildlife and Other Animals

Learn which wild animals may be present in the work area. Watch for wild animals. They can exhibit unpredictable or aggressive behavior. Inspect all areas for wild animals and nests before beginning work. Assume that all wild animals are rabid and all snakes are poisonous. If bitten, seek medical attention and consult a physician regarding the need for post-exposure rabies prophylaxis.

## Bites and Stings

Ants, bees, wasps, mosquitoes, spiders, ticks, scorpions and other insects may be present at the work site.

- Protect yourself against bites and stings by wearing a DEET-containing insect repellent on exposed skin.
- Wear long-sleeved shirts and long pants. Tuck pant legs into boot tops.
- Be cautious about where you place your hands and feet. Do not put hands into holes or under objects (lumber, scrap metal, etc.) without checking for insects, snakes, or other animals.
- Observe tick bites for signs of swelling and redness. Seek medical attention, if necessary.

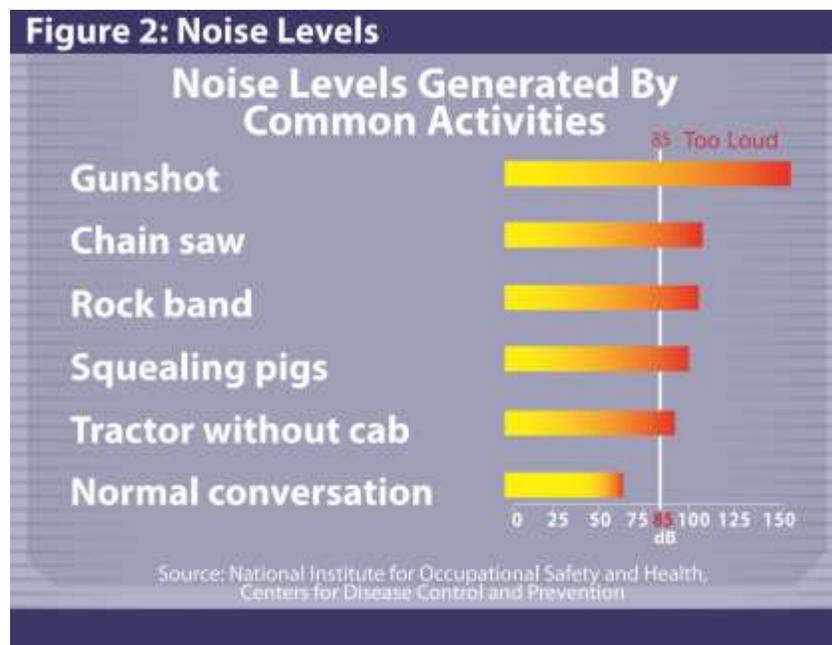
### 4.3.2 Environmental Hazards

#### Hearing Protection

Exposure to hazardous noise can cause permanent hearing damage. Noise is considered hazardous at levels of 85 dBA (decibels) or more for a period of eight hours; therefore, hearing protection must be worn when noise levels exceed 84 dBA.

In many events, responders will be exposed to loud noises. For emergency situations where hearing protection is required, as with routine situations, the employee should have had a baseline audiogram and be enrolled in the Hearing Conservation program. Specially designed ear muffs and ear plugs, both disposable and reusable, are examples of PPE used to protect responders from noises above safe levels. The choice of hearing protection should take into account the effectiveness and the cost, as well as biosecurity issues if intended for reuse.

A “rule of thumb” for determining noise level: if you cannot hold a conversation in a normal speaking voice with someone standing at arm’s length (approximately three feet away), the noise level may be hazardous. Figure 2, Noise Levels provides a few examples of various sounds with the decibel scale across the bottom for reference.



#### Heat-related Illnesses

High temperatures, high humidity, direct sun, direct heat, limited air movement, physical exertion, poor physical condition, medications, and a low tolerance for heat can all contribute to heat-induced illnesses. Certain types of PPE can also increase the risk for heat-related illnesses.

Responders need to be alert to the signs of heat-related illnesses and take quick action to avoid serious injury. To help prevent heat-related illnesses, drink plenty of fluids, replace salt and minerals, wear appropriate clothing and sunscreen, and monitor or limit outdoor activity.

Heat-related illnesses range from heat cramps to more severe illnesses such as heat stress, heat exhaustion, and heat stroke (a life-threatening condition). It is essential to treat any heat-related illness promptly to prevent the risk of further injury. Table 1 describes the types of heat-related illnesses.

**Table 1. Heat-related Illness with Treatment**

Illness	Cause	Symptoms	First Aid/Treatment
Heat Cramps	Heavy sweating and inadequate replacement of fluids and electrolytes.	Muscle spasms and pain in legs, arms and abdomen.	Stop all activity. Sit quietly in a cool place. Drink clear juice or a sports beverage. May resume activities a few hours after cramps subside, but use caution. <b>Seek Medical Attention:</b> If you have a heart condition or are on a low sodium diet, or if heat cramps persist for more than 1 hour.
Heat Stress	Body is unable to adequately cool itself.	Thirst, fatigue, feeling "hot", cramps, dizziness, headache, nausea, profuse sweating, or pale clammy skin.	Treat immediately to prevent progression into more severe heat-related illness. Rest in a shaded area. Drink liquids to replace lost fluids. <b>Seek Medical Attention:</b> If symptoms persist following a reasonable rest period.
Heat Exhaustion	Exposure to high temperatures, high humidity and strenuous physical activity.	Heavy sweating, paleness, muscle cramps, tiredness, weakness, headache, dizziness, lightheadedness or fainting, behavioral changes including irritability, confusion, nausea or vomiting, fast and weak pulse, fast and shallow breathing.	Move to a cool area (air conditioning), drink cool nonalcoholic beverages, take a cool shower, bath or sponge bath, wear lightweight clothing. <b>Seek Immediate Medical Attention:</b> If symptoms are severe, worsen or last longer than 1 hour.
Heat Stroke	Life-threatening condition occurs when the body is unable to regulate temperature. May occur if other heat-related conditions are not adequately treated. May be due to high temperature, high humidity, strenuous physical exercise or other conditions which raise body temperature	High body temperature (104 degrees F or above); cessation of sweating – hot and dry skin; mental confusion, loss of consciousness, seizures or convulsions, rapid heart rate, hyperventilation.	This is a life-threatening condition. <b>Call for Medical Assistance.</b> Begin cooling immediately: move to shade, immerse in water, spray with cool water, put in cool shower, monitor body temperature. If able to drink, give cool water until emergency medical personnel arrive. Do not attempt to give fluids to anyone with an altered level of consciousness. If Emergency Medical Responders are delayed, call for further emergency instructions.

Preventing heat-related illnesses:

- Know signs/symptoms of heat-related illnesses
- Self-monitor for signs/symptoms
- Monitor colleagues for signs of heat-related illness
- Block direct sun or other heat sources
- Use cooling fans/air conditioning
- Take regular breaks
- Drink adequate amounts of water
- Avoid alcohol, caffeinated drinks, or heavy meals

### **Cold Stress**

Cold, windy and/or wet conditions can lead to cold-related illnesses. Workers need to be alert for the signs of cold stress which can lead to serious conditions such as hypothermia and/or frostbite.

### **Hypothermia**

Hypothermia occurs when the body loses more heat than it can produce. Extended exposure to cold, windy, and wet conditions without adequate clothing can lead to hypothermia.

Signs of hypothermia include shivering, loss of coordination, change in behavior, numbness in the extremities, slurred speech, lethargy, coma, and ultimately, death.

In cases of mild hypothermia, bring the victim indoors. Cover the victim with blankets and give warm drinks (no coffee, tea or alcohol). In cases of severe hypothermia, transport the victim to the nearest medical facility.

To prevent hypothermia

- Wear appropriate clothing, dress in layers with loose-fitting lightweight clothing and water resistant or repellent outer layers;
- Cover hands, head, face, and neck to prevent heat loss;
- Avoid overexertion which can cause perspiration and lead to damp clothing; and
- Stay dry.



### **Frostbite**

Frostbite occurs when skin and tissue exposed to cold freezes. The hands, feet, nose, and ears are most vulnerable to frostbite. Keep exposed areas covered to prevent frostbite.

First aid for frostbite:

- Bring the exposed worker indoors and quickly warm frostbitten areas in warm water (102 – 105°F) for approximately 20 minutes or until the frozen parts are red in color.
- Provide warm drinks (no coffee, tea, or alcohol).
- Keep affected parts in warm water or covered with warm clothing for 30 minutes. The tissue will be very painful as it thaws.
- Do not break blisters.
- Cover the injured area with sterile, soft, dry material.
- Keep the victim warm and seek medical attention.



## DO NOT:

- Do not rub the frostbitten area. This may damage the tissue and lead to gangrene.
- Do not use ice, snow, gasoline, or anything cold on the frostbitten area.
- Do not use heat lamps or heating pads to warm the frostbitten area.
- Do not place the frostbitten area near a hot stove.

## Electricity

The risk of electrical shock exists wherever electricity is used.

- Inspect the work area for downed conductors and do not come into contact with them.
- Assume that all downed power lines are energized.
- Inspect all electrical cords or cables for external defects or evidence of internal damage. Do not use damaged cords.
- Use extension cords approved for the intended use.
- Use caution working in wet areas.

### 4.3.3 Psychological Hazards

Animal health emergency responders may be called on to provide assistance in a variety of capacities under many different situations. Some of these situations may expose responders to traumatic situations involving human suffering and animal death and suffering.

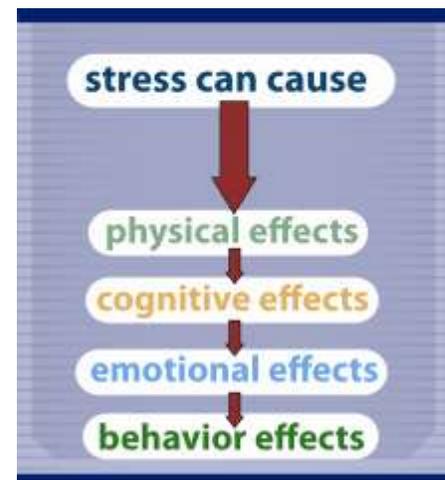
Exposure to traumatic events during the course of a disaster response can have a significant effect on the mental health of responders. Responders need to understand the psychological impact of emergency response activities; the effects such exposures may have on themselves, their colleagues, and disaster victims; and how to care for themselves and others.

Traumatic events can produce strong emotional reactions which may interfere with an individual's normal response functions. The reactions can range from mild, transient distress to moderate psychological symptoms to a psychiatric illness or disorder.

## Signs of Stress

It is important to be able to recognize and understand the symptoms of emotional stress and to monitor one's own reactions and those of others. Always take appropriate self-care measures to reduce the effects of emotional stress and seek assistance and support when needed. This information is provided to help determine if and when professional treatment may be needed. Do not attempt to diagnose yourself or others.

It is normal for most individuals to experience some reactions following a traumatic event. Individuals may experience a broad range of physical, cognitive, emotional, or behavioral signs or symptoms as a result of a traumatic event. Table 2 lists some of the common physical, cognitive, emotional, and behavioral symptoms following a traumatic event. Sometimes, the emotional effects of a traumatic event may be experienced weeks or months after the event, but should decrease over time.



**Table 2. Common Symptoms of Stress Following a Traumatic Event**

Physical *	Cognitive	Emotional **	Behavioral
<ul style="list-style-type: none"> <li>• Chest pain *</li> <li>• Difficulty breathing *</li> <li>• Shock symptoms *</li> <li>• Fatigue</li> <li>• Nausea/vomiting</li> <li>• Dizziness</li> <li>• Profuse sweating</li> <li>• Rapid heart rate</li> <li>• Thirst</li> <li>• Headaches</li> <li>• Visual difficulties</li> <li>• Clenching of jaw</li> <li>• Nonspecific aches and pains.</li> </ul>	<ul style="list-style-type: none"> <li>• Confusion</li> <li>• Nightmares</li> <li>• Disorientation</li> <li>• Heightened or lowered alertness</li> <li>• Poor concentration</li> <li>• Memory Problems</li> <li>• Poor problem solving</li> <li>• Difficulty identifying familiar objects or people</li> </ul>	<ul style="list-style-type: none"> <li>• Anxiety</li> <li>• Guilt</li> <li>• Grief</li> <li>• Denial</li> <li>• Severe panic (rare)</li> <li>• Fear</li> <li>• Irritability</li> <li>• Loss of emotional control</li> <li>• Depression</li> <li>• Sense of failure</li> <li>• Feeling overwhelmed</li> <li>• Blaming oneself or others</li> </ul>	<ul style="list-style-type: none"> <li>• Intense anger</li> <li>• Withdrawal</li> <li>• Emotional outburst</li> <li>• Temporary loss or increase in appetite</li> <li>• Excessive alcohol consumption or substance abuse</li> <li>• Inability to rest, pacing</li> <li>• Change in sexual functioning</li> </ul>

**\*Seek Medical Attention Immediately** if you experience chest pain, difficulty breathing or symptoms of shock (shallow breathing, weak, rapid pulse, nausea, shivering, pale and moist skin, mental confusion, and dilated pupils).  
**\*\*Seek Mental Health Support** if your symptoms or distress continue for several weeks or interfere with your daily activities.

More severe reactions to traumatic events can result in psychological disorders that persist over time. Disaster workers are at an increased risk of developing psychological disorders following a traumatic event. These disorders include acute stress disorder (ASD), post-traumatic stress disorder (PTSD), and depression, which are summarized in Table 3.

**Table 3. Psychological Disorders Following a Traumatic Event**

Psychological Disorder	Time Span	Characteristics
Acute Stress Disorder	<ul style="list-style-type: none"> <li>• Within 2 days to 4 weeks following exposure to traumatic event</li> </ul>	<ul style="list-style-type: none"> <li>• Intense fear, helplessness, or horror in response to traumatic event</li> <li>• Sense of numbing, detachment, or absence of emotional responsiveness</li> <li>• Decreased awareness of surroundings</li> <li>• Derealization (perceiving people and things around you as unreal)</li> <li>• Depersonalization (feeling detached from oneself)</li> <li>• Dissociative amnesia (extensive memory loss of traumatic events/periods)</li> <li>• Persistent re-experiencing of traumatic event via images, thoughts, dreams, flashbacks, etc</li> <li>• Avoidance of stimuli that serve as reminders of event</li> <li>• Symptoms of anxiety and increased arousal</li> </ul>
Posttraumatic Stress Disorder	<ul style="list-style-type: none"> <li>• Longer than 4 weeks following exposure to traumatic event</li> </ul>	<ul style="list-style-type: none"> <li>• Intense fear, helplessness, or horror in response to traumatic event</li> <li>• Recurring and intrusive recollections or dreams of event</li> <li>• Feelings of repeatedly reliving the event via illusions, hallucinations, flashbacks</li> <li>• Psychological stress at exposure to reminders or cues of event</li> <li>• Persistent avoidance of stimuli associated with event</li> <li>• Detachment or estrangement from others</li> <li>• Increased arousal</li> </ul>
Depression	<ul style="list-style-type: none"> <li>• Depressive Episode: Days to weeks following stressor</li> <li>• Depressive Disorder: Persistence of depressive episodes consecutively over the course of 2 months</li> </ul>	<ul style="list-style-type: none"> <li>• Depressed mood on a daily basis</li> <li>• Loss of interest or pleasure in daily life</li> <li>• Significant weight loss or decrease in appetite</li> <li>• Sleep disturbances</li> <li>• Restlessness</li> <li>• Fatigue</li> <li>• Feelings of worthlessness or excessive, inappropriate guilt</li> <li>• Indecisiveness and inability to concentrate</li> <li>• Recurring thoughts of death and/or suicide</li> </ul>

Individuals who feel that they are experiencing the signs of one of the above conditions should seek mental health support.

## Sources of Stress

Emergency response personnel are at an increased risk of suffering from a mental health disturbance during and after a disaster response. The reasons given for this increased risk include the following:

- Lack of adequate preparation and/or poor management
- Prolonged exposure to death, injury, and/or destruction
- High levels of physically and emotionally draining work
- Lack of team cohesion and/or command and control disputes
- Separation from home and loved ones
- Understaffing and/or lack of resources to match workload
- Feeling responsible to meet the needs of victims over the needs of themselves
- Lack of appreciation or understanding by the general population
- Poor debriefing or reintegration following the response

While some of the reasons listed above are beyond an individual's control, there are steps one can take to reduce the incidence of stress in an emergency response situation. These will be discussed below.

## Steps to Reduce Stress

The following are self-care and self-monitoring measures:

- Pace yourself. Rescue and recovery efforts may continue for days, weeks, or months.
- Take frequent rest breaks. Response and recovery efforts often occur in very dangerous environments. Mental fatigue due to extended shifts can greatly increase the risk of injury.
- Maintain vigilance for yourself and others. Co-workers may be focused on a particular task and may not notice a hazard. Exhausted, stressed, or distracted responders may place themselves or their co-workers at risk.
- Try to maintain as normal a schedule as possible with regular eating and sleeping times. Adhere to the team schedule and rotation.
- Drink plenty of fluids (water).
- Eat a variety of foods and increase your intake of complex carbohydrates (e.g., breads, and muffins made with whole grains, granola bars, etc.).
- Take your breaks away from the work area. Eat and drink in clean areas only.
- Recognize and accept what you cannot change (e.g., chain of command, organizational structure, waiting, equipment failures, etc.).
- Choose your own comfort level when talking about the event and your emotional response to it.
- Take advantage of formal mental health support. Check with the on-site health unit or call the **Employee Assistance Program (EAP) at 800-222-0364**. More information about the Federal Employee Assistance Program can be found at <http://www.foh4you.com>.
- Give yourself permission to feel rotten.
- Remember that recurring thoughts, dreams, or flashbacks are normal and will decrease over time.
- Communicate with loved ones at home as often as possible.



Over time, one's impressions and understanding of the experience will change. Each person's process is different. Regardless of the event or your reaction to it, the steps below will assist with the adjustment:

- Reach out – people really do care.
- Reconnect with family, spiritual and community supports.
- Consider keeping a journal.
- Avoid making any big life decisions.
- Make as many daily decisions as possible to have a sense of control over your life.
- Spend time with others or alone doing the things you enjoy to refresh and recharge.
- Understand that feeling fearful for family members is normal and will pass with time.
- “Getting back to normal” takes time. Reintroduce routines gradually. Allow others to carry more weight at home and work for a while.
- Family members of responders experience the disaster, too. Use patience, understanding, and communication.
- Avoid the use of caffeine. Do not overuse prescription drugs or alcohol and do not use illegal drugs.
- Get plenty of rest and normal exercise. Eat well-balanced, regular meals.

Disaster Health Services, Substance Abuse and Mental Health Services Administration (SAMHSA) has additional information on the following website: <http://www.samhsa.gov/trauma/index.aspx#rhp>

This information has been included in this Guideline for the purpose of providing a resource for addressing personal mental health needs or those of your colleagues and others you may encounter on a deployment. **This information is NOT meant to take the place of professional psychological advice. If you or someone you know may be suffering from a severe psychological disorder, contact a health professional.**

#### 4.4 Site Security and Safety

Maintaining security of the Incident Site is important for protecting the health and safety of both responders and the public. Security measures control access to the work site, prevent unauthorized persons from entering, limit the risk of spreading hazardous materials or disease agents beyond the control area, and prevent outside interference with response efforts.

##### 4.4.1 ICS Role

The Operations Section Chief, with assistance from the Security Officer, establishes and maintains security for the incident site. All personnel must adhere to the security procedures established for the incident. Personnel will receive information about on-site security procedures during their initial briefing.

The Security Officer:

- Controls all exits and entrances
- Establishes a personnel identification system
- Enforces entry and exit requirements
- Uses temporary fencing if needed
- Assesses the security threat potential to all buildings, dwellings, and sites occupied by APHIS personnel

##### 4.4.2 Control of Work Zones

Controlling access to the site is important in order to control movement of people into and out of the area of concern, reduce the risk of spreading infectious agents or hazardous materials to clean areas, and to monitor the area for signs that an agent is spreading.

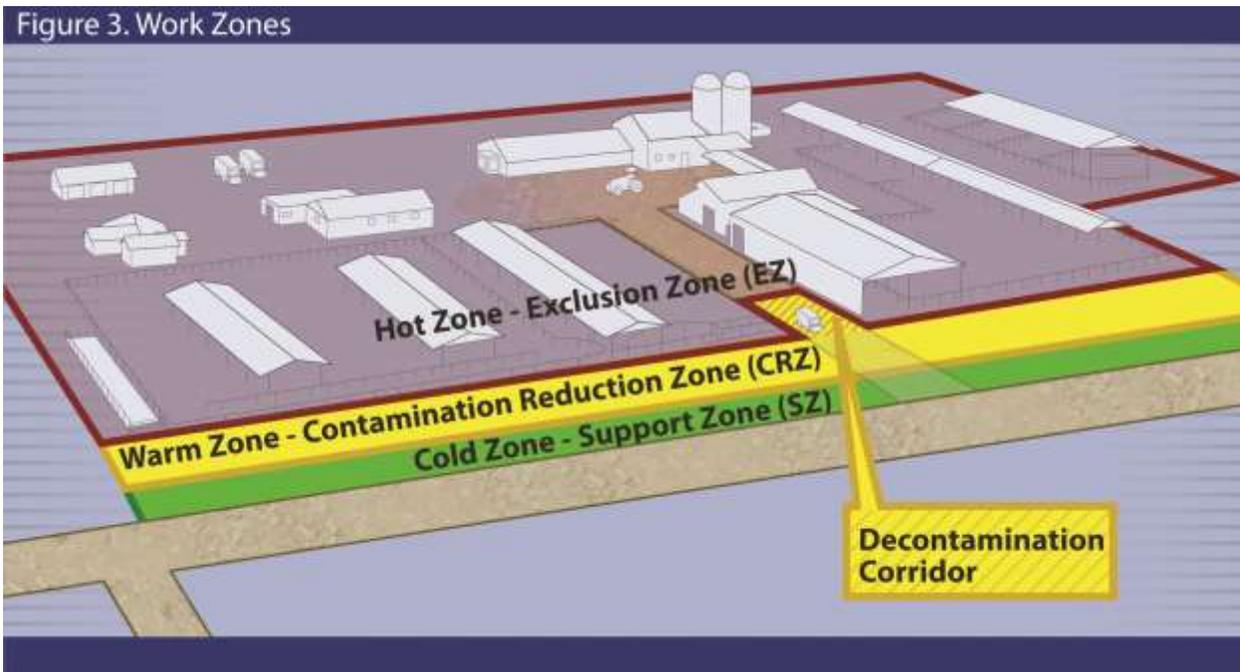


Within the incident site, work zones are established to control access and reduce the risk of the accidental spread of hazardous agents. Additionally, the establishment of work zones ensures

- Personnel entering the worksite are properly protected against hazards while working;
- Work activities and contamination are confined to certain areas; and
- Personnel can be located quickly and evacuated if necessary.

Work sites are divided into three major zones as illustrated in Figure 3:

- **Hot Zone - Exclusion Zone (EZ):** This high-risk area is where infected animals were housed and is potentially contaminated and considered unsafe. Examples include an area of a farm, local market, or roadside stand. PPE must be worn. Appraisal, depopulation, disposal, and facility cleaning and decontamination of the site and equipment occur in this area. Personnel and equipment enter and exit the Hot Zone through designated access points in the Warm Zone - Contamination Reduction Zone (CRZ).
- **Warm Zone - Contamination Reduction Zone (CRZ):** This is a high-risk area due to the potential of exposure to pathogens and chemical disinfectants. All personnel are required to wear full PPE. Entry from the Warm Zone - Contamination Reduction Zone (CRZ) to either the Cold Zone - Support Zone (SZ) or Hot Zone - Exclusion Zone (EZ) occurs through designated access points. For workers exiting the Hot Zone - Exclusion Zone (EZ), final decontamination and disinfection of PPE and equipment as well as final doffing of PPE occur in the Decontamination Corridor of the Warm Zone - Contamination Reduction Zone (CRZ). Site-specific protocols for PPE, decontamination and disinfection must be strictly followed.
- **Decon (Decontamination) Corridor:** This is the area between the Hot Zone - Exclusion Zone (EZ) Control Line and the Warm Zone - Contamination Reduction Zone (CRZ) Control Line. Decontamination of personnel and equipment occurs along the corridor with stations for depositing tools, equipment, protective clothing and other items. The level of contamination should decrease along this corridor from the Hot Zone - Exclusion Zone (EZ) to the Cold Zone - Support Zone (SZ). Teams enter and exit the Hot Zone - Exclusion Zone (EZ) through the access control points at each end of the corridor.
- **Cold Zone - Support Zone (SZ):** This is the “cleanest” work zone with the lowest relative risk of exposure to pathogens and other hazards such as decontamination chemicals. In this zone personnel are not required to wear PPE; however, facilities for donning PPE before entering other zones are provided. Administrative, clerical, and other support functions are based here. Medical support is provided to personnel in this zone. Facilities for personal needs such as eating, drinking, and bathroom use are provided. Air and surface monitoring is conducted as needed to ensure that the area is free from contamination. Contaminated articles and equipment are prohibited in this area. Decontamination activities are also prohibited.



Movement of workers from contaminated areas into clean areas is closely monitored, and cleaning and disinfection protocols must be followed. For additional information on work zones, cleaning and disinfection protocols, and PPE, please refer to the *FAD PReP/NAHEMS Guidelines: Biosecurity (2011), Cleaning and Disinfection (2011), and Personal Protection Equipment (PPE) (2011), FAD PReP Standard Operating Procedures (SOP): Biosecurity, Health and Safety/PPE, and Cleaning and Disinfection*, the Incident-specific HASP and site-specific information provided during briefings.

#### 4.4.3 Accountability

Personnel must be accounted for at all times during a deployment. This includes personnel conducting site investigations or personnel working in confined contaminated zones. The Security Officer will establish methods to ensure all personnel are accounted for at all times. Communication may be by cell phone, radio, hand signal or other method as assigned by the Incident Commander. The Communications Plan developed for the incident provides access to personnel and others within the command structure, as well as communications equipment required for all personnel. Refer to *FAD PReP Standard Operating Procedures (SOP): Communications*.

Personnel must enter and exit the deployment facility through designated points and follow check-in and check-out procedures. When leaving the facility, Responders must verbally notify their Team Leader of their destination.

#### 4.4.4 Buddy System

Personnel assigned to field work and working in the Hot Zone – Exclusion Zone (EZ) will utilize the “buddy system” for safe and effective PPE use. Personnel will work in pairs in order to observe each other and quickly summon assistance in the event of an emergency. Consult the Incident HASP or the Safety Officer for details regarding incident-specific procedures.



Responders using the buddy system will

- Remain in close visual contact with their partner;
- Assist their partner as requested or needed;
- Observe their partner for signs of distress (e.g., heat stress or other difficulties);
- Periodically check the integrity of their partner's PPE (refer to the PPE Guidelines and briefing instructions for further details); and
- Notify the site manager or other site personnel if emergency assistance is needed.

#### 4.4.5 Medical Monitoring

OSHA's HAZWOPER Standard, 29 CFR 1910.120, requires that all employees participating in emergency response activities participate in a medical surveillance program (Occupational Medical Monitoring Program). Medical monitoring is used to determine the risk of exposures to hazardous materials or other inordinate hazards.

The Occupational Medical Monitoring Program is designed to protect the health and welfare of APHIS employees exposed to hazardous chemical, biological, or radioactive materials and other hazards such as noise. Although monitoring does not replace the need to limit environmental exposures to hazardous materials, nor does it prevent illness or injury, it serves to safeguard health and may prevent exposure to hazards.

Participation in this program should not be used as a substitute for regular complete physical examinations performed by a physician. Furthermore, medical monitoring is not a substitute for consulting an industrial hygienist who can determine exposure levels and recommend methods of limiting exposures.

## 5. COMMUNICATION OF HEALTH AND SAFETY INFORMATION

Conditions at an Incident Site can change quickly. Responders need to make sure they have current information about changes in working conditions, policies, and procedures. Briefings will be held regularly and responders must attend briefings to ensure they have the latest information.

Briefings are scheduled throughout the emergency response from mobilization to demobilization to provide responders with current information about health and safety issues.

### 5.1 Mobilization Briefing

Upon activation, responders will receive a mobilization briefing. The briefing includes a risk assessment evaluating weather and climate challenges and the terrain; the local culture and sensitivities of the affected community; threats and security precautions or countermeasures; and specific information regarding equipment and PPE to bring to the deployment. Responders should use this information to aid in packing for the deployment.

### 5.2 Communicating During the Response

A pre-entry safety and health briefing is required pursuant to 29 CFR 1910.120(b)(4)(iii) before an employee begins work at the site. Additional briefings may be held at other times as necessary to ensure that personnel are aware of the safety plan and that the plan is being followed.

#### 5.2.1 Arriving at the Incident Site

Upon arrival at the Incident Site, responders check in and receive an orientation packet. All personnel must attend the general orientation training before beginning work.

Responders who check in at a time other than the scheduled morning session must report to the Training Section to be scheduled for orientation and training and to obtain a copy of the current SOP and the Incident HASP.

### 5.2.2 Initial On-Site Briefing

All personnel must receive an initial briefing before beginning work. The initial briefing will include a health and safety briefing covering major items outlined in the Incident HASP and Work Plan. Personnel are expected to read and understand the Incident HASP prior to beginning work. Personnel will receive training in emergency procedures during the personnel training session.

### 5.2.3 Training

Training will be conducted prior to job start up to ensure that employees have a thorough understanding of the HASP, the SOP and hazards in the affected area. A collection of Job Hazard Analysis (JHA) for specific jobs is included in the Incident HASP. Personnel should review the JHA for their assigned jobs.

### 5.2.4 Daily Safety Briefings

The Safety Officer will provide a daily health and safety briefing to personnel prior to the beginning of the day's tasks.

### 5.2.5 Team Leader Role

Team Leaders and Supervisors are responsible for ensuring that all personnel understand the incident-specific emergency signals and procedures. The Safety Officer will ensure that Supervisors receive training in these emergency signals and procedures.

Team Leaders should brief team members about any health and safety issues prior to beginning work and as necessary during the assignment.

## 5.3 Emergency Response/Contingency Plan

Even with the best planning, unforeseen situations may arise. The Safety Officer is responsible for developing emergency and contingency plans for the incident.

### 5.3.1 Emergency Response Preparations

- Prior to the start of operations on the site, the Safety Officer will establish an emergency medical assistance network. Local fire, police, and rescue authorities will be notified of potential emergency situations which may arise due to activity.
- In the event of an emergency, the Incident Commander (IC) is responsible for the evacuation, emergency treatment, and emergency transport of personnel as well as notifying emergency response units and appropriate management staff.
- At the beginning of the deployment, the Safety Officer will determine the potential for a chemical release of materials being used on deployment. The Safety Officer shall assure that appropriate spill response materials are available on site.
- The Safety Officer will prepare a Field Team Personal Emergency Contact Information List. The list will contain the location of emergency facilities with directions and a map. The list will be updated as needed. Team members will be instructed on how to obtain assistance.
- Each vehicle will be equipped with written directions and maps to the nearest emergency facilities, a copy of the Incident HASP and work plan, a first aid kit, an adequate supply of fresh water, and a portable emergency eyewash.
- A vehicle will be available at all times to transport injured personnel to emergency medical facilities. In the event of a severe injury, medical transport will be summoned.
- Each field team will be equipped with a cell phone or radio for communication. Satellite phones may be used in the event that communications are disabled.



- Whenever possible, field staff will work in pairs. For personnel working alone, a call-in schedule will be established.
- Each day before work begins, the Incident Commander, Safety Officer, Security Officer, and Operations Chief will evaluate the work areas to assess the adequacy of evacuation routes, procedures for dealing with hazards, and communication systems. Changes in emergency procedures will be communicated to personnel at the daily briefing.
- Each field team will have a list of emergency contact numbers (telephone numbers and radio call numbers, as appropriate). The numbers will be kept in an easily accessible location known by all team members and will be posted in each vehicle.

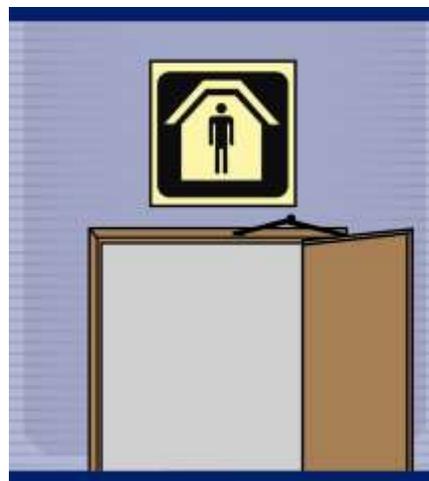
### 5.3.2 Evacuation Procedures

In the event an emergency evacuation is required, the Incident Commander, Safety Officer, or Operations Section Chief will sound a predetermined signal to alert personnel to the beginning of evacuation procedures. All personnel will evacuate and assemble at the predetermined assembly site. Supervisors and/or members of APHIS Command staff will ensure that all APHIS personnel are accounted for at the assembly site.

### 5.3.3 Shelter-in-Place Procedures

Under certain circumstances, teams may need to shelter in place. Local emergency personnel or the IC may issue a shelter-in-place order. The Safety Officer will identify locations in buildings to be used for sheltering in place.

When a shelter-in-place order is issued, the IC will notify personnel to seek shelter. Notification may be verbal and/or by radio or cell phone. Supervisors, Command Staff, and/or General Staff must take a head count of personnel in the shelter. Personnel will remain in the shelter until the “all clear” signal is given by Command Staff.



## 6. RESPONSES TO PARTICULAR EMERGENCIES

The following section addresses some of the emergency situations which may be encountered during a deployment. This is not an exhaustive list. Refer to the Incident HASP, JHA Sheets, and Safety Officer for information related to a specific deployment.

### 6.1 Fire or Explosion

If it is safe to do so, first attempt to extinguish the fire with a Class A/B/C multipurpose extinguisher. A fire extinguisher will be kept in each vehicle.

If the fire is out of control, take the following steps:

- Sound the warning alarm.
- Evacuate personnel to a safe distance away from the fire.
- Verify that all team members are present.
- Notify the fire department and APHIS personnel.
- Remove all vehicles if it is possible to do safely.
- Remove all flammable field equipment if it is possible to do safely.
- Wait for fire-fighting personnel.

### 6.2 Dust Explosions

In the event of a dust explosion, evacuate the area. The initial explosion releases dust into the air which can ignite causing secondary and tertiary explosions.

If forced to evacuate, notify your supervisor, the Operations Section Chief, or Command Staff.

### 6.3 Hazardous Materials Release

Any number of chemical exposure hazards may be present. Be aware that animal waste gases, carbon monoxide from power tools, and aerosolized disinfectants may build to hazardous levels. Farm chemicals may be stored at the incident site. Remain vigilant of potential chemical exposures, especially when entering confined or enclosed places.

1. If a hazardous materials release occurs during field activities:
  - Report all hazardous materials releases to the Operations Section Chief and the IC.
  - Follow guidance provided in 29 CFR 1910.120 for response to hazardous materials release.
  - Most responders will not be trained or equipped to contain a release.
    - They should notify, control, contain (if trained and equipped), and protect.
  - If the release poses direct contact or inhalation hazards, do not attempt control measures unless proper PPE is available to prevent exposure of personnel.
2. If a hazardous or potentially dangerous situation is suspected, the Safety Officer and the local authorities will be notified. The IC or designee will dictate the response. The IC will provide local authorities with the following information:
  - Identity of the chemical or oil by name and/or U.S. DOT (Department of Transportation) ID number
  - Chemical/oil hazard class
  - Cause of release
  - Quantity/concentration of release
  - Potential for fire
  - Potential for release evacuation (estimate of the effect of a chemical release on the surrounding area)
  - Injuries caused by the release
  - Actions taken
3. If a hazardous materials incident arises from a source not related to the APHIS activity, APHIS personnel will follow the guidance of the outside emergency response organization.



### 6.4 Severe Weather

In the event of severe weather conditions, the Operations Section Chief, with assistance from the Safety Officer, will determine whether field work can continue without endangering the health and safety of field workers. Factors to consider include:

- Heavy precipitation
- Potential for heat stress
- Potential for cold stress or cold-related injuries
- Treacherous weather-related working conditions
- Limited visibility
- Potential for electrical storms
- Potential for flash floods
- Potential for mudslides



## 6.5 Injuries

Injuries may occur ranging from minor to life threatening. Awkward postures, repetitive motions and the application of force can result in musculoskeletal injuries. Working outside in any season can expose skin to the risk of sunburn.

Any animal health emergency, will involve interactions with animals. These encounters can lead to injuries from kicks, crushing incidents, as well as bites or scratches.

In the event of an injury:

1. Stabilize the victim and provide first aid in a safe area free of contaminants if safe to do so.
2. In the event of possible spinal cord trauma, do not move the victim if it is safe to leave the victim and wait for trained emergency personnel.
3. Minor injuries, e.g., small lacerations, cuts, and strains should be initially treated by a first-aid qualified field team member.
4. All major injuries should receive ambulance or hospital support.
5. All injuries, no matter how minor, should be reported to the employee's supervisor.
6. If personnel are transported for medical care, the Supervisor must notify the Section Chief and the Safety Officer. The Safety Officer will notify the IC.
7. If decontamination is required and it will not interfere with essential treatment, perform the following
  - Escort victim to the decontamination area.
  - Wash, rinse and remove protective material
  - Wash exposed body parts with potable water. Flush for 10 minutes or use disinfectant solution (suitable for contact with human skin).
  - Cover the victim with a blanket or, if the injury is not serious, dress the victim in clean clothing.
  - If necessary, transport the victim to the hospital or request ambulance support.
8. If decontamination cannot be performed:
  - Wrap the victim in blankets, plastic, or rubber to reduce contamination of other personnel;
  - Alert emergency and medical personnel of possible contamination and instruct them in decontamination procedures, if necessary;
  - Send along personnel familiar with the incident; and
  - Perform first aid if it will not endanger the safety of the responder.

## 7. DEMOBILIZATION

Demobilization is an essential element of the ICS process. It is essential to have a plan to safely and efficiently return personnel to their Official Duty Stations or reassign them to another incident. Demobilization must be completed in an orderly manner to ensure that the Incident Commander is aware of the resources available at any given time. Safety is a primary concern for personnel demobilizing and returning home.

During demobilization personnel will leave an incident when authorized. Check-out procedures are provided in the Demobilization Plan. A demobilization briefing will be held prior to release of personnel from the incident. The briefing will include information on methods of travel, destinations, estimated times of arrival, and transportation arrangements. Form ICS 221 is used to document this information (example in Appendix B).

The image shows a digital representation of the ICS Form 221 Demobilization Checkout form. The form is titled "DEMobilization CHECKOUT" and is divided into several sections for data entry. The sections include: "Incident Information" (with fields for Incident Name, Location, and Date/Time), "Personnel Information" (with fields for Name, Title, and Agency), "Demobilization Information" (with fields for Method of Transport, Destination, and Estimated Time of Arrival), and "Remarks" (a large text area for additional notes). The form is presented on a dark blue background.

The Demobilization Plan may include Critical Incident Stress Debriefings (CISD) for personnel before leaving the ICS. CISD is a structured process used with emergency responders who have been exposed to traumatic incidents to lower the level of stress, assist in the recovery process, help ensure a return to normalcy, and acts as a foundation for referral resources.

The Safety Officer or the ICS Commander can contact the EAP Manager to set up CISD at the ICP.

Personnel flying on commercial airlines are required to shower, dress in clean clothes, have picture ID, and be at the airport two hours prior to the scheduled departure time.

Responders must meet all travel/rest requirements before departing the incident site. This helps ensure safe travel home.

Upon arrival at home, responders must notify the Team Leader and NAHERC of their safe arrival home.

## **8. RECOGNIZING AND REPORTING SAFETY ISSUES**

### **8.1 Reporting Safety Concerns**

Personnel who have safety concerns which make them uncomfortable about a particular duty or situation should relay the circumstances and their concerns to an appropriate person in the chain of command (e.g., Safety Officer, Group Supervisor or Team Leader).

### **8.2 PPE**

The proper use of Personal Protective Equipment (PPE) is essential to worker health and safety and to prevent the spread of harmful agents beyond the control area. The use of PPE is critical when dealing with exposure to a zoonotic disease. For more information in the selection, types, and proper use of PPE, see *FAD PReP/NAHEMS Guidelines: Personal Protective Equipment (PPE) (2011)*, and *FAD PReP/NAHEMS Guidelines: Biosecurity (2011)*.

Certain types of PPE should only be worn for a specified length of time. Know the time limits for assigned PPE. Responders, especially those who are assigned to work extended hours, need to be aware of the limitations of protective equipment and the maximum allowable wearing time.



Responders working in hazardous environments must be aware of the safe levels of exposure to hazardous environments. Contact your Team Leader or Safety Officer with questions regarding exposures to hazardous materials.

Fatigue and heat-related illnesses are common problems associated with the use of PPE on work sites. Responders must monitor themselves and their team members for signs of fatigue and heat-related illnesses. General information regarding the signs of heat-related illnesses is found earlier in this Guidance document. For additional information on PPE, see *FAD PReP/NAHEMS Guidelines: Personal Protective Equipment (PPE) (2011)*, and the *FAD PReP/NAHEMS PPE* web module.

### **8.3 Driving and Vehicle Use**

Responders using vehicles are responsible for their safe operation and condition. Persons violating the vehicle use protocols may be subject to discipline.

Vehicles will be issued only to personnel with valid driver's licenses. Have your driver's license in your possession when operating a vehicle. Make sure the vehicle registration information is in the vehicle.

Vehicles are to be used only for government business and basic personal needs (e.g., transportation to and from hotels, meals, grocery store, etc.). Vehicles may not be used for other personal purposes.

Response personnel operating vehicles including personal vehicles, government-owned vehicles, or rented vehicles must adhere to the following guidelines:

1. Take the 8-hour National Safety Council Defensive Driving Training for new employees with a 4-hour refresher course documented every 3 years.
2. Drivers will ensure that all personnel wear seatbelts at all times.
3. Be well rested before driving.
4. Obey all traffic laws, including speed limits. Speeding or other unsafe use of vehicles will not be tolerated.
5. Avoid taking depressant medications that induce drowsiness.
6. Set realistic goals for the number of miles driven in a day.
7. Do not operate a vehicle if impaired by alcohol or another drug.
8. Do not consume alcohol or carry alcohol in vehicles.
9. Do not smoke in vehicles.
10. Devote full attention to driving and avoid distractions such as talking on the phone, eating or drinking, or adjusting the radio or other controls.
11. Drivers will not use cell phones while the vehicle is in motion.
12. When driving, continually scan the road and be alert for situations which may require quick action.
13. Stop approximately every two hours for a break. Get out of the vehicle, stretch, and walk around.
14. Avoid aggressive driving by doing the following:
  - Don't take other drivers' actions personally
  - Plan routes in advance and allow plenty of travel time, avoiding crowded roadways and busy driving times if possible
  - Be patient and courteous to other drivers



## 8.4 Motor Vehicle Accidents

The interior and exterior of all vehicles will be inspected for damage before and after each use. Personnel may be held personally responsible for damage to vehicles. Information on what constitutes a vehicle inspection is contained in Chapter 4 of the APHIS Motor Vehicle Manual.

Procedures for vehicle accidents involving damage and/or personal injuries:

1. Follow the protocol for seeking treatment of personal injuries.
2. Contact the State Highway Patrol for any accident occurring on any road.
3. If a parked vehicle is hit, response personnel should contact the owner of the vehicle and exchange information. If possible, take pictures of the vehicles. The Highway Patrol does not need to be notified in the event of an accident involving a parked vehicle.
4. All motor vehicles assigned to the Agency should contain accident reporting kits (AD-651), found in the glove box. (MN-Property will send packets to ICS; ICS must distribute).
5. Use Standard Form 91 (SF 91) "Motor Vehicle Accident Report," available from the Finance Unit or Ground Support to make an accident report.



6. State Personnel should use Form STD 270, "Vehicle Accident Report," available from the Finance Unit or Ground Support to make an accident report.
7. Vehicle accidents due to recklessness or negligence will not be tolerated. Response personnel may be held personally responsible for damage to vehicles.
8. All damage to vehicles and/or accidents (no matter how minor) must be immediately reported to Ground Support and to supervisors and the Safety Officer.
9. Use AD 112, "Report of Unserviceable, Lost, Stolen, Damaged, or Destroyed Property" to report damage to a vehicle which is not the result of an accident (e.g., falling objects, fire, hailstones, floods, vandalism, or civil disturbances). The form is available from the Finance Unit.

## **8.5 Interacting with Non-Cooperative Owners**

During some incidents it will be necessary for personnel to gain access to private premises to undertake job duties. Owners may react to teams requesting entry onto their property in many different ways, depending on the nature of the incident (e.g., natural disaster, highly contagious foreign animal disease outbreak) and the work to be performed (e.g., examination and testing of animals, depopulation).

In interacting with owners, use the following guidelines:

1. All field personnel must travel in teams. No one should be in the field alone.
2. All field teams must have a cell phone and phone number list.
3. If a field team has a safety concern, they should leave the area, and, depending on the urgency of the situation, call their supervisor or Team Leader or the police.
4. Field teams must document all quarantine non-compliance and safety concerns.

## **8.6 Procedures for Encountering Belligerent/Threatening Persons**

- Personal safety is the first priority.
- Avoid confrontation. A situation can escalate without warning.
- Depending on the threat, teams should either leave the situation and/or call their supervisor or law enforcement.
- If requested, law enforcement can periodically check the area, or off-duty officers may be hired to help maintain the peace. Field teams should contact their supervisor if they feel law enforcement back up is necessary.

## **8.7 What to Do if Threatened**

Situations may arise during a deployment where the actions, behavior, or language of an owner/occupant of a premises or another member of the public may cause concern for one's personal safety. If threatened, leave the premises immediately and contact a supervisor. Document these incidents and provide detailed information to the Safety Officer.

In the event that members of the public may attempt to intimidate or incite a reaction from response personnel, take the following action:

1. Remain calm.
2. Ask the person to step away.

Inform the person making the threat that by interfering with a government employee doing his/her job, they are in violation of Title 18 Section 111 ([http://www4.law.cornell.edu/uscode/html/uscode18/usc\\_sec\\_18\\_00000111-\\_\\_\\_000-.html](http://www4.law.cornell.edu/uscode/html/uscode18/usc_sec_18_00000111-___000-.html)) of the U.S. Code and may be subject to fines or up to one year in prison, or both.

## 9. JOB-RELATED INJURIES

### 9.1 Incident Reporting

An Incident is an accident, illness, or suspected or actual case of exposure.

In the event an incident occurs, field team personnel should immediately notify their supervisor or next higher official of all incidents while on official duty and/or on government property. Field team personnel will complete appropriate forms and comply with the instructions when submitting forms and/or medical information. Report incidents via telephone to Safety, Health and Environmental Protection Branch (SHEPB) personnel at APHIS as soon as possible, but no later than two hours after the occurrence. Written incident reports must be made within five days of occurrence. Recommended hazard control measures will be discussed with the IC, who must approve of the control measure before it is implemented.

Incident reports must include:

- Date, time, and place of occurrence
- Person(s) involved
- Type of incident
- Description of the incident and action taken
- Recommendation(s) for prevention of a similar occurrence

Sign and date the completed report. The Safety Officer will sign and date the report upon receipt. All incident reports and follow-up action on the incidents will be kept on file by the SHEPB department.

### 9.2 Accident and Injury Reports

1. For any serious accident or emergency, call 911.
2. Immediately report all accidents or injuries to your supervisor and the Safety Officer.
3. Seek medical assistance, if necessary.
4. In case of a serious injury, response personnel should be accompanied to the hospital by another response team member.
5. Following an accident or injury, supervisors will immediately initiate an investigation and develop recommendations for remediation. Supervisors should consult with the IC as appropriate.
6. Federal response personnel can obtain Workers' Compensation Forms from the Finance Unit. Temporary employees should see their employment agency representative for State Workers' Compensation Forms.

### 9.3 Workers' Compensation

Workers' Compensation is available for government employees injured while working. NAHERC members activated for an emergency response are considered federal employees and are eligible for federal workers' compensation coverage. It is important to report all injuries as soon as possible and complete all paperwork in a timely manner. There are time limits in place for reporting claims. Consult with a workers' compensation specialist to make sure you are aware of any filing deadlines.

#### Employee:

- Report injury/illness to supervisor
- Review Form CA-10 (What to do When Injured )
- Complete Form CA-1(Notice of Traumatic Injury and Claim for Continuation of Pay/Compensation) or Form CA-2 (Notice of Occupational Disease and Claim for Compensation) as appropriate

A photograph of a workers' compensation form, likely Form CA-1 or CA-2, showing various fields for reporting an injury or occupational disease. The form is white with yellow highlights and is set against a blue background.

- If medical treatment is required complete Form CA-16 (Authorization for Examination and/or Treatment)
- Return all completed documents (Forms CA-1/CA-2 and medical documentation) to supervisor

**Supervisor:**

- Ensure employee obtains treatment, if necessary
- Ensure all required documents are completed, including employee and supervisor signatures, and transferred to the Safety Officer as soon as possible.

**Safety Officer:**

- Maintain required forms
- Review documents for completeness
- Update all required OSHA forms and reports
- Transfer all Office of Workers' Compensation Programs (OWCP) forms and medical documentation to the Finance Officer, as soon as possible

**Finance Officer:**

- Scan all OWCP (CA-1, CA-16) documents and medical documentation and e-mail to [denise.y.patterson@aphis.usda.gov](mailto:denise.y.patterson@aphis.usda.gov) as soon as possible
- Fed-Ex all OWCP documents and medical documentation to:  
USDA APHIS WC Program  
4700 River Road,  
Unit 124, 2A-02.46  
Riverdale, MD 20737

**Workers' Compensation Program Manager:**

- Will send
  - All OWCP forms indicating treatment or lost time to the appropriate OWCP District Office. Copies of forms will be sent to the employee's official duty station office/regional office.
  - First Aid forms to the employee's official duty station.
- Will maintain a database of all injuries/accidents from the ICS based on the submitted CA-1/CA-2's and will provide bi-weekly statistical reports to the Safety Officer.

## 10. REFERENCES

- Animal and Plant Health Inspection Service, U.S. Department of Agriculture. NAHERC Flyer.
- Animal and Plant Health Inspection Service, U.S. Department of Agriculture. NAHERC Brochure for Veterinary Professionals.
- Animal and Plant Health Inspection Service, U.S. Department of Agriculture. USDA VS Memorandum 555.13: Veterinary Services Policy for Out-of-State and International Emergency Details, September 7, 2004.
- Animal and Plant Health Inspection Service, U.S. Department of Agriculture. Veterinary Services Memorandum No. 580.18 Policy to Ensure the Protection of Personnel Involved in Highly Pathogenic Avian Influenza Control and Eradication Activities, June 13, 2005.
- Animal and Plant Health Inspection Service, U.S. Department of Agriculture. APHIS Emergency Responders: Requirements for Being an Emergency Responder, October 2008.
- Animal and Plant Health Inspection Service, U.S. Department of Agriculture. Directive APHIS 6800.1: Ensuring the Protection of Employees Involved in Highly Pathogenic Avian Influenza Control and Eradication Activities. May 10, 2006.
- Animal and Plant Health Inspection Service, U.S. Department of Agriculture. USDA: Interim Guidance for Implementation of APHIS Directive 6800.1 Ensuring the Protection of Employees Involved in Highly Pathogenic Avian Influenza Control and Eradication Activities, July 7, 2006.
- Animal and Plant Health Inspection Service, U.S. Department of Agriculture. USDA VS Memorandum 580.18 Policy to Ensure the Protection of Personnel Involved in Highly Pathogenic Avian Influenza Control and Eradication Activities, June 13, 2005.
- Animal and Plant Health Inspection Service, U.S. Department of Agriculture. Emergency Deployment Generic Health and Safety Plan. [http://www.aphis.usda.gov/emergency\\_response/hasp/employee\\_health.shtml](http://www.aphis.usda.gov/emergency_response/hasp/employee_health.shtml)
- Animal and Plant Health Inspection Service, U.S. Department of Agriculture. Emergency Preparedness and Response, Health and Safety Plan, September 25, 2008. [http://www.aphis.usda.gov/emergency\\_response/hasp/health\\_safety\\_intro.shtml](http://www.aphis.usda.gov/emergency_response/hasp/health_safety_intro.shtml)
- Animal and Plant Health Inspection Service, U.S. Department of Agriculture. FAD PReP Standard Operating Procedures Manual [New Generic SOP], October 2008.
- Animal and Plant Health Inspection Service, U.S. Department of Agriculture. HPAI PReP Appendix A7: Health and Safety, October 2008.
- Animal and Plant Health Inspection Service, U.S. Department of Agriculture. FMD PReP Appendix B7: Health and Safety, October 2008.
- Animal and Plant Health Inspection Service, U.S. Department of Agriculture. National Animal Health Emergency Response Corps. Emergency Response Plan Standard Operating Procedure.
- Center for Food Security and Public Health, Iowa State University. Introduction to the National Animal Health Emergency Response Corps web-based module, July 2009.

Disaster Health Services, Substance Abuse and Mental Health Services Administration (SAMHSA) U.S. Department of Health and Human Services. <http://www.samhsa.gov/trauma/index.aspx#rhp>  
ICS 100 Training Course. <http://training.fema.gov/EMIweb/IS/IS100A.asp>

ICS 200 Training Course. <http://training.fema.gov/emiweb/is/is200a.asp>

Mayo Clinic. Hypothermia. <http://www.mayoclinic.com/health/hypothermia/ds00333>

National Institute for Occupational Safety and Health, U.S. Department of Health and Human Services. Traumatic Incident Stress: Information for Emergency Response Workers. <http://www.cdc.gov/niosh/topics/traumaticincident/>

Nusbaum, K.E; Wenzel, J. G.W.; Everly, G.S.: Commentary: Psychologic First Aid and veterinarians in Rural Communities Undergoing Livestock Depopulation, *JAVMA* 231:5 Sept. 1, 2007 692-694.

Occupational Health and Safety Administration, U.S. Department of Health and Human Services. Safety and Health Checklist for Voluntary and Community-Based Organizations Engaged in Disaster Recovery Demolition and Construction Activities. [http://www.osha.gov/dts/oohn/disasterrecovery\\_shchecklist.html](http://www.osha.gov/dts/oohn/disasterrecovery_shchecklist.html)

Occupational Health and Safety Administration, U.S. Department of Health and Human Services. OSHA: Worker Protection: OSHA's Role During Response to Catastrophic Incidents. [http://www.osha.gov/SLTC/emergencypreparedness/guides/osha\\_role.html](http://www.osha.gov/SLTC/emergencypreparedness/guides/osha_role.html)

Occupational Health and Safety Administration, U.S. Department of Health and Human Services. OSHA: General Considerations for Working in All Impacted Areas. <http://www.osha.gov/SLTC/etools/hurricane/recommendations.html>

Occupational Health and Safety Administration, U.S. Department of Health and Human Services. OSHA: Public Safety (Law Enforcement and Emergency Medical Services)

Occupational Health and Safety Administration, U.S. Department of Health and Human Services. OSHA.gov – Keeping Workers Safe During Clean Up and Recovery Operations Following Hurricanes. <http://www.osha.gov/OshDoc/hurricaneRecovery.html>

Occupational Health and Safety Administration, U.S. Department of Health and Human Services. OSHA: Emergency Preparedness and Response: Safety and Health Guides. <http://www.osha.gov/SLTC/emergencypreparedness/guides/index.html>

Occupational Health and Safety Administration, U.S. Department of Health and Human Services. OSHA Quick Card – Heat Stress. <http://www.osha.gov/Publications/osha3154.pdf>

Occupational Health and Safety Administration, U.S. Department of Health and Human Services. OSHA: Emergency Preparedness and Response: Safety and Health Guides: Heat Stress. <http://www.osha.gov/SLTC/emergencypreparedness/guides/heat.html>

Occupational Health and Safety Administration, U.S. Department of Health and Human Services. OSHA Quick Card – Sun. <http://www.osha.gov/Publications/osha3166.pdf>

Occupational Health and Safety Administration, U.S. Department of Health and Human Services. OSHA Cold Stress. <http://www.osha.gov/SLTC/emergencypreparedness/guides/cold.html>

- Occupational Health and Safety Administration, U.S. Department of Health and Human Services. OSHA: Emergency Preparedness and Response: Safety and Health Guides: Winter Storms. <http://www.osha.gov/SLTC/emergencypreparedness/guides/winterstorms.html>
- Occupational Health and Safety Administration, U.S. Department of Health and Human Services. OSHA: Frequently Asked Questions: Extended Unusual Work Shifts. <http://www.osha.gov/SLTC/emergencypreparedness/guides/extended.html>
- Occupational Health and Safety Administration, U.S. Department of Health and Human Services. OSHA: Resilience Resources for Emergency Response. [http://www.osha.gov/SLTC/emergencypreparedness/resilience\\_resources/index.html](http://www.osha.gov/SLTC/emergencypreparedness/resilience_resources/index.html)
- Occupational Health and Safety Administration, U.S. Department of Health and Human Services. Pre-Deployment Emergency and Disaster Response Workers and Their Families. [http://www.osha.gov/SLTC/emergencypreparedness/resilience\\_resources/predeployment.html](http://www.osha.gov/SLTC/emergencypreparedness/resilience_resources/predeployment.html)
- Occupational Health and Safety Administration, U.S. Department of Health and Human Services. Deployment Resources for Supervisors. [http://www.osha.gov/SLTC/emergencypreparedness/resilience\\_resources/supervisors.html](http://www.osha.gov/SLTC/emergencypreparedness/resilience_resources/supervisors.html)
- Occupational Health and Safety Administration, U.S. Department of Health and Human Services. Supervisors Intra-Deployments. [http://www.osha.gov/SLTC/emergencypreparedness/resilience\\_resources/intradeployment\\_supervisors.html](http://www.osha.gov/SLTC/emergencypreparedness/resilience_resources/intradeployment_supervisors.html)
- Occupational Health and Safety Administration, U.S. Department of Health and Human Services. Post-Deployment Resources for Emergency and Disaster Response Workers and Their Families. [http://www.osha.gov/SLTC/emergencypreparedness/resilience\\_resources/postdeployment.html](http://www.osha.gov/SLTC/emergencypreparedness/resilience_resources/postdeployment.html)
- Occupational Health and Safety Administration, U.S. Department of Health and Human Services. OSHA: Disaster Site Worker Outreach Training Program Guidelines (course). [http://www.osha.gov/fso/ote/training/disaster/disaster\\_training.html](http://www.osha.gov/fso/ote/training/disaster/disaster_training.html)
- Office of Workers' Compensation Programs, U.S. Department of Labor. <http://www.dol.gov/esa/owcp/dfec/regs/compliance/DFECfolio/agencyhb.pdf>

## **11. FOR MORE INFORMATION**

### **Bite Terminator ®**

International Dog Bite Protection Company

<http://www.biteterminator.com/>

### **Code of Federal Regulations – Title 29 – 2010**

[http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&tpl=/ecfrbrowse/Title29/29tab\\_02.tpl](http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&tpl=/ecfrbrowse/Title29/29tab_02.tpl)

Subchapter H – Hazardous Materials

29 CFR 1910.120 – Hazardous waste operations and emergency response

[http://edocket.access.gpo.gov/cfr\\_2010/julqtr/pdf/29cfr1910.120.pdf](http://edocket.access.gpo.gov/cfr_2010/julqtr/pdf/29cfr1910.120.pdf)

Subchapter I – Personal Protective Equipment

29 CFR 1910.132 – General Requirements

[http://edocket.access.gpo.gov/cfr\\_2010/julqtr/pdf/29cfr1910.132.pdf](http://edocket.access.gpo.gov/cfr_2010/julqtr/pdf/29cfr1910.132.pdf)

29 CFR 1910.134 – Respiratory protection

[http://edocket.access.gpo.gov/cfr\\_2010/julqtr/pdf/29cfr1910.134.pdf](http://edocket.access.gpo.gov/cfr_2010/julqtr/pdf/29cfr1910.134.pdf)

### **Federal Occupational Health**

Employee Assistance Program

[www.foh4you.com](http://www.foh4you.com)

### **Substance Abuse and Mental Health Services Administration (SAMHSA)**

Coping with Traumatic Events – For Responders and Health Professionals

<http://www.samhsa.gov/trauma/index.aspx#rhp>

### **U.S. Code**

Title 18, Section 111 – Assaulting, resisting, or impeding certain officers or employees

[http://www.law.cornell.edu/uscode/html/uscode18/usc\\_sec\\_18\\_00000111----000-.html](http://www.law.cornell.edu/uscode/html/uscode18/usc_sec_18_00000111----000-.html)

### **U.S. Department of Agriculture – Animal and Plant Health Inspection Service**

Basic Health and Safety Training

[http://www.aphis.usda.gov/emergency\\_response/hasp/health\\_safety\\_hs\\_training.shtml](http://www.aphis.usda.gov/emergency_response/hasp/health_safety_hs_training.shtml)

## 12. ACKNOWLEDGMENTS

The Guidelines: Health and Safety for the Foreign Animal Disease Preparedness and Response Plan/National Animal Health Emergency Management System reflects the efforts of a number of people including USDA-APHIS staff members, the Center for Food Security and Public Health at Iowa State University and a wide range of reviewers and subject matter experts. Authors and contributors from the Center for Food Security and Public Health, College of Veterinary Medicine at Iowa State University include:

- Cheryl L. Eia, JD, DVM, MPH  
Veterinary Specialist

Assistance from:

- Danelle Bickett-Weddle, DVM, MPH, PhD, DACVPM  
Associate Director, Center for Food Security and Public Health
- Janice P. Mogan, DVM  
Veterinary Specialist, Center for Food Security and Public Health
- Shaine DeVoe, BS  
Educational Material Development Intern, Center for Food Security and Public Health

Illustrations designed by:

- Dani Ausen, BFA
- Andrew Kingsbury, BFA
- Katlyn Harvey, Graphic Design Intern
- Oriana Hashemi-Toroghi, Graphic Design Intern

This document was reviewed within USDA-APHIS by:

- Lori P. Miller, PE  
Senior Staff Officer, Environmental Engineer  
Emergency Management and Diagnostics
- Peter A. Petch, RPIH, CIPS, CIMT, CHS-V  
Industrial Hygiene Program Manager  
MRPBS-EMSSD-SHEPB
- Thomas R. Walker, MD  
Branch Chief/Medical Officer Emergency Management,  
Safety and Security Division Marketing and Regulatory Programs - Business Services

Assistance with content development from:

- Clement Dussault, VMD  
Senior Staff Veterinarian  
USDA-APHIS-VS National Veterinary Accreditation Program
- Garry G. Goemann, DVM  
Team Commander/Regional Coordinator  
American Veterinary Medical Association  
Veterinary Medical Assistance Team  
Chair, Minnesota Veterinary Medical Association Disaster Committee  
MN Veterinary Reserve Corps

- Denise Y. Patterson, PhD  
Safety and Occupational Health Manager  
USDA-APHIS
- Chip Ridke, DVM  
Veterinary Medical Officer – Maine, New England APHIS-VS  
APHIS-VS-NIMS Team 1 Safety Officer  
Chair, APHIS VS Eastern Region Safety Council  
Chair and Safety Officer, New England APHIS-VS

### 13. PHOTO AND ILLUSTRATION CREDITS

- Page 1** Responders at animal health emergencies may have to vaccinate animals. Photo source: Phil Prater, Morehead State University, Morehead, Kentucky
- Page 2** ICS Command Structure. Graphic illustration by: Oriana Hashemi-Toroghi, Iowa State University
- Page 3** It is very important for responders to be in very good physical and mental health. This includes being current on vaccinations. Photo source: CDC Image Library
- Page 4** List of items responders should be sure to include when packing. Graphic illustration by: Oriana Hashemi-Toroghi, Iowa State University
- Page 7** Responders need to be prepared to work extended or unusual shifts. Photo source: Roger Holley, USDA
- Page 8** Effects of long shifts on responders' health. Graphic illustration by: Oriana Hashemi-Toroghi, Iowa State University
- Page 9** Demonstrating safe lifting techniques. Graphic illustration by: Oriana Hashemi-Toroghi, Iowa State University
- Page 10** **(Top)** Needlesticks are one of the most common occupational injuries in veterinary practice. It is important to dispose of needles correctly after use. Photo source: Dani Ausen, Iowa State University  
**(Bottom)** Aggressive dogs can be a problem during emergency response. Photo source: Megan Keplinger, Iowa State University
- Page 11** Responders need to be aware of noise levels and which activities should be done with ear protection. Content provided by: National Institute for Occupational Safety and Health, Centers for Disease Control and Prevention. Graphic illustration by: Oriana Hashemi-Toroghi, Iowa State University
- Page 12** Heat-related illnesses. Graphic illustration by: Oriana Hashemi-Toroghi, Iowa State University
- Page 13** **(Top)** Hypothermia is a risk when working in cold locations. Graphic illustration by: Oriana Hashemi-Toroghi, Iowa State University  
**(Bottom)** Frostbite is another major concern when working in cold locations. Graphic illustration by: Oriana Hashemi-Toroghi, Iowa State University
- Page 14** The effects of stress on a person. Graphic illustration by: Oriana Hashemi-Toroghi, Iowa State University
- Page 15** Symptoms of stress. Graphic illustration by: Dani Ausen, Iowa State University
- Page 16** Psychological disorders. Graphic illustration by: Dani Ausen, Iowa State University
- Page 17** **(Top)** Talking to another person is a way to reduce stress. Graphic illustration by: Oriana Hashemi-Toroghi, Iowa State University  
**(Bottom)** The USDA Employee Assistance Program is available for responders under severe stress. Graphic illustration by: Oriana Hashemi-Toroghi, Iowa State University
- Page 18** Signage can help maintain the security of the incident site. Graphic illustration by: Oriana Hashemi-Toroghi, Iowa State University
- Page 20** **(Top)** Work zones shown over a farm with the various zones and decontamination corridor labeled. Graphic illustration by: Dani Ausen and Andrew Kingsbury, Iowa State University  
**(Bottom)** The buddy system must be used while working in the Exclusion Zone. Photo source: Gordon Harman, FEMA Center for Domestic Preparedness
- Page 22** All personnel should receive an initial briefing before beginning work. Photo source: USDA

- Page 23** Symbols like this one will appear over evacuation shelters. Graphic illustration by: Oriana Hashemi-Toroghi, Iowa State University
- Page 24** **(Top)** Toxic spills may require the use of personal protective clothing. Photo source: FEMA Center for Domestic Preparedness  
**(Bottom)** Tornados or other severe weather may make it difficult for emergency response teams to continue working. Photo source: Image Library NOAA
- Page 25** ICS Form 221 should be used to document demobilization. Graphic illustration by: Katlyn Harvey, Iowa State University
- Page 26** Personal protective equipment is very important when working with animals that may have a zoonotic disease. Photo source: FEMA Center for Domestic Preparedness
- Page 27** **(Top)** Drivers should avoid distractions such as cell phone use. Graphic illustration by: Katlyn Harvey, Iowa State University  
**(Bottom)** Certain procedures should be followed in the event of a motor vehicle accident. Graphic illustration by: Katlyn Harvey, Iowa State University
- Page 29** Form CA-2 is an example of a form that should be completed in order to receive workers' compensation. Graphic illustration by: Katlyn Harvey, Iowa State University

## Glossary

### **Cold Zone - Support Zone (SZ)**

This is the “cleanest” work zone with the lowest relative risk of exposure to pathogens and other hazards such as decontamination chemicals. In this zone personnel are not required to wear PPE; however, facilities for donning PPE before entering other zones are provided. Administrative, clerical and other support functions are based here. Medical support is provided to personnel in this zone. Facilities for personal needs such as eating, drinking and bathroom use are provided. Air and surface monitoring is conducted as needed to ensure that the area is free from contamination. Contaminated articles and equipment are prohibited in this area; decontamination activities are also prohibited.

### **Critical Incident Stress Debriefing**

A structured debriefing process used with emergency responders exposed to traumatic incidents to lower the level of stress, assist in the recovery process, help ensure a return to normalcy and act as a foundation for referral resources.

### **Decontamination (Decon) Corridor**

The area between the Hot Zone - Exclusion Zone (EZ) Control Line and the Warm Zone – Contamination Reduction Zone (CRZ) Control Line. Decontamination of personnel and equipment occurs along the corridor with stations for depositing tools, equipment, protective clothing and other items. The level of contamination should decrease along the path from the Hot Zone - Exclusion Zone (EZ) to the Cold Zone - Support Zone (SZ). Teams enter and exit the Hot Zone - Exclusion Zone (EZ) through the access control points at each end of the corridor.

### **Hot Zone - Exclusion Zone (EZ)**

This high risk area is where infected animals were housed and is potentially contaminated and considered unsafe. Examples include an area of a farm, local market or roadside stand. PPE must be worn. Appraisal, depopulation, disposal, and facility cleaning and decontamination of the site and equipment occur in this area. Personnel and equipment enter and exit the Hot Zone - Exclusion Zone (EZ) through designated access points in the Warm Zone – Contamination Reduction Zone (CRZ).

### **Job Hazard Analysis (JHA)**

An examination by the Safety Officer of the tasks associated with a specific job and an analysis of the hazards involved with each task. The JHA incorporates recommended actions for modification or mitigation, elimination or limiting the hazards.

### **Medical Monitoring**

A program which collects information from APHIS employees regarding exposure and hazards such as noise, which could be harmful to employee health and welfare. Monitoring is used to determine the risk of exposure to hazardous materials or other inordinate hazards.

### **Personal Protective Equipment (PPE)**

Equipment used as a barrier between an individual and a hazard that could result in an injury or occupational illness.

### **Warm Zone - Contamination Reduction Zone (CRZ)**

This is a high risk area due to the potential of exposure to pathogens and chemical disinfectants. All personnel are required to wear full PPE. Entry from the Warm Zone – Contamination Reduction Zone (CRZ) to either the Cold Zone - Support Zone (SZ) or Hot Zone - Exclusion Zone (EZ) occurs through designated access points. For workers exiting the Hot Zone - Exclusion Zone (EZ), final decontamination and disinfection of PPE and equipment, as well as final doffing of PPE occur in the Warm Zone – Contamination Reduction Zone (CRZ). Site-specific protocols for PPE, decontamination and disinfection must be strictly followed.

## Acronyms

**ASD**

Acute Stress Disorder

**APHIS**

Animal and Plant Health Inspection Service

**CISD**

Critical Incident Stress Debriefing

**DEET**

*N,N*-diethyl-3-methylbenzamide

**EAP**

Employee Assistance Program

**EMRS**

Emergency Management Response System

**HASP**

Health and Safety Plan

**HAZWOPER**

Hazardous Waste Operations and Emergency Response

**HCD**

Highly Contagious Disease

**ICS**

Incident Command System

**JHA**

Job Hazard Analysis

**NAHEMS**

National Animal Health Emergency Management System

**NAHERC**

National Animal Health Emergency Response Corps

**OSHA**

Occupational Safety and Health Administration

**OWCP**

Office of Workers' Compensation Programs

**PPE**

Personal Protective Equipment

**PTSD**

Post-Traumatic Stress Disorder

**SAMHSA**

Substance Abuse and Mental Health Services Administration

**SHEPB**

Safety, Health, and Environmental Protection Branch

**SOP**

Standard Operating Procedures

**VS**

Veterinary Services

## APPENDIX A: PRE-DEPLOYMENT CHECKLIST/WHAT TO PACK

### Pre-Deployment Checklist/What to Pack

- Emergency Contact numbers:
- Airline tickets (or e-ticket information) and other documents needed for travel. Make sure you know where to report and/or who will meet you at your destination
- Driver's license
- U.S. passport for international responses
  - VISA(s) and country clearance if needed
- Photo ID badge
- Medical ID tags or bracelets, as needed (for example, allergies)
- Any paperwork you have been told to bring for deployment (e.g., copies of professional license, medical competency folders or other credentials)
- Reference materials: ICS Glossary of Terms, handouts from Just-in-Time Training, and other materials as desired
- Personal protective equipment: APHIS will provide necessary PPE for NAHERC members.
- Sufficient cash and credit/debit card(s). NAHERC responders are expected to pay for expenses including lodging and meals with cash or a credit card, and will be reimbursed every two weeks by submitting a travel voucher.
  - Be aware that cash machines may not be available or working at the site of an emergency.
  - Take only the cash you think you will need. Use caution when carrying large sums of cash on your person.
  - Rechargeable debit cards for travel are available at some travel agencies (e.g., AAA), banks and other locations.
- Medical needs:
  - All personal medications needed for the period of deployment (for instance, a 30-day supply). Pharmacies may not be available in the emergency area.
  - OTC pain relief/fever medication such as ibuprofen (Advil®), acetaminophen (Tylenol®) or aspirin
  - Diarrhea medications:
    - Ciprofloxacin or Rifaximin
    - Pepto Bismol® or bismuth-containing compounds
    - Antimotility agents (such as Imodium®)
    - Oral rehydration preparations
- Appropriate seasonal clothing:
  - 2-3 work uniforms
  - Baseball cap or other appropriate hat
  - Appropriate clothing for off-duty wear
  - Extra underclothing & socks
  - Jacket appropriate for season and climate
  - Lightweight rain gear such as a poncho
  - Tennis shoes/walking shoes
  - Sunglasses, sunscreen, lip balm/Chapstick®
  - Flashlight, extra batteries
  - Small portable radio and batteries
  - Leatherman® or small pocket/utility knife

## Pre-Deployment Checklist/What to Pack

### Toiletries:

- Mosquito repellent
- Tissues
- Toilet paper
- Unscented toilettes
- Toothbrush and toothpaste
- Soap, towel, washcloth
- Shampoo
- Antiperspirant/deodorant
- Gold Bond® powder
- Razor and shaving cream
- Hand lotion
- Contact lens cleaner (bring glasses with you)
- Personal hygiene items for women
- Travel size bottle/ box of laundry soap
- Zip-lock bags
- 2-3 trash bags or laundry bags
- Consider a 20-foot length of thin nylon rope and clothespins
- 2-3 bottles of water
- Pre-packaged snack bars

### Other items to consider:

- Cell phone
- Alarm clock
- Flip-flops for shower
- Travel pillow
- Electronic equipment
- Computer/ printer
- Sleeping bag
- Sleep aids (ear plugs, eye shields, etc.)

Note: If you are flying within or from the U.S., the Transportation Safety Administration (TSA) limits each traveler to the number of 3.4 oz or smaller containers of liquids or gels that can fit into ONE quart-sized, plastic, zip-top bag. Bottles of liquids or gels greater than 3.4 oz cannot be carried on and must be placed in checked luggage. Larger volumes of medications are allowed, but must be declared. If you are returning to the U.S. from an international incident, be sure to check the regulations in the country you are flying from.

**DO NOT CARRY ALCOHOL OR WEAPONS**

## APPENDIX B: FORM ICS 221

<b>DEMOBILIZATION CHECKOUT</b>		ICS-221
1. INCIDENT NAME/NUMBER	2. DATE/TIME	3. DEMOB NO.
4. UNIT/PERSONNEL RELEASED		
5. TRANSPORTATION TYPE/NO.		
6. ACTUAL RELEASE DATE/TIME	7. MANIFEST YES NO NUMBER _____	
8. DESTINATION _____	9. AREA/AGENCY/REGION NOTIFIED NAME _____ DATE _____	
10. UNIT LEADER RESPONSIBLE FOR COLLECTING PERFORMANCE RATING		
11. UNIT/PERSONNEL      YOU AND YOUR RESOURCES HAVE BEEN RELEASED SUBJECT TO SIGNOFF FROM THE FOLLOWING: (DEMOB. UNIT LEADER CHECK <input checked="" type="checkbox"/> APPROPRIATE BOX)		
<u>LOGISTICS SECTION</u>		
<input type="checkbox"/> SUPPLY UNIT _____		
<input type="checkbox"/> COMMUNICATIONS UNIT _____		
<input type="checkbox"/> FACILITIES UNIT _____		
<input type="checkbox"/> GROUND SUPPORT UNIT LEADER _____		
<u>PLANNING SECTION</u>		
<input type="checkbox"/> DOCUMENTATION UNIT _____		
<u>FINANCE/ADMINISTRATION SECTION</u>		
<input type="checkbox"/> TIME UNIT _____		
<u>OTHER</u>		
<input type="checkbox"/> _____		
<input type="checkbox"/> _____		
12. REMARKS  _____  _____		
221 ICS 1/83		

NFES 1353

INSTRUCTIONS ON BACK