PPE Training for Avian Influenza and Beyond
Introduction

APHIS/DATCP
Sauk City, Wisconsin
October 2 - 4, 2007
APHIS Industrial Hygienist & Respiratory Protection Program Manager

Peter A. Petch, RPIH, CIPS, CIMT
APHIS Industrial Hygienist
Safety, Health, and Employee Wellness Branch
4700 River Road, Unit 124, Rm 2A-02.49
Riverdale, Maryland  20737

Phone # 301-734-5383
FAX # 301-734-7828
Cell # 240-997-6330
Blackberry # 240-464-2009
E-Mail: peter.a.petch@aphis.usda.gov
Experience

2000 to Present – Industrial Hygienist APHIS/SHEWB
1991 to 2000 – Industrial Hygienist ARS/BA
1987 to 1991 – Industrial Hygienist NSWC/White Oak
1984 to 1987 – Industrial Hygienist WRAMC
1979 to 1984 – Health Physicist WRAMC
1977 to 1979 – Physical Science Technician NPGS
1968 to 1973 – Aviation Survivalman USCG
Trainer Credentials

Peter A. Petch, RPIH, CIPS, CIMT

- Registered Professional Industrial Hygienist – APIH Registry No. 05030898
- Certified Infrastructure Preparedness Specialist – CIPS 01428
- Certified Incident Manager Trainer – CIMT 06012
- Authorized 8, 24, & 40 hour HAZWOPER Trainer
- Authorized Avian Influenza Response Master Trainer
- Authorized 10 and 30 hour OSHA General Industry Safety and Health Trainer
<table>
<thead>
<tr>
<th>Name</th>
<th>Phone Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Michael Dutcher, AVIC</td>
<td>608-270-4000</td>
</tr>
<tr>
<td>Timothy Deveau, DVM</td>
<td>715-432-2152</td>
</tr>
<tr>
<td>Thomas Varty, DVM</td>
<td>715-933-1202</td>
</tr>
<tr>
<td>Ty Vannieuwenhoven, DVM</td>
<td>608-203-5803</td>
</tr>
<tr>
<td>Bob Breitag</td>
<td>608-444-3157</td>
</tr>
<tr>
<td>Darlene Konkle, DVM</td>
<td>608-516-9121</td>
</tr>
<tr>
<td>Sheila Graham, DVM</td>
<td>608-516-9126</td>
</tr>
</tbody>
</table>
APHIS and DATCP’s highest priority is to protect American Agriculture
Hey, what is that foam truck here for?
• APHIS History of Preparedness & Response

• FMD 2000
• BSE 2001
• VA AI (H7N1) 2002
• END 2005
• HPAI (H5N1) ?
APHIS

• APHIS Population
  – 9000 employees
• APHIS Programs
  – Veterinary Services
  – Plant Protection & Quarantine
    • Centers for Plant Health Science & Technology
  – Wildlife Services
  – Animal Care
  – International Services
  – MRPBS
    • Investigation & Enforcement Services
• APHIS Locations
  – All 50 States plus International
    • 4 Main Locations
      – Fort Collins, CO
      – Raleigh, NC
      – Riverdale, MD
      – Minneapolis, MN
APHIS Responders

• Break down of APHIS Employees
  – 540 Veterinarians
  – 460 Animal Health Technicians
  – 630 Plant Protection & Quarantine Officers
  – 560 Plant Protection Technicians
  – 80 Smuggling Intervention & Trade Compliance Officers
  – 310 Wildlife Biologists
    • 40 Wildlife Disease Biologists

– Approximately 2500 candidates ready to go?
APHIS Emergency Response

- **40 ICS Safety Officers with the following training:**
  - AgERT
  - 24 hour HAZWOP”ER”
  - ICS 100 through 404, most have also had 420 plus

- **HASP template developed**

- **45 APHIS employees trained to perform quantitative respirator fit-testing**
  - 16 TSI PortaCount units located nation-wide
  - IA with FOH to provide AI related fit-testing & training nation-wide
APHIS “Road to AgERT”

- APHIS Preparation for Avian Influenza
  - October 2002
    - NVSL, Ames, Iowa
      - 30 participants
      - PPE Emergency Response training
  - September 2003
    - NVSL, Ames, Iowa
      - 30 participants
      - Emergency Response Training
        » Included State and Local Responders
  - March 2004 to Present (monthly)
    - DHS, CDP, Anniston, Alabama
      - AgERT
• Assistance
  – ICS Safety Officers
    • 40 trained employees (level 1 Fire ICS)
  – Full Time Safety Personnel
    • 8 employees (3 IH and 5 Safety Specialists)
  – Federal Occupational Health (FOH)
    • IH services (fit-testing, training, sampling, etc.,)
    • Medical Services (on-site clinic)
  – Fire Departments/Emergency Services
    • Fit testing (plus)
  – Universities/Colleges
    • Fit-testing (plus)
  – Military
    • Fit-testing (plus) (AMEDD Vet Corp 40 fit tested)
APHIS Safety Coordination

- Assistance (continued)
  - Poultry Industry
    - Fit-testing
    - National Turkey Federation (plus)
  - State Veterinary Programs
    - Fit-testing (NE, PA, NJ, ME, CO, DE, etc.)
  - NAHERC
    - Fit-testing
  - Overseas Deployment
    - Fit-testing
National Incident Management System (NIMS) and APHIS

• Presidential Directive, February, 28, 2003:
  – Develop National Incident Management System (NIMS)
  – Develop National Response Plan (NRP)

• USDA Secretary’s Memorandum 1800-1, March 17, 2003:
  – Implement National Inter-agency Incident Management System (NIIMS)
  – Transition from contingency-specific approach to USDA-NIIMS model
  – Establish appropriate management structure
INTRODUCTION

One of USDA’s highest priorities is the protection of American agriculture and the food, fiber and forestry infrastructures. To ensure that USDA can respond effectively to any type of disaster, the Department is implementing the National Interagency Incident Management System (NIIMS). The implementation of this system will enhance USDA’s effectiveness in responding to a wide range of emergencies, including natural disasters, as well as accidental or deliberate incidents that may threaten the U.S. food supply, critical infrastructure, or economy.

Used successfully for decades by the Forest Service and other emergency response agencies, the NIIMS model enables a wide range of emergency management agencies to work together effectively to mobilize maximum resources in support of common goals. Adoption of the model will facilitate interagency and interdepartmental synergy by linking USDA agencies internally and—through the Federal Response Plan—with other departments. Use of NIIMS will also strengthen USDA’s response capabilities in the wider national system of Federal, State, and local emergency response resources.

2 ACTIONS ORDERED

It is ordered hereby that:

a The National Interagency Incident Management System (NIIMS) be implemented across all USDA agencies;

b Mission areas and agencies transition from their current use of contingency-specific organizational approaches to the standard USDA NIIMS model;
NIMS and APHIS

- NIMS enhances USDA’s effectiveness to respond to emergencies

- NIMS implemented throughout all USDA agencies.

- Mission areas and agencies transition to use NIMS

- All management structures transition to implement NIMS

- USDA Homeland Security Staff take leadership over the transition to NIMS
NIMS and APHIS

1. National Incident Management System (NIMS):
2. Five-Year NIMS Training Plan
3. National Integration Center (NIC), Incident Management Systems Division (IMSD)

NATIONAL INCIDENT MANAGEMENT SYSTEM

FEMA 501/Draft August 2007
APHIS Incident Command System (ICS)

- Incident Command
  - VS 6 Teams
  - PPQ 4 Teams
  - WS 1 Team

- ICS Training
  - ICS 100, 200, 300, 400, 404, & 420
  - HAZWOPER
  - AgERT
# APHIS - ICS

United States Department of Agriculture
Animal and Plant Health Inspection Service
Plant Protection and Quarantine

## Regional Emergency Program Coordinators (EPC)

**ER** - Andrew Wilds  
**WR** - Michael Stubbe

**IC** - Ralph Cooley (615) 307-3357 TN Office  
(615) 586-1200 (C/BB)

**DIC** - Elizabeth Pastrana
**OC** - James S. Lord Jr
**DOC** - William Hsiang
**PC** - James McKee
**DPC** - Natasha Fyle
**LC** - Lur López
**DLC** - Carol Murphy
**FAC** - Carrie Croy
**DFAC** - Daphne O'Neal-Samuelsson
**L0** - Torn Cullen
**S0** - Candace Rohi
**IO** -

---

**IC** - Kevin Conner (612) 725-1722 MN Office  
(612) 759-6005 (C/BB)

**DIC** - Jamie Berlowitz
**OC** - David Gruchot
**DOC** - David Dehn
**PC** - Mark Crane
**DPC** - Nancy Leathers
**LC** - Davis Abner
**DLC** - Jamie Dove
**FAC** - Lisa Lambing
**DFAC** - Beverly Grant-Davis
**L0** - Terrence Wells
**S0** - Robin Olive
**IO** -

---

**IC** - Patrick McPherson (303) 371-3355 CO Office  
(303) 808-4344 (C/BB)

**DIC** - Vacant
**OC** - Bobby Guerra
**DOC** - Wendy Beltz
**PC** - John Canaday
**DPC** - John Lichtner
**LC** - Regan Thomas
**DLC** - Paul McCarthy
**FAC** - Dorothy Hise
**DFAC** - Mo Hardisty
**L0** - Owen Shinzaki
**S0** - Eileen Smith
**IO** - Lawrence Hawkins (LPA)

---

**IC** - Gary Adams (406) 449-5210 MT Office  
(406) 431-8531 (C/BB)

**DIC** - Vacant
**OC** - Michael Hennessey
**DOC** - Nolan Force
**PC** - Diana Hoffman
**DPC** - Katherine Hough
**LC** - Melonie Toriga
**DLC** - Joseph Bravata
**FAC** - Larry Law
**DFAC** - Linda Stokes
**L0** - Kerry Bryan
**S0** - Guy Nagai
**IO** - Lawrence Hawkins (LPA)
United States Department of Agriculture
Animal and Plant Health Inspection Service
Emergency Deployment Generic Health and Safety Plan (HASP)

1. Introduction

A. Scope

This Plan has been prepared in accordance with the requirements of Occupational Safety and Health Administration (OSHA) Regulations (29 Code of Federal Regulations (CFR) 1910 and 29 CFR 1926) and the U.S. Environmental Protection Agency (EPA) Office of Solid Waste and Emergency Response (OSWERS) Directive 9355.3-01. The primary goal of this Work Plan and HASP is to define policies and procedures outlining safe and healthful working conditions for personnel and the public during field investigations and assessments. This Plan is intended to encompass most health and safety procedures that may be used in current and future investigations/responses, with the understanding that this template will be modified with incident specific information before being utilized. All personnel performing field activities will be required to read and understand the incident specific version of this Plan and follow the policies and procedures. A copy of the incident specific Plan will be maintained in all vehicles assigned to the field team. This Plan is developed for specific conditions, purposes, and personnel and must be amended if conditions change.

B. Applicability
### JOB HAZARD ANALYSIS (JHA)

**Task:** Working with Large Animals

**Date:** 04-01-06

**JHA #7**

**Task Overview:** APHIS personnel will be working around animals of large (50 lbs. or greater) size and weight. Various tasks will be performed around the animals.

**Task Elements:**

- Working around large animals

**Personal Protective Equipment:**

- Work clothes, Dust mask, air purifying respirator, safety glasses, nitrile (exam) gloves, work gloves

---

### OCCUPATIONAL HEALTH CONCERNS

<table>
<thead>
<tr>
<th>Chemical Agents</th>
<th>Physical Agents</th>
<th>Biological Agents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Various possible</td>
<td>Bites/scrapes/gorges</td>
<td>Allergic reactions</td>
</tr>
<tr>
<td></td>
<td>Stepping on/falling on</td>
<td>Animal borne pathogens</td>
</tr>
</tbody>
</table>

---

### Activity/Sequence of Job Steps

#### Working around large animals

- Working with possible chemically contaminated animals
  - Bites/scrapes/gorges
  - Stepping on/falling on
- Allergic reactions
- Animal borne pathogens

---

### Safe Action or Procedure

- If the animal is contaminated with a known or unknown chemical agent, the APHIS Safety Officer will confer with and follow the procedures of the Incident Safety Officer.
- APHIS personnel should have a basic understanding of animal behavior and characteristic before working around animals. A number of articles discussing safe animal handling are provided (see appendix 3.7.A Animal Safety Guidelines). The appendix can be used to provide training or develop guidelines for APHIS personnel not familiar with working with the animals of concerns.
- The dust and particulate matter in animal areas may cause throat and eye irritation. Goggles and n95 dust masks are to be used as needed.
- APHIS personnel should be familiar with the signs of an allergic reaction (sneezing, tearing, watery nasal discharge, congestion, skin rashes, asthma), report to their supervisor if symptoms are noted and be examined by a physician.
Veterinary Services - Emergency Management System
(NAHEMS) Guidelines

The National Animal Health Emergency Management System (NAHEMS) is an integrated system for dealing with animal health incidents in the United States, such as the incursion of a foreign animal disease or a natural disaster. It encompasses the four tenets of emergency management: prevention, preparedness, response, and recovery. One cornerstone of the NAHEMS is the EMRS Guidelines. These Guidelines are designed for use by official response personnel in the event of an animal health emergency. They provide information that may be integrated into the Animal and Plant Health Inspection Service (APHIS) and additional groups and agencies. The guidelines are being reviewed and updated on an ongoing basis; comments and suggestions are welcome. Some of the documents posted here are drafts, while others are “final” versions of living documents that will be updated as often as necessary.

The NAHEMS Guidelines are for official use only. Access is restricted to persons involved in the response. Please contact APHIS for additional information.

Links
- USDA
- APHIS
- VS

Register
Login
Suggestions
EMRS homepage

EMRS
1. PURPOSE

This Directive specifies APHIS policy to ensure the safety of employees engaged in highly pathogenic avian influenza (HPAI) control and eradication activities.

The policy is based on the degree of risk known to be associated with various levels and types of exposures to HPAI viruses and should be considered complementary to avian disease control and eradication strategies as determined by State government, industry, or the United States Department of Agriculture (USDA).
United States Department of Agriculture
Animal and Plant Health Inspection Service
Veterinary Services
Veterinary Services Memorandum No. 580.18

Policy to Ensure the Protection of Personnel Involved in Highly Pathogenic Avian Influenza Control and Eradication Activities

This memorandum specifies VS Policy to ensure the safety of Personnel engaged in Highly Pathogenic Avian Influenza (HPAI) control and eradication activities.
APHIS Emergency Response

United States Department of Agriculture
Marketing and Regulatory Programs
Animal and Plant Health Inspection Service
Directive APHIS 6800.1 5/10/06

ENSURING THE PROTECTION OF EMPLOYEES INVOLVED IN HIGHLY PATHOGENIC AVIAN INFLUENZA CONTROL AND ERADICATION ACTIVITIES

1. PURPOSE

This Directive specifies APHIS policy to ensure the safety of employees engaged in highly pathogenic avian influenza (HPAI) control and eradication activities. The policy is based on the degree of risk known to be associated with various levels and types of exposure to HPAI viruses and should be considered complementary to avian disease control and eradication strategies as determined by State government, industry, or the United States Department of Agriculture (USDA).

2. AUTHORITIES

a. Occupational Safety and Health Act of 1970, Section 5(1)(a), the General Duty Clause of the Act: 
"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."


3. BACKGROUND

Avian influenza (AI) is a contagious viral infection or disease of many avian species, including poultry, wild and exotic birds, ratites, shorebirds, and migratory waterfowl. HPAI is seen primarily in poultry (rarely in other birds) and is characterized by severe depression, a decrease in egg production, high mortality, edema, hemorrhage, and necrosis. Birds that are infected with avian influenza virus can shed virus in saliva, nasal secretions, and feces. Contact with feces or respiratory secretions is important in the transmission of infection among poultry.

Avian influenza viruses may be defined as highly pathogenic based either on mortality rates in chickens following intravenous inoculations or on the amino acid sequence at the hemagglutinin cleavage site. Only those results confirmed as HPAI by the National Veterinary Services Laboratory (NVSL) in Ames, Iowa will be considered highly pathogenic.

June 13, 2005

VETERINARY SERVICES MEMORANDUM NO. 180.18

SUBJECT: Policy to Ensure the Protection of Personnel Involved in Highly Pathogenic Avian Influenza Control and Eradication Activities

TO: VS Management Team (VSMT) Director, VS

I. PURPOSE

This memorandum specifies VS policy to ensure the safety of personnel engaged in highly pathogenic avian influenza (HPAI) control and eradication activities. The policy is based on the degree of risk known to be associated with various levels and types of exposure to HPAI viruses and should be considered complementary to avian disease control and eradication strategies as determined by State government, industry, or the United States Department of Agriculture (USDA).

II. BACKGROUND

Avian influenza (AI) is a contagious viral infection or disease of many avian species including poultry, wild and exotic birds, ratites, shorebirds, and migratory waterfowl. HPAI is seen primarily in poultry (rarely in other birds) and is characterized by severe depression, a decrease in egg production, high mortality, edema, hemorrhage, and necrosis. Avian influenza virus may be defined as highly pathogenic based either on mortality rates in chickens following intravenous inoculations or on the amino acid sequence at the hemagglutinin cleavage site. Only those results confirmed as HPAI by the NVSL in Ames, Iowa will be considered highly pathogenic.

Although HPAI viruses rarely infect humans, since 1997 instances of human infection have occurred outside the United States—some resulting in death. Transmission to humans is thought to be caused by contact with infected poultry or contact with virus-contaminated surfaces followed by self-inoculation of the virus into the eyes, nose, or mouth. Other means of transmission are possible, such as the virus becoming aerosolized and entering a person's mouth, nose, eyes, or via inhalation into the lungs.
(q)(6)(i) First Responder Awareness Level. Individuals who are likely to witness or discover a hazardous substance release and are to initiate an emergency response sequence by notifying the proper authorities of the release must be trained to the first responder awareness level. They are to take no further action beyond notifying the authorities of the release. Generally, law enforcement and facility security personnel should be trained to the first responder awareness level since they are likely to witness or discover a release of a hazardous substance. Security guards or other similar personnel who, upon discovery of a release requiring an emergency response, are limited to activation of an alarm, notification of appropriate authorities, and controlling access to the release from a remote area (safe distance) must also at a minimum receive first responder awareness level training. These employees can initiate an emergency response sequence by notifying the authorities of the release, including alarm activation. Employees trained to the awareness level may control entry to and exit from the site from a remote location but must not assist in setting up safe distances because they lack knowledge regarding the potential for exposure, explosions, or radiation. (1) Inspection Guidelines. CSHOs should verify that employees who may discover an emergency release and whose duties are limited to initiating an emergency response sequence receive first responder awareness level training at a minimum. The standard does not set a minimum number of hours for this training, but such courses often run from 4 to 12 hours. Regardless of the duration of the training, employees must have sufficient training or have had sufficient experience to objectively demonstrate competency in the six areas of knowledge listed in the standard (see 1910.120(q)(6)(i)(A)-(F)). (2) Citation Guidelines. If an employee participates or is expected to participate in emergency response operations at the first responder awareness level and training is inadequate, then the CSHO shall cite (q)(6)(i).
Personal Protective Equipment for Veterinarians
A web based module for the National Veterinary Accreditation Program

Introduction
Welcome to the Personal Protective Equipment (PPE) for Veterinarians module. By completing this module on PPE, you should be able to:
- Accurately select the types of PPE you may need to use in various practice situations.
- Describe the differences between PPE Levels A-D.
- Be able to list the levels of PPE that require assistance in order to be worn safely and effectively.

This module is estimated to take 30 minutes but will vary depending on your familiarity with the information presented.

Introduction to PPE
Veterinarians work in unique environments. Although the work is truly safe most of the time, certain situations can pose a risk to you and your staff or clients. Whether administering vaccinations to small animals, treating large animals in the field, or working in a laboratory—you are faced with potential hazards on a daily basis. Such hazards include:
- Mechanical (i.e., dog bite or needle stick)
- Chemical (i.e., chemotherapy agents, euthanasia solution), and
- Biological (i.e., zoonotic disease)

Many of these hazards can be avoided through simple means, such as having an assistant properly restrain an animal or wearing latex gloves while working with lab specimens. Gloves are just one example of personal protective equipment (PPE). PPE includes clothing and devices which protect veterinarians and employees from certain risks such as exposure to zoonotic diseases or personal injury. Additionally, properly worn PPE is a specific biosecurity step that can help prevent transfer of microorganisms from humans (on hands, hair, and clothing) to susceptible animals; thereby minimizing the spread of pathogens in a clinic, between patients, or between farms. However, keep in mind that PPE within a veterinary practice is just one component of an overall infection control and biosecurity program and will not protect against all hazards.

Module objectives appearing here...

This module will introduce you to the various types of PPE available and situations in which PPE is necessary, primarily focusing on protection from biological hazards.

A majority of veterinarians only need to be familiar with the kinds of PPE used in a typical practice setting. However, in animal health emergency responses, veterinarians may be required to implement more sophisticated levels of PPE as part of a task force. More information will be provided later in this module about PPE specific to task forces.

Types of PPE

Masks are not respirators
APHIS – Veterinary Services, Area Emergency Coordinators (AEC)

• Currently one APHIS Veterinarian AEC assigned to cover two States
• Expectations for AEC
  – Develop concept of operations for state-level programs
  – Support Incident Commander during natural disasters
  – Be the Incident Commander during an FAD outbreak
  – Implement state-wide program
  – Characterize animal production agriculture
  – Familiarize with state authorities related to animals
  – Identify existing resources
  – Review state plans in the context of
    • Are the plans supported by authorities, mandates, rules?
    • Are resources applied appropriately?
  – Identify gaps in preparedness and coordination
  – Identify needs for Supervisors and Leaders in the ICS
Vision
All-hazards Animal Health Emergency Management is a mission-critical service of the Veterinary Services (VS) unit of the U.S. Department of Agriculture’s (USDA) Animal and Plant Health Inspection Service (APHIS) to States and Tribes to increase the emergency management capacity of animal agriculture in America.

Mission
The mission of the Animal Health Emergency Management Program (AHEMP) is to help States and Tribes develop capacity to prevent, prepare for, respond to, and recover from animal health emergencies, terrorism, major disasters, and other emergencies threatening or affecting animals regulated by USDA–APHIS–VS.

VS accomplishes the mission of the AHEMP by implementing the mandate of USDA–APHIS to Tribes and States in accordance with the National Incident Management System (NIMS), National Response Plan (NRP), and National Infrastructure Protection Plan (NIPP).
APHIS – Veterinary Services, Area Emergency Coordinators (AEC)

- AEC responsible for coordinating APHIS assistance with States and assisting in scheduling AI Table-top exercises
- Avian Influenza Table Top and other Training Exercises:
  - Michigan July 31, 2007
  - Wisconsin October 1 through 4, 2007
  - Maine October 16, 2007
  - Arizona October 31, 2007
APHIS Participation in Avian Influenza Table-Top Exercises

September 5, 2007

Peter Patch
USDA, APHIS, MRP-BS, ESD
4700 River Road, Unit 124, Rm 2A-02-48
Safety, Health & Employee Wellness Branch
Riverdale MD 20737

Dear Peter,

This letter is to request your participation in the Avian Influenza Rapid Response Inter-agency Table-top Exercise to take place on Tuesday, October 16, 2007 at the Maine Principals’ Association in Augusta, Maine. This exercise is coordinated by the Maine Departments of Health and Human Services, Maine CDC, Agriculture, Maine Emergency Management Agency; and Inland Fisheries and Wildlife with cooperation from the United States Department of Agriculture.

You have been identified by your respective department as a critical participant in this exercise. If you have a conflict with this date or questions pertaining to your role in the exercise, please speak with your supervisor as soon as possible.

Additional materials related to avian influenza rapid response will be forwarded to you for your review prior to October 16. Participants are also suggested to have an understanding of the Emergency Management Incident Command Structure; a free, short, on-line course is available at http://training.lemagov/EMITextraining/is100.asp

Please respond to this request for participation by September 17 to Debbie Beaulieu, PH – 207-626-3615, EMAIL – dbeaulieu@vdoh.state.me.us

Sincerely,
Avian Influenza Rapid Response Inter-agency Table-top Exercise Steering Committee
Department of Health & Human Services, Maine CDC
Department of Agriculture
Department of Inland Fisheries & Wildlife
Maine Emergency Management Agency
Case Study

Case Investigation of Suspected Human Infection with Avian Influenza A (H5N1) Virus

Instructions/Objectives

- In this exercise, group members will be asked to respond to a potential outbreak of highly pathogenic avian influenza A (H5N1) among birds and humans in contact with birds.

- Depending on the size of the overall group being trained, it may be appropriate to break into smaller groups to complete this case study. This training has been designed for training breakout groups consisting of ≤10 persons, with facilitators assigned to each group.

- The scenario explores an outbreak of highly pathogenic influenza A (H5N1) in birds that leads to human infection with the same H5N1 virus.

- The scenario is meant to facilitate an understanding of each agency’s HPAI response plans and communication protocols.

Resources

Some useful documents for reference during this exercise or to examine when released include:


- WHO Case Definitions for human infections with influenza A(H5N1) virus


- Michigan Safe Work Practice Guidance (Appendix H)
Foreign Animal Disease Diagnostician (FADD)

The APHIS Foreign Animal Disease Diagnostician (FADD) are specially trained to recognize, test, and diagnose Foreign Animal Disease (FAD). FADD are available within a 4-hour drive of any continental U.S. location. Once an investigation is initiated, a FADD is in contact with someone on the affected premises. Tissue samples are sent to the U.S. Department of Homeland Security’s (DHS) Plum Island Animal Disease Center located off Long Island, NY, or to the National Veterinary Services Laboratories in Ames, IA, to rule out the presence of a FAD. USDA then announces the results of the tests as soon as they are available.

APHIS FADD conduct approximately 500 to 600 investigations annually. The most common type of investigation was for encephalitic conditions, such as Venezuelan equine encephalitis, followed closely by vascular conditions like foot and mouth disease, and then excessive deaths.

In the event of an agri-terror attack, DHS and APHIS would work as partners to safeguard America’s food and agricultural resources. DHS would lead the team of first responders to contain and manage the threat while APHIS would provide crucial scientific and diagnostic expertise.

June 13, 2005

VETERINARY SERVICES MEMORANDUM NO.: 580.18

SUBJECT: Policy to Ensure the Protection of Personnel Involved in Highly Pathogenic Avian Influenza Control and Eradication Activities

TO: VS Management Team (VSMT)
    Director, VS

I. PURPOSE

This memorandum specifies VS policy to ensure the safety of personnel engaged in highly pathogenic avian influenza (HPAI) control and eradication activities. The policy is based on the degree of risk known to be associated with various levels and types of exposures to HPAI viruses and should be considered complimentary to avian disease control and eradication strategies as determined by state governments, industry, or the United States Department of Agriculture (USDA).

II. BACKGROUND

Avian influenza (AI) is a contagious viral infection or disease of many avian species including poultry, wild and exotic birds, raptors, shorebirds, and migratory waterfowl. HPAI is seen primarily in poultry (rarely in other birds) and is characterized by severe depression, a decrease in egg production, high mortality, edema, hemorrhage, and necrosis.

Avian influenza viruses may be defined as highly pathogenic based on an mortality rate in chickens following intranasal inoculation or on the viral isolate sequence at the hemagglutinin cleavage site. Only those results confirmed as HPAI by the NVSL in Ames, Iowa will be considered highly pathogenic.

Although HPAI viruses rarely infect humans, since 1997 instances of human infection have occurred outside the United States—some resulting in death. Transmission to humans is thought to be caused by contact with infected poultry or contact with virus-contaminated surfaces followed by self-association of the virus into the eyes, nose, or mouth. Other means of transmission are possible, such as the virus becoming aerosolized and entering a person’s mouth, nose, eyes, or via inhalation into the lungs.
National Avian Influenza Surveillance Plan

U.S. Department of Agriculture
Animal and Plant Health Inspection Service
June 29, 2007

Mission

APHIS - 24/7! MISSION - READY!

APHIS and its partners are thoroughly prepared and uniquely capable of responding to any animal, plant, or all hazards emergency facing the country through:

1. The leadership of the Emergency Management Leadership Council (EMLC), which ensures emergency preparedness and resource response.

2. The operation and maintenance of a premier emergency operations center in support of any animal, plant, or all hazards emergency facing the country 24/7.

3. The collection and dissemination of agricultural information and technology capability in matters related to terrorism and Homeland Security.
National Incident Management System (NIMS) & National Response Plan (NRP)

Introducing...

National Response Plan
December 2004

National Response Framework

Homeland Security
DRAFT
September 2007
Avian Influenza References

Emergency Support Function #11 – Agriculture and Natural Resources Annex

ESF Coordinator:
Department of Agriculture

Primary Agencies:
Department of Agriculture
Department of the Interior

Support Agencies:
Department of Agriculture
Department of Commerce
Department of Defense
Department of Energy
Department of Health and Human Services
Department of Homeland Security
Department of the Interior
Department of Justice
Department of Labor
Department of Transportation
Environmental Protection Agency
General Services Administration
U.S. Postal Service
American Red Cross

Introduction

Purpose
Emergency Support Function (ESF) #11 – Agriculture and Natural Resources supports State, local, and tribal authorities and other Federal agencies in their efforts to address: (1) provision of nutritional assistance, (2) control and sanitation of an outbreak of a highly contagious or an economically devastating animal/zoologic disease, highly infective exotic plant disease, or economically devastating plant pest infestations; (3) assurance of food safety and food security (under Department of Agriculture (USDA) jurisdiction and authority), and (4) protection of natural and cultural resources and historic properties; resources prior to, during, or after an incident of National Significance.

Scope
ESF #11 includes four primary functions:

- Provision of nutritional assistance by the Food and Nutrition Service (FNS): Includes determining nutritional assistance needs, obtaining appropriate food supplies, arranging for delivery of the supplies, and authorizing disaster food stamps.
- Animal and plant disease and pest response: Includes implementing an integrated Federal, State, local, and tribal response to an outbreak of a highly contagious or an economically devastating animal/zoologic disease, an outbreak of a highly infective exotic plant disease, or an economically devastating plant pest infestations. Ensures, in coordination with ESF #8 – Public Health and Medical Services, that animal/veterinary/zoologic/vegetal/wildlife issues in natural disasters are supported.
- Assurance of the safety and security of the commercial food supply: Includes the inspection and verification of food safety aspects of slaughtering and processing plants, products in distribution and retail sales, and support facilities at ports of entry; laboratory analysis of food samples; control of products suspected to be adulterated, plant pests; foodborne disease surveillance, and field investigations.
- Protection of NCH resources: Includes appropriate responsive actions to conserve, rehabilitate, recover, and restore NCH resources.

August 2004

ESF #11 – Agriculture and Natural Resources Annex

National Response Plan

1
NRF Draft References

Emergency Support Function #5 - Emergency Management Annex

ESF Coordinator:
Department of Homeland Security/Federal Emergency Management Agency

Support Agencies:
Department of Agriculture
Department of Commerce
Department of Defense
Department of Education
Department of Energy
Department of Health and Human Services
Department of Homeland Security
Department of Housing and Urban Development
Department of the Interior
Department of Justice
Department of Labor
Department of State
Department of Transportation
Department of the Treasury
Department of Veterans Affairs
Environmental Protection Agency
Federal Communications Commission
Federal Reserve System
General Services Administration
National Aeronautics and Space Administration
Nuclear Regulatory Commission
Office of Personnel Management
Small Business Administration
Tennessee Valley Authority
U.S. Postal Service
American Red Cross

INTRODUCTION

Purpose

The purpose of the Biological Incident Annex is to outline the actions, roles, and responsibilities associated with response to a disease outbreak of known or unknown origin requiring Federal assistance. A biological incident includes naturally occurring biological diseases (communicable and noncommunicable) in humans and biological agents diagnosed in animals having the potential for transmission to humans (zoonosis) as well as terrorist events. Actions described in the annex involve implementation of a bioterrorism preparedness plan or a public health emergency decision by the Secretary of Health and Human Services (HHS). This annex outlines biological incident response actions including threat assessment/notification procedures, surveillance testing, situational awareness, and activities related to recovery.

Scope

The objectives of the Federal Government's response to a biological threat event, pandemic influenza, emerging infectious disease, or novel pathogen outbreak are to:

- Detect the event through disease surveillance and environmental monitoring.
- Identify and protect the population(s) at risk.
- Determine the source of the outbreak.
- Quickly frame the public health, law enforcement, and international implications.
- Control and contain any possible epidemic (including providing guidance to state, tribal, and local public health authorities).
- Augment and surge public health and medical services.
NRF Draft References

List of Authorities and References

1. The legal authorities that guide the structure, development, and implementation of the National Response Framework (NRF) are statutes, regulations, executive orders, and presidential directives, and they are listed and summarized below. This list and the associated summaries are not exhaustive and should not be used as a substitute for the authorities themselves. The statutes and regulations are organized by subject matter, except for some principal emergency authorities that are listed first. The Executive orders of the President and the Homeland Security Presidential Directives (HSPD) are listed separately.

I. Statutes and Regulations

A. Principal Emergency Authorities


The primary mission of the Department is to:

- Prevent terrorist attacks on the United States;
- Reduce the vulnerability of the United States to terrorism;
- Minimize the damage and loss in the recovery from terrorist attacks that do occur in the United States;
- Carry out all functions of entities transferred to the Department, including any acting as a focal point regarding natural and manmade crises and emergency planning;
- Ensure that the functions of the agencies and subdivisions within the Department that are not related directly to securing the homeland are not diminished or neglected except by specific explicit Act of Congress;
- Ensure that the overall economic security of the United States is not diminished by efforts, activities, and programs aimed at securing the homeland;
- Ensure that the civil rights and civil liberties of persons are not diminished by efforts, activities, and programs aimed at securing the homeland;
- Monitor connections between illegal drug trafficking and terrorism, coordinate efforts to sever such connections, and otherwise contribute to the efforts to interdict illegal drug trafficking.

The primary mission of FEMA is to reduce the loss of life and property and protect the Nation from all hazards, including natural disasters, acts of terrorism, and other manmade disasters, by leading and supporting the Nation in a risk-based, comprehensive emergency management system of preparedness, protection, response, recovery, and mitigation. The FEMA Administrator therefore is assigned responsibility for:

Food and Agriculture Incident Annex

Coordinating Agencies:

- Department of Agriculture
- Department of Health and Human Services

Cooperating Agencies:

- Department of Commerce
- Department of Defense
- Department of Energy
- Department of Homeland Security
- Department of the Interior
- Department of Justice
- Department of Labor
- Department of State
- Department of Transportation
- Department of Veteran Affairs
- Environmental Protection Agency
- General Services Administration
- U.S. Agency for International Development
- U.S. Postal Service
- American Red Cross

INTRODUCTION

Purpose

The Food and Agriculture Incident Annex describes the roles and responsibilities associated with all incidents that require coordinated federal responses involving the Nation’s agriculture and food systems.

Scope

The provisions outlined in this annex apply to all actual or potential incidents requiring a coordinated Federal response, as described in the annex, may take place with or without a Presidential declaration and a public health emergency declaration by the Secretary of Health and Human Services or an emergency declaration by the Secretary of Agriculture.

The objectives of a coordinated Federal response to an incident impacting food and agriculture are:

- Defend the event through the reporting of illness, disease/pest surveillance, routine testing, consumer complaints and/or environmental monitoring;
- Determine the primary coordinating agency;
- Determine the source of the incident or outbreak;
- Control and contain the distribution of the affected source;
- Identify and protect the population at risk;
- Assess public health, food, agriculture, and law enforcement implications;
- Assess the extent of residual biological, chemical, or radiological contamination, then decontaminate and dispose as necessary.

July 2007

Food and Agriculture Incident Annex

ACE-1
NRF Draft References

Federal Partner Guide

INTRODUCTION

The Federal Partner Guide is one of many supporting documents that augments the National Response Framework by providing detailed information on Federal response roles, responsibilities and actions.

The Framework includes the core (or base) document, which describes the doctrine that guides our national response, roles and responsibilities and partner response actions, as well as supplemental documents that provide more detailed information to assist practitioners in implementing the Framework (see Figure 1).

The Partner Guides for the Federal Government, States, communities and private sector partners summarize core Framework concepts and have specifically tailored Concepts of Operations for practitioners and leaders at different levels and types of organizations.

This guide supplements the elements of the Framework by describing how the Federal Government organizes and aligns key functional roles and responsibilities to marshal a scalable, flexible and adaptable response to, for anticipation of, threats or acts of terrorism, major disasters or other emergencies. This includes coordinating structures and processes for incidents requiring:

- Federal support to State, tribal and local governments;
- Support from one Federal department or agency to another (Federal-to-Federal support);
- The exercise of direct Federal authorities and responsibilities; and

DRAFT: For Stakeholder and Public Review and Comment – Pre-Decisional (9/10/07)

State Response Partner Guide

Introduction

This Response Partner Guide describes how State governments work together with tribal and local governments, private sector/nongovernmental organizations (NGOs) and, as appropriate, the Federal Government to respond to incidents while ensuring the welfare of individuals and families in their jurisdictions. The following sections describe State/tribal roles and responsibilities, response structures and how communities work with key partners to provide an effective and efficient response.

U.S. Territories. Within the Framework, U.S. territories use the same response structure and mechanisms as State governments for requesting and receiving Federal assistance. Territories pose special response challenges. Working in partnerships with territorial governments, the Framework is adapted to meet these unique challenges through preparedness plans and pre-staging of assets.

Territorial governments may receive federal coordinated response within the U.S. process, including the insular areas, and within the Federated States of Micronesia and the Republic of the Marshall Islands. Stafford Act assistance is available to Puerto Rico, the U.S. Virgin Islands, Guam, American Samoa, and the Commonwealth of the Northern Mariana Islands, which are included in the definition of “States” in the Stafford Act. At present, Stafford Act assistance is also available to the Federated States of Micronesia and the Republic of the Marshall Islands under the compact of free association.

I. State Roles and Responsibilities Overview

Local, Tribal and State and Federal governments, NGOs, and the private sector must each exercise their jurisdictional responsibilities and authorities and employ their resources and capabilities jointly to achieve common goals. States and tribes are both responsible for the public safety and well-being of their citizens and provide guidance and leadership during times of crisis. This section describes the general roles and responsibilities of States and tribes.

A primary role of State government in incident management is to supplement and facilitate local efforts before, during and after incidents. The State provides direct and routine assistance to its local jurisdictions through emergency management program development, coordinating, and its efforts with Federal preparedness officials. States must be prepared to maintain or accelerate services and to provide new services to local governments when local capabilities fall short of demands.

Under the Framework, the term “State” and discussion of the roles and responsibilities of States typically also include cognate responsibilities that apply to U.S. territories and possessors and tribal nations. States are also responsible for requesting Federal emergency assistance for communities and tribes within their area of responsibility. Thus, States help by coordinating Federal assistance to the local level. In response to an incident, the state helps coordinate and integrate resources and applies them to local needs.

DRAFT: For Stakeholder and Public Review and Comment – Pre-Decisional (9/10/07)
BIOSECURITY GUIDE
For Poultry and Bird Owners

You are the best protection your birds have!
**BIOSECURITY**
**FARM ENTRY AND EXIT PROCEDURE**

Remember, good biosecurity — know your plan; prepare; take time to be meticulous. You are being watched! There are always adjustments to make on each farm, and room for improvement.

**ENTRY AND SUITING UP**
- Plan your route, if multiple stops, start at lowest risk, proceed to high risk.
- Call producer, if possible, and ask them for best place to park vehicle.
- Plan/prepare before leaving ICP/Phase — bio packs, #’s of supplies, farm, paperwork, coolers, disinfectant, trash handling, organization of materials, etc.
- Park in “non-contaminated” area — clean pavement, gravel area best. Windows up.
- Attach 6 or more strips of duct tape to person to dash — 4 for limbs, 2 for trash, etc.
- Open bio pack, apply Cat Crap to goggles lenses, put on bouffant cap.
- First pair disposable boots on.
- Tyvek coveralls to waist.
- Second pair boots on.
- Open door, step out, put coveralls on completely — feet can not re-enter vehicle.
- Apply duct tape to ankles.
- Duct tape trash bag, cell phone or other equipment in ziplocks, to coveralls.
- Two pair disposable gloves.
- Apply duct tape to wrists.
- Put on respirator.
- Put on goggles.
- Gather sampling supplies, paperwork, clipboard, pen, sharpie, get out of vehicle and close door.
- Everything coming out gets disinfected or destroyed. No going back!
- Get disinfectant bucket out of trunk/cap of vehicle and prepare disinfectant.

**SAMPLING TECHNIQUE** — be as aseptic, and professional, as possible. Avoid contaminating samples and self. Disinfecting (destroying) your sample. Designate one assistant to handle (process) samples.

**EXIT**
- Remove goggles.
- Remove respirator.
- Remove first pair of boots and gloves, (most contaminated) place in garbage bag.
- Place samples and paperwork in ziplocks, (may double bag) dip in disinfectant, place in cooler in “dirty” part of vehicle.
- Disinfect all other items which will leave the farm, and place in “dirty” side.
- Dispose of disinfectant, place bucket back in vehicle and close trunk cap.
- Remove coveralls, rolling inside-out, and place in garbage.
- Remove bouffant, place in garbage bag and close/zipper garbage bag.
- Open vehicle door, sit bottom inside, feet/feet outside vehicle.
- Roll off boots and gloves, wrap together, and give to producer or toss by garbage bag.
- Spray disinfectant on footwear, disinfect hands with sanitizing gel.
- Leave premises and prepare for next stop (car wash?)

**Cat Crap?**

**It is real**
Some things to think about this week…

If you respond to a call from a farm

- Do you request help? If so from whom?
- Who did you contact? Who should you contact?
- Where do you park? Where should you park?
- What type of operation is involved? Do you have experience with this operation?
- Will you serve in a “defensive” or “offensive” role?
- Have you had medical surveillance, vaccinations, shots, etc.? What is needed? How long before the response should I have had it?
- Do you have a plan or procedure? Have you ever done this before? Have you been trained on the plan or procedures to be used?
- Do you have PPE? Do you need PPE? Have you been trained? What should you wear? Who do you contact to get additional PPE?
- Do you have a respirator? Have you been medically cleared and fit-tested? Have you been trained?
- What do you do if there is an accident? Who would you call? Are you trained?
- When do you don PPE? Do you go in alone? Are you comfortable with the situation?
- What equipment should you bring with you? Will you be able to re-use your equipment?
- How do you doff your PPE? Do you need to decon your PPE? Have you been trained?
- What do you do with the PPE? Who do you contact?
- Do you have enough information?
- Is it your day off? Should it be your day off? Can it be your day off?
Concerned?

All this Avian Influenza mutation hoopla is really for the birds.

Crociduck – Caution - Nasty disposition and does not care for nasal swabs