NTF HPAI Response Manual: Highly Pathogenic Avian Influenza

National Turkey Federation
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INTRODUCTION

About the NTF HPAI Response Manual

This manual is designed as an updated resource for NTF members to use for future outbreaks of Highly Pathogenic Avian Influenza (HPAI). Included are advice and checklists to help coordinate and respond in event of HPAI detection on your farm.

These tools will help NTF members to deal with an HPAI outbreak as well as reassure our key stakeholders that the poultry industry is working decisively and effectively to protect public health and the food supply.

Roles and Responsibilities

NTF staff and NTF members have essential roles and responsibilities when HPAI is suspected or detected in the U.S. turkey industry.

National Turkey Federation
- Initiate and coordinate the industry position and relevant facts to the public and stakeholders, government and congressional leaders
- Offer support to member companies and ensure their urgent needs are being met quickly by state and federal authorities
- Assist with receipt of proper indemnification and ensure members receive maximum allowed
- Coordinate HPAI efforts across poultry industry
- Provide industry spokesperson
- Recommend and serve as third-party experts on issue areas for members and government officials as well as other affected industries
- Encourage and recommend needed research
- Work with members and government authorities so repopulation is done as quickly as possible
- Help members who have establishments in control zones design and implement business continuity plans.
- Work with US government, foreign governments and USAPEEC to minimize trade impacts
- Regularly review and update protocols to ensure members have most up to date and accurate information

Member Companies
- Primary responsibility for maintaining flock health and preventing introduction or spread of HPAI
- Primary responsibility for testing commercial flocks to monitor for the presence of H5/H7 avian influenza
- Inform NTF (in confidence) as early as possible in a suspected outbreak to optimize preparation and response.
• Communicate details affecting key stakeholders, neighbors and business partners
• Assist APHIS and/or state officials with outbreak management and response in the field
• Provide media spokesperson for company-specific questions – OR – selectively defer to NTF
• Work closely with growers to ensure they handle any media interest prudently
**Biosecurity**

 Updates on Biosecurity: Lessons Learned

USDA/APHIS has updated their HPAI planning and response policies based on the lessons learned in 2015 and epidemiological studies of Midwestern poultry farms hardest-hit by the H5N2 strain of Highly Pathogenic Avian Influenza. In addition, the NTF Turkey Health and Welfare Committee adjusted the biosecurity recommendations in NTF’s Animal Care guidelines based on direct experience at affected turkey farms as well as new research and close examination of the cases in the upper Midwest.

As available studies and observations note, the virus pathway is not limited to wild migratory birds. Growers should study the available USDA/NTF documents when considering additional protection measures specific to their operations and barn structures, as well as the local geography, climate and settings of farm near migratory fowl flightpaths.

After the HPAI outbreak of 2015, USDA expects all growers to have several new biosecurity precautions in place. While biosecurity has always been a high priority for the turkey industry, it is important farm plans now also include the following:

Site specific biosecurity plan: While most operations already have a version of this in place, it is important that it be reviewed, and updated if needed, to ensure it addresses site specific issues. If a farm is stricken with HPAI, USDA will ask if a biosecurity plan was in place at the facility. Every farm MUST have a site specific plan in place to ensure eligibility for indemnity payment.

Biosecurity Officer: Each production site (or integrated system) should designate a Biosecurity Officer who has been trained in designing and implementing effective biosecurity procedures and who is responsible for developing a site specific biosecurity plan, training employees, truck drivers, contract crews, etc. on the plan. Each site should have a person designated for monitoring that the plan is followed at all times and developing corrective actions as needed. NTF Guidelines recommend that each company or independent farm have an experienced poultry expert or poultry veterinarian responsible for designing and implementing effective biosecurity procedures.

The “Line of Separation” Concept: The walls of the poultry house, not the farm boundaries, should now be the line of separation, separating the birds from all potential sources of virus. Nothing should cross the line of separation that may introduce the virus. Each house should have its own line of separation so virus infection in one house does not spread to other houses on the premises.

The “Perimeter Buffer Area” (PBA) Concept: The purpose of the PBA is to reduce the potential of virus entering and contaminating the production site. Because virus may be carried by wildlife, it is not possible to completely exclude the AI virus from the PBA. The PBA should incorporate all of the poultry houses on the complex.

Growers who have experienced HPAI stress this advice: Immediate, early action is critical. Observe your flocks closely for any slowing of movement, unusual quiet, craning of necks.
(“stargazing”) or lack of interest in feed or water. Onset of the H5N2 strain of HPAI in Spring of 2015 was subtle at first, but then deadly within hours to whole flocks. Isolation and notification must be immediate, with rapid confirmatory testing and depopulation within 24 hours of confirmation. These steps are necessary to control the spread of the virus to other farms.
OUTBREAK RESPONSE AND PREPARATION

NTF Crisis Team

The NTF team is available around the clock to provide impacted members with assistance during A.I. outbreaks. Below you will find the contact information for all NTF staff members.

Joel Brandenberger
President
Direct: 202-730-9653
Cell: 202-907-6456
E-mail: jbrandenberger@turkeyfed.org

Government Affairs
Damon Wells
Sr. VP of Government Relations
Direct: 202-730-9636
Cell: 730-283-1338
E-mail: dwells@turkeyfed.org
Leslee Oden
Director of Legislative Affairs
Direct: 202-730-9641
Cell: 979-218-8708
Email: loden@turkeyfed.org

Scientific & Regulatory Affairs
Lisa Wallenda Picard
VP of Scientific and Regulatory Affairs
Direct: 202-730-9640
Cell: 703 431 5764
E-mail: lpicard@turkeyfed.org
Andrew Bailey
Manager of Scientific and Regulatory Affairs
Direct: 202-730-9638
Cell: 202-568-0602
Email: abailey@turkeyfed.org

Membership
Jen Zukowski Dansereau
VP of Member Services
Direct: 202-730-9642
Cell: 508-221-2763
E-mail: jdansereau@turkeyfed.org

Communications
Keith Williams
VP for Communications & Marketing
Direct: 202-730-9639
Cell: 202-603-1988
Email: keithwilliams@turkeyfed.org
Kimmon Williams
Public Relations Manager
Direct: 202-730-9646
Cell: 703-475-3255
Email: kwilliams@turkeyfed.org

NTF can help companies facilitate conversations with government officials and assist with issues that may occur during the outbreak.
Key areas where NTF can be helpful:

- Detection and Surveillance
  - Control zone management
  - Movement of birds within zones
- Establishments operating within zones
- Depopulation
- Disposal
- Repopulation
- Indemnification
- Media and stakeholder outreach
- Support with Members of Congress
- Support with various points of USDA

Member Company Crisis Teams

Each member company should have a designated internal AI crisis team. This group should be empowered to make decisions during a crisis and should number no more than seven-to-10 people in order to operate effectively and not divert responsibilities of frontline managers. Team members should include decision-making representatives from areas such as:

- senior management
- communications and marketing
- animal health
- quality assurance
- technology/regulatory
- human resources
- legal
- investor relations
- trade/international sales

Highly Pathogenic Avian Influenza (HPAI) Response Plan and Materials

NTF’s role is to ensure that Federal, State and Local officials follow the government’s written HPAI response procedures, as laid out in the 2015 Red Book. NTF will help members manage through all areas of the HPAI outbreak as efficiently and effectively as possible.

**USDA APHIS HPAI Response Plan “The Red Book”:**
The USDA/APHIS “Red Book” provides responders with a guiding APHIS policy document to use during the HPAI outbreak in domestic poultry and to provide current strategic guidance for control and eradication of HPAI in domestic poultry during an outbreak.

The Red Book is found here:

The Fall 2015 HPAI Preparedness and Response Plan is available here:

Additional USDA HPAI materials can be found here: https://1.usa.gov/1U07LPD
NTF Biosecurity updates to Animal Care Guidelines:  
http://www.eatturkey.com/sites/default/files/NTFBiosecurityUpdateto%20AnimalCareBMPFIN%20AL.pdf

Checklist for Self-Assessment of Enhanced Poultry Biosecurity is available on the U.S. Poultry and Egg Association website: http://www.uspoultry.org/animal_husbandry/intro.cfm

Select USDA HPAI materials, as well as the NTF Biosecurity Guidelines, are included in the back of this manual.

**Government Contacts and Responsibilities**

**State Veterinarians (within State Agriculture Departments)**

- Respond to reports of sick poultry to test and diagnose diseases
- Reports diagnosis to state or federal officials
- Direct a quarantine or destruction of the animal, herd, or flock to prevent the spread of that disease to other premises

**State Agricultural Departments**

- Collect specimens for analysis and diagnosis of disease

**United States Department of Agriculture (USDA)**

- Coordinate with state animal health officials and the poultry industry to conduct surveillance at breeding flocks, slaughter plants, live-bird markets, livestock auctions, and poultry dealers
- Negotiate and minimize impacts on Trade (APHIS and FAS)
- Process indemnity payments.

**Animal and Plant Health Inspection Service (APHIS) – within USDA**

- Primary federal responders if HPAI is detected in U.S. poultry
- Work with state veterinarians to make diagnosis
- Provide personnel and equipment to advise and supplement state resources, at the state and local level, within 24 hours of a presumptive diagnosis
- Work with states to quarantine affected premises, clean and disinfect premises after birds have been destroyed and removed
- Conduct epidemiological investigations to determine the source of the infection
- Conduct surveillance testing in vicinity to ensure that the virus has not spread

**National Veterinary Services Laboratories (NVSL) – within USDA**

- Confirm that H5 or H7 has been detected in poultry. NVSL confirmation is no longer required for depopulation and indemnity, but is still needed for APHIS international trade notifications.
EVENT RESPONSE

Communicating in a Crisis – Checklist and Suggestions

The way a crisis is handled often has more impact on an organization’s reputation and future than the crisis itself. How an organization responds to crisis is often seen as a reflection of its character. Ensure that responsibilities within the organization are clearly defined and relationships of trust are long-ago established with allies: *The onset of crisis is not the time to exchange business cards.*

Consider *all* potentially affected stakeholders, internal and external. Be sure all are appropriately informed, as many can be supportive. Potential stakeholders may include:

- NTF Executive Committee/NTF Membership
- Growers
- Suppliers
- Corporate management
- Employees/families
- Ag Media and Social Media writers
- Customers in the distribution chain
- Consumers at grocery and restaurants
- Investors/analysts
- Policymakers at local/state/federal
- Public safety officials
- Special-interest groups
- Local community
- Other poultry/barnyard groups

In a crisis the demand for information usually moves faster than your ability to acquire it. Take steps to fill the “information vacuum”:

- If approached by media or other stakeholders *before* you have any substantive information, do not refuse comment. Give a brief comment emphasizing that:
  - we are aware and focused on what has happened
  - we are talking directly with those who know the facts
  - we will keep you informed as information is confirmed

- As the situation develops, be straightforward and accessible, but resist speculation. Focus on:
  - what happened
  - what we’re doing to gain more factual information
  - what we’re doing for those directly involved
  - how this occurred

- Throughout the situation, all communications should demonstrate that senior management is:
  - Focused
  - Professional
  - well-informed and decisive

In deciding what action steps the company should take, ask not only what we can do but what our stakeholders and the public expect us to do? Work with legal counsel to protect reputation by fulfilling public expectations without accepting unwarranted legal liability.
Guidelines for Media Inquiries

1. **Always be accurate.** Even when you are not able to provide all of the information you have – because facts are not verified – be clear about what facts are certain. Do not speculate on what is uncertain. Credibility and consistency is of utmost importance in continuing productive communication with the public and reporters.

2. **Verify the facts.** Remember that initial information about an incident or emerging situation often is incomplete and thus cannot be accurate. Verify information and emphasize that statements are based on information that is “currently available.” Avoid speculating. Work from the position that drawing conclusions cannot be done until much more is known. Do not comment on hypothetical questions – they usually start with “If – .” Remind the public that you expect details to be clarified as more information becomes known.

3. **Be the key source of information.** Communication – both internal and external – is key to demonstrating that the poultry industry is acting responsibly and taking control of a crisis situation. News media must know they can turn to the spokesperson for timely, accurate information. Employees should be able to depend on the Federation and company as their most credible and reliable source, not rumor and not from hearing news reports from others.

4. **Keep top of mind the safety and welfare of people – employees and consumers.** Concern for the wellbeing of poultry will flow from always demonstrating that the poultry industry puts people first with well-managed operations and proper care of poultry.

5. **Speak with one voice.** Employees should be directed to forward any media or other outside inquiries to the designated spokesperson(s). Provide a brief message or talking points to managers. Provide wide distribution within the company and association to ensure that a consistent message is communicated.

6. **Set ground rules for media.** For accurate and orderly communication, establish the location, time and procedures for interviews, briefings, site visits, inspections and photographs.

7. **Respond swiftly to inaccuracies.** Inaccurate or misleading information can spread through the media and social media within minutes. Monitor media, major websites and social media posting so that you make immediate contact to correct misinformation or misunderstanding. Often, characterizing for a needed clarification is a non-confrontational approach that is more appreciated than as a complaint about the work of the reporter. Contact the writer first – and only if the writer refuses to clarify a significant error, raise the matter with the editor.

8. **Log all media contacts.** An organized media relations effort is critical. Log all inquiries and fill them in a centralized, accessible location.
9. **Engage third-party experts.** Enlist credible outside experts as you look ahead to outline what issues will need explanation and engagement where there could be a lack of public knowledge. These voices can be invaluable in allaying public fears and enhancing industry credibility.
2015 Biosecurity Updates to NTF Animal Care Best Management Practices

These updates are based on the findings and experiences of Midwestern poultry farms hardest-hit by the H5N2 strain of Highly Pathogenic Avian Influenza in spring 2015.

As available studies and observations note, the infection pathway is not limited solely to infection from wild migratory birds. HPAI entered farms on personnel, vehicles and blown dust. Growers should also review the APHIS Recommendations for Biosecurity as well as the APHIS Poultry Biosecurity Officer Information Manual when considering additional protection measures specific to their operations, barn structures, local geography, climate and proximity to migratory fowl.

NTF recommends that all members develop site specific biosecurity plans and identify an experienced poultry expert or poultry veterinarian to serve as biosecurity officer. Most importantly, companies and farms should create a culture of biosecurity for each barn and for every employee. The NTF audit tool for animal welfare, included in the Animal Care Best Management Practices, can be used to track progress and effectiveness of biosecurity efforts along with other aspects of turkey wellbeing.

Growers who have experienced HPAI stress this advice: Immediate, early action is critical. Observe your flocks closely for any slowing of movement, unusual quiet, craning of necks ("stargazing") or lack of interest in feed or water. Onset of the 2015 H5N2 strain of HPAI was subtle at first, with typical symptoms not seen until several days after actual infection. Isolation and notification must be immediate, with rapid confirmatory testing and quick depopulation essential to control the spread of the virus to other farms.

**UPDATES to Appendix A**
New language is in *italics*.

**CP 1. Farm Safety and Security**

1. Landscaping, drainage, roads, fences, gates and posted authorized entry signs are all important in maintaining a turkey production operation safe and secure from disease, unwanted visitors, wildlife, rodents, vandalism or accidental damage that can put your turkeys at risk for injury, disease or stress.
   a. Farm Site Biosecurity: Preventing the transmission of disease *into and between* turkey houses, farms and from wildlife *or their droppings outside* is essential to maintain healthy productive turkey flocks.
      i. Management Procedures
1. Situating the farm in a location that has a buffer zone separating the farm from public roadways and wildlife areas will reduce the risk of disease spread. Lakes, wetlands and heavily wooded areas close to poultry houses should be avoided if possible.

2. Perimeter fencing of the farm with entryway gates can provide both wild animal and people security. A perimeter buffer area can reduce the chance that HPAI and other viruses enter the property.

3. “No Admittance” or similar signs and locks on the gates during off hours provide security from unauthorized visitors.

4. A clean parking area for visitors at the entry drive into the farm that is away from the turkey houses will minimize on-farm traffic. It can provide a place for visitors and service persons to put on protective clothing prior to walking onto the farm and a place to leave contaminated clothing before leaving the farm.

5. A security building at the entrance to the farm can be used to control entry and increase the biosecurity level. A sign-in log provides documentation of essential traffic that must enter the premises. Clean outer clothing and footwear should be worn with a clean-up area for all personnel and equipment, at the entrance and exit to each barn. Shower-in and shower-out facilities are needed where a high level of security is needed.

6. A decontamination area for vehicles and equipment that must enter the farm and buildings should be available. Effective cleaning, disinfection and inspection is critical to preventing disease spread on vehicles and equipment. Sharing of equipment should be minimized and avoided if possible.

7. Proper dead bird disposal reduces disease transmission and prevents attraction of wild animals, rodents and other disease vectors to the farm. Appropriately sited on farm composting is suggested or covered secure containers for regular pick up and disposal. Consider on farm vehicle traffic and avoid the potential for cross contamination when determining location of pick up locations.

**CP 2. Flock Scheduling**

1. The schedule must be developed using historical production performance, facility capacities, and the physical capability and expertise of personnel.
2. The birds must have enough space at each stage of production to stretch, move about comfortably, preen, grow and produce normally.
3. Down time between groups must be sufficient to permit adequate maintenance and cleaning.
4. *Feed, feed ingredients and fresh/transferred litter should be stored and handled in a manner that minimizes the risk of contamination with AI virus or other diseases.*

**CP 3. Biosecurity and Disease Control**

1. All stages of production require both *structural and operational* biosecurity to reduce the risks of disease and provide assurance of the healthiest birds possible.
   a. **Turkey Building/House Biosecurity:** Turkey buildings must be constructed and maintained to establish a line of separation (LOS) for each house to prevent disease agents present in wildlife, their droppings, rodents and potentially contaminated farm personnel from coming in contact with the turkeys. *The walls of each house should be considered a critical LOS control point for preventing virus/disease exposure to poultry.*
   b. **Each company or independent farm should have an experienced poultry expert or poultry veterinarian responsible for designing and implementing effective biosecurity procedures.** Poultry veterinary expertise is necessary to apply appropriate disease prevention, diagnosis and control to each flock.
      i. **All doors and ventilation openings on each barn must be screened to prevent wild birds from entering the buildings.**
      ii. **Doors and other ground level openings around the entire perimeter of the building must have tight fitting doors and coverings to prevent wildlife and other animals from coming into contact with the turkeys.**
      iii. **Water should come from deep wells or sources that have been treated to eliminate any potential contamination.**
      iv. **Beetle/fly control is needed as necessary for each flock.**
      v. **Rodent protection must be built into the perimeter of the farm, and each barn. The operation should have an overall rodent control program.**
      vi. **An evaluation of each building should be made periodically and repairs completed to maintain the building in a *bio secure* condition.**
      vii. **“No Admittance” or similar signs on each building will help control unnecessary human traffic on the farm and into the buildings.**
viii. Door locks on the inside of the building to be used by workers when inside the building and door locks on the outside of the building when they are unattended will help to control unauthorized entry.

ix. All persons entering the farm and turkey buildings are expected to comply with company biosecurity policy and will wear proper clothing and footwear. They will utilize the sanitation area at each barn/building every time.

x. Farms should consider installing a Danish or similar entry system for each turkey house.

xi. Persons should not enter a turkey building if they have been hunting or in contact with other birds or livestock within the past 24 hours.

xii. Dead birds are picked up routinely and disposed of quickly to minimize disease transmission and prevent attraction of wild animals, rodents and other disease vectors to the farm. Attention is paid to avoid cross contamination.

xiii. Training programs that include biosecurity procedures are required for all new employees prior to entering the farm. Training updates are required for all employees.

xiv. A biosecurity checklist is maintained and is posted for flock caretakers and farm managers.

xv. All farm personnel are prohibited from maintaining any home flocks of poultry, wild or pet birds, or fowl of any kind and must avoid contact with livestock and other animals, which are potential carriers of pathogens. Farm personnel do not allow personal pets (i.e. dogs) near the barn areas.

xvi. Vaccination may be required to control specific diseases. Usually the vaccine is administered via drinking water or aerosol.
   a. Water withholding prior to water vaccination is for no more than an hour or two to ensure all birds drink promptly before the vaccine deteriorates.
   b. Individual injection of vaccines requires handling each bird. It is stressful to both birds and vaccinators. It is done only when absolutely necessary or in birds accustomed to handling (breeders).
   c. Birds may be humanely depopulated when necessary to aid disease diagnosis or disease control (See CP 12).

M 5. Disease Incidence

1. Veterinary diagnostic evaluations of mortality and morbidity problems are routinely performed to respond to disease and improve the health of flocks. Mortality records are maintained on each flock.
a. Diagnostics and other laboratory reports are available and utilized. In the event of detection of a highly infectious FAD, birds are depopulated within 24 hours of confirmation.

2. Consultation with a poultry veterinarian familiar with the area and the operation is important to devise an effective health and biosecurity program to prevent disease.
   a. Health and biosecurity programs should be developed and updated periodically for each operation.

3. Consultation with an experienced nutritionist is important in order to remain current in growth and feed efficiency performance, as well as to prevent nutritional problems that might compromise the flocks.

M 6. Health Check Evaluation

1. Acceptable Animal Health Signs
   a. Flock Inspection
      i. Birds follow walking people, are inquisitive, stretch, preen, play, strut and have normal activities.
      ii. Clean (white) feathers
      iii. Round prominent eyes
   b. Building & Environment
      i. Fresh clean air with good air movement
      ii. Comfortable temperature
      iii. Appropriate CO levels
      iv. Appropriate CO2 levels
      v. Appropriate NH3 levels
      vi. Appropriate humidity levels
      vii. Quiet
      viii. Good lighting
   c. Ventilation and Heating Systems
      i. Dust-free equipment
      ii. All fans, shutters and curtain opening equipment 100 percent operable
   d. Litter
      i. Moist but does not ball easily
      ii. Doesn’t emit dust when disturbed
      iii. Level with minimal ridges, rings or doughnuts around equipment
   e. Droppings
      i. Moist but firm fecal droppings
      ii. Viscous white cap material on fecal droppings
      iii. Few cecal droppings
      iv. Viscous dark colored cecal droppings
2. **Unacceptable** Signs of Animal Health
   a. Flock Inspection
      i. *Unusual unexplained increases in mortality*
      ii. Birds do not move easily or are lame.
      iii. Birds sit most of the time or appear depressed.
      iv. Dirty, discolored feathers from wet litter, lack of preening or from wiping eyes and nostrils on shoulder feathers.
      v. Drooping wings
      vi. Excessive broken feathers
      vii. Slanted, dim looking eyes
      ix. Dead birds in the litter
      x. Cull birds in the flock
   b. Building and Environment
      i. Stale air or ammonia odor
      ii. Air feels cool or hot, sticky and uncomfortable
      iii. CO and/or CO2 levels too high
      iv. Loud noise from equipment, people or outside activities
      v. Dim or uneven lighting
   c. Ventilation and Heating Systems
      i. Dusty or dirty equipment and vents
      ii. Equipment in need of service
   d. Litter
      i. Uneven with many ridges and mounds
      ii. Clutter of equipment, gates, garbage, clothing, footwear, extra drinkers, feed pans, wheel barrows, fork or rakes on the litter that disturbs air movement and encourages litter eating.
      iii. Wet soggy areas
      iv. Produces dust easily when disturbed.
   e. Droppings
      i. Soft, mushy, fecal droppings with undigested feed
      ii. Fecal droppings with slimy, runny white caps
      iii. Excessive cecal droppings
      iv. Fluid, yellow/tan, foamy cecal droppings

3. Utilize the Health Check Evaluation Form on a routine basis to improve observation accuracy and to maintain a record of findings.
Please note: These procedures may be revised as the situation continues to change.

With the increasing number of premises affected by HPAI, unaffected States should prepare for an infected premises in their State. States should be aware of these procedures, processes, and information upon an HPAI-positive confirmation from the National Veterinary Services Laboratories (NVSL). Initial detections of HPAI in a State require NVSL confirmation.

### Appraisal and Indemnity Procedures
- For information on indemnity for the first detection in a State, please see Indemnity Procedures.
- For information on indemnity payments, please see Processing Indemnity Payments.
- Indemnity calculators are available from the HPAI Operations Section (HPAIOps@aphis.usda.gov)

### Communication
- Coordinate State-Federal-Industry Communication
- Coordinate with State Public Affairs, APHIS Legislative and Public Affairs, and APHIS Trade Staff

### 3D Activities/NVS Support
- To contact the NVS and/or request resources, please email NVS@aphis.usda.gov.
- Rapid depopulation and euthanasia is needed to control virus spread.
- Disposal procedures must be effective and appropriate.
- Cleaning and disinfection of all areas must be conducted.

### Zones and Premises

### Surveillance
- Increase surveillance after first detection in State.
- HPAI Outbreak 2014-2015: Surveillance Sampling Schemes for Commercial Premises in the Control Area

### Guidance for Movement Control and Permitting
- For an overview on movement control and guidance on moving into, within, and out of a Control Area, see Movement Control.
Continuity of business measures should be implemented for non-infected premises and non-contaminated products in the Control Area. For example, see the
- Secure Turkey Supply Plan.
- Secure Egg Supply Plan.

**INCIDENT COORDINATION GROUP/AREA COMMAND CALLS**
- ICG Call & Area Command Call
  - Tuesday & Thursday 11am-12pm
  - Monday, Wednesday, Friday, Saturday, Sunday 3pm-6pm

**WORK TO CONTAIN AND CONTROL THE VIRUS**
- Rapidly diagnose and report disease and clinically sick birds.
- Swiftly implement effective quarantines, movement controls, and Control Area biosecurity measures.
- Conduct epidemiological investigation and tracing.
- Execute increased active surveillance.

**MORE INFORMATION**
- FAD PReP with HPAI Information
- APHIS HPAI Website
- USDA HPAI Website
Please note: These procedures may be revised as the situation develops.

**GENERAL REQUIREMENTS**

♦ The best practices to contain and eradicate highly pathogenic avian influenza (HPAI) virus by “stamping-out” within 24 hours of detection will require rapid depopulation, appraisal, and indemnity procedures.

♦ State Animal Health Officials and APHIS officials must approve depopulation prior to the depopulation of any birds and eggs. This will require rapid communication between producer, company, State officials, APHIS, and laboratory officials.

♦ These appraisal and indemnity procedures apply to both the first detection of HPAI in a State and subsequent HPAI detections in a State.

♦ All foreign animal disease (FAD) investigations and depopulation decisions must be approved by State and Federal animal health officials.

**Procedures**

1. An inventory of poultry and other information required for appraisal and indemnity (itemized below) should be compiled as soon as a FAD investigation is initiated, or an HPAI presumptive positive case is identified, or an HPAI suspect case is identified, or whichever is earliest.

2. A State or APHIS official will work with the owner, grower, licensed veterinarian, or company official to electronically transmit flock records, information and inventory to the HPAI OPS Group, State Animal Health Officials, VS District personnel, and/or IMT personnel.

3. The VS 1-23 Appraisal & Indemnity Claim Form is created by an APHIS official based on the information provided and the age, sex, type, and value of birds. Indemnity values for birds and eggs are provided by the HPAI OPS Group based on current USDA calculators.

4. If Veterinary Services (VS) District or Incident Management Team (IMT) personnel cannot meet the 24-hour deadline to prepare the VS1-23, especially for new cases in new States, the HPAI OPS Group will prepare the VS1-23.

5. As soon as the HPAI presumptive positive case definition is met, or joint State-APHIS decision to depopulate is made, a State or APHIS official will obtain the owner signature on the completed VS 1-23. Owner signatures will be signed in ink, but electronically transmitted (fax, digital image, electronic form, etc.) to the HPAI OPS Group prior to depopulation. APHIS officials will collect the hard copy signed form for the record.

6. In some investigations, the HPAI suspect case definition will be used to initiate depopulation; the same above procedures will apply.

7. A signed flock plan (owner, APHIS, State Animal Health Official) is not required for indemnity payments, but is required for State quarantine or hold order release, APHIS disposal assistance, and APHIS cleaning and disinfection assistance.

**SPECIAL NOTE FOR FIRST DETECTIONS OF HPAI IN A STATE**

♦ To maximize speed of APHIS international trade notifications, please send samples to the National Animal Health Laboratory Network (NAHLN) lab and National Veterinary Services Laboratory (NVSL) at the first indication of increased mortality or clinical signs, and follow FAD investigation procedures.
Don’t wait to rule out other causes. Duplicate or second set of samples are the standard for FAD investigations.

NVSL confirmation is not required for depopulation and indemnity, but is required for APHIS international trade notifications. Timely reporting prevents unnecessary trade disruptions with some trading partners.

INFORMATION REQUIRED FOR APPRAISAL AND INDEMNITY

Information required for appraisal and indemnity is listed below and must be sent to the preparer of the VS 1-23 Indemnity Form. Some of this information may need to be provided or verified by owner, grower, private veterinarian, VS personnel, or State Animal Health Officials.

- Type of flock (turkey, chicken, layer, breeder, backyard, etc.)
- Flock information including the age, sex, and number of each type of bird; number of barns and number of birds in each barn; barn mortality records
- Date of onset of clinical signs (if present)
- Date of facility quarantine
- Reason for test (area surveillance, pre-movement, NPIP [National Poultry Improvement Plan], sick-bird call)
- County of premises
- Premises Identification Number (PIN) – location of poultry, not company home
- The GPS coordinates (latitude/longitude) and 911 address of premises
- Name of facility/complex
- Claimant name and address
- Confirmation of mortgage status
- Appraisal Date – date value is assigned to the birds or eggs
- Name of NAHLN lab submitting samples.

LINKS TO RESOURCES

- FAD Investigation Procedures
- HPAI Case Definition

USDA HPAI INCIDENT COORDINATION GROUP (ICG) CONTACT INFORMATION

The below personnel are part of the HPAI OPS Group (and larger ICG), which may include other rotating personnel. The HPAI OPS Group (hpaiops@aphis.usda.gov) is to be notified of all HPAI FAD Priority 1, 2, or A HPAI investigations, HPAI suspect cases, and HPAI presumptive positive cases. No need to email the HPAI OPS Group personnel individually if the HPAI OPS Group mail is working. However, phone contact and conference calls are required for any FAD investigations.

To: Patricia.E.Fox@aphis.usda.gov; Jonathan.T.Zack@aphis.usda.gov; Fidelis.N.Hegngi@aphis.usda.gov; LeeAnn.Thomas@aphis.usda.gov

Cc: Thomas.J.Myers@aphis.usda.gov; Burke.L.Healey@aphis.usda.gov; Elizabeth.M.Brown@aphis.usda.gov; Sharon.S.Fisher@aphis.usda.gov
DEFINITIONS

Infected Premises: Premises where a presumptive positive case or confirmed positive case was located based on laboratory results, compatible clinical signs, the highly pathogenic avian influenza (HPAI) case definition, and international standards.

Contact Premises: Premises with susceptible animals that may have been exposed to HPAI, either directly or indirectly, including but not limited to exposure to animals, animal products, fomites, or people from Infected Premises.

Suspect Premises: Premises under investigation due to the presence of susceptible animals reported to have clinical signs compatible with HPAI. This is intended to be a short-term premises designation.

At-Risk Premises: Premises that have susceptible animals, but none of those susceptible animals have clinical signs compatible with HPAI. Premises objectively demonstrates that it is not an Infected Premises, Contact Premises, or Suspect Premises. At-Risk Premises may seek to move susceptible animals or products within the Control Area by permit. Only At-Risk Premises are eligible to become Monitored Premises.

Infected Zone: Zone that immediately surrounds an Infected Premises; the perimeter should be at least 3 km (~1.86 miles) beyond the perimeters of the presumptive or confirmed Infected Premises. This zone may be redefined as the outbreak continues.

Buffer Zone: Zone that immediately surrounds an Infected Premises; this is the area that is at least 7 km (~4.35 miles) beyond the perimeter of the Infected Zone (10 km beyond the Infected Premises). This zone may be redefined as the outbreak continues.

Control Area: Consists of an Infected Zone and a Buffer Zone; the perimeter of the Control Area should be at least 10 km (~6.21 miles) beyond the perimeter of the closest Infected Premises. This area may be redefined as the outbreak continues.

Foreign Animal Disease Investigation: An investigation conducted according to VS Guidance 12001.2 (Ready Reference Guide for investigations is here).

INTRODUCTION

An Infected Zone and Buffer Zone (a Control Area) will be created around an HPAI Infected Premises. This document provides surveillance guidance for backyard premises (non-commercial) within a Control Area. Surveillance activities and associated testing should be based on recommendations of the Unified (State-Federal) Incident Command; this guidance may require further modification based on epidemiological and situational information.

This document reflects the epidemiological information known about the behavior of circulating viruses in the 2014–2015 U.S. HPAI outbreak, in which HPAI infected both backyard and commercial premises. For example, there is no evidence that the circulating viruses cause sub-clinical infection in gallinaceous poultry species; clinical signs and mortality are apparent.
COMMUNICATION

It is critical to ensure that information about HPAI, as well as recommended biosecurity measures, are clearly communicated to all backyard premises in a Control Area. APHIS and State/Tribal officials must ensure that instructions are provided to owners to report clinical signs and abnormal mortality; there should be transparent procedures for managing reports of clinical signs or unusual mortality from backyard producers (also known as sick bird calls).

VISITING PREMISES

While it is important to locate backyard premises within a Control Area, responders should not enter backyard poultry premises unless instructed to do so by the Incident Management Team (IMT). It is critical to remember that any real or perceived belief that responders are spreading HPAI is incredibly detrimental to the response effort. As with any premises, if a visit is necessary, appropriate biosecurity and cleaning and disinfection measures should be observed: guidance provided by Incident Command should be followed.

PRIORITIES FOR SURVEILLANCE ACTIVITIES IN THE CONTROL AREA

The following are the priorities for backyard surveillance activities in the Control Area; it is critical to investigate Infected and Contact Premises as rapidly as possible to detect, control, and contain the virus as rapidly as possible. These premises should remain the top priority in any response effort.

SURVEILLANCE PLAN

Passive Surveillance

General Guidance

The IMT, in coordination with any subject matter experts, should develop morbidity and mortality criteria that dictate the need for further investigation. These criteria/triggers should be species specific. During a widespread HPAI outbreak, reports of clinical signs or unusual mortality from backyard producers (sick bird calls) are investigated as rapidly as possible.

However, sick bird calls may overwhelm available resources, particularly when investigation and/or management of Infected and Contact Premises are not complete. In this case, the IMT may recommend triaging disease investigations on backyard premises, using the morbidity and mortality criteria and/or farm risk factors (e.g., close proximity to bodies of water with waterfowl concentrations). These triggers should be based on the best information available, and should be developed in coordination with State/Tribal officials. Typically, premises in the Infected Zone should be prioritized over those in the Buffer Zone.

Start and Duration

Passive surveillance is conducted at all times in the United States through foreign animal disease investigations (per VS Guidance Document 12001); passive surveillance is intensified through rapid and clear communication to backyard producers as soon as there is an HPAI detection.

Procedures

For sick bird calls on backyard premises, a Foreign Animal Disease Diagnostician (or individual designated by the IMT) should:
1. If resources allow, investigate each call meeting the identified criteria immediately.
2. If necessary, prioritize those premises in the Infected Zone and those meeting morbidity/mortality triggers or having additional risk factors for further investigation. This should be conducted in coordination with State officials.
3. Schedule an appointment to collect samples as quickly as possible.
4. Conduct diagnostic testing according to sampling recommendations, submit samples to designated National Animal Health Laboratory Network (NAHLN) lab as indicated by the IMT (provided in “Sampling Scheme for Poultry” below).
5. Record all relevant information in the Emergency Management Response System (EMRS), including means of communication.

Routine/Active Surveillance

General Guidance

In addition to passive surveillance, routine/active surveillance is conducted to provide evidence that HPAI is not present.

Start and Duration

APHIS and/or State officials will determine the time period for active surveillance. It may begin upon completion of initial cleaning and disinfection (C&D) of the last Infected Premises in the Control Area (e.g., though compost piles may remain, all fomites, vehicles, and outside areas of the houses have undergone C&D), or a different timeline for sampling may be recommended. Active surveillance may continue after the Control Area has been released for international or bilateral trading partners.

Procedures

The IMT performs the following:

1. Select a minimum number of premises to sample (see Table 1).
   a. Include high-risk premises, such as those near bodies of water.
   b. Randomly select remaining premises (the IMT may have further guidance on which premises should be sampled when there are a large number of backyard premises in the Control Area).
2. Contact (by phone) all selected premises.
   a. If the premises does not have any clinical signs, unusual morbidity/mortality, or other risk factors requiring further investigation, a site visit is not necessary.
3. Visit selected premises as needed.
   a. If the premises has clinical signs, unusual morbidity/mortality, or other risk factors requiring investigation, a Foreign Animal Disease Diagnostician (or individual designated by the IMT) should visit the premises for diagnostic testing.
   b. State/Tribal officials may also choose to conduct site visits on apparently healthy backyard flocks within the Control Area. This may be useful when there is minimal diagnostic test data available, e.g., in areas where there are few commercial operations and/or few sick bird calls.
4. Record all relevant information in EMRS, including all premises ‘sampled’ (meaning those contacted or visited for diagnostic testing). Follow IMT guidance on additional information to enter.

RECOMMENDED SAMPLING SCHEME

For premises that require further investigation, samples should be collected as follows:

1. Identify whether sick or recently dead birds are available for sampling. If not, document site visit and absence of clinical signs.

2. If clinical signs or morbidity are apparent:
   a. For premises with gallinaceous birds (e.g., chickens and turkeys), sample 5 birds from sick, dead, or euthanized birds.
   b. Do not target premises without gallinaceous birds for sampling; there is low detection confidence from domestic waterfowl.
      i. If the IMT determines sampling is necessary in these flocks in the absence of clinical signs, larger sample sizes are recommended.
      ii. A 30 bird sample is sufficient to detect HPAI with approximately 95 percent confidence if within-flock prevalence is 10 percent.

3. With clinically ill and dead birds, sampling 5 birds is sufficient to detect HPAI with 95 percent confidence if prevalence across sick and dead birds is 50 percent.

4. Collect swabs according to species:
   a. Take oropharyngeal swabs for gallinaceous birds.
   b. If domestic waterfowl are sampled, take cloacal swabs.
   c. Do not pool swabs from species other than domestic chickens and domestic ducks; AND these swabs can be pooled, but not together (e.g., do not pool 3 chicken swabs with 2 duck swabs).
   d. All other species (besides domestic chickens and ducks) must be sampled one swab per vial.
   e. Prepare, package, and process swabs for laboratory submission according to the guidance found in the FAD Investigation Manual.

5. Repeat visits and sampling on premises are not necessary, unless clinical signs continue or escalate.

Table 1. Number of backyard operations to contact or sample from each Control Area

<table>
<thead>
<tr>
<th>Total number of flocks in Control Area</th>
<th>Minimum number of flocks for active surveillance activity (See explanation)</th>
</tr>
</thead>
<tbody>
<tr>
<td>11 or less</td>
<td>All flocks in Control Area</td>
</tr>
<tr>
<td>12 to 15</td>
<td>11</td>
</tr>
<tr>
<td>16 to 39</td>
<td>15</td>
</tr>
<tr>
<td>40 to 84</td>
<td>17</td>
</tr>
<tr>
<td>85 or greater</td>
<td>19</td>
</tr>
</tbody>
</table>

a This presumes 15% design prevalence among premises, 95% confidence, and 95% within-flock sensitivity (or capability of detection).
DOCUMENTATION

As with all surveillance activities, documentation is critically important. EMRS is the system of record for all HPAI outbreaks in the United States, and relevant data regarding backyard surveillance activities must be entered into EMRS in as close to real-time as possible. This data may be reported internally and externally through situation or close-out reports and other means.

At a minimum, the following items are important to maintain and report. Refer to IMT guidance for how to appropriately record these and other data:

- Number of backyard premises in Control Area.
- Number contacted, and means of contact, for passive surveillance.
- Number of visited and sampled for passive surveillance.
- Number contacted by phone for active surveillance.
- Number visited and sampled for active surveillance.
- Total birds sampled per premises.
- Laboratory results for all submissions.

FOR MORE INFORMATION


Please note: These procedures may be revised as the situation develops.

Definitions

Contact Premises: Premises with susceptible animals that may have been exposed to highly pathogenic avian influenza (HPAI), either directly or indirectly, including but not limited to exposure to animals, animal products, fomites, or people from Infected Premises.

Suspect Premises: Premises under investigation due to the presence of susceptible animals reported to have clinical signs compatible with HPAI. This is intended to be a short-term premises designation.

At-Risk Premises: Premises that have susceptible animals, but none of those susceptible animals have clinical signs compatible with HPAI. Premises objectively demonstrates that it is not an Infected Premises, Contact Premises, or Suspect Premises. At-Risk Premises seek to move susceptible animals or products within the Control Area by permit. Only At-Risk Premises are eligible to become Monitored Premises.

Monitored Premises: Premises objectively demonstrates that it is not an Infected Premises, Contact Premises, or Suspect Premises. Only At-Risk Premises are eligible to become Monitored Premises. Monitored Premises meet a set of defined criteria in seeking to move susceptible animals or products out of the Control Area by permit.

Premises Located in the Control Area

Commercial Premises
If HPAI compatible signs are observed or epidemiological links found, collect swabs for the 5 or 11-bird pool(s) selected from each group of 50 (or less) daily dead or euthanized sick birds. Swabs must be collected and pooled for each multiple of 50 (or less) dead or euthanized sick birds from each house on the premises.

Frequency of Sampling: determined by classification of premises.

- Suspect Premises (SP) is a temporary designation. Disposition of SP is determined by State Animal Health Official,APHIS, and/or Incident Management Team (IMT). SP should be reclassified prior to sampling activities described below.
- Contact Premises (CP) and Monitored Premises (MP):
  - Collect swabs for the 5-bird or 11-bird pool sample(s) on each premises every other day for 14 days.
  - CP or MP that test negative in the above sampling regime should then be sampled as described for the ARP (below). MP may be sampled more frequently depending on the need to move product but, at the minimum, must be sampled as listed below.
At Risk Premises (ARP):

- Collect swabs for the 5-bird or 11-bird pool(s) on each premises once every 5-7 days for the duration of the quarantine, or similar sampling frequency depending on the resources available and guidance provided by the IMT.

*Duration of sampling:* Sampling continues until the Control Area is released. For information on Control Area release, please see the document *Control Area Release.*

**FOR CONTINUITY OF BUSINESS MOVEMENTS ORIGINATING WITHIN THE CONTROL AREA**

For information on testing requirements for movements originating within the Control Area, please see the document *Testing Requirements for Movement from the Control Area.*

**REFERENCES**

<table>
<thead>
<tr>
<th>Zone/Area</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Infected Zone (IZ)</td>
<td>Zone that immediately surrounds an Infected Premises.</td>
</tr>
<tr>
<td>Buffer Zone (BZ)</td>
<td>Zone that immediately surrounds an Infected Zone or a Contact Premises.</td>
</tr>
<tr>
<td>Control Area (CA)</td>
<td>Consists of an Infected Zone and a Buffer Zone.</td>
</tr>
<tr>
<td>Surveillance Zone (SZ)</td>
<td>Zone outside and along the border of a Control Area. The Surveillance Zone is part of the Free Area.</td>
</tr>
<tr>
<td>Free Area (FA)</td>
<td>Area not included in any Control Area. Includes the Surveillance Zone.</td>
</tr>
</tbody>
</table>

In the Infected Zone (which is part of the Control Area), there are movement controls and surveillance activities. Infected Premises are quarantined.

In the Buffer Zone (which is part of the Control Area), there are movement controls and surveillance activities.

In the Surveillance Zone (which is part of the Free Area), targeted poultry surveillance may be conducted (i.e. commercial premises).

In the Free Area (which includes the Surveillance Zone), routine or program surveillance may occur (i.e. NPIP and wild birds).
In an HPAI outbreak, the Incident Commander will work with the Operations Section and Planning Section to determine the appropriate designations.

### Summary of Premises Designations

<table>
<thead>
<tr>
<th>Premises</th>
<th>Definition</th>
<th>Zone</th>
</tr>
</thead>
<tbody>
<tr>
<td>Infected Premises (IP)</td>
<td>Premises where a presumptive positive case or confirmed positive case exists based on laboratory results, compatible clinical signs, HPAI case definition, and international standards.</td>
<td>Infected Zone</td>
</tr>
<tr>
<td>Contact Premises (CP)</td>
<td>Premises with susceptible animals that may have been exposed to HPAI, either directly or indirectly, including but not limited to exposure to animals, animal products, fomites, or people from Infected Premises.</td>
<td>Infected Zone, Buffer Zone</td>
</tr>
<tr>
<td>Suspect Premises (SP)</td>
<td>Premises under investigation due to the presence of susceptible animals reported to have clinical signs compatible with HPAI. This is intended to be a short-term premises designation.</td>
<td>Infected Zone, Buffer Zone, Surveillance Zone, Vaccination Zone</td>
</tr>
<tr>
<td>At-Risk Premises (ARP)</td>
<td>Premises that have susceptible animals, but none of those susceptible animals have clinical signs compatible with HPAI. Premises objectively demonstrates that it is not an Infected Premises, Contact Premises, or Suspect Premises. At-Risk Premises seek to move susceptible animals or products within the Control Area by permit. Only At-Risk Premises are eligible to become Monitored Premises.</td>
<td>Infected Zone, Buffer Zone</td>
</tr>
<tr>
<td>Monitored Premises (MP)</td>
<td>Premises objectively demonstrates that it is not an Infected Premises, Contact Premises, or Suspect Premises. Only At-Risk Premises are eligible to become Monitored Premises. Monitored Premises meet a set of defined criteria in seeking to move susceptible animals or products out of the Control Area by permit.</td>
<td>Infected Zone, Buffer Zone</td>
</tr>
<tr>
<td>Free Premises (FP)</td>
<td>Premises outside of a Control Area and not a Contact or Suspect Premises.</td>
<td>Surveillance Zone, Free Area</td>
</tr>
</tbody>
</table>

### Summary of Zone and Area Designations

<table>
<thead>
<tr>
<th>Zone/Area</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Infected Zone (IZ)</td>
<td>Zone that immediately surrounds an Infected Premises.</td>
</tr>
<tr>
<td>Buffer Zone (BZ)</td>
<td>Zone that immediately surrounds an Infected Zone or a Contact Premises.</td>
</tr>
<tr>
<td>Control Area (CA)</td>
<td>Consists of an Infected Zone and a Buffer Zone.</td>
</tr>
<tr>
<td>Surveillance Zone (SZ)</td>
<td>Zone outside and along the border of a Control Area. The Surveillance Zone is part of the Free Area.</td>
</tr>
<tr>
<td>Free Area (FA)</td>
<td>Area not included in any Control Area. Includes the Surveillance Zone.</td>
</tr>
</tbody>
</table>

### Example Zones, Areas, and Premises

In an HPAI outbreak, the Incident Commander will work with the Operations Section and Planning Section to determine the appropriate designations.
### Factors Used to Determine Control Area Size

<table>
<thead>
<tr>
<th>Factors</th>
<th>Additional Details</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Jurisdictional areas</strong></td>
<td>• Effectiveness and efficiency of administration</td>
</tr>
<tr>
<td></td>
<td>• Multi-jurisdictional considerations: local, State, Tribal, and multistate</td>
</tr>
<tr>
<td><strong>Physical boundaries</strong></td>
<td>• Areas defined by geography</td>
</tr>
<tr>
<td></td>
<td>• Areas defined by distance between premises</td>
</tr>
<tr>
<td><strong>HPAI epidemiology</strong></td>
<td>• Reproductive rate</td>
</tr>
<tr>
<td></td>
<td>• Incubation period</td>
</tr>
<tr>
<td></td>
<td>• Ease of transmission</td>
</tr>
<tr>
<td></td>
<td>• Infectious dose</td>
</tr>
<tr>
<td></td>
<td>• Species susceptibility</td>
</tr>
<tr>
<td></td>
<td>• Modes of transmission (such as, fecal-oral, droplet, aerosol, vectors)</td>
</tr>
<tr>
<td></td>
<td>• Survivability in the environment</td>
</tr>
<tr>
<td></td>
<td>• Ease of diagnosis (for example, no pathognomonic signs; requires diagnostic laboratory testing)</td>
</tr>
<tr>
<td><strong>Infected Premises characteristics</strong></td>
<td>• Number of contacts</td>
</tr>
<tr>
<td></td>
<td>• Transmission pathways and transmission risk</td>
</tr>
<tr>
<td></td>
<td>◦ Extent of animal movement</td>
</tr>
<tr>
<td></td>
<td>◦ Number of animals</td>
</tr>
<tr>
<td></td>
<td>◦ Species of animals</td>
</tr>
<tr>
<td></td>
<td>◦ Age of animals</td>
</tr>
<tr>
<td></td>
<td>◦ Movement of traffic and personnel to and from premises (fomite spread)</td>
</tr>
<tr>
<td></td>
<td>◦ Biosecurity measures in place at time of outbreak</td>
</tr>
<tr>
<td><strong>Contact Premises characteristics</strong></td>
<td>• Number and types of premises</td>
</tr>
<tr>
<td></td>
<td>• Susceptible animal populations and population density</td>
</tr>
<tr>
<td></td>
<td>• Animal movements</td>
</tr>
<tr>
<td></td>
<td>• Movement of traffic (fomites) and personnel to and from premises (fomite spread)</td>
</tr>
<tr>
<td></td>
<td>• Biosecurity measures in place prior to outbreak</td>
</tr>
<tr>
<td><strong>Environment</strong></td>
<td>• Types of premises in area or region</td>
</tr>
<tr>
<td></td>
<td>• Land use in area or region</td>
</tr>
<tr>
<td></td>
<td>• Susceptible wildlife and population density</td>
</tr>
<tr>
<td></td>
<td>• Wildlife as biological or mechanical vectors</td>
</tr>
<tr>
<td><strong>Climate (for aerosol spread diseases)</strong></td>
<td>• Prevailing winds</td>
</tr>
<tr>
<td></td>
<td>• Humidity</td>
</tr>
<tr>
<td><strong>General area, region, or agricultural sector biosecurity</strong></td>
<td>• Biosecurity practices in place prior to outbreak</td>
</tr>
<tr>
<td></td>
<td>• Biosecurity practices implemented once outbreak detected</td>
</tr>
<tr>
<td><strong>Number of backyard or transitional premises</strong></td>
<td>• Types of premises, animal movements, and network of animal and fomite movements</td>
</tr>
<tr>
<td><strong>Continuity of business</strong></td>
<td>• Continuity of business plans and processes in place or activated at beginning of outbreak (such as surveillance, negative diagnostic tests, premises biosecurity, and risk-assessments)</td>
</tr>
<tr>
<td></td>
<td>• Permit processes, memorandums of understanding, and information management systems in place or activated at beginning of outbreak</td>
</tr>
</tbody>
</table>

### Minimum Sizes of Zones and Areas

<table>
<thead>
<tr>
<th>Zone or Area</th>
<th>Minimum Size and Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Infected Zone (IZ)</td>
<td>Perimeter should be at least 3 km (~1.86 miles) beyond perimeters of presumptive or confirmed Infected Premises. Will depend on disease agent and epidemiological circumstances. This zone may be redefined as the outbreak continues.</td>
</tr>
<tr>
<td>Buffer Zone (BZ)</td>
<td>Perimeter should be at least 7 km (~4.35 miles) beyond the perimeter of the Infected Zone. Width is generally not less than the minimum radius of the associated Infected Zone, but may be much larger. This zone may be redefined as the outbreak continues.</td>
</tr>
<tr>
<td>Control Area (CA)</td>
<td>Perimeter should be at least 10 km (~6.21 miles) beyond the perimeter of the closest Infected Premises. Please see the table to the left for factors that influence the size of the Control Area. This area may be redefined as the outbreak continues.</td>
</tr>
<tr>
<td>Surveillance Zone (SZ)</td>
<td>Width should be at least 10 km (~6.21 miles), but may be much larger.</td>
</tr>
</tbody>
</table>

For more information, please go to: [http://www.aphis.usda.gov/fadprep](http://www.aphis.usda.gov/fadprep)

For more details on zones and premises designations, please see the [APHIS FAD Framework: Response Strategies (Manual 2-D)](http://www.aphis.usda.gov/fadprep)


Please note: These procedures may be revised as the situation develops. This new version does not contain substantive updates.

For zones, areas, and premises definitions, please review the HPAI Incident 2014-2015: Ready Reference Guide—Overview of Zones.

**OVERVIEW**

- Movement control is a critical activity to prevent transmission of highly pathogenic avian influenza (HPAI) from Infected Premises.
- Movement control of animals, animal products, potential fomites, and other potentially contaminated materials or conveyances ensures that the response activities pose a negligible risk of further HPAI transmission from premises inside the Control Area.
- Quarantines are imposed on Infected, Contact, and Suspect Premises; managed movement efforts (like the Secure Food Supply Plans) and movement controls focus on At-Risk and Monitored Premises in the Control Area.
- Movement control and permit processes will change over time depending on situational awareness and operational capabilities.

**GENERAL GUIDANCE**

- In this incident, State Animal Health Officials and Unified Incident Management Teams provide oversight for intrastate movements, unless a USDA Extraordinary Emergency Declaration is requested.
- State Animal Health Officials, APHIS Officials, and Unified Incident Command provide oversight for interstate and international movement controls and corresponding permits.
- Please note, affected States may establish additional enhanced active surveillance and testing criteria for premises located in Free Areas within their State. As an example, this could include pre-movement testing for live poultry or hatching eggs from premises in a county or the State.

**INFORMATION ON MOVEMENT CONTROL**

- [USDA APHIS HPAI Response Plan: The Red Book](#)
- [USDA APHIS FAD PReP Framework: Response Strategies (Manual 2-0)](#)
- [USDA NAHEMS Guidelines: Quarantine and Movement Control](#)

**INFORMATION ON MANAGED MOVEMENT (SECURE FOOD SUPPLY)**

- For more information on managed movement (from At-Risk and Monitored Premises in the Control Area), please see
  - Secure Egg Supply Plan ([www.secureeggsupply.com](http://www.secureeggsupply.com))
  - Secure Turkey Supply Plan ([www.secureturkeysupply.com](http://www.secureturkeysupply.com))
  - Secure Broiler Supply Plan ([www.securebroilersupply.com](http://www.securebroilersupply.com))
# Moving into, Within, and Out of a Control Area

## Table 1. Movement into Control Area from Outside Control Area to Specific Premises

<table>
<thead>
<tr>
<th>Item Moving into a Control Area to a/an...</th>
<th>Infected Premises</th>
<th>Suspect Premises&lt;sup&gt;a&lt;/sup&gt;</th>
<th>Contact Premises&lt;sup&gt;a&lt;/sup&gt;</th>
<th>At-Risk Premises</th>
<th>Monitored Premises</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poultry (may include other birds as defined by Incident Commander)</td>
<td>Prohibited, except under certain circumstances as determined by the Incident Command (IC), such as slaughter.</td>
<td>Prohibited, except under certain circumstances as determined by the IC, such as slaughter.</td>
<td>Prohibited, except under certain circumstances as determined by the IC, such as slaughter.</td>
<td>Permit for movement must be approved by the IC with appropriate biosecurity measures.</td>
<td>Permit for movement must be approved by the IC with appropriate biosecurity measures.</td>
</tr>
<tr>
<td>Poultry products</td>
<td>See continuity of business plans for information on susceptible poultry products, or guidance and processes as determined by the Unified Incident Command. Secure Food Supply Plans are found at: <a href="http://www.secureeggsupply.com">www.secureeggsupply.com</a> and <a href="http://www.secureturkeysupply.com">www.secureturkeysupply.com</a>. The Unified Incident Command can provide guidance on AI inactivation in poultry products that meets OIE standards.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other animals (non-susceptible) from premises with poultry</td>
<td>Prohibited unless permit approved by IC and appropriate biosecurity measures.</td>
<td>Prohibited unless permit approved by IC and appropriate biosecurity measures.</td>
<td>Prohibited unless permit approved by IC and appropriate biosecurity measures.</td>
<td>Allowed with appropriate biosecurity measures. IC may require a permit for movement depending on HPAI epidemiology and characteristics of destination premises.</td>
<td>Allowed with appropriate biosecurity measures. IC may require a permit for movement depending on HPAI epidemiology and characteristics of destination premises.</td>
</tr>
<tr>
<td>Other animals (non-susceptible) from premises without poultry</td>
<td>IC will determine movement restrictions based on HPAI epidemiology and characteristics of destination premises.</td>
<td>IC will determine movement restrictions based on HPAI epidemiology and characteristics of destination premises.</td>
<td>IC will determine movement restrictions based on HPAI epidemiology and characteristics of destination premises.</td>
<td>Allowed with appropriate biosecurity measures. IC may require a permit for movement depending on HPAI epidemiology and characteristics of destination premises.</td>
<td>Allowed with appropriate biosecurity measures. IC may require a permit for movement depending on HPAI epidemiology and characteristics of destination premises.</td>
</tr>
<tr>
<td>Equipment, vehicles, grain, feed, and other fomites from premises with poultry</td>
<td>Allowed with appropriate biosecurity measures.</td>
<td>Allowed with appropriate biosecurity measures.</td>
<td>Allowed with appropriate biosecurity measures.</td>
<td>Allowed with appropriate biosecurity measures.</td>
<td>Allowed with appropriate biosecurity measures.</td>
</tr>
</tbody>
</table>

<sup>a</sup>Contact Premises and Suspect Premises are intended to be short-term premises designations. Ideally these premises should be re-designated before movements occur.
Table 2. Movement Within Control Area

<table>
<thead>
<tr>
<th>Item Moving within a Control Area from a/an…</th>
<th>Infected Premises</th>
<th>Suspect Premises&lt;sup&gt;a&lt;/sup&gt;</th>
<th>Contact Premises&lt;sup&gt;a&lt;/sup&gt;</th>
<th>At-Risk Premises</th>
<th>Monitored Premises</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poultry (may include other birds as defined by Incident Commander)</td>
<td>Prohibited, except under certain circumstances as determined by the IC, such as slaughter.</td>
<td>Prohibited, except under certain circumstances as determined by the IC, such as slaughter.</td>
<td>Prohibited, except under certain circumstances as determined by the IC, such as slaughter.</td>
<td>Allowed to move by permit approved by the IC; surveillance, negative diagnostic tests, premises biosecurity, and risk-assessment may be required for permit.</td>
<td>Allowed to move by permit approved by the IC; surveillance, negative diagnostic tests, premises biosecurity, and risk-assessment may be required for permit.</td>
</tr>
<tr>
<td>Poultry products</td>
<td>See continuity of business plans for information on susceptible poultry products, or guidance and processes as determined by the Unified Incident Command. Secure Food Supply Plans are found at: <a href="http://www.secureeggsupply.com">www.secureeggsupply.com</a> and <a href="http://www.secureturkeysupply.com">www.secureturkeysupply.com</a>. The Unified Incident Command can provide guidance on AI inactivation in poultry products that meets OIE standards.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other animals (non-susceptible) from premises with poultry</td>
<td>Prohibited unless specific permit granted by IC and appropriate biosecurity measures.</td>
<td>Prohibited unless specific permit granted by IC and appropriate biosecurity measures.</td>
<td>Prohibited unless specific permit granted by IC and appropriate biosecurity measures.</td>
<td>Allowed to move by permit approved by the IC; surveillance, negative diagnostic tests, premises biosecurity, and risk-assessment may be required for permit.</td>
<td>Allowed to move by permit approved by the IC; surveillance, negative diagnostic tests, premises biosecurity, and risk-assessment may be required for permit.</td>
</tr>
<tr>
<td>Other animals (non-susceptible) from premises without poultry</td>
<td>n/a (Infected Premises have poultry)</td>
<td>n/a (Suspect Premises have poultry)</td>
<td>n/a (Contact Premises have poultry)</td>
<td>n/a (At-Risk Premises have poultry)</td>
<td>n/a (Monitored Premises have poultry)</td>
</tr>
<tr>
<td>Equipment, vehicles, grain, feed, and other fomites from premises with poultry</td>
<td>Prohibited unless specific permit granted by IC and appropriate biosecurity measures.</td>
<td>Prohibited unless specific permit granted by IC and appropriate biosecurity measures.</td>
<td>Prohibited unless specific permit granted by IC and appropriate biosecurity measures.</td>
<td>Allowed by permit approved by IC and appropriate biosecurity measures.</td>
<td>Allowed by permit approved by IC and appropriate biosecurity measures.</td>
</tr>
<tr>
<td>Semen, embryos from poultry</td>
<td>Prohibited.</td>
<td>Prohibited.</td>
<td>Prohibited.</td>
<td>Allowed by permit approved by IC and appropriate biosecurity measures.</td>
<td>Allowed by permit approved by IC and appropriate biosecurity measures.</td>
</tr>
</tbody>
</table>

<sup>a</sup>Contact Premises and Suspect Premises are intended to be short-term premises designations. Ideally these premises should be re-designated before movements occur.
### Table 3. Movement from Inside Control Area to Outside Control Area from Specific Premises

<table>
<thead>
<tr>
<th>Item Moving out of a Control Area from a/an…</th>
<th>Infected Premises</th>
<th>Suspect Premises&lt;br&gt;a</th>
<th>Contact&lt;br&gt;Premises&lt;br&gt;a</th>
<th>At-Risk Premises</th>
<th>Monitored&lt;br&gt;Premises&lt;br&gt;b</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poultry (may include other birds as defined by Incident Commander)</td>
<td>Prohibited, except under certain circumstances as determined by the IC.</td>
<td>Prohibited, except under certain circumstances as determined by the IC.</td>
<td>Prohibited, except under certain circumstances as determined by the IC.</td>
<td>At-Risk Premises must become Monitored Premises to move susceptible poultry out of a Control Area.</td>
<td>Allowed to move by permit approved by IC; surveillance, negative diagnostic tests, premises biosecurity, and risk-assessment may be required for permit.</td>
</tr>
<tr>
<td>Poultry products</td>
<td>See continuity of business plans for information on susceptible poultry products, or guidance and processes as determined by the Unified Incident Command. Secure Food Supply Plans are found at: <a href="http://www.secureeggsupply.com">www.secureeggsupply.com</a> and <a href="http://www.secureturkeysupply.com">www.secureturkeysupply.com</a>. The Unified Incident Command can provide guidance on AI inactivation in poultry products that meets OIE standards.</td>
<td>Prohibited unless specific permit approved by IC and appropriate biosecurity measures and risk-assessment.</td>
<td>Prohibited unless specific permit approved by IC and appropriate biosecurity measures and risk-assessment.</td>
<td>Allowed to move by permit approved by IC; surveillance and negative diagnostic tests for susceptible poultry on premises, premises biosecurity, and risk-assessment may be required for permit.</td>
<td>Allowed to move by permit approved by IC; surveillance and negative diagnostic tests for susceptible poultry on premises, premises biosecurity, and risk-assessment may be required for permit.</td>
</tr>
<tr>
<td>Other animals (non-susceptible) from premises with poultry</td>
<td>n/a (Infected Premises have poultry)</td>
<td>n/a (Suspect Premises have poultry)</td>
<td>n/a (Contact Premises have poultry)</td>
<td>n/a (At-Risk Premises have poultry)</td>
<td>n/a (Monitored Premises have poultry)</td>
</tr>
<tr>
<td>Other animals (non-susceptible) from premises without poultry</td>
<td>Prohibited unless specific permit approved by IC and appropriate biosecurity measures.</td>
<td>Prohibited unless specific permit approved by IC and appropriate biosecurity measures.</td>
<td>Prohibited unless specific permit approved by IC and appropriate biosecurity measures.</td>
<td>Allowed by permit approved by IC and appropriate biosecurity measures.</td>
<td>Allowed by permit approved by IC and appropriate biosecurity measures.</td>
</tr>
<tr>
<td>Equipment, vehicles, feed, grain and other fomites from premises with poultry</td>
<td>Prohibited unless permit approved by IC and appropriate biosecurity measures.</td>
<td>Prohibited unless permit approved by IC and appropriate biosecurity measures.</td>
<td>Prohibited unless permit approved by IC and appropriate biosecurity measures.</td>
<td>At-Risk Premises must become Monitored Premises to move semen, embryos from susceptible poultry out of a Control Area.</td>
<td>Monitored Premises only allowed by permit approved by IC and appropriate biosecurity measures.</td>
</tr>
</tbody>
</table>

*a* Contact Premises and Suspect Premises are intended to be short-term premises designations. Ideally these premises should be re-designated before movements occur.

*b* Continuity of business plans may apply.
RESPONDERS HEALTH ALERT – INFLUENZA-LIKE ILLNESS

Currently, there are confirmed cases of Influenza B virus circulating among the HPAI incident responders. It is important that you recognize the signs of influenza-like illness and protect yourself from exposure to the virus. Influenza B is not an avian virus and infection should not be considered to be work related or acquired through responder exposure to influenza A infected poultry. However, you should report any influenza-like symptoms to your Incident Supervisor and the Safety Officer.

Signs and Symptoms of the flu
The flu is different from a cold. The flu usually comes on suddenly. People who have the flu often feel some or all of these signs and symptoms:

- Fever* or feeling feverish/chills
- Cough
- Sore throat
- Runny or stuffy nose
- Muscle or body aches
- Headaches
- Fatigue (very tired)
- Some people may have vomiting and diarrhea, though this is more common in children than adults.

*It’s important to note that not everyone with flu will have a fever.

What you can do to minimize the spread of influenza
The single best way to prevent seasonal flu is to get vaccinated (http://www.cdc.gov/flu/protect/keyfacts.htm) each year, but good health habits like covering your cough and washing your hands often can help stop the spread of germs and prevent respiratory illnesses like the flu. There also are flu antiviral drugs that can be used to treat and prevent the flu. Your physician will determine if it is appropriate for you to be on antiviral treatment.

It’s not too late to get vaccinated now – check with your Safety Officer about availability of flu vaccine in your area.

Avoid close contact
Avoid close contact with people who are sick. When you are sick, keep your distance from others to protect them from getting sick too.

Stay in your hotel room when you are sick
If you have been diagnosed, or suspect you have influenza, you should notify your incident supervisor and safety officer, and stay in your hotel room for 24 hours after your fever subsides without the use of aspirin, acetaminophen or NSAIDS, such as ibuprofen.

Cover your mouth and nose
Cover your mouth and nose with a tissue when coughing or sneezing. It may prevent those around you from getting sick.

Clean your hands
Washing your hands often will help protect you from germs. If soap and water are not available, use an alcohol-based hand rub.

Avoid touching your eyes, nose or mouth
Influenza viruses are often spread when a person touches something that is contaminated with the virus and then touches his or her eyes, nose, or mouth.

Practice other good health habits
Clean and disinfect frequently touched surfaces, especially when you are ill. Get plenty of sleep, be physically active, manage your stress, drink plenty of fluids, and eat nutritious food.

Notify hotel management
Hotel management should be notified so that hotel staff can take appropriate protective measures when servicing your hotel room.

Source for this and more information about the flu: http://www.cdc.gov/flu
Please note: These procedures may be revised as the situation develops.

OVERVIEW

In a highly pathogenic avian influenza (HPAI) outbreak, continuity of business measures can help to move poultry and eggs from a Control Area while minimizing the risk of HPAI transmission. This document provides guidance on the requirements—particularly testing requirements—for moving poultry and eggs that originate from inside a Control Area. This includes movements out of or within an HPAI Control Area (Infected and Buffer Zones).

SCOPE

There are other requirements for permit and associated movement (e.g., biosecurity, cleaning and disinfection measures) in addition to the surveillance testing requirements listed below. These requirements are further discussed in the document Movement Control and the Secure Food Supply Plans (for Eggs, Broilers, and Turkeys).

In the event that the poultry and eggs originating from inside a Control Area are destined for interstate movement, receiving States may have existing movement requirements. These requirements are not superseded or replaced by this guidance.

This document incorporates recommendations for the permitted movement of poultry and eggs out of or within an HPAI Control Area developed by the National Assembly of State Animal Health Officials HPAI Permitting Working Group. Except as further explained, this guidance is consistent with existing Secure Food Supply Plans (Egg, Broiler, and Turkey).

GENERAL GUIDANCE FOR INTERSTATE MOVEMENT

1. Movement of live poultry (including hatching eggs), should be evaluated rapidly based on the best information available: epidemiological investigation to rule out contact with Infected Premises, site-specific assessments, proactive risk assessments on movement-specific risk, and current surveillance information. In some situations, States may opt to consider a delay in movement of live poultry (including hatching eggs) after a new Control Area is established until the surveillance of commercial premises is completed. While sometimes this information may be rapidly obtained, in other circumstances obtaining complete surveillance information prior to movements is not feasible. Decisions on moving live poultry (including hatching eggs) should be based on the best science- and risk-based information available.

2. States should avoid placing additional restrictions on interstate movement of poultry and poultry products from outside of the Control Area in HPAI affected States. These recommendations do not supersede existing state regulations or requirements.

3. Traceability information is required for the premises of origin and premises of destination (each premises will need a Federal Premises Identification Number or the Emergency Management Response System [EMRS] will create a unique identifier).

4. The flock has normal flock production parameters as described in the Secure Food Supply Plans (Egg, Broiler, and Turkey).
5. All movement should follow biosecurity procedures for Truck and Driver and Product Specific Biosecurity as described in the Secure Food Supply Plans (Egg, Broiler, and Turkey).

6. The premises of origin is not an Infected, Suspect, or Contact Premises.
   a. The Incident Management Team (IMT) should determine the need for an epidemiology questionnaire if the flock has normal production parameters and negative tests.
   b. Receiving State may require information from the epidemiology questionnaire prior to granting permission to move.

SURVEILLANCE GUIDANCE FOR INTERSTATE MOVEMENT

The National Assembly HPAI Permitting Working Group recommended the following surveillance sampling for the permitted movement of poultry and eggs out of or within an HPAI Control Area:

7. Testing: Testing of poultry should consist of a minimum of two 11-bird AI negative PCR pools per house.
   a. If there are fewer than 22 dead birds, all should be swabbed and the swabs should be divided into two pools (even if there are fewer than 11 dead birds).
   b. The sample size consists of one pool of 11 dead/sick birds sampled per 50 dead birds per house.
   c. Frequency of sample collection: 1
      i. Collect both pools within 24 hours prior to movement, or
      ii. Collect one pool within 48 hours prior to movement and the second pool within 24 hours prior to movement.

ADDITIONAL HOLDING REQUIREMENT FOR EGG MOVEMENT

8. Egg movement:
   a. Hatching eggs should follow the two-day holding procedure as described in the Secure Food Supply Plans (Egg, Broiler, and Turkey) and should use the recommended testing procedures (refer to #7).
   b. Table eggs (non-hatching eggs) should follow the two-day holding procedure as described in the Secure Food Supply Plans (Egg, Broiler, and Turkey) and the recommended testing procedures (refer to #7).

1 This guidance harmonizes existing Secure Food Supply Plan guidance, but provides an additional option for sampling for further flexibility.
Please note: These procedures may be revised as the situation develops.

GENERAL GUIDANCE FOR CONTACT PREMISES

Contact Premises: Contact Premises have susceptible poultry that may have been exposed to the highly pathogenic avian influenza (HPAI) virus, either directly or indirectly, including but not limited to exposure to susceptible poultry, poultry products, fomites, or people from Infected Premises.

Tracing: A critical activity during an HPAI outbreak is to rapidly and diligently trace-back and trace-forward movements from an Infected Premises; tracing identifies Contact Premises. This tracing aids in the control of the spread of HPAI virus and limit the impact of the outbreak. Tracing should include all movements from the premises, including susceptible poultry and livestock, non-susceptible livestock, animal products, vehicles, crops/grains, and people (all potential fomites). Tracing will also include consideration of all potential modes of transmission and possible contact with wildlife.

Tracing Period: Typically, trace-back and trace-forward information is collected from the Infected Premises for the past 21-days.

Priority of Tracing: When resources or personnel are limited in a widespread outbreak, movements considered high-risk by Incident Command should be traced first, so that action can be rapidly taken to control and contain the spread of HPAI. If tracing information is provided for 21-days, more recent trace-forwards (e.g., those within 1-2 incubation periods of the currently circulating virus) involving hatching eggs, hatchlings, or live poultry are typically the first priority.

Depopulation: In the event that Contact Premises are identified from tracing, depopulation of poultry on Contact Premises, or poultry meeting the suspect case definition, may also be authorized by USDA APHIS officials—in coordination with State and Tribal officials and Incident Command—depending on epidemiological information and outbreak characteristics.

Indemnity: If USDA APHIS officials—in coordination with State and Tribal officials and Incident Command—agree that Contact Premises need to be depopulated, USDA APHIS will provide indemnity for depopulated poultry as funds are available.

Captive Wild Birds (i.e. raptors or certified endangered species): USDA APHIS does not depopulate captive wild birds (i.e. raptors or certified endangered species). In the event captive wild birds or certified endangered species are on a Contact Premises, State Animal Health Officials, APHIS officials, and appropriate wildlife officials will be consulted.

OVERVIEW OF STEPS FOR TRACING & IDENTIFYING CONTACT PREMISES

1. State Animal Health Officials and APHIS officials contacts all facilities with traces from the Infected Premises.

2. A State quarantine or hold order is placed on each facility with poultry, hatchlings, or hatching eggs from the Infected Premises.
i. Under certain circumstances, a State quarantine or hold order may also be placed on Contact Premises that received items or products determined to be high-risk movements by the Incident Command.

3. All information required for indemnity is collected (e.g., census and inventory) on the Contact Premises in the event the flock is depopulated.

4. Epidemiological investigation of the Contact Premises is completed.

5. USDA APHIS, State/Tribal officials, and Incident Command agree on the disposition of the Contact Premises. Depending on epidemiological information, outbreak characteristics, proactive risk-assessments, premises characteristics (including type and species of birds), or other information available, the Contact Premises may be:
   i. Depopulated in full.
   ii. Poultry and hatching eggs from the Infected Premises are depopulated; all other poultry remains under State quarantine and tested based on surveillance guidance to demonstrate freedom from infection (minimum testing every other day for 14 days, see Option 2 below).
   iii. Released from quarantine or hold order if further investigation and testing indicates premises does not fit the definition of a Contact Premises.

SPECIFIC CONTACT PREMISES SCENARIOS

Hatching Eggs and Hatchlings Traced From Infected Premises

1. Identify location of all hatching eggs and hatchlings from Infected Premises.
2. If Infected Premises sends hatching eggs to more than one hatchery, the risk of each hatchery will be evaluated independently.
3. USDA APHIS, State/Tribal officials, and Incident Command assess the HPAI infection-risk of the hatching eggs or hatchlings and determine disposition.
   i. A science and risk-based approach will be used to determine risk.
   ii. A primary component of this assessment will be when these were moved from an Infected Premises (i.e., 2 days ago or 15 days ago), given the known incubation period of the HPAI virus.
4. Recommended disposition is to:
   i. Isolate and depopulate hatching eggs traced from the Infected Premises and any direct in-contact eggs (i.e., same incubator) on the Contact Premises. Eggs may be in a holding area (prior to moving to an incubator), or in an incubator.
   ii. Isolate and depopulate hatchlings from the Infected Premises, and any direct in-contact hatchlings (i.e., in shared holding area) on the Contact Premises.
5. If these measures and the epidemiological investigation of the Contact Premises is completed with no detection of HPAI, then Contact Premises status (and quarantine) is released.

Poultry Traced From Infected Premises

Option 1: Depopulation of All Poultry

1. Isolate and depopulate poultry traced from the Infected Premises.
2. Depopulate other poultry on the Contact Premises.
3. If these measures and the epidemiological investigation of the Contact Premises is completed with no detection of HPAI, then Contact Premises status (and quarantine) is released.
Option 2: Depopulation of All Poultry from Infected Premises with Quarantine and Surveillance of All Other Poultry on Premises

1. Isolate and depopulate poultry traced from the Infected Premises.
2. Isolate and quarantine (other) poultry on the Contact Premises and conduct surveillance to determine disease status of the flock.
3. Minimum surveillance guidelines for poultry on Contact Premises is rRt-PCR testing every other day for 14 days.
4. Depending upon the size of the poultry flock, surveillance can be accomplished on daily mortality (dead bird testing) or by live bird testing.
5. State Animal Health Officials and Incident Command can use other surveillance testing schemes if they provide similar confidence level in terms of HPAI detection.
6. If upon completion of the epidemiological investigation and surveillance testing of the Contact Premises, and HPAI infection has not been detected, then the Contact Premises status (and quarantine) is released.

Feed Mill on Contact Premises

1. In the event that there is a feed mill on a Contact Premises:
   i. Feed trucks and other potential fomites (e.g., people and other equipment) moving on and off the premises will require strict biosecurity measures.
   ii. This may include intensified cleaning and disinfection measures as specified by Incident Command.
   iii. If the premises is a hatchery, feed movement may be restricted until the depopulation of hatching eggs or hatchlings is completed (State officials/Incident Command will provide guidance).
   iv. If premises is part of a larger production system, feed movement may be restricted to premises (or specific premises) until the epidemiological investigation of the Contact Premises has been completed (State officials/Incident Command will provide guidance).
2. In the event the Contact Premises becomes an Infected Premises, the State Animal Health Officials and Incident Command will work together to determine the disposition of the feed on the premises.

GENERAL SURVEILLANCE GUIDANCE FOR CONTACT PREMISES

- If there are more than 50 dead birds per house or farm, then collect 5-bird or 11-bird pool(s) from each multiple of 50 or less dead or euthanized sick birds, every other day for 14 days.
  - The 11-bird pool is an additional sampling option, it will not be appropriate for backyard premises and other premises with small poultry flocks.
- For flocks where there are no dead birds to sample, then sample live birds.

Example Surveillance Scheme

- The following example surveillance scheme is for live birds from the California Department of Food and Agriculture (CDFA) for the 2014–2015 HPAI Response.
- Collect swab samples from birds in each house on each premises every other day, Monday, Wednesday and Friday, for 8 sample days, over a 17 day period.
- Collect the number of birds as listed in Figure 1.
Figure 1. Guidance on Number of Samples

<table>
<thead>
<tr>
<th>Number of birds on each premises or house</th>
<th>Minimum number of birds to be sampled</th>
</tr>
</thead>
<tbody>
<tr>
<td>10 or less</td>
<td>Sample all</td>
</tr>
<tr>
<td>20</td>
<td>15</td>
</tr>
<tr>
<td>30</td>
<td>15</td>
</tr>
<tr>
<td>40</td>
<td>15</td>
</tr>
<tr>
<td>50 or greater</td>
<td>20</td>
</tr>
</tbody>
</table>

For further information on HPAI epidemiology, tracing, and surveillance please see the following:

- USDA APHIS FAD PReP Website (www.aphis.usda.gov/fadprep):
  - USDA APHIS HPAI Response Plan: The Red Book
  - HPAI Epidemiological Investigation and Tracing SOP
  - HPAI Surveillance SOP
Please note: These procedures may be revised as the situation continues to change.

**GENERAL GUIDANCE**

All previously HPAI-Infected Premises must be *both* CLEANED and DISINFECTED. Cleaning and disinfection practices during an outbreak should focus on virus elimination in a cost effective manner.

While traditionally wet cleaning and disinfection has been performed in many incidents, dry cleaning and heating of houses may be a preferred approach during a widespread highly pathogenic avian influenza (HPAI) outbreak. Any method(s) selected should consider the characteristics of the premises/houses and other factors which may impact the effectiveness of the virus elimination activities.

**DEFINITIONS**

**Cleaning:** The removal of gross contamination, organic material, and debris from the premises, via mechanical means like sweeping (dry cleaning) and/or the use of water and soap or detergent (wet cleaning).

**Disinfection:** Methods used on surfaces to destroy or eliminate HPAI through physical (e.g., heat) or chemical (e.g., disinfectant) means. A combination of methods may be required.

**Virus Elimination:** Cleaning and disinfection measures conducted with the primary purpose to inactivate all avian influenza virus on the premises as cost effectively as possible.

**OPTIONS**

For premises that can be cleaned & disinfected (most premises):

**Step 1**

**CLEANING OPTIONS**

- **Dry Cleaning**
  - Timing & method of dry cleaning must not aerosolize virus.

- **Wet Cleaning**

**Step 2**

**DISINFECTION OPTIONS**

- **Wet Disinfection with EPA Approved Pesticide**

- **Drying & Heating (100-120°F for 7 days)**
  - At least three days must be consecutive days drying and heating at specified temperature of the seven days total.

- **Fumigation or Alternative Science-Based Methods**
  - If APHIS is paying for service, then APHIS must approve prior to application.

**NOTE:** A premises may require a combination of methods, but at least one choice must be selected from Step 1 and Step 2. The cleaning and disinfection (C&D) options selected and implemented must be included as part of the approved cleaning and disinfection plan and approved by State Animal Health Officials and APHIS for reimbursement.
For premises that can’t be cleaned & disinfected:
In the unusual circumstance in which premises cannot be cleaned and disinfected, fallowing for 120-days—or a period recommended by the Incident Command—is prescribed. The length of this period will vary depending on ambient temperature and season. Fallowing should be reserved for premises that would need to be completely repaired or destroyed in order to be effectively cleaned and disinfected.

FOR MORE INFORMATION

Please see these FAD PReP documents: NAHEMS Guidelines: Cleaning and Disinfection, NAHEMS Guidelines: Tactical Topic on C&D, Cleaning & Disinfection SOP, and the Cleaning and Disinfection Powerpoints.

EPA Antimicrobial Products Registered for Use Against Avian Influenza A Viruses:
Please note: These procedures may be revised as the situation develops.

BACKGROUND INFORMATION

Release of the Control Area also relates to other highly pathogenic avian influenza (HPAI) response activities that are not covered in this document. For information on restocking approval, please see Timeline, Eligibility, and Approval for Restocking. For information on environmental sampling, please see Post Cleaning & Disinfection Environmental Sampling Guide. The document HPAI Zones and Premises provides an overview of the designations used in an HPAI response. These documents can be found at www.aphis.usda.gov/fadprep.

GENERAL GUIDANCE

Release of the Control Area (including the release of associated movement controls and permit requirements) is allowed when the following conditions have been met:

- The last Infected Premises in the Control Area has been depopulated; the compost pile has been started, or mortality buried, or mortality removed from premises for appropriate disposal.
- Initial cleaning and disinfection/virus elimination activities on the premises are completed (including, but not limited to, outside areas of premises, equipment, trucks, and other potential fomites used in depopulation activities). This does not include barn interiors.
- Required outbreak surveillance in the Control Area (commercial premises and backyard premises) has been completed; there is no evidence of HPAI infection in the Control Area.
- Surveillance requirements for international or bilateral trade are conducted and may continue.

If there have been no positive diagnostic results for HPAI in the Control Area for 21 days since the initial cleaning and disinfection of the last Infected Premises, AND these conditions have been met, the Control Area may be released.

The Control Area may be released prior to the date in which restocking is allowed on the last Infected Premises.

These requirements may be modified during an incident.

TIMELINE FOR RELEASE OF CONTROL AREA & ASSOCIATED MOVEMENT RESTRICTIONS

The Control Area and associated movement control restrictions are maintained until at least 21 days have elapsed since the initial disinfection of the Infected Premises and negative results of all surveillance activities.

Figure 1 shows a timeline for the release of the Control Area.
**SURVEILLANCE INFORMATION**

For information on surveillance in the Control Area, please see the following (www.aphis.usda.gov/fadprep):

- Surveillance Around HPAI Infected Backyard Flocks
- Surveillance Sampling for Commercial Premises in Control Area.

**SURVEILLANCE FOR INTERNATIONAL & BILATERAL TRADING PARTNERS**

Enhanced surveillance for international and bilateral trading partners may be necessary both prior to and after the release of the Control Area. The extent, frequency, and type of enhanced surveillance required will depend on many factors, such as (but not limited to) the density of poultry in the region, epidemiological information, species, and commodity exported.

The objective of this surveillance is to provide evidence of the absence of HPAI infection to satisfy international and bilateral trading partners. Active and passive surveillance schemes may be used.

**REGAINING HPAI-FREE STATUS**

Surveillance for proof of disease freedom starts 21 days after depopulation of the last Infected Premises. For more information on surveillance for proof of disease freedom for both commercial and backyard premises in the Infected Zone, Buffer Zone, and Surveillance Zone, please see the *HPAI Response Plan, Appendix E* and the *HPAI Surveillance SOP.*

**OIE Guidance**

While the World Organization for Animal Health (OIE) does not grant official recognition for freedom from notifiable avian influenza, including HPAI, the United States can self-declare freedom and submit all relevant documentation and evidence of freedom, per the OIE Terrestrial Animal Health Code to the OIE in order to demonstrate freedom to trading partners.
The OIE defines a country, zone, or compartment free from infection with HPAI viruses in poultry as follows (Article 10.4.4):

A country, zone, or compartment may be considered free from infection with high pathogenicity avian influenza viruses in poultry when:

1. It has been shown that infection with high pathogenicity avian influenza viruses in poultry has not been present in the country, zone, or compartment for the past 12 months, although its status with respect to low pathogenicity avian influenza viruses may be unknown; or
2. When, based on surveillance in accordance with articles 10.4.27 to 10.4.33, it does not meet the criteria for freedom from avian influenza but any virus detected has not been identified as high pathogenicity avian influenza virus.

The surveillance may need to be adapted to parts of the country or existing zones or compartments depending on historical or geographical factors, industry structure, population data, or proximity to recent outbreaks.

If infection has occurred in poultry in a previously free country, the free status can be regained three months after a stamping-out policy (including disinfection of all affected establishments) is applied, providing that surveillance in accordance with Articles 10.4.27 to 10.4.33 has been carried out during that three month period.

Articles 10.4.27 and 10.4.33 provide broad information on surveillance and the interpretation of positive test results. As stated in Article 10.4.27, “The impact and epidemiology of avian influenza differ widely in different regions of the world and therefore it is impossible to provide specific recommendations for all situations. Surveillance strategies employed for demonstrating freedom from avian influenza at an acceptable level should be adapted to the local situation.”
Please note: These procedures may be revised as the situation develops.

DOCUMENT HISTORY & RELATED DOCUMENTS

This document updates and supersedes the following documents:

- Timeline to Restocking & Environmental Sampling Procedures
- Restocking Criteria for Previously Infected Premises.

Please also see the following, related policy documents:

- Protocol for Environmental Sample Collection and Testing for AI Virus
- Cleaning & Disinfection Basics.

INTENDED USE

This document provides guidance to State Animal Health Officials (SAHOs), USDA Animal and Plant Health Inspection Service (APHIS) Officials, and Incident Management Teams (IMTs) for the restocking of highly pathogenic avian influenza (HPAI)-infected commercial poultry premises. This includes the timeline to restocking and criteria that must be met for premises to restock.

In order for premises to restock after HPAI-infection, they must meet the minimum time requirements, criteria to be eligible to restock, AND be approved to restock. Being eligible to restock means they have met the criteria laid out in this document; being approved to restock additionally indicates that the premises has met any additional criteria that may have been laid out by the State or APHIS, and that State and APHIS officials have agreed in writing that the premises can be restocked.

BIOSECURITY MEASURES

All biosecurity practices currently in place on the premises (including use of personal protective equipment [PPE]) will be followed for activities discussed in this document, including sample collection for environmental testing and final inspection of the premises prior to quarantine release. The level of PPE needed for different activities (environmental sampling, for example) will be determined by the SAHOs and/or IMTs.

TIMELINE TO RESTOCKING OF PREVIOUSLY INFECTED PREMISES

The timelines provided below offer guidance on just the steps, time, and sampling it takes to reach the point to be eligible and approved to restock.

Timelines for Restocking for Premises Using Composting

Please see Figures 1 and 2 for the timelines for premises that composted. Figure 1 covers in-house composting, Figure 2 covers outdoor composting, and Figure 3 covers the combination of in-house/outdoor composting.

For premises using composting, environmental sampling inside the houses/barns occurs after the compost pile is complete and removed from inside the barns. For outdoor composting, environmental sampling inside the houses/barns can occur after the houses/barns are cleaned and disinfected.
Please note: There is no requirement OR option to release compost based upon compost sample testing.

**Figure 1. Timeline for Disposal & Premises Restocking:**

**IN-HOUSE COMPOSTING**

- Compost Pile Turned Once at No-Sooner than 14 Days AND Temp. Recorded (Appropriate Temp. Must be Reached & Documented for Specific Period)
- 30 Days
- 21 Days
- IP Confirmed Positive
- IP Quarantined
- IP Depopulated
- Compost Pile Created/ Set in House AND C&D of Outside Areas
- Compost Complete/ Removed from Houses (Stays on Premises) AND C&D of Inside Areas
- Environmental Sampling in Barns/Houses Begins When Disinfection Completed
- IP Quarantine Release
- Owner Assumes Responsibility for Compost Disposition
- Premises Restocked (see next section on restocking eligibility and approval)

**Figure 2. Timeline for Disposal & Premises Restocking:**

**OUTDOOR COMPOSTING**

- Compost Pile Turned Once at No-Sooner than 14 Days AND Temp. Recorded (Appropriate Temp. Must be Reached & Documented for Specific Period)
- 30 Days
- IP Confirmed Positive
- IP Quarantined
- IP Depopulated
- Compost Piles Created/ Set Outside of House
- C&D All Areas on Premises
- Environmental Sampling in Barns/Houses Begins When Disinfection Completed
- IP Quarantine Release
- Owner Assumes Responsibility for Compost Disposition
- Premises Restocked (see next section on restocking eligibility and approval)
Timeline for Restocking for Premises Using Burial

For premises using burial, environmental sampling is performed inside the houses/barns after the premises is cleaned and disinfected following disposal. Figure 4 provides the restocking timeline for premises using burial.
RESTOCKING PREVIOUSLY INFECTED PREMISES

A primary goal of the HPAI response is to ensure that the response efforts and activities do not cause more damage and disruption than the disease outbreak itself. However, restocked premises that subsequently become infected with HPAI a second time place added stress on already strained resources and continue the risk of ongoing HPAI transmission in commercial poultry. As such, APHIS urges appropriate caution restocking premises in an HPAI outbreak.

Restocking Assessments

Two assessments must occur to restock previously infected premises:

1. An assessment of the previously Infected Premises being restocked. This includes the environmental sampling results and assessment of whether the premises has met the timeline requirements in Figures 1-4 (as applicable to the specific premises).

2. An assessment of the surrounding area or Control Area in which the Infected Premises is located. Assessment information includes the epidemiological curve (rate of new infected premises), geospatial risk factors, and other epidemiological risk factors for the previously infected premises.

Indemnity

APHIS will not indemnify previously Infected Premises that are restocked without written APHIS and State approval and subsequently become an Infected Premises a second time. For premises that meet the following criteria, including written approval by APHIS and State officials that restocking can occur, full indemnification will be provided by APHIS as funds are available.

Criteria for Eligibility

In order to be eligible to restock a previously Infected Premises, all of the following criteria must be met:

1. The owner and/or grower has met, for the original Infected Premises, the requirements of the
   a. State Quarantine Notice or Hold Order(s);
   b. USDA Flock Plan; AND
   c. USDA Cooperative Compliance Agreement.

2. The premises has met the minimum conditions laid out in this document with regard to timeline to restocking, including the
   a. Minimum time, for the method of disposal chosen; AND
   b. Environmental sampling, with no evidence of HPAI infection.

3. In consultation with State animal health officials, the owner will evaluate risk factors at the start of the 21 day fallow period that begins upon completion of the final cleaning and disinfection.

To summarize, when a premises is “eligible to restock”, it means that the premises is 21-days post completion of final cleaning and disinfection, environmental sampling is complete and shows no evidence of HPAI, and premises has met requirements of the State Quarantine Notice/Hold Order, USDA Flock Plan, and USDA Cooperative Compliance Agreement. Approval for restocking is the next step.

Approval for Restocking

After all of the above criteria are met in the “Criteria for Eligibility” section, premises become ready for State and APHIS officials to approve the restocking. Additional criteria, particularly further biosecurity measures,
may be required by State and/or APHIS officials in order for the premises to be restocked; State requirements may vary by State:

1. The owner and/or grower will complete any additional surveillance, biosecurity procedures, and requirements for movement as may be required by the State and APHIS upon and following restocking. These biosecurity requirements may include, but are not limited to the following areas:
   a. Cleaning and disinfection procedures for all movement onto the farm, and all movement into and between barns.
   b. Personnel-specific biosecurity measures, including barn specific clothing not to be worn outside.
   c. Exclusion of wild birds and rodents from the barn structure.
   d. Measures to ensure feed and water are not contaminated by wild birds or their feces.
   e. Immediate mitigation of standing water, feed spills, and other environmental factors that may attract wild birds.
   f. Elimination of visits by non-essential personnel.

After State/APHIS criteria have been met, State and APHIS officials will approve, in writing, that the premises can be restocked. The premises is now “approved to restock.” This means that the premises has met all requirements to be eligible to restock, all criteria set by State and APHIS officials to be approved to restock, and has a signed restock agreement.

Testing for Restocked Birds

Birds used for restocking must be from flocks tested for HPAI. These flocks must be tested for HPAI prior to movement; the minimum standard is 2 negative rRT-PCR tests at least 24 hours apart, with one negative test within 24 hours of movement.
Please note: These procedures may be revised as the situation develops. Updated/new sections in this version have been noted.

SCOPE & INTENDED USE

This document applies to commercial poultry premises; the protocol provides guidance to State Animal Health Officials (SAHOs), APHIS officials, and Incident Management teams (IMTs) for environmental sample collection and testing.

Biosecurity practices (on-site), including the use of personal protective equipment (PPE), will be followed for temperature taking, sample collection, and final inspection for quarantine release, as directed by State and APHIS officials, and/or the IMTs.

Note: There is no requirement or option to release compost based upon environmental sampling and diagnostic testing of compost piles.

PROTOCOL FOR ENVIRONMENTAL SAMPLE COLLECTION

Important Considerations

- Virus load can also impact the likelihood of detecting virus on a particular surface.
- Submissions other than official cleaning & disinfection (C&D) testing may be subject to user fees.

Applicability

Surfaces, waterers, feeders inside barn (refer to #4 below).

Supplies Required

[updated] See Appendix 1.

Collection and Handling Procedure

1. [updated] Schedule sample collection for Monday, Tuesday or Wednesday, and notify lab when to expect samples to ensure samples are processed without delay.
   Note: If samples arrive on Friday, they may sit at the lab over the weekend resulting in poor sample quality (low volume, bacterial contamination, etc.), causing prolonged test turnaround, and compromising analytical results. Contact NAHLN lab for specific schedules and around holidays.

2. [updated] Keep BHI cool at all times. Maintaining the cold chain is crucial; supplied media may not contain antibiotics. Avoid freezing swab material.

3. [updated] Use a clean tube of BHI media to moisten swab, sample surface as indicated in #4-6, and collect swab sample in a separate tube maintaining the volume of media provided. Do not collect sample with dry swabs.
   a. Following sample collection, vigorously swirl the swab in the BHI, squeezing the excess liquid from the swab inside the specimen tube and then discarding the swab in an appropriate container. The entire swab suspension is submitted for
diagnostic testing.

b. **Note:** Swabs left inside the sample tube may result in media being drawn into the swab, leaving limited material for diagnostic testing.

4. **[updated]** Collect samples from at least 10 selected locations in each house.
   a. *Facilities vary widely* within and across production sectors; houses/barns are different, therefore it important for those collecting samples to determine sampling appropriate to the facility.
   b. *Good areas to sample* include areas which are heavily contacted by birds, manure, and oral secretions, frequently touched surfaces (switches, electric panels, handles, doors), floors, walls, feeders, circulating and exhaust fans.
   c. *For layer facilities* consider: cages, surfaces associated with egg processing, pits, and surfaces associated with manure handling.
   d. *For turkey facilities* consider: drinkers, sills, curtains, and frames.

5. **[updated]** Each swab may be used to sample several surfaces by type (e.g. multiple wall areas) or specific area of the barn. Alternatively, multiple swabs may be used to obtain samples from a sample type or area and pooled together in a single BHI tube. Avoid creating an overly dark, sludgy, or viscous sample.

6. **[new]** Optional sample collection: may be useful for cages or other uneven surface sampling.
   a. Use a 4x4 gauze pads or plain white dry quilted Swiffer cloth to collect a pooled sample from a surface type or area of barn. *Please submit only the liquid media from the sample collected for laboratory testing (see below).*
      i. A similar approach can be used for using boot swabs (such as those used for environmental testing for Salmonella) to obtain a pooled floor sample or from gloves of the sample collector.
      ii. The gloves of the collector may also be sampled if desired.
   b. *Moisten gauze or Swiffer cloth with BHI media* (use separate clean tube of media—do not saturate—refer to #3 above) and collect sample.
   c. *Place gauze or Swiffer cloth in quart size Ziploc bag* and pour sufficient clean BHI media into bag to wet the pad (2-4 tubes), seal bag while expelling air out and gently apply manual pressure for 10–15 seconds to release sample into the liquid media.
   d. *Drain media into empty sample collection tube* by tilting the sealed bag and cutting a small portion (~4–6 mm) of the opposite corner; collect at least 2 mls and no more than 3 mls.
   e. *Disinfect scissors between samples.*
   f. *Appropriately discard sample pad and Ziploc bag.*

7. **Label each tube with the date, house and sample number.**

8. **Disinfect the exterior of tubes.**

   ![Figure 1. Label on Sample Tube](image)
9. **Place one label on tube** (as pictured in Figure 1).

10. **Place matching label on the laboratory submission form.**

11. **[updated]** Indicate farm name and premises ID on the lab accession form; if official testing, indicate “OFFICIAL post C&D samples.”

12. **[updated]** Bag the sample tubes and place in a pre-chilled cooler with correct lab accession form.

13. **Repeat for each house.**

14. **Return cooler to the NAHLN lab** as soon as possible for sample processing.
   a. Provide submission form and tracking number to lab as soon as possible.

15. **[updated]** PCR with an internal control to monitor for PCR inhibitors may be a useful adjunct to virus isolation (VI) for post-cleaning environmental testing. Samples can be tested at the NAHLN laboratory (NAHLN deviation needed). NAHLN labs and personnel may refer to “2015 Testing Guidance for Post C&D Environmental Samples” (NVSL WI-AV-0045) for further details.

16. **Report results to the State Veterinarian.**

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**[New] Appendix 1**

- As directed by SAHOs, APHIS officials, and/or IMT, appropriate PPE will be used (e.g., Tyvek coveralls, shoe covers, hairnet, gloves, respirator, eye protection).
- Dacron swabs with plastic handles (include 15–20 percent more in addition to samples planned).
- Sample collection tubes containing BHI or other appropriate media¹ (Note: Extra media is needed to moisten swabs. Include at least 50 percent more media than number of samples planned; up to 2x more are needed if planning to use gauze/Swiffer sampling options).
- Barcode ID stickers for sample tubes.
- Empty tube holder.
- Pre-filled accession forms with house numbers.
- Larger clear plastic bags to contain samples in the cooler.
- Cooler with gel ice packs.
- Permanent markers, pens.
- Spray disinfectant, paper towels, and hazardous waste trash bag.
- Optional materials:
  - 4x4 gauze pads or plain white dry quilted Swiffer cloths.
  - Whirlpak or quart size Ziploc freezer bags to release sample into liquid media.
  - Scissors to clip small corner from plastic bag to drain liquid.

APHIS Avian Influenza Disease Information

APHIS Publications & Fact Sheets

USDA Avian Influenza Publications, Fact Sheets & Brochures

Biosecurity for Birds http://healthybirds.aphis.usda.gov/

APHIS FAD PReP http://www.aphis.usda.gov/fadprep

Please note at the top of this FAD PReP home page there are key response documents for the ongoing HPAI incident.

♦ Highly Pathogenic Avian Influenza Response Plan – The Red Book

♦ NAHEMS Guidelines Personal Protective Equipment*
  – Training and educational materials: NAHEMS PPE Educational & Training Materials
  – Quick summary: NAHEMS PPE Tactical Topic

♦ NAHEMS Guidelines Health and Safety*
  – NAHEMS PPE Educational & Training Materials
  – NAHEMS PPE Tactical Topic (Quick Summary of Guidelines)

♦ NAHEMS Guidelines Educational & Training Materials – Other*
  – Biosecurity: 3 presentations/handouts
  – Cleaning and Disinfection: 5 presentations/handouts
  – Surveillance, Epidemiology, and Tracing: 7 presentations/handouts

♦ Highly Pathogenic Avian Influenza Standard Operating Procedures
  – Health and Safety and Personal Protective Equipment
  – Surveillance
  – Epidemiological Investigation and Tracing
  – Communications
  – Biosecurity
  – Disposal
  – Cleaning and Disinfection

♦ Foreign Animal Disease (FAD) Investigation Manual (Manual 4-0)

*Please note that these NAHEMS Guidelines are the same found on the Center for Food Security and Public Health website: http://www.cfsph.iastate.edu/Emergency-Response/fad-prep.php