Texas Response and Containment Plan for Notifiable Avian Influenza

Texas Poultry Improvement Association and Texas Animal Health Commission
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Table of Contents

APPENDICES

Guidance Documents

Composting Mass Poultry Mortalities, GA Extension
Guidelines for In-house Composting of Catastrophic Poultry Mortality, Maryland Extension
VSG 8601.1 Development and Approval of ISRCPs for H5 and H7 LPAI
VSG 8602 1 NAI Investigation
VSG 8603.1 Flock Plans Compliance Agreements and Indemnity Claims for LPAI in Poultry

Introduction

Avian influenza has the potential to result in significant economic losses for the poultry industry of Texas and calls for the implementation of a stringent defense. It is essential that the Texas poultry industry develop and implement plans to prevent and stop this threat as well as control or eradicate avian influenza.

We believe that a single concise plan will most benefit those responding, since in the beginning of an outbreak it may not be clear whether the infectious agent is HPAI or LPAI. The plan will be titled Texas Response and Containment Plan for Notifiable Avian Influenza. The plan is written for easy reading and flow, has appendices for reference, and is designed to be used as a guide. Actions can be modified as the outbreak unfolds. Response to highly pathogenic avian influenza (HPAI), if diagnosed in Texas, will be handled as a foreign animal disease.

The purpose of these guidelines is to provide a clear and objective set of guidelines for monitoring of poultry farms and flocks to prevent the introduction and spread of avian influenza. This plan is modeled after a plan developed by Arkansas Livestock and Poultry Commission. Additional information has been taken from several industry-wide meetings.

Definitions

Breeding Flock - A flock that is composed of stock that has been developed for commercial egg or meat production and is maintained for the principal purpose of producing chicks/poults for the ultimate production of eggs or meat for human consumption

Commercial meat-type flock - All of the meat-type chickens, meat-type turkeys, commercial upland game birds, or commercial waterfowl on one farm. However, at the discretion of the Official State Agency, any group of poultry which is segregated from another group in a manner sufficient to prevent the transmission of H5/H7 LPAI and has been so segregated for a period of at least 21 days may be considered as a separate flock

Commercial Premises – Producer operations that participate in the Texas Poultry Federation AI surveillance program

Commercial table-egg layer flock - All table-egg layers of common age or pullet source on one premises

Commercial table-egg layer premises - A farm containing contiguous flocks of commercial table-egg layers under common ownership.

Commercial table-egg layer pullet flock - A table-egg layer flock prior to the onset of egg production

Compliance Agreement (CA) - a document that covers euthanasia and disposal and/or cleaning and disinfection of a H5/H7 LPAI virus infected or exposed flock/premises that contains: Service responsibilities, owner responsibilities, OSA and Cooperating State Agency responsibilities. The CA will contain name of owner, and name and address of premises with signatories that include but not limited to the owner, grower if applicable, OSA representative, Cooperating State Agency representative, and the area veterinarian in charge. In addition, the CA will contain the cost breakdowns that include labor, materials, personal protective equipment, and travel expenses for personnel involved, and additional information such as type and number of houses

Cooperating State Agency (SAHO) - Any State authority recognized by the Department to cooperate in the administration of the provisions of 9 CFR Part 56. This may include the State animal health authority or the Official State Agency

Flock Plan – A written flock management agreement developed by APHIS and the Official State Agency with input from the flock owner and other affected parties. A flock plan sets out the steps to be taken to eradicate H5/H7 AI from a positive flock, or to prevent introduction of H5/H7 AI into another flock. A flock plan shall include, but is not necessarily limited to, poultry and poultry product movement and geographically appropriate infected and control/monitoring zones. Control measures in the flock plan should include detailed plans for safe handling of conveyances, containers, and other associated materials that could serve as fomites; disposal of flocks; cleaning and disinfection; downtime; and repopulation

Hold Order – A state-enforced *de facto* quarantine

Notifiable Avian Influenza (NAI) – Infection of poultry caused by any influenza A virus of the H5 or H7 subtypes or by any Al virus with an intravenous pathogenicity index (IVPI) greater than 1.2 (or as an alternative at least 75 percent mortality) as described below. NAI viruses can be divided into high pathogenicity notifiable avian influenza (HPNAI) and low pathogenicity notifiable avian influenza (LPNAI):

a. HPNAI viruses have an IVPI in 6-week-old chickens greater than 1.2 or, as an alternative, cause at least 75 percent mortality in 4-to 8-week-old chickens infected intravenously. H5 and H7 viruses which do not have an IVPI of greater than 1.2 or cause less than 75 percent mortality in an intravenous lethality test should be sequenced to determine whether multiple basic amino acids are present at the cleavage site of the haemagglutinin molecule (HAO); if the amino acid motif is similar to that observed for other HPNAI isolates, the isolate being tested should be considered as HPNAI.

b. LPNAI are all influenza A viruses of H5 and H7 subtype that are not HPNAI viruses.

Official State Agency (OSA) – The State authority recognized by the Department to cooperate in the administration of the Plan.

Poultry – all domesticated birds, including backyard poultry, used for the production of meat or eggs for consumption, for the production of other commercial products, for restocking supplies of game, or for breeding these categories of birds, as well as fighting cocks used for any purpose. Birds that are kept in captivity for any reason other than those reasons referred to in the preceding paragraph, including those that are kept for shows, races, exhibitions, competitions or for breeding or selling these categories of birds as well as pet birds, are not considered to be poultry.

Quarantine – A state enforced action on premises that restricts the movement of animals and materials on and off the premises. Additional special provisions may apply. Movements may be allowed under federally issued permits.

Diagnostic Testing Terminology

Negative Test Result – A test that does not indicate the presence of AI antibodies or virus

Inconclusive Test Result – An AGID, PCR and/or other NPIP approved methods of testing in which a definitive result has not been determined

Presumptive Positive Test Result – An AGID, PCR or any other NPIP approved method of testing in which the initial screening test show a positive result, but has not been confirmed by National Veterinary Services Laboratory (NVSL)

Confirmed Positive Test Result – A presumptive positive sample tested by a NPIP approved method which has been confirmed positive for notifiable avian influenza by NVSL

Flock Status Terminology
Premises

Infected Premises (IP) - A premises whose samples have a confirmed positive test results

Contact Premises (CP) – Premises with susceptible animals that may have been exposed to Avian Influenza (AI), either directly or indirectly, including but not limited to exposure to poultry, poultry products, fomites, or people from Infected Premises

- Birds have been received from or sent birds to an Infected Premise.
- Birds have had direct contact with persons who have handled infected birds.
- Birds have had direct contact with products, equipment or materials exposed to infected birds.
- The farm is adjacent to an Infected Premise

Suspect Premises (SP) - Premises with susceptible animals that are under investigation for a report of clinical signs with no apparent epidemiological link to an IP or CP, or premises with susceptible animals in the Infected Zone that are not classified as an IP or CP

Restricted Premises (RP) **-** Are the following premises for the period in which surveillance and monitoring continue:

- IPs which have been depopulated and subsequently cleaned and disinfected; *and/or,*
- CPs after 30 days from the last arrival from, or shipment to an IP, if there are no clinical signs or mortality indicative of infection

At-Risk Premises (ARP) - Premises that have susceptible animals, but none of those susceptible animals have clinical signs compatible with NAI.

Free Premises (FP) **-** Premises outside of a Control Area and not a Contact or Suspect Premises.

Zones

Infected Zone (IZ) **-** The Infected Zone (IZ) will encompass each IPs and include as many of the CPs as the situation requires logistically or scientifically. The boundary of the IZ initially should be at least 3 km (~1.86 miles) beyond the perimeters of the IP(s)

Buffer Zone (BZ) **–** The zone immediately surrounding the IZ is the Buffer Zone (BZ). The boundary of the BZ should be 10 km (~6.21 miles) beyond the perimeter of the IP(s)

Control Area (CA) - A Control Area (CA), consisting of an Infected Zone (IZ) and a Buffer Zone (BZ) and should be at least 10 km (~6.21 miles) in size from the closest IP.

Free Zone (FZ) **-** A Free Zone is a zone in which the absence of the disease under consideration has been demonstrated by the meeting of requirements for disease-free (or "free") status as specified in the OIE International Animal Health Code. Within a Free Zone and at its borders, appropriate official veterinary control is applied for animals and animal products as well as for the transportation of animals and animal products

Surveillance Zone (SZ) **-** A Surveillance Zone (SZ) should be established within and along the border of a Free Zone, separating the FZ from the BZ within the CA. Surveillance in the SZ will focus on premises determined to be at the highest risk of infection. SZ should be at least 10 km (~6.21 miles), but may be adjusted during an outbreak, as appropriate

PROVISIONS FOR A STANDING EMERGENCY POULTRY DISEASE MANAGEMENT COMMITTEE

The membership of the Texas Emergency Disease Management Committee (EDMC) includes:

- Industry representatives
    - Texas Broiler Council
    - Texas Egg Council
    - Texas Turkey Federation
    - Texas Poultry Improvement Association
- USDA-APHIS-VS District 4 Texas
- Texas Animal Health Commission
- Texas A&M Veterinary Medical Diagnostic Laboratory
- Texas NPIP Official State Agency
- Texas A&M Poultry Science
- Texas A&M AgriLife Poultry Extension

The EDMC shall meet in conjunction with regular Texas Poultry Federation board meetings or as necessary with regard to disease situations. The committee will conduct routine exercises to evaluate and update this plan. The Executive Vice President of the TPF shall serve as the communications officer of the committee and will maintain a list of all names and contact information for all committee members. This information shall be distributed to all members of the committee at each regular meeting. See Appendix 1 for a list of Texas Emergency Disease Management Committee.

MINIMUM BIOSECURITY PLAN FOLLOWED BY ALL POULTRY PRODUCERS

Poultry producers that are participating in the NPIP Avian Influenza Programs in Texas have a biosecurity plan in place at all times in an effort to prevent the introduction of diseases to their production flocks.

The essential elements to avoid the introduction of avian influenza include:

- Avoid direct contact between all other avian species and poultry (waterfowl, etc.).
- Allow no visitors on to poultry premises.
- Assure that permit requirements are closely followed.
- Train all personnel regarding biosecurity and monitoring practices.
- Monitor for avian influenza
- Promptly react to any suspected outbreak.

The purpose of these guidelines is to provide a clear and objective set of guidelines for monitoring of poultry farms and flocks to prevent the introduction and spread of avian influenza. Any variation from these procedures requires the review and approval of the Emergency Disease Management Committee or must be conducted under the authority of the Texas Animal Health Commission or other appropriate state or federal agency.

See Appendix 2 for the Texas AgriLife Extension Service publication L-5182 which will serve as the minimum biosecurity plan for Texas.
See Appendix 3 for Minimum Biosecurity Plan for Commercial and Breeding Poultry

MONITORING FOR AVIAN INFLUENZA IN TEXAS

It is essential that the Texas poultry industry develop and implement plans to prevent and stop the threat, as well as control or eradicate NAI. Failure to take appropriate actions can result in serious economic loss and credibility of the Texas industry, nationally and internationally. The success of an effective defensive program will be dependent on efficient discovery and reporting of avian influenza wherever it appears.
The Texas surveillance program is built around a program which is practical and acceptable yet will prevent the introduction of avian influenza. Unwittingly stumbling into a hazardous situation and tracking it from premise to premise represents one of the industries greatest threats. The effectiveness of a monitoring plan is closely related to the level of biosecurity practiced among poultry producers. A strong defense must be in place and maintained.

See Appendix 4 for the guidelines for normal Texas Surveillance Program

PROVISIONS FOR ADEQUATE DIAGNOSTIC RESOURCES

There are a total of five NPIP laboratories authorized to conduct AI testing for flocks in Texas. Each laboratory has a signed Memorandum of Understanding (MOU) detailing the specifics regarding AI testing and the reporting of results for AI tests (See Appendix 5[Memorandum of Understanding (MOU) for Testing and Reporting Criteria and Approved Testing Methods for Authorized Laboratories]). The Texas A&M Veterinary Medical Diagnostic Laboratory (TVMDL) System will be the laboratories that will be utilized during the investigation and response to a suspect NAI case. Specifics for these laboratories are provided below.

- The TVMDL College Station Laboratory is NPIP Authorized and is a National Animal Health Network lab for Avian Influenza (AI) testing. The College Station lab has AI AGID, AI ELISA, and AI PCR capabilities in place. Testing capacities are as follows:

Test Type	Normal Testing Capacity	Surge Testing Capacity
AGID	300 per week	1,000 per week
ELISA	None	7,000 per week
rtPCR	600 per week	10,000 per week

  TVMDL – College Station
  1 Sippel Road
  College Station, TX 77843
  Phone: 979-845-3414

- The TVMDL Center Poultry Diagnostic Laboratory is NPIP Authorized and is a National Animal Health Network lab for Avian Influenza (AI) testing. The Center lab has AI AGID, AI ELISA, and AI PCR capabilities in place. Testing capacities are as follows:

Test Type	Normal Testing Capacity	Surge Testing Capacity
AGID	500 per week	1,000 per week
ELISA	2,000 per week	6,000 per week
rtPCR	200 per week	1,000 per week

TVMDL Center Poultry Laboratory
635 Malone Dr.
Center, TX 75935
Phone: 936-598-4451

- The TVMDL Sam and Sally Glass Gonzales Poultry Diagnostic Laboratory is NPIP Authorized and is a National Animal Health Network lab for Avian Influenza (AI) testing. The Gonzales lab has AI AGID, AI ELISA, and AI PCR capabilities in place. Testing capacities are as follows:

Test Type	Normal Testing Capacity	Surge Testing Capacity
AGID	500 per week	1,000 per week
ELISA	2,000 per week	6,000 per week
rtPCR	200 per week	1,000 per week

TVMDL Sam and Sally Glass Gonzales Poultry Laboratory
1162 East Sarah DeWitt Drive
Gonzales, TX 78629
Phone: 830-672-2834

- The TVMDL Amarillo Laboratory is a National Animal Health Network lab for Avian Influenza (AI) testing. The Amarillo lab has AI PCR capabilities in place. Testing capacities are as follows:

Test Type	Normal Testing Capacity	Surge Testing Capacity
rtPCR	0 per week	1,500 per week

TVMDL – Amarillo
6610 Amarillo Blvd. West
Amarillo, Texas 79106
Phone: 806-353-7478

All presumptive tests are forwarded to NVSL for confirmation. Please the Appendix 6 for the Flow Chart for Reporting NAI Results to APHIS.

PROCEDURES FOR INITIAL HANDLING AND INVESTIGATION OF SUSPECTED CASES OF NAI

Actions in response to Inconclusive Test Results:

- Notify OSA and SAHO within 24 hours of the initial inconclusive test. (Appendix 6 Flow Chart for Reporting NAI Results to APHIS)
- Additional samples may be collected and run at a TVMDL.
    - Additional samples - minimum for 30 blood samples and 15 swab samples per house.

- Additional sample results are inconclusive; all inconclusive samples will be forwarded to NVSL.
- Additional action may be taken at the discretion of the State or Federal Animal Health Officials.

Action in response to Presumptive Test Results:

- Notify OSA and SAHO within 24 hours of the initial presumptive positive test. (Appendix 6 Flow Chart for Reporting NAI Results to APHIS)
- Presumptive positive samples are forwarded to NVSL
- Company quarantine (Appendix 7 Company Action Plan in Response to Suspect Flock) or SAHO hold order (Appendix 8 TAHC Action Plan in Response to Suspect Flock) for noncommercial flocks is implemented immediately.
- An FAD investigation is initiated by the State or Federal Animal Health Official
- Samples will be collected in accordance with FAD investigation guidelines.
- Flock will remain under company quarantine or SAHO hold order and will only be released if NVSL test result are negative and any required retest by SAHO are negative, then the TAHC hold order and company quarantine are removed.
- Additional action may be taken at the discretion of the State or Federal Animal Health Officials.

Action in response to Confirmed Test Results:

- Official quarantine of the Infected Premises (IP) is implemented by the State or Federal Animal Health Official.
- EDMC conference call / emergency meetings are initiated
- Texas ISRCP is implemented.
- Control zones and movement restrictions are implemented. (Appendix 9 and Appendix 10)

See Appendix 7 and/or 8 for Plan of Action for Suspect Flock.

PROCEDURES FOR REPORTING RESULTS TO APHIS

The OSA and SAHO are notified by the lab system of inconclusive and/or presumptive test results. The SAHO will notify the USDA-APHIS-VS District 4 Texas about the test results. The OSA, SAHO and USDA –APHIS-VS District 4 Texas are also members of the Texas EDMC and are involved in all communications regarding NAI in Texas.

QUARANTINE MEASURES FOR PRESUMPTIVE AND CONFIRMED CASES OF NAI

State quarantine and hold order will be issued as follows in regards to presumptive cases and confirmed cases of NAI.

Presumptive Case – TAHC hold order and/or company quarantine is implemented on the presumptive premises per company biosecurity plan or TAHC hold order is implemented on noncommercial poultry. If NVSL test result are negative and any required retest by SAHO are negative, then the TAHC hold order and company quarantine are removed.

Confirmed Case – NAI is confirmed by NVSL, an official state quarantine is placed on the infected premises (IP) by the SAHO.

- All premised within the infected zone (IP) and contact premised (CP) will be issued hold orders.
- Hold orders will be issued to premises within the control area when sick birds are present and NAI is suspected.

State quarantine and hold order will be issued to bird owners in person by SAHO personnel.

- At least three attempts to issue the quarantine or hold order should be made at different times of the day. Phone calls may be warranted and unsuccessful attempts to issue the quarantine or hold order will be documented.
- If the disease situation requires immediate action, the SAHO may authorize the quarantine or hold order on epidemiological grounds.

Releasing state quarantine

In order for an infected premised to be eligible for release, the following conditions must be met:

- Infected premise C&D has been completed and the IP has been unoccupied for at least thirty days since completion of C&D.
- Enhanced surveillance has been/is being conducted in the control area.
    - 1st round of testing in control area must be completed and 2nd round being performed.
- The IP shall be unoccupied for 30 days after C&D, premises must have negative environmental samples or sentinel birds placed on premises, the premises will be tested via serology and PCR at least once a minimum of 10 days after repopulation. The following protocol will be used: 30 serum samples per house and 10 Oropharyngeal/tracheal samples per house.

Releasing TAHC hold orders

- Enhanced surveillance has been/is being conducted in the control area.
    - 1st round of testing in the IZ must be completed with negative results and 2nd round being performed.
- Premises requesting release from a hold order due to extenuating circumstances will be evaluated by a state or federal epidemiologist who will submit a recommendation for approval by the SAHO.

PROVISIONS FOR DEVELOPING FLOCK PLANS FOR INFECTED AND EXPOSED FLOCKS

Flock plans shall be developed for each infected and exposed flock as determined by surveillance and epidemiological investigation.

- The flock plan is a management agreement that sets out the steps to eradicate H5/H7 AI from a flock, to prevent its spread to other flocks and to specify the procedures required to get the facility back into production, including the requirements for quarantine release.
- The flock plan will include cleaning and disinfection requirements, but does not require the inclusion of cost estimates. The flock plan must be developed according to the requirements in §56.5.
- The flock plan must have signatories that include, but are not necessarily limited to, the owner, the grower (if applicable), the Cooperating State Agency representative, the State veterinarian, and the APHIS area supervisor prior to the depopulation of the infected or exposed poultry. See Appendix 11 (Flock Plan Template).

A compliance agreement must be developed if euthanasia, disposal, and/or cleaning and disinfection (C&D) activities will be performed by personnel other than Federal or State Officials.

- A compliance agreement is a document that indicates what tasks will be completed, who will be responsible for each task, and how much the work is expected to cost and can be compared to the statement of work produced for a contract.
- The compliance agreement must have signatories that include, but are not necessarily limited to, the owner, the grower (if applicable), the Cooperating State Agency representative, the State veterinarian, and the APHIS area supervisor.
- A signed compliance agreement is required prior to the beginning of any work for which indemnity funds will be requested. See Appendix 12 (Compliance Agreement Template).

Indemnity for the destruction of poultry and eggs infected with or exposed to H5/H7 AI will be based on the fair market value of the poultry as determined by appraisal. The appraisal will be conducted by a designated APHIS official appraiser and a designated State official appraiser jointly, or, if APHIS and the State authorities agree, by either an APHIS official appraiser or a State official appraiser alone

- The appraiser will complete VS Form 1-23 with the poultry and egg inventory and value per head/egg. The appraiser, owner and all mortgagees must sign this form to indicate agreement with the appraisal amount.

To be eligible for indemnity under §56, flock plan, compliance agreements, and appraisals of poultry must be signed by the designated federal official prior to the destruction of the poultry, unless the owners, the cooperating state agency and the designated federal official agree in writing or via email that the poultry may be destroyed immediately.

See the following:
Appendix 11 Flock Plan Template
Appendix 12 - Compliance Agreement Template
VS Guidance 8602.01 Response, Communications, and Investigation of Notifiable Avian Influenza (NAI) in Domestic Poultry

DEPOPULATION AND DISPOSAL OF INFECTED FLOCKS

Depopulation of Flocks
Depopulation will be accomplished by a humane method approved by SAHO and USDA-APHIS-VS. The two methods most commonly used for mass poultry depopulation are Carbon Dioxide (CO_2) and Foaming. The preferred method of TAHC is foaming when feasible. CO_2 will be utilized when the house design prevents the use of a foam unit or when preferred by the flock owner involved. Other humane method may be used if needed. Please see the American Veterinary Medical Association (AVMA) Guidelines for Euthanasia of Animals for other approved methods. For the most current AVMA guidelines please see link. https://www.avma.org/KB/Policies/Pages/Euthanasia-Guidelines.aspx?utm_source=prettyurl&utm_medium=web&utm_campaign=redirect&utm_term=issues-animal_welfare-euthanasia-pdf

Before depopulation of a premise can start, an appraisal will be made on the birds to be destroyed. Indemnity form (VS 1-23) must be completed by a VS and/or TAHC representative and signed by the owner or the owner's authorized representative before depopulation operations can be undertaken.

If an owner requesting voluntary depopulation of birds on a premise that is neither infected or a dangerous contact indemnity will not be paid. The voluntary depopulation should be documented by the TAHC or VS personnel on-site, including an inventory of birds destroyed and the signature of the owner or the owners authorized representative.

Depopulation can be done by regulatory personnel or by the premises owner under the supervision of regulatory personnel.

Carcass Disposal
The goal of carcass disposal is to facilitate the decomposition of carcasses and destruction of any pathologic disease agent present while limiting the spread of the disease or exposure of susceptible species to disease. It is recognized that one method may not fit all circumstances so the following represents the most provable carcass disposal options.

- Burial
  - On-Site Burial will be done in accordance with Texas Commission on Environmental Quality (TCEQ) Regulatory Guidance RG-326 (Appendix 14) and the approval of the TAHC.

- Off-Site Burial will be approved by the TAHC.

- Composting
  - On-site composting is an approved method of disposal. Piles or rows should meet the following requirements:
    - Practically odorless
    - Reach a temperature 140°F to destroy avian influenza virus.
    - Carcasses must be reduced to nothing, only feathers and bone remaining.
    - Operated to where fly larvae are not a problem.
    - Covered from the weather.

    See reference material from University of Georgia, Composting Mass Poultry Mortalities by Dr. Casey W. Ritz.

  - In-house composting provides a controlled environment that reduces the need to move contaminated carcasses and protects compost piles from weather. In-house composting should meet the following requirements:
    - Practically odorless
    - Reach a temperature 140°F to destroy avian influenza virus.
    - Carcasses must be reduced to nothing, only feathers and bone remaining.
    - Operated to where fly larvae are not a problem.

    See reference material from Maryland Cooperative Extension, Guidelines for In-house Composting of Catastrophic Poultry Mortality.

- Controlled Slaughter – Will be considered an option only when the following is met:
  - Poultry infected with or exposed to H5/H7 LPAI must not be transported to a market for controlled marketing until approved by the SAHO.
  - Within 72 hours each flock to be moved for controlled marketing must be tested for H5/H7 LPAI using a test approved by the SAHO and found to be free of the virus.
  - Routes to slaughter must avoid other commercial poultry operations whenever possible. All load-out equipment, trailers, and trucks used on premises that have housed poultry that were infected with or exposed to H5/H7 LPAI must be cleaned and disinfected and not enter other poultry premises or facilities for 48 hours after removing such poultry from their premises.
  - Flocks moved for controlled marketing must be the last poultry marketed during the week they are marketed.
  - Poultry moved for controlled marketing will not be eligible for indemnity under §56.3. However, any costs related to cleaning and disinfection of premises, conveyances, and materials that came into contact with poultry that are moved for controlled marketing will be eligible for indemnity under §56.3.

- Other Methods – Approved by the EDMC, State Animal Health Official, and Federal Animal Health Official.

Disposing of exposed materials would be either by burial or incineration on-site.

CLEANING AND DISINFECTION OF INFECTED PREMISES, REPOPULATION AND MONITORING AFTER REPOPULATION

Cleaning and disinfection (C&D) of an infected premise will be the primary responsibility of the owner. Texas Animal Health Commission (TAHC) personnel will monitor the progress of C&D activities and conduct inspections of each phase to insure compliance with this protocol.

C&D sites will be placed at all entrances into the infected premises (IP). All vehicles and personnel would go through C&D upon leaving the IP. After the birds and litter are removed from the houses, they would be thoroughly cleaned and then disinfected. Houses must remain empty for thirty days after C&D.

Commercial Premises

Cleaning and disinfection and downtime plans for repopulation and quarantine and monitoring of repopulated commercial flocks:

- Preparation for cleaning and disinfection.
  Following the depopulation of poultry infected with H5/H7 LPAI on a premise, the following procedures should be completed prior to cleaning and disinfection:
  - Secure and remove all feathers that might blow around outside the house in which the infected or exposed poultry were held by raking them together and burning the pile;
  - Apply insecticides and rodenticides immediately after the removal of the birds before the house cools;
  - Dispose of all birds, eggs, litter, manure, debris, and feed. Bury this material on site if possible or compost this material in the house if possible. Compost in accordance with State and local regulations. If litter is piled, the litter pile must be covered and allowed to set undisturbed for an amount of time approved by the SAHO and APHIS. Drying and heat in situ over time are effective and may be used in place of composting if weather conditions or conditions in the building are favorable.
  - After use, equipment used to clean out manure, debris, and feed must be washed, disinfected, and inspected at the site to which the manure and litter was transported. In the case of inclement weather, the equipment may be washed, disinfected, and inspected at off-site wash stations at the discretion of the SAHO and APHIS.
  - Close the house in which the poultry were held, maintaining just enough ventilation to remove moisture. Leave the house undisturbed for a minimum of 72 hours.

- Cleaning:
  All contaminated surfaces must be cleaned and disinfected. Cleaning and disinfection must be performed on all contaminated buildings including pump houses and service areas.

- Cleaning and washing should be thorough to ensure that all contaminated materials, especially manure, dried blood, and other organic materials are removed from all surfaces.
- Spray all contaminated surfaces above the floor with soap and water to knock dust down to the floor, using no more water than necessary.
- Wash equipment and houses with soap and water.
- Disassemble equipment as required to clean all contaminated surfaces. Special attention should be given to automatic feeders and other closed areas to ensure adequate cleaning.
- Inspect houses and equipment to ensure that cleaning has removed all contaminated materials.
- Let houses and equipment dry completely before applying disinfectant.

- Disinfection of premises and materials:
  When cleaning has been completed and all surfaces are dry, all interior surfaces of the structure should be saturated with a disinfectant authorized in 9 CFR § 71.10(a).
  - Disinfectants should be applied as specified by the manufacturer.
  - Apply disinfectant to all surfaces, making sure that the disinfectant gets into cracks and crevices. Pay special attention to automatic feeders and other closed areas to ensure adequate disinfection.
  - If a power spray unit is used, care should be taken not to cause damage to the building or other materials.
- Cleaning and disinfection of conveyances:
  - Clean and disinfect all trucks and vehicles used in transporting affected poultry or materials before soil dries in place.
  - Both exterior, including the undercarriage, and interior surfaces, including truck cabs, must be cleaned.
  - The interior of the truck cabs should be washed with clean water and sponged with a disinfectant authorized in 9 CFR § 71.10(a).
  - Manure and litter removed from these vehicles should be handled in a manner similar to that described above.
- Repopulation and Monitoring:
  Poultry repopulation of the infected premises shall not occur until at least thirty days after completion of Cleaning and Disinfection and the disease is deemed to be eradicated by state and federal officials.
  - Once the virus has been deemed to be eradicated, quarantines can be lifted provided that enhanced surveillance in accordance with Appendix 10 has been/is being conducted in the control area.
  - The State Veterinarian, with input from the EDMC, shall consider repopulation of the house on a case by case basis.
  - The IP shall be unoccupied for 30 days after C&D, premises must have negative environmental samples or sentinel birds placed on premises, the premises will be tested via serology and PCR at least once a minimum of 10 days after repopulation.

The following protocol will be used: 30 serum samples per house and 10 Oropharyngeal/tracheal samples per house.

Noncommercial Premises

Cleaning and disinfection and downtime plans for repopulation and quarantine and monitoring of repopulated noncommercial flocks. Cleaning and disinfection (C&D) activities on noncommercial premises should be limited to areas inhabited by or exposed to poultry.

1. Preparation for cleaning and disinfection:
   Following the depopulation of poultry infected with H5/H7 LPAI on a premise, the following procedures should be completed prior to cleaning and disinfection:
   - All trash and debris will be removed from around the exterior of poultry houses or buildings inhabited by or exposed to poultry. If possible, trash and debris should be disposed of on the affected premises; if it is not possible do accomplish disposal on-site, the movement and disposal off-site must be approved by the SAHO.
   - Close the house in which the poultry were held, maintaining just enough ventilation to remove moisture. Leave the house undisturbed for as long as possible in order to allow as much H5/H7 LPAI virus as possible to die a natural death, minimum 7 days.

2. Cleaning:
   All contaminated surfaces inhabited by or exposed to poultry must be cleaned and disinfected.
   - All poultry litter will be removed from the poultry houses or buildings inhabited by or exposed to poultry. Manure and litter from outside roosting areas will be removed as thoroughly as possible. If possible, poultry litter and manure should be disposed of on the affected premises; if it is not possible to accomplish disposal on-site, the movement and disposal off-site must be approved by the SAHO.
   - Cleaning the premises and materials. Cleaning and washing should be thorough to ensure that all contaminated materials, especially manure, dried blood, and other organic materials are removed from all surfaces.
   - Spray all contaminated surfaces above the floor with soap and water to knock dust down to the floor, using no more water than necessary.
   - Wash equipment and houses with soap and water.
   - Disassemble equipment as required to clean all contaminated surfaces.
   - Inspect houses and equipment to ensure that cleaning has removed all contaminated materials or substances.
   - Let houses and equipment dry completely before applying disinfectant.

3. Disinfection of premises and materials:
   When cleaning has been completed and all surfaces are dry, all interior surfaces of the structure should be saturated with a disinfectant authorized in 9 CFR § 71.10(a).
   - A power spray unit should be used to spray the disinfectant on all surfaces, making sure that the disinfectant gets into cracks and crevices.
   - If a power spray unit is used, care should be taken not to cause damage to the building

or other materials.

- Following final disinfection, any soil surface exposed to poultry manure (buildings with dirt floors, the ground under outside roosting areas) will be treated with lime or a similar product.

4. Cleaning and disinfection of conveyances:
   - Clean and disinfect all trucks and vehicles used in transporting affected poultry or materials before soil dries in place.
   - Both exterior, including the undercarriage, and interior surfaces, including truck cabs, must be cleaned.
   - The interior of the truck cabs should be washed with clean water and sponged with a disinfectant authorized in 9 CFR § 71.10(a).
   - Manure and litter removed from these vehicles should be handled in a manner similar to that described above.
   - Following final disinfection, the premises will remain free of poultry for a minimum of 30 days prior to restocking. Restocking will be subject to approval by the TAHC.

5. Repopulation and Monitoring:
   Poultry repopulation of the infected premises shall not occur until at least thirty days after completion of Cleaning and Disinfection and the disease is deemed to be eradicated by state and federal officials.
   - Once the virus has been deemed to be eradicated, quarantines can be lifted provided that enhanced surveillance in accordance with Appendix 10 has been/is being conducted in the control area.
   - The State Veterinarian, with input from the EDMC, shall consider repopulation of the house on a case by case basis.
   - Once repopulated, the premises will be tested 10 days after repopulation via serology and PCR.
   - The IP shall be unoccupied for 30 days after C&D, premises must have negative environmental samples or sentinel birds placed on premises, the premises will be tested via serology and PCR at least once a minimum of 10 days after repopulation. The following protocol will be used: 30 serum samples per house and 10 Oropharyngeal/tracheal samples per house.

PROVISIONS FOR CONTROL ZONES AND MOVEMENT RESTRICTIONS

A Control Area (CA) consisting of an infected zone and buffer zone will be established around each infected premises (IP). These zones may be adjusted in size and shape by the SAHO based on the specifics of the event. Movement onto and off of infected premises will be restricted to essential personnel only and through designated entry points. Movement of susceptible species out of or into the CA will be by permit from the SAHO only.

Appendix 9 contains additional provisions for the identification of premises, control zones and movement restrictions involved in a confirmed case of H5/H7 LPAI.

MONITORING ACTIVITIES IN CONTROL ZONES

All poultry flocks (commercial and noncommercial) will be identified in the Control Area and tested for Avian Influenza in accordance with Appendix 10.

Testing in the Control Area will be in accordance with Appendix 10.

VACCINATION AS AN OPTION IN CONTROLLING H5/H7 LPAI

The state of Texas will consider vaccination for the control and eradication of H5/H7 LPAI if requested by the poultry company involved, in consultation with the EDMC and with USDA APHIS VS approval.

Appendix 13 provides detailed plans the use of AI vaccination.

QUARANTINE, TESTING, AND CONTROLLED MARKETING OF H5/H7 LPAI- NEGATIVE FLOCKS

At the discretion of the SAHO and APHIS, poultry that has been infected with or exposed to H5/H7 LPAI may be allowed to move for controlled marketing in accordance with the initial state response and containment plan described in proposed 9CFR part 56.10 and in accordance with the following requirements:

- Poultry infected with or exposed to H5/H7 LPAI must not be transported to a market for controlled marketing until approved by the SAHO.
- Within 72 hours each flock to be moved for controlled marketing must be tested for H5/H7 LPAI using a test approved by the SAHO and found to be free of the virus.
- Routes to slaughter must avoid other commercial poultry operations whenever possible. All load-out equipment, trailers, and trucks used on premises that have housed poultry that were infected with or exposed to H5/H7 LPAI must be cleaned and disinfected and not enter other poultry premises or facilities for 48 hours after removing such poultry from their premises.

- Flocks moved for controlled marketing must be the last poultry marketed during the week they are marketed.
- Poultry moved for controlled marketing will not be eligible for indemnity under §56.3. However, any costs related to cleaning and disinfection of premises, conveyances, and materials that came into contact with poultry that are moved for controlled marketing will be eligible for indemnity under §56.3.

PUBLIC AWARENESS AND EXERCISE PROGRAM FOR AVIAN INFLUENZA

All commercial poultry companies, State Animal Health Officials, Federal Animal Health Officials, Veterinary Diagnostic Labs, and Texas A&M AgriLife Poultry Extension personnel are members of the EDMC. As such, they communicate on a regular basis via conference calls and meetings in regards to poultry health issues in the state. Texas A&M AgriLife Extension, holds multiple avian health seminars for commercial personnel and backyard/hobby flock owners on an annual basis.

The EDMC shall meet in conjunction with regular Texas Poultry Federation board meetings or as necessary with regard to disease situations. The committee will conduct routine exercises to evaluate and update this plan.

Information shall be made available to all interested parties concerning Avian Influenza through the Texas Animal Health Commission.

Appendix 1
Texas Emergency Disease Management Committee

Dr. Hallie Hasel, USDA-APHIS-VS District 4 Texas Assistant District Director
(512) 383-2400
Dr. Dee Ellis, Texas Animal Health Commission
(512) 719-0700
Ralph Simmons, Texas Animal Health Commission Poultry Commissioner
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(979) 845-4319
Paul Sandel, Hy-Line North America LLC
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Todd Walters, Cal-Maine Foods
(361) 865-3592
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(936) 824-2683
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(903) 855-1000
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Dr. Phil Stayer, Sanderson Farms Inc.
(601) 426-1338
Keith Staggs, Holmes Food Inc.
(830) 437-5668
Dr. Bert Rings, Cobb-Vantress Inc.
(479) 549-6085
Gary Fuchs, Ideal Poultry Breeding Farms
(800) 243-3257
James Grimm, Executive Vice President TPF
(512) 248-0600

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Texas A&M System

L-5182
12-05

Poultry Facility Biosecurity

John B. Carey*

Disease outbreaks cost poultry producers and related industries millions of dollars a year in lost revenue. To minimize these losses, disease-prevention methods must be followed, including practices controlling disease-causing organisms (pathogens) and their vectors. Such disease-control measures are collectively termed biosecurity.

Biosecurity is a set of practices that limit the spread of disease-causing organisms. When teamed with disinfection and sanitation procedures, biosecurity practices can eradicate or reduce pathogens to noninfectious levels. Such preventive measures as vaccination and serologic monitoring also help ensure good flock health.

Inadequate biosecurity can contribute to industrywide epidemics of highly pathogenic or exotic disease, resulting in quarantine and possible condemnation of flocks. An infection by a nonvirulent organism within a facility can be just as devastating economically, reducing production over the life of the facility without overt signs of disease. Once contaminated with pathogens, poultry facilities are extremely difficult and expensive to clean, sanitize and disinfect.

Facility location and design

Optimally, facilities should be located at least 1 to 2 miles from other commercial or private poultry facilities. Although existing facilities cannot be moved, new facilities should be built away from waterways used by migratory waterfowl. Locate new facilities as far as possible from roads handling high volumes of poultry vehicles such as feed trucks or live-haul vehicles. Poultry facilities also need adequate amounts of potable water. In addition, wastes must be treated in a timely, approved method.

On-premise roads and walkways should be built of all-weather materials to reduce the transportation of organic materials on tires and shoes. Design features should include a one-way traffic system for all poultry facilities. The system should route personnel, vehicles and poultry from youngest birds to oldest birds, from "clean" areas to "dirty" areas and from individual poultry houses to common-use employee areas. This prevents contaminants within facilities from circulating into other production stages.

Sources of diseases in poultry facilities

- Diseases may be introduced by people — employees, service representatives, truck drivers, vaccination crews, veterinarians, etc.
- They may be transferred via new poultry — chicks, pullets, breeding males, semen, etc.
- They may arise from previously contaminated and improperly cleaned premises or equipment.
- They may be introduced by vectors — rodents, wild birds, insects, wind, water, etc.

Following are guidelines for developing standard operating procedures for each potential disease source. These guidelines should be thoroughly understood and practiced by all poultry producers and affiliated personnel.

Human traffic

To prevent people from bringing disease into a poultry operation, restrict access to poultry facilities. Keep out all unauthorized personnel and minimize the time that necessary outside personnel spend in or around the facilities.

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Control all vehicle traffic on the premises. If practical, keep a log and periodically review all vehicle, equipment and personnel movement on and off the premises. This information may connect disease problems to a possible source and aid in correcting biosecurity failures.

Necessary access vehicles — feed and chick trucks and vehicles for veterinarians, service representatives and government inspection officials — should be cleaned and disinfected before entering a premise. Best is to provide an unattached building at the premise entrance to decontaminate all personnel and equipment entering the facility. High-pressure washing with detergent and spraying of vehicle tires with disinfectant will decrease or eliminate most pathogens.

Poultry producers who implement biosecurity plans will reduce economic losses caused by diseases

Traffic patterns for visitors should start with the youngest poultry and progress according to age. Clean clothing and footwear should be provided for everyone entering the facilities.

To reduce transmission of pathogens via personnel, employees should not own backyard flocks, pet birds or exotic fowl.

Infected poultry

Precautions are needed to reduce the spread of disease from one facility to another. Producers should buy poultry from disease-free sources. For disease-tracking purposes, farms approved by the National Poultry Improvement Plan must maintain records of poultry sold and their final destination. When buying eggs or chicks, inspect records to verify that they are from disease-free sources and have had appropriate vaccinations for the area.

Poultry diseases can be spread from infected birds by egg transmission (transovarian) or from bird to bird. Transmission of pathogens via the egg includes transovarian transmission (hen to egg) and eggshell-to-embryo contamination during incubation and hatching. Chicks at the hatchery can also be contaminated after hatching. Bird-to-bird transmission of disease may result from direct contact with an infected bird or through indirect contact with fomites such as feed, fecal material or wind-borne pathogens.

Contaminated facilities

Effective cleaning and disinfection measures can substantially decrease disease transmission by reducing pathogens in the environment to noninfectious levels. An “all in/all out” policy helps prevent disease transmission from older birds to new birds by creating breaks for cleaning and disinfection. Although “all in/all out” practices maximize sanitation effectiveness, they are not always economically feasible. Therefore, poultry producers must customize plans for cleaning and disinfection to reduce pathogens to minimum levels.

Facilities and equipment should be cleaned from top to bottom, inside to out and with the natural drain of effluent water to prevent recontamination of cleaned facilities. Be sure to clean all equipment of organic matter (which reduces the effectiveness of disinfectants), then apply disinfectant. Many commercially available disinfectants labeled for poultry farm use are on the market. Follow product label recommendations and use only approved disinfectants and procedures.

Vectors

Efforts to minimize vectors can significantly reduce disease transmission and corresponding economic losses. Vectors include rodents, wild birds, insects and internal and external parasites, which can bring pathogens to poultry facilities. Pathogens may be transferred via fomites such as fecal material (including wild birds’ feces, feathers or dust) and by wind, water or in feed.

Effective rodent and wild-bird control programs should be developed. Rodents consume and contaminate feed and spread numerous diseases. They may also destroy eggs, chicks, poults, equipment and structures. Wild birds can be excluded from the premises by covering all vents and openings with a narrow-mesh wire screen. Insects and parasites can be controlled with preventive programs and proper use of insecticides and medications.

For more information on rodent control, request publication L-1351, *Rodent Control on Poultry Farms*, from the Texas Agricultural Extension Service.

Biosecurity is a crucial component of good management practices. An effective biosecurity plan should be flexible and open to new technology as it develops or becomes necessary. Poultry producers who implement a biosecurity plan to control pathogens and their vectors will reduce economic losses caused by diseases.

Preventing Disease in Poultry Houses

- Keep poultry houses locked; fasten from inside while inside.
- When caring for flocks, the resident flock manager should keep clothing (including shoes, boots, hat and gloves) separate from those worn off the farm.
- Flock manager and other caretakers should not visit any other poultry flocks.
- Do not allow visitors in or near the poultry houses.
- After caring for the flock, change clothes completely and wash hands and arms before leaving premises.
- Essential visitors such as owners, meter readers, service personnel, fuel and feed delivery drivers, and poultry catchers and haulers must wear protective outer clothing, including boots and headgear, before being allowed near the flocks.
- Monitor vehicles entering premises for poultry pickup or delivery, feed delivery, fuel delivery, etc., to determine if they have been scrubbed down and the undercarriage and tires spray-disinfected before entering.
- Clean and disinfect all coops, crates and other poultry containers or equipment before and after use.
- Sick or dying birds should be sent to a state laboratory for diagnosis. Commercial growers should contact their flock supervisor.
- Dispose of dead birds properly by burial or incineration.
- People handling wild game (especially waterfowl) must change clothes completely and bathe before entering poultry premises.
- Keep “restricted” signs posted at drive entrances.

Como Prevenir Enfermedad en Gallineros

- Mantenga cerrados los gallineros o el corral, ciérrelos por dentro cuando esté adentro.
- El residente encargado de la bandada debe vestir diferente ropa a la que viste cuando no esté en la granja (incluyendo zapatos, botas, sombrero y guantes) cuando cuida a la parvada.
- El encargado de la paravada y otros cuidadores no deben entrar a los corrales de otras parvada de aves.
- No permita que visitantes entren ni se acerquen a los gallineros o a los corrales.
- Después de cuidar a la parvada, cámbiese de ropa completamente y lávese las manos y los brazos antes de salir del local.
- Los visitantes necesarios tales como los dueños, los repartidores de combustible y de pienso, el lector del contador de la luz, el personal que recoge y transporta aves y el personal de servicio deben vestir ropa protectora externa incluyendo botas y sombrero.
- Controle los vehículos que entran al local para recoger o entregar aves, entregar pienso, entregar combustible y lo demás. Asegúrese que hayan sido lavados y que el chasis y las llantas hayan sido rociadas con desinfectante antes de entrar.
- Todos los gallineros, las cajas y otros contenedores o equipo para aves deben ser limpiados y desinfectados antes y después de su uso.
- Las aves enfermas or moribundas deben ser enviadas a un laboratorio estatal para ser diagnosticadas. Los avicultores comerciales deben comunicarse con sus encargados de parvada.
- Las aves muertas deben ser eliminadas debidamente mediante entierro o incineración.
- Las personas encargadas de cuidar fauna silvestre (especialmente aves acuáticas) deben cambiarse de ropa completamente y bañarse antes de entrar al local donde estén las aves.
- Mantenga letreros de “zona prohibida” en las entradas.

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Educational programs conducted by Texas AgriLife Extension Service serve people of all ages regardless of socioeconomic level, race, color, sex, religion, handicap or national origin.

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2M, Reprint PS1-1

APPENDIX 3

Minimum Biosecurity Plan for Commercial and Breeding Poultry

SERVICE TECHS AND BREEDER SERVICING CREW

- Park a minimum of 100' from first poultry house
- Keep vehicle windows closed on farms.
- Service Technicians must put on clean coveralls, hairnets and boots (rubber or disposable) prior to entering poultry houses.
- Clean and disinfect all equipment before entering houses.
- Use hand sanitizer or disposable gloves before entering and when exiting houses.
- Clean & disinfect vehicles inside daily, outside weekly.

FEED MILL

- Wash trucks to remove mud and debris to the extent needed to allow effective operation of disinfectant sprayers.
- Clean and disinfect the cabs on feed trucks daily. Spray the floors and pedals with approved disinfectant.

HATCHERY

- All drivers are to wear boots (rubber or disposable).
- Egg, chick and poult trucks are to be cleaned and disinfected inside and outside daily.
- Spray insecticide inside trucks as needed to eliminate the transporting of flies from farm to farm.
- Egg racks and trays must be washed and disinfected before leaving hatchery.
- Wash chick/poult boxes and delivery carts daily.
- Hatchery waste trucks going to rendering need to be cleaned and disinfected before returning. Load should be hauled at the end of the day. Sweep out the cab and spray pedals and floorboard with an approved disinfect. Spray insecticide as needed.
- Eggs brought to hatcheries should be from source flocks participating in NPIP or other disease monitoring programs.

LIVE HAUL (Single Age)

- All equipment is to be cleaned and disinfected daily.

LIVE HAUL (Multi Age)

- All equipment is to be cleaned and disinfected between farms.

DEAD BIRD DISPOSAL

- Composting must be managed properly to ensure carcasses are covered to prevent exposure to wild animals and to maintain adequate temperatures for composting.
- When on-farm incineration is used, carcasses must be protected from exposure to wild animals.
- Farms should not share disposal facilities. Rendering can be used for daily mortality if approved by company management. Growers that use rendering must clean and disinfect vehicles prior to returning to their farm, and vehicles transporting carcasses should not travel from farm to farm to pick up daily mortality for delivery to the rendering plant.

APPENDIX 3

Minimum Biosecurity Plan for Commercial and Breeding Poultry

GROWERS, FARM MANAGERS, AND HIRED HELP

- Biosecurity/Disease Control Area signs will be posted at farm entrance.
- Growers should keep out visitors and not visit other poultry facilities.
- Minimize the number of vehicles entering the farm.
- Be sure that visitor guidelines are followed when a service call is needed
- Do not allow pets, livestock or wild animals to enter poultry houses.
- Keep wild birds out of poultry houses.
- Practice effective rodent and insect control.
- Keep workrooms clean.
- No birds of any kind will be visited or kept by the Grower or hired help or Company personnel.
- Sharing equipment between Growers is not recommended. In the event that equipment must be shared, effective cleaning and disinfecting must take place between uses.
- Growers should wear clean protective clothing or clothing dedicated to the farm prior to entering poultry houses.
- Notify a company representative if you observe others not following good biosecurity.

GENERAL

- Poultry company personnel and growers must avoid any contact with live bird markets and noncommercial poultry.
- Poultry companies will comply with applicable disease surveillance protocols.

Appendix 4
Guidelines for Normal Texas Surveillance Program

Meat-Type Chickens

- **Primary Meat-Type Chicken Breeding Flock**

  It is a primary breeding flock in which a minimum of 30 birds have been tested negative for antibodies to avian influenza using an approved test as described in §145.14 when more than 4 months of age.

  To retain this classification:

  - A sample of at least 30 birds must be tested negative at intervals of 90 days; or
  - A sample of fewer than 30 birds may be tested, and found to be negative, at any one time if all pens are equally represented and a total of 30 birds is tested within each 90-day period; or
  - The flock is tested as provided in §145.14(d) at intervals of 30 days or less and found to be negative, and a total of 30 samples are collected and tested within each 90-day period;

    And
  - All primary spent fowl, up to a maximum of 30, must be tested serologically and found negative within 21 days prior to movement to slaughter.

- **Multiplier Meat-Type Breeder Flocks**

  It is a multiplier breeding flock in which a minimum of 30 birds have been tested negative for antibodies to avian influenza using an approved test as described in §145.14 when more than 4 months of age

  To retain this classification:

  - A sample of at least 15 birds must be tested negative at intervals of 90 days; or
  - A sample of fewer than 15 birds may be tested, and found to be negative, at any one time if all pens are equally represented and a total of 30 birds is tested within each 90-day period; or
  - The flock is tested as provided in §145.14(d) at intervals of 30 days or less and found to be negative, and a total of 15 samples are collected and tested within each 90-day period;

    And
  - All multiplier spent fowl, up to a maximum of 30, must be tested serologically and found negative for antibodies for avian influenza within 21 days prior to movement to slaughter.

- **Commercial Meat-Type Slaughter Chickens**

  It is a meat-type slaughter chicken flocks where a minimum of 11 birds have been tested negative for antibodies to the H5/H7 subtypes of avian influenza, as provided in §146.13(b), no more than 21 days prior to slaughter

Appendix 4
Guidelines for Normal Texas Surveillance Program

Egg – Type Chickens

- **Primary Egg-Type Chicken Breeding Flock**
  It is a primary breeding flock in which a minimum of 30 birds have been tested and found negative for avian influenza when more than 4 months of age.
  To retain this classification:
  - A sample of at least 30 birds must be tested negative at intervals of 90 days; or
  - A sample of fewer than 30 birds may be tested, and found to be negative, at any one time if all pens are equally represented and a total of 30 birds is tested within each 90-day period; or
  - The flock is tested as provided in §145.14(d) at intervals of 30 days or less and found to be negative, and a total of 30 samples are collected and tested within each 90-day period
    And
  - A sample of at least 11 birds must be tested and found negative for avian influenza within 21 days prior to movement to slaughter
- **Multiplier Egg-Type Breeder Flocks**
  It is a multiplier breeding flock in which a minimum of 30 birds have been tested and found negative to avian influenza when more than 4 months of age.
  To retain this classification:
  - A sample of at least 30 birds must be tested negative at intervals of 90 days; or
  - A sample of fewer than 30 birds may be tested, and found to be negative, at any one time if all pens are equally represented and a total of 30 birds is tested within each 90-day period; or
  - The flock is tested as provided in §145.14(d) at intervals of 30 days or less and found to be negative, and a total of 30 samples are collected and tested within each 90-day period;
    And
  - A sample of at least 11 birds must be tested and found negative to avian influenza within 21 days prior to slaughter.
- **Commercial Table-Egg Layer Flocks**
  - It is commercial table-egg layer flocks in which 15 eggs or blood samples are tested negative for avian influenza, every 30 days from a minimum of 50% of all houses. Samples should represent all locations within the house and tested housed should represent a balance of all geographic locations on the premise.
  - It is a commercial table-egg layer flock in which 15 eggs or blood samples are tested within 30 days prior to disposal.
- **Commercial Table-Egg Pullet Flocks**
  - It is a commercial table-egg layer pullet flock in which a minimum of 15 birds have been tested negative to avian influenza within 30 days prior to movement.

Appendix 4
Guidelines for Normal Texas Surveillance Program

Turkeys

❖ **Turkey Breeder Flocks**

It is a primary or multiplier breeding flock in which a minimum of 30 birds have been tested negative to the H5/H7 subtypes of avian influenza as provided in §145.14(d) when more than 4 months of age and prior to the onset of egg production. To retain this classification:

To retain this classification:

- A sample of at least 30 birds must be tested negative at intervals of 90 days; or
- A sample of fewer than 30 birds may be tested, and found to be negative, at any one time if all pens are equally represented and a total of 30 birds are tested within each 90-day period.

  And
- All spent fowl, up to a maximum of 6, must be tested and found negative within 21 days prior to movement to slaughter.

❖ **Commercial Meat-Type Slaughter Turkeys**

- It is a meat-type slaughter turkey flock in which a minimum of 6 samples per flock have been collected no more than 21 days prior to movement to slaughter and tested negative with an approved test for type A avian influenza, as provided in §146.13(b). It is recommended that samples be collected from flocks over 10 weeks of age with respiratory signs such as coughing, sneezing, snicking, sinusitis, or rales; depression; or decreases in food or water intake.

Appendix 4
Guidelines for Normal Texas Surveillance Program

Hobbyist and Exhibition Waterfowl, Exhibition Poultry, and Game Bird

❖ **Hobbyist and Exhibition Waterfowl, Exhibition Poultry, and Game Bird Breeding Flocks**
It is a flock in which a minimum of 30 birds has been tested negative to the H5 and H7 subtypes of avian influenza as provided in §145.14(d) when more than 4 months of age; *Provided,* that waterfowl flocks may test a minimum of 30 cloacal swabs for virus isolation

To retain this classification:

- A sample of at least 30 birds must be tested negative at intervals of 180 days or a sample of fewer than 30 birds may be tested, and found to be negative, at any one time if all pens are equally represented and a total of 30 birds is tested within each 180-day period;
- All spent fowl, up to a maximum of 30, must be tested and found negative within 21 days prior to movement to slaughter.

❖ **Commercial Upland Game Bird Slaughter Flock or Commercial Waterfowl Slaughter Flock**
It is a flock in which a minimum of 11 birds per flock have been tested negative for the H5/H7 subtypes of avian influenza, as provided in §146.13(b), no more than 21 days prior to slaughter.

❖ **Raised-For-Release Upland Game Bird and Waterfowl Flocks**
It is a raised-for-release upland game bird and waterfowl flocks in which a minimum of 30 birds from the participating premises has been tested with negative results for the H5/H7 subtypes of avian influenza, as provided in §146.13(b), every 90 days.

Ostrich, Emu, Rhea, and Cassowary

❖ **Ostrich, Emu, Rhea, and Cassowary Breeding Flocks**
It is a primary or multiplier breeding flock in which up to a maximum of 30 birds, has been tested negative for type A influenza virus with all pens represented equally and when the tested birds are more than 4 months of age.

To retain this classification:

- A sample of at least 30 birds must be tested negative at intervals of 180 days, or
- A sample of less than 10 percent of the birds, up to a maximum of 30 birds, may be tested and found to be negative at any one time if all pens are equally represented and a total of 30 birds are tested within each 180-day period.

Memorandum of Understanding (MOU)
For Testing and Reporting Criteria and Approved Testing Methods for Authorized Laboratories

Signed MOU is Maintained in the Official State Coordinator's Office

_____(Lab)_____with location_____(Place)_____;
covering the cooperative work of the National Poultry Improvement Plan (NPIP), agrees to comply with the requirements of the NPIP when conducting official certification of participating poultry in the State of Texas, keep necessary records required by the NPIP and to make such records accessible to official representatives of the Official State Agency upon request, and that the above laboratories will report all official tests completed in each laboratory on official USDA, APHIS, NPIP forms or equivalent forms to the Official State Agency. In the cases of Notifiable Avian Influenza, test results will be immediately reported to the Official State Agency (Texas Poultry Improvement Association/Board) and Cooperating State Agency (Texas Animal Health Commission). This MOU shall be in full force and effect for a period of one year beginning July 1, 2013, and ending June 30, 2014, and from year to year thereafter upon submission of a signed MOU to be appended to the original agreement.

_____ _____

Date Lab Director

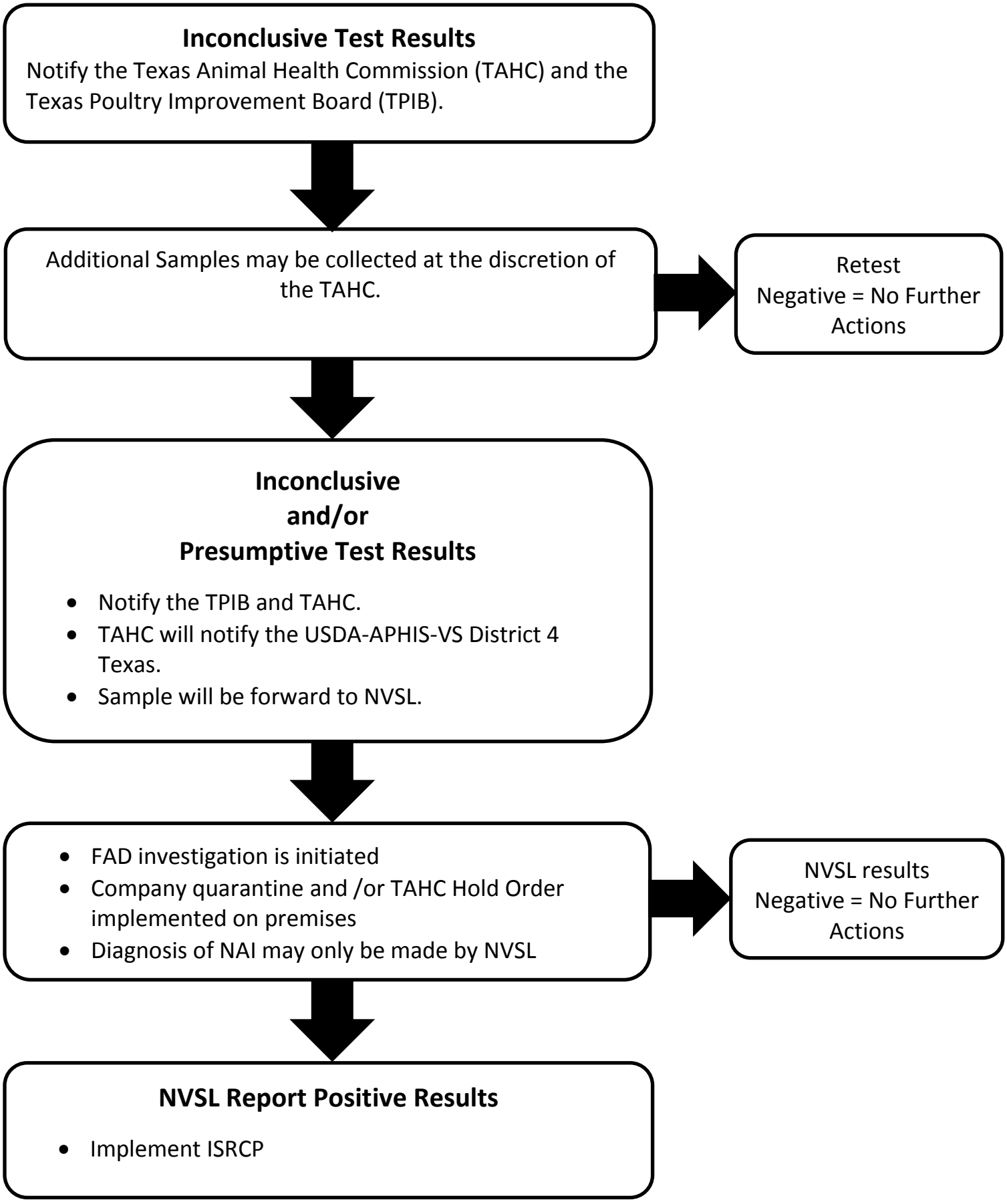
_____ _____

Date Texas Poultry Improvement Board – Chair

_____ _____

Date Official State Coordinator – Texas NPIP

Appendix 6
Flow Chart for Reporting NAI Results to APHIS



Appendix 7
Company Action Plan in Response to Suspect Flock

Clinical Disease

- Grower/producer immediately telephones flock supervisor/manager and notify them of loss and/or suspicion of sick birds.
- Farm with increased mortality will be visited by appropriate diagnostician.
- Have "Emergency Kit" in vehicle (see below)
- Park vehicle well away from poultry house, preferably in a well graveled or grassy area. Stay upwind, out of the mud and away from fan exhausts.
- Put on all biosecurity apparel (clean or disposable coveralls, disinfected or disposable boots, gloves, dust mask, and hair net) immediately upon arrival.
- If H5/H7 LPAI is suspected, contact company management and use the following recommended procedures:
- Alert the appropriate diagnostic laboratory and for instructions. This would be best done before taking samples.
    - For diagnostic specimens, select fresh dead birds or live symptomatic birds to be humanely sacrificed. Put dead birds in a plastic bag and seal it. Suspect birds (dead or alive) should be handled in such a manner as to minimize contamination from fecal matter or other body exudates, and feathers. Ice down specimens if possible.
        - Tie off bag.
        - Disinfect bag and place in second plastic bag.
        - Disinfect second bag.
- Put boots, gloves, coveralls, and hat in a trash bag. Put disposable items in trash bag, and leave on the farm for proper disposal.
- Put up "Restricted Entry Signs" at farm entry gate, and block entry, if possible.
- Be careful to avoid contamination of vehicle. Before leaving the premise spray the tires and floor boards with disinfectant.
- Avoid contact with poultry or poultry industry personnel until there is complete decontamination of individual and vehicle.
- Run vehicle through car wash and spray inside with disinfectant prior to visiting another farm.
- Return home and launder all clothing worn on suspect premise immediately.
- Obtain approval of company veterinary advisor prior to resuming normal work contacts, and/or before visiting another premise.
- If for any reason other assistance is needed, telephone your company office.
- Company should implement quarantine as indicated below.

Appendix 7
Company Action Plan in Response to Suspect Flock

Lab Reports Inconclusive or Presumptive Test Results

- Company manager/supervisor immediately notifies grower/producer.
- Grower/producer will restrict movement on the farm until company manager/supervisor visits.
- Establish communication with State Animal Health Officials.
- Company manager/supervisor will visit farm.
- Have "Emergency Kit" in vehicle (see below)
- Park vehicle well away from poultry house, preferably in a well graveled or grassy area. Stay upwind, out of the mud and away from fan exhausts.
- Put on all wearing apparel (clean or disposable coveralls, disinfected or disposable boots, gloves, dust mask, and hair net) immediately upon arrival.
- Additional samples may be taken at the discretion of the State Animal Health Officials.
- Be careful to avoid contamination of vehicle. Before leaving the premise spray the tires and floorboards with disinfectant, and spray insecticide inside vehicle to kill any flies or other insects that may be present.
- Put boots, gloves, coveralls, and hat in a trash bag. Put disposable items in trash bag, and leave on the farm for proper disposal.
- Put up "Restricted Entry Signs" at farm entry gate, and block entry, if possible.
- Avoid contact with poultry or poultry industry personnel until there is complete decontamination of individual and vehicle.
- Run vehicle through car wash and spray inside with disinfectant prior to visiting another farm.
- Return home and launder all clothing worn on suspect premise immediately.
- Obtain approval of company veterinary advisor prior to resuming normal work contacts, and/or before visiting another premise.
- If for any reason other assistance is needed, telephone your company office.
- Company should implement quarantine as indicated below.

Appendix 7
Company Action Plan in Response to Suspect Flock

Company Quarantine

- Establish communication with Texas Animal Health Commission.
- Eliminate all service and other visits to that farm except dedicated service technician.
- Specifically restrict movement of grower and family individuals and employees to essential visits only.
- Notify vendors of quarantined premise and cease nonessential visits.
- Establish Cleaning & Disinfection(C&D) station at entrance to farm and C&D all vehicles entering and leaving premise
- Feed deliveries
    - Make delivery last stop
    - Driver must not enter poultry house
    - Driver must wear plastic boots unless climbing feed tanks
    - Driver must use hand sanitizer before leaving farm
    - Driver must bath and launder clothing after leaving farm
    - Truck must be thoroughly cleaned and disinfected after leaving farm
- All dead birds should be disposed of on the farm in a bio-secure manner.

Emergency Kit Contents

1. Boots (disposable or easily disinfected)
2. Plastic trash bags
3. Disinfectant
4. Boot brush
5. Bucket
6. Disposable coveralls
7. Disposable dust masks
8. Disposable examination gloves
9. Restricted Area Sign or Keep Out Sign(for driveway and poultry house door)
11. Household aerosol insect killer
12. Disposable hair nets
13. Hand sprayer (one gallon)
14. Specimen bags
    - Large (for birds)
    - Small (for tissues, etc.)
    - Blood tubes
    - Swabs

Appendix 8
Texas Animal Health Commission Action Plan in Response to Suspect Flock

Clinical Disease

- Owner contact Texas Animal Health Commission of sick and dying birds.
- Inspector or veterinarian visits owner's premise.
- Arrive at the premise and do not drive on the premise unless it is necessary.
- Put on all biosecurity apparel (clean or disposable coveralls, disinfected or disposable boots, gloves, dust mask, and hair net) immediately upon arrival.
- Observe and make notes regarding what species, types, and ages of birds are affected
- Interview the owner and make notes of conversation
- Collect samples (Type of sample will be determined by the State Animal Health Officials)
    - Blood samples
        - See Attachment 1
    - Tracheal Swabs
        - See Attachment 2
    - Cloacal Swabs
        - See Attachment 3
    - Select fresh dead birds or live symptomatic birds to be humanely sacrificed. Put dead birds in a plastic bag and seal it. Suspect birds (dead or alive) should be handled in such a manner as to minimize contamination from fecal matter or other body exudates, and feathers. Ice down specimens if possible.
        - Tie off bag.
        - Disinfect bag and place in second plastic bag.
        - Disinfect second bag.
- A TAHC Hold Order will be issued at this time, if the Notifiable Avian Influenza is suspected and ensure that the owner understands the movement restrictions.
- Provide your contact information in case the owner has additional question.
- Put boots, gloves, coveralls, and hat in a trash bag. Put disposable items in trash bag, spray inside and out with an approved disinfectant and leave on the premise if the owner will allow it, for proper disposal. If you must take trash with you double bag and spray again with approved disinfectant and dispose correctly.
- Be careful to avoid contamination of vehicle. Before leaving the premise spray the tires and floor boards with disinfectant.
- Avoid contact with poultry premises or poultry personnel until there is complete decontamination of individual and vehicle.
- Run vehicle through car wash and spray inside with disinfectant prior to visiting another poultry premise.
- Delivery or prepare samples for shipment to TVMDL.
- Return home, shower, and launder all clothing worn on suspect premise immediately.
- Do not visit any premise where birds are present for the remainder of the day.
- Discuss premise visit with the assigned veterinarian.

Lab Reports Inconclusive or Presumptive Test Results

- Upon TAHC receiving notification of an inconclusive or presumptive test results, the inspector or veterinary responsible will make contact with the owner of the birds.
- Inspector or veterinary responsible will visit premise.
- Arrive at the premise and do not drive on the premise unless it is necessary
- Put on all biosecurity apparel (clean or disposable coveralls, disinfected or disposable boots, gloves, dust mask, and hair net) immediately upon arrival.
- Observe and make notes regarding what species, types, and ages of birds are affected
- Interview the owner and make notes of conversation
- Issue a TAHC Hold Order and ensure that the owner understands the movement restrictions.
- Provide your contact information in case the owner has additional question.
- May take additional samples at the discretion of the State Animal Health Officials.
    - Blood samples
        - See Attachment 1
    - Tracheal Swabs
        - See Attachment 2
    - Cloacal Swabs
        - See Attachment 3
    - Select fresh dead birds or live symptomatic birds to be humanely sacrificed. Put dead birds in a plastic bag and seal it. Suspect birds (dead or alive) should be handled in such a manner as to minimize contamination from fecal matter or other body exudates, and feathers. Ice down specimens if possible.
        - Tie off bag.
        - Disinfect bag and place in second plastic bag.
        - Disinfect second bag.
- Put boots, gloves, coveralls, and hat in a trash bag. Put disposable items in trash bag, spray inside and out with an approved disinfectant and leave on the premise if the owner will allow it, for proper disposal. If you must take trash with you double bag and spray again with approved disinfectant and dispose correctly.
- Be careful to avoid contamination of vehicle. Before leaving the premise spray the tires and floorboards with disinfectant.
- Avoid contact with poultry premise or poultry personnel until there is complete decontamination of individual and vehicle.
- Run vehicle through car wash and spray inside with disinfectant prior to visiting another poultry premise.
- If samples were taken delivery or prepare samples for shipment to TVMDL.
- Return home, shower, and launder all clothing worn on suspect premise immediately.
- Do not visit any premise where birds are present for the remainder of the day.
- Discuss premise visit with the assigned veterinarian.

Hold Order

- Hold Orders should include the following:
  - Complete Name
  - Address of flock owner
  - Farm name (if there is one)
  - Telephone number
  - Date the Hold Order is issued
  - County (that the flock is located)
  - GPS coordinates
  - Number and type of birds in flock
  - Area Office information

Attachment 1 - Collection of Blood for Testing

Supplies needed

3 or 5 ml syringe
20 gauge 1.5 inch needle
Red top tube or Snap top tube
Zip-lock or Whirl Pak Bag

1. The aim of blood collection is to obtain a quality serum sample, free of hemolysis and contamination.

2. Use a 3 or 5 ml syringe with 20 gauge 1.5 inch needle. Pull the plunger back to break the seal as this prevents sudden suction and collapse of the vein.

3. Collect blood from the brachial (wing) vein or jugular vein. Insert the needle bevel up under the skin parallel to the vein, and then direct it into the vein. Pull back on the plunger gently to avoid collapsing the vein. If blood flow stops rotate the needle gently to move the bevel from the vein wall. If a large hematoma forms impeding blood collection, try collecting blood from the vein on the other side.
   Note: Using a scalpel blade and sticking the wing vein may be an alternative way to collect blood. Allow blood to flow freely into the tube.

7 ml red top tube with blood separated

4. Transfer the blood sample to a 7 ml red top tube (remove the cap first) or a 1.5 ml snap top tube. Avoid using vacuum assistance. Also, removing the needle prior to transferring the sample to the tube helps to avoid hemolysis. Do not fill the tube to the top (fill 3/4 of the volume maximum), recap the tube, and allow clotting to occur with the tube in a slanted or horizontal position to create the most surface area for the blood. This increases serum yield in the tube.

1.5 ml snap top tubes with blood separated

5. Incubate at room temperature until blood separates into a cell clot and clear to yellowish translucent serum.
   Note: Do not allow the blood tube to reach hot temperatures in enclosed vehicles.

6. Label zip-lock or whirl pak bags with farm information and the house name or number, and place all blood tubes for that house into zip-lock or whirl pak bag.
   If shipping samples or holding samples over 4 hours before getting them into the lab you will need to keep samples cool by placing in cooler with an ice pack.

Attachment 2 - Collecting Tracheal Swab Samples

Supplies needed

Polyester (Dacron) swabs with plastic shaft
Brain Heart Infusion (BHI) Broth in tube (5.5 ml)
Zip-lock or Whirl Pak Bag

1. When swabbing the trachea of live birds it is recommended to do it in a well-lighted area in order to see the opening and closing of the larynx, to time the insertion of the swab into the trachea and avoid swabbing just the mouth, pharynx or esophagus.

2. After swabbing the trachea, place the swab in BHI broth and vigorously swirl the swab in the broth.

3. When removing the swab from the tube, press the swab against the side of the tube repeatedly until no more liquid comes from the swab.

4. Dispose of the swab. DO NOT LEAVE SWAB IN TUBE.

5. Get new swab and new bird, repeat steps 1-4.

   Note: Use one swab per bird and pool 11 swabs per one tube of BHI broth.

6. Label all tubes from the same house and place in a zip-lock or Whirl Pak bag that also has been labeled with farm information and house name or number.

7. Always keep BHI broth cool.

Texas Animal Health Commission
Swabbing trachea

Texas Animal Health Commission
Swabbing trachea

Attachment 3- Collecting Cloacal Swab Sample

Supplies needed

Polyester (Dacron) swabs with plastic shaft
Brain Heart Infusion (BHI) Broth in tube
Zip-lock or Whirl Pak Bag

1. When taking a cloacal swab sample, gently insert swab into the cloaca and make slight circular motion swabbing the mucosal lining of the cloaca.

2. After swabbing the cloaca, place the swab in BHI broth and vigorously swirl the swab in the broth.

3. When removing the swab from the tube, press the swab against the side of the tube repeatedly until no more liquid comes from the swab.

4. Dispose of the swab. DO NOT LEAVE SWAB IN TUBE.

5. Get new swab and new bird, repeat steps 1-4.
   Note: Use one swab per bird and pool 11 swabs per one tube of BHI broth.

6. Label all tubes from the same house and place in a zip-lock or Whirl Pak bag that also has been labeled with farm information and house name or number.

7. Always keep BHI broth cool.

   Note: Do not mix cloacal swab samples with trachea or oropharyngeal swab samples

Texas Animal Health Commission
Swabbing the cloaca

Appendix 9
Control Zones and Movement Restrictions

A. Premises

- Infected Premises (IP) - A premises whose samples have a confirmed positive test results

- Contact Premises (CP) – Premises with susceptible animals that may have been exposed to Avian Influenza (AI), either directly or indirectly, including but not limited to exposure to poultry, poultry products, fomites, or people from Infected Premises
    - Birds have been received from or sent birds to an Infected Premise.
    - Birds have had direct contact with persons who have handled infected birds.
    - Birds have had direct contact with products, equipment or materials exposed to infected birds.
    - The farm is adjacent to an Infected Premise

- Suspect Premises (SP) - Premises with susceptible animals that are under investigation for a report of clinical signs with no apparent epidemiological link to an IP or CP, or premises with susceptible animals in the Infected Zone that are not classified as an IP or CP

- Restricted Premises (RP) **-** Are the following premises for the period in which surveillance and monitoring continue:
    - IPs which have been depopulated and subsequently cleaned and disinfected; *and/or,*
    - CPs after 30 days from the last arrival from, or shipment to an IP, if there are no clinical signs or mortality indicative of infection

- At-Risk Premises (ARP) - Premises that have susceptible animals, but none of those susceptible animals have clinical signs compatible with NAI.

- Free Premises (FP) **-** Premises outside of a Control Area and not a Contact or Suspect Premises.

B. Areas and Zones

A Control Area consisting of an Infected Zone and a Buffer Zone shall be established around the Infected Premises. These Zones can be adjusted in size and shape to fit circumstances as deemed most appropriate by the Incident Commander. ANY CHANGES TO THESE AREAS OR ZONES (SIZE, ETC.) **MUST** BE APPROPRIATELY COMMUNICATED TO ALL PARTIES INVOLVED IN RESPONSE ACTIVITIES.

- Control Area (CA) - A Control Area (CA), consisting of an Infected Zone and a Buffer Zone and should be at least 10 km (~6.21 miles) in size from the closest IP(s). All susceptible animal movement will be stopped for a period sufficient to determine the scope of the disease outbreak. The potential modes of transmission (e.g., aerosol, water-borne, direct contact, or vector-borne) should be considered when determining the minimum size and shape of a control area.

- Infected Zone (IZ) **-** The Infected Zone (IZ) will encompass each IPs and include as many of the CPs as the situation requires logistically or scientifically. The boundary of the IZ initially should be at least 3 km (~1.86 miles) beyond the perimeters of the IP(s). The actual distance in any one direction is determined by factors such as known characteristics of the agent, terrain, the pattern of livestock movements, livestock concentrations, weather, prevailing winds, the distribution and movements of susceptible wild and feral animals, processing options (livestock and products), and effect on non-risk commodities. Boundaries of the IZ can be modified when tracing and surveillance results become available and other factors become better defined.

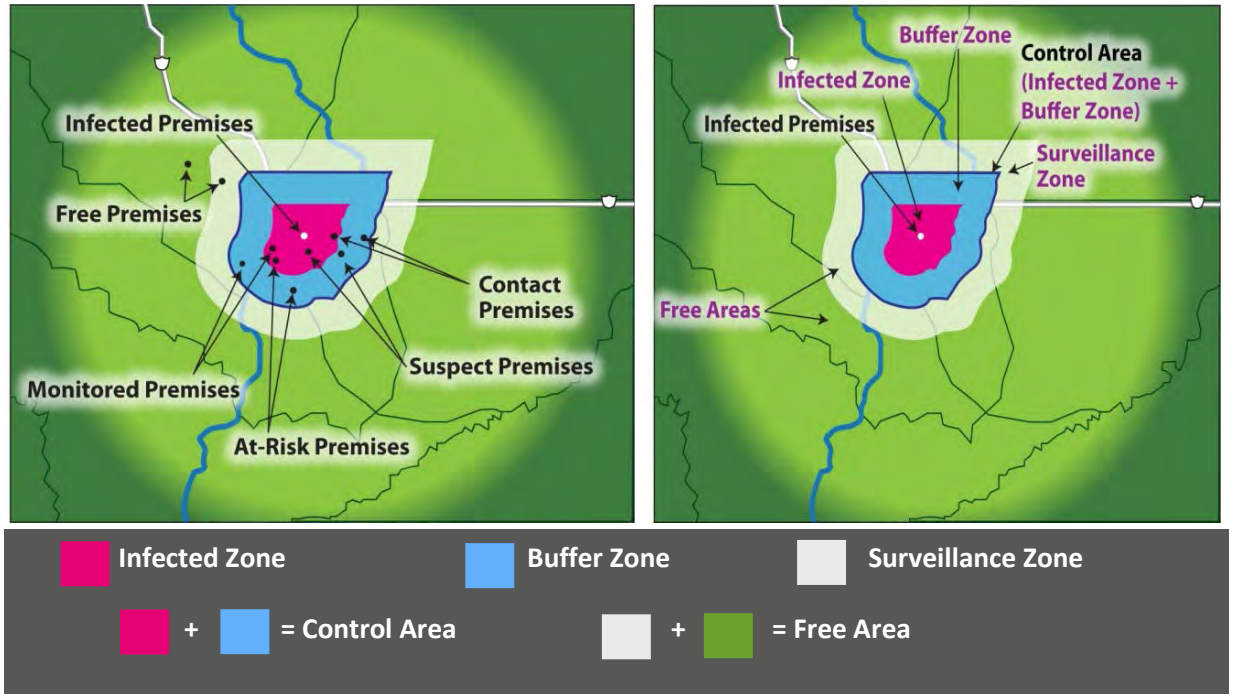
- Buffer Zone (BZ) **–** The zone immediately surrounding the IZ is the Buffer Zone (BZ), which with the IZ comprises the CA. The boundary of the BZ should be 10 km (~6.21 miles) beyond the perimeter of the IP(s)

- Surveillance Zone (SZ) **-** A Surveillance Zone (SZ) should be established within and along the border of a Free Zone, separating the FZ from the BZ within the CA. Surveillance in the SZ will focus on premises determined to be at the highest risk of infection. SZ should be at least 10 km (~6.21 miles), but may be adjusted during an outbreak, as appropriate

- Free Zone (FZ) **-** A Free Zone is a zone in which the absence of the disease under consideration has been demonstrated by the meeting of requirements for disease-free (or "free") status as specified in the OIE International Animal Health Code. Within a Free Zone and at its borders, appropriate official veterinary control is applied for animals and animal products as well as for the transportation of animals and animal products

Appendix 9
Control Zones and Movement Restrictions

Example Map of a Control Area:



Note: Figures are not to scale.

Appendix 10
Monitoring Activities and Movement Permits in Control Zones

The following protocol will be utilized in conducting Commercial and Non-commercial Flock Surveillance in the Control Area.

Enhanced NAI Surveillance Testing for Commercial Birds in the CA

This commercial surveillance sampling will be performed by the personnel employed by the poultry company and will be required in the infected zone IZ and buffer zone BZ in addition to sampling already occurring in accordance with the Texas National Poultry Improvement Plan surveillance. .

Commercial poultry operations (broilers, breeders, turkeys, and/or layers) located in the IZ and BZ should initially collect samples from each biosecurity unit (house) located on the operation for testing. See the Enhanced Surveillance Protocol for Commercial Flocks in the Control Area for number of samples per biosecurity unit and sample type. A second round of sampling shall occur 14 to 21 days after the initial sampling. Samples should be collected from birds 3 weeks of age and older.

Collect samples from test eligible birds once during the initial sampling period. If birds will be sent to slaughter before the second sampling period, then slaughter surveillance protocols will suffice.

Enhanced Surveillance Protocol for Commercial Flocks in the Control Area

Test Type	Meat-Type Chicken and Turkey	Layers	Breeder	Pullet
Serology	30 birds per house	30 birds per house	30 birds per house	30 birds per house
PCR	11 birds per house	15 birds per house	15 birds per house	15 birds per house

Zone	Round 1		Round 2*	
	Serum	Swab**	Serum	Swab**
Infected Zone	YES	YES	No	YES
Buffer Zone	YES	YES	No	YES
Surveillance Zone	TBD	TBD	TBD	TBD

*Sampling for Round 2 will begin 14 to 21 days after Round 1 sampling.
**Only tracheal swab samples will be collected from commercial farms.
TBD (To be determined by SAHO)

<u>Guidelines for serum sample collections:</u>
See attachment 1 below.

<u>Guidelines for swab sample collections:</u>
See attachment 2 or 3 below.

Appendix 10
Monitoring Activities and Movement Permits in Control Zones

Enhanced NAI Surveillance Testing for Noncommercial Birds in the CA

Once the IZ is established, Noncommercial flocks will be identified within the IZ and tested.

The number of birds to be sampled from each house is presented in Table 1 below for noncommercial flocks.

Table 1. Number of birds to sample from each house on the premises.

Number of birds in each house	***Minimum number of birds to be sampled***
10 or less	Sample all
20	15
30	15
40	15
50 or greater	20

Zone	Round 1		Round 2*	
	Serum	Swab**	Serum	Swab**
Affected Zone	YES	Yes	No	YES
Surveillance Zone	YES	Yes	No	YES
Buffer Zone	TBD	TBD	TBD	TBD

* Sampling for Round 2 will begin 14 to 21 days after Round 1 sampling.

**Tracheal or Oropharyngeal swab samples will be collected from all gallinaceous birds and cloacal swab samples will collected from all waterfowl.

TBD (To be determined)

<u>Guidelines for serum sample collections:</u>
See attachment 1 below.

<u>Guidelines for swab sample collections:</u>
See attachment 2 or 3 below.

Appendix 10
Monitoring Activities and Movement Permits in Control Zones

Movement of Poultry, Hatching Eggs, Table Eggs, and Associated Byproducts

Movement of poultry, hatching eggs, and associated byproducts in the Infected Zone (IZ) will only be by permit from the SAHO. The following protocols will be utilized and may be modified only with the approval of the SAHO and the EDMC.

- Birds may not be moved out of the IZ for any purpose other than slaughter. A negative PCR must be obtained within 72 hours of movement. (See table above)

- Birds must be accompanied by a VS Form 1-27, Permit for Movement.

- Birds that are in the IZ may be moved to premises within the IZ. A Negative PCR must be obtained within 72 hours of movement. (See table above)

- It is highly recommended that birds from outside the IZ not be moved into the IZ. Once moved into the IZ, the flock will be quarantined and subject to the applicable testing regimen until the IZ is released.

<u>Movement onto Farms in Control Area will be:</u>

- Feed trucks (by permit from SAHO) which are cleaned and disinfected both ways. Trucks should have no direct contact with poultry. Feed truck should be dedicated to the Control Area. If no mill is located within the Control Area, additional feed should be transferred to the control area dedicated truck(s) at the edge of the Buffer Zone.

- Transportation trucks (case by case permit from SAHO) which are cleaned and disinfected both ways. Trucks are to transport poultry from a single farm directly to the processing facility. All birds must be slaughtered and inspected within 24 hours of transportation. Catch crews will visit single farms and undergo complete biosecurity procedures before and after each farm contact.

- If a slaughter facility is located in the Control Area, all birds going to the facility from outside the Control Area will be permitted (case by case from SAHO) and all transportation equipment will undergo cleaning and disinfection prior to leaving the Control Area.

- Commercial eggs (by permit from SAHO) can leave the control area (CA) in new one-way packaging materials. Eggs must be sanitized prior to packing. Transportation equipment will undergo cleaning and disinfection prior to leaving the Control Area.

- Hatching eggs (by permit from SAHO) can leave the control area (CA) in new one-way packaging materials. Eggs must be sanitized prior to packing. Transportation equipment will undergo cleaning and disinfection prior to leaving the Control Area.

- Birds, Hatching Eggs, Table Eggs moving in and out of the control area (CA) will need to have a VS Form 1-27, Permit for Movement.

Appendix 10
Monitoring Activities and Movement Permits in Control Zones

Controlled Marketing of H5/H7 LPAI –Negative Flocks

Negative flocks could be considered for controlled marketing in accordance with SAHO permitting (VS 1-27 Form)

At the discretion of the SAHO and APHIS, poultry that has been infected with or exposed to H5/H7 LPAI may be allowed to move for controlled marketing in accordance with the initial state response and containment plan described in proposed 9CFR part 56.10 and in accordance with the following requirements:

- Poultry infected with or exposed to H5/H7 LPAI must not be transported to a market for controlled marketing until approved by the SAHO.
- Within 72 hours each flock to be moved for controlled marketing must be tested for H5/H7 LPAI using a test approved by the SAHO and found to be free of the virus.
- Routes to slaughter must avoid other commercial poultry operations whenever possible. All load-out equipment, trailers, and trucks used on premises that have housed poultry that were infected with or exposed to H5/H7 LPAI must be cleaned and disinfected and not enter other poultry premises or facilities for 48 hours after removing such poultry from their premises.
- Flocks moved for controlled marketing must be the last poultry marketed during the week they are marketed.
- Poultry moved for controlled marketing will not be eligible for indemnity under §56.3. However, any costs related to cleaning and disinfection of premises, conveyances, and materials that came into contact with poultry that are moved for controlled marketing will be eligible for indemnity under §56.3.

Appendix 10
Monitoring Activities and Movement Permits in Control Zones

Attachment 1 - Collection of Blood for Testing

Supplies needed

3 or 5 ml syringe
20 gauge 1.5 inch needle
Red top tube or Snap top tube
Zip-lock or Whirl-Pak Bag

1. The aim of blood collection is to obtain a quality serum sample, free of hemolysis and contamination.

2. Use a 3 or 5 ml syringe with 20 gauge 1.5 inch needle. Pull the plunger back to break the seal as this prevents sudden suction and collapse of the vein.

3. Collect blood from the brachial (wing) vein or jugular vein. Insert the needle bevel up under the skin parallel to the vein, and then direct it into the vein. Pull back on the plunger gently to avoid collapsing the vein. If blood flow stops rotate the needle gently to move the bevel from the vein wall. If a large hematoma forms impeding blood collection, try collecting blood from the vein on the other side.

   Note: Using a scalpel blade and sticking the wing vein may be an alternative way to collect blood. Allow blood to flow freely into the tube.

7 ml red top tube with blood separated

4. Transfer the blood sample to a 7 ml red top tube (remove the cap first) or a 1.5 ml snap top tube. Avoid using vacuum assistance. Also, removing the needle prior to transferring the sample to the tube helps to avoid hemolysis. Do not fill the tube to the top (fill 3/4 of the volume maximum), recap the tube, and allow clotting to occur with the tube in a slanted or horizontal position to create the most surface area for the blood. This increases serum yield in the tube.

1.5 ml snap top tubes with blood separated

5. Incubate at room temperature until blood separates into a cell clot and clear to yellowish translucent serum.

   Note: Do not allow the blood tube to reach hot temperatures in enclosed vehicles.

6. Label zip-lock or Whirl-Pak bags with farm information and the house name or number, and place all blood tubes for that house into zip-lock or Whirl-Pak bag.

   If shipping samples or holding samples over 4 hours before getting them into the lab you will need to keep samples cool by placing in cooler with an ice pack.

Attachment 2 - Collecting Tracheal Swab Samples
Supplies needed

Polyester (Dacron) swabs with plastic shaft
Brain Heart Infusion (BHI) Broth in tube (5.5 ml)
Zip-lock or Whirl-Pak Bag

1. When swabbing the trachea of live birds it is recommended to do it in a well-lighted area in order to see the opening and closing of the larynx, to time the insertion of the swab into the trachea and avoid swabbing just the mouth, pharynx or esophagus.

2. After swabbing the trachea, place the swab in BHI broth and vigorously swirl the swab in the broth.

3. When removing the swab from the tube, press the swab against the side of the tube repeatedly until no more liquid comes from the swab.

4. Dispose of the swab. DO NOT LEAVE SWAB IN TUBE.

5. Get new swab and new bird, repeat steps 1-4.

   Note: Use one swab per bird and pool 11 swabs per one tube of BHI broth.

6. Label all tubes from the same house and place in a zip-lock or Whirl-Pak bag that also has been labeled with farm information and house name or number.

7. Always keep BHI broth cool.

Texas Animal Health Commission
Swabbing trachea

Appendix 10
Monitoring Activities and Movement Permits in Control Zones

Attachment 3- Collecting Cloacal Swab Sample
Supplies needed
Polyester (Dacron) swabs with plastic shaft
Brain Heart Infusion (BHI) Broth in tube
Zip-lock or Whirl-Pak Bag

1. When taking a cloacal swab sample, gently insert swab into the cloaca and make slight circular motion swabbing the mucosal lining of the cloaca.

2. After swabbing the cloaca, place the swab in BHI broth and vigorously swirl the swab in the broth.

3. When removing the swab from the tube, press the swab against the side of the tube repeatedly until no more liquid comes from the swab.

4. Dispose of the swab. DO NOT LEAVE SWAB IN TUBE.

5. Get new swab and new bird, repeat steps 1-4.
   Note: Use one swab per bird and pool 11 swabs per one tube of BHI broth.

6. Label all tubes from the same house and place in a zip-lock or Whirl-Pak bag that also has been labeled with farm information and house name or number.

7. Always keep BHI broth cool.

   Note: Do not mix cloacal swab samples with trachea or oropharyngeal swab samples

Texas Animal Health Commission
Swabbing the cloaca

Appendix 11
Flock Plan Template

Flock Plan
H5/H7 LPAI Euthanasia, Disposal, Cleaning and Disinfection Procedures for Commercial Premises in_____ County Texas

Date:

This is a written flock management agreement developed between USDA, APHIS, Veterinary Services (VS) and the Texas Animal Health Commission with input from _____.

Euthanasia will be the primary responsibility of_____, who may be reimbursed for certain expenses before euthanasia based on the fair market value of the poultry, as determined by an appraisal. Appraisals of poultry must be signed by the owners of the poultry before the destruction of the poultry, unless the owners, VS, and TAHC agree that the poultry may be destroyed immediately. (VS Form 1-23 Indemnity form)

Disposal will be the primary responsibility of_____ who may be reimbursed for certain expenses based on receipts or other documentation maintained by the claimant verifying expenditures for disposal.

Cleaning and disinfection of premises, conveyances, and materials will be the primary responsibility of _____ who may be reimbursed for certain expenses based on receipts or other documentation maintained by the claimant verifying expenditures for cleaning and disinfection activities.

Euthanasia, Disposal, and Cleaning and Disinfection will be supervised by Texas Animal Health Commission personnel or USDA APHIS VS personnel.

Quarantine and Enhanced Biosecurity:

The flock has been quarantined in accordance with the Texas Initial State Response and Containment Plan as provided below:

Quarantine Requirements

1. Eliminate all service and other visits to that farm except dedicated personnel.
2. Specifically restrict movement of grower and family individuals and employees to essential visits only.
3. Notify vendors of quarantined premise and cease nonessential visits.
4. Establish Cleaning & Disinfection station at entrance to farm and C&D all vehicles entering and leaving premise.
5. Feed deliveries

5.1. Make delivery last stop
5.2. Driver must not enter poultry house
5.3. Driver must wear plastic boots unless climbing feed tanks
5.4. Driver must use hand sanitizer before leaving farm
5.5. Driver must bathe and launder clothing after leaving farm
5.6. Truck must be thoroughly cleaned and disinfected after leaving farm

6. All dead birds should be disposed of on the farm in a bio-secure manner

Properly sanitized eggs may be removed from a premise with LPAI without significant elevations in mortality. These eggs shall not be processed with eggs from other farms. Appropriate biosecurity measures shall be taken when moving the eggs off of the farm.

Requests for Indemnity for Disposal, Cleaning, and Disinfection Activities

Any disposal of poultry and eggs and cleaning and disinfection of premises, conveyances, and materials for which indemnity is requested must be performed under a separate compliance agreement between the claimant, SAHO, and VS. The compliance agreement must be signed by all parties before the start of any of the activities for which indemnity is claimed. Any work performed before the compliance agreement is signed will not be eligible for reimbursement.

The quarantine will be lifted and restocking allowed after the following procedures have been completed:

Euthanasia

The affected premises will be depopulated in a timely manner. Biosecurity will be maintained using a clean area and dirty area, to be established before euthanasia and disposal start. An aerial photo of the affected premises may help determine the location of certain equipment used in the process.

Poultry will be euthanized using ___(method)_____ depopulation. Personnel from _____will conduct the euthanasia process. Personnel from TAHC or USDA APHIS VS will supervise the euthanasia process. Euthanasia must be conducted under the direct supervision of State or Federal personnel.

Disposal of Euthanized Poultry and Eggs

The euthanized birds and eggs within the poultry houses will be disposed of by __(method____. Personnel from _____will conduct the disposal process. Personnel from TAHC or USDA APHIS VS will supervise the disposal process. Disposal must be conducted under the direct supervision of State or Federal personnel.

Preparation for cleaning and disinfection

Following the depopulation of poultry infected with H5/H7 LPAI on a premise, the following procedures should be completed prior to cleaning and disinfection:

a. Secure and remove all feathers that might blow around outside the house in which the infected or exposed poultry were held by raking them together and burning the pile;
b. Apply insecticides and rodenticides immediately after the removal of the birds before the house cools;
c. Dispose of all birds, eggs, litter, manure, debris, and feed. Bury this material on site if possible or compost this material in the house if possible. Compost in accordance with State and local regulations. If litter is piled, the litter pile must be covered and allowed to set undisturbed for an amount of time approved by the SAHO and APHIS. Drying and heat in situ over time are effective and may be used in place of composting if weather conditions or conditions in the building are favorable.
d. After use, equipment used to clean out manure, debris, and feed must be washed, disinfected, and inspected at the site to which the manure and litter was transported. In the case of inclement weather, the equipment may be washed, disinfected, and inspected at off-site wash stations at the discretion of the SAHO and APHIS.
e. Close the house in which the poultry were held, maintaining just enough ventilation to remove moisture. Leave the house undisturbed for a minimum of 72 hours.

Before commencing cleaning and disinfection procedures, the premises to be cleaned should be closely inspected with the producer and USDA APHIS VS to determine if there are materials present for which cleaning and disinfection would be impractical (such as curtains or light traps). Any items identified as impractical to clean and disinfect must be appraised and the fair market values and disposal costs determined. If during the cleaning and disinfection process items not identified during the inspection are found to be impractical to clean or are becoming damaged during normal cleaning processes, cleaning should halt. The SAHO or VS should be contacted to arrange for an immediate inspection and appraisal of these items.

Destruction and disposal of materials

In the case of materials for which the cost of cleaning and disinfection would exceed the value of the materials or for which cleaning and disinfection would be impractical for any reason, the destruction and disposal of the materials must be conducted in accordance with the ISRCP and in accordance with VS Guidance 8601.1. Prior VS approval is required for destruction of materials for which indemnity will be claimed. The methods of disposing of exposed materials would be either by incineration or burial on site.

Cleaning and Disinfection

Cleaning:

All contaminated surfaces must be cleaned and disinfected. Cleaning and disinfection must be performed on all contaminated buildings including pump houses and service areas.

- Cleaning and washing should be thorough to ensure that all contaminated materials, especially manure, dried blood, and other organic materials are removed from all surfaces.

- Spray all contaminated surfaces above the floor with soap and water to knock dust down to the floor, using no more water than necessary.
- Wash equipment and houses with soap and water.
- Disassemble equipment as required to clean all contaminated surfaces. Special attention should be given to automatic feeders and other closed areas to ensure adequate cleaning.
- Inspect houses and equipment to ensure that cleaning has removed all contaminated materials.
- Let houses and equipment dry completely before applying disinfectant.

Disinfection:
When cleaning has been completed and all surfaces are dry, all interior surfaces of the structure should be saturated with a disinfectant authorized in 9 CFR § 71.10(a).

- Disinfectants should be applied as specified by the manufacturer.
- Apply disinfectant to all surfaces, making sure that the disinfectant gets into cracks and crevices. Pay special attention to automatic feeders and other closed areas to ensure adequate disinfection.
- If a power spray unit is used, care should be taken not to cause damage to the building or other materials.

Cleaning and disinfection of conveyances:

- Clean and disinfect all trucks and vehicles used in transporting affected poultry or materials before soil dries in place.
- Both exterior, including the undercarriage, and interior surfaces, including truck cabs, must be cleaned.
- The interior of the truck cabs should be washed with clean water and sponged with a disinfectant authorized in 9 CFR § 71.10(a).
- Manure and litter removed from these vehicles should be handled in a manner similar to that described above.

Surveillance of control/monitoring zones, contact surveys, and movement restrictions:

Control Zones, surveillance in control zones and movement restrictions will be implemented in accordance with the Texas Initial Response and Containment Plan as provided below:

Premises

Infected Premises (IP) - A premises whose samples have a confirmed positive test results

Contact Premises (CP) – Premises with susceptible animals that may have been exposed to Avian Influenza (AI), either directly or indirectly, including but not limited to exposure to poultry, poultry products, fomites, or people from Infected Premises

- Birds have been received from or sent birds to an Infected Premise.

- Birds have had direct contact with persons who have handled infected birds.
- Birds have had direct contact with products, equipment or materials exposed to infected birds.
- The farm is adjacent to an Infected Premise

Suspect Premises (SP) - Premises with susceptible animals that are under investigation for a report of clinical signs with no apparent epidemiological link to an IP or CP, or premises with susceptible animals in the Infected Zone that are not classified as an IP or CP

Restricted Premises (RP) **-** Are the following premises for the period in which surveillance and monitoring continue:

- IPs which have been depopulated and subsequently cleaned and disinfected; *and/or,*
- CPs after 30 days from the last arrival from, or shipment to an IP, if there are no clinical signs or mortality indicative of infection

At-Risk Premises (ARP) - Premises that have susceptible animals, but none of those susceptible animals have clinical signs compatible with NAI.

Free Premises (FP) **-** Premises outside of a Control Area and not a Contact or Suspect Premises.

Areas and Zones

A Control Area consisting of an Infected Zone and a Buffer Zone shall be established around the Infected Premises. These Zones can be adjusted in size and shape to fit circumstances as deemed most appropriate by the Incident Commander. ANY CHANGES TO THESE AREAS OR ZONES (SIZE, ETC.) **MUST** BE APPROPRIATELY COMMUNICATED TO ALL PARTIES INVOLVED IN RESPONSE ACTIVITIES.

- Control Area (CA) - A Control Area (CA), consisting of an Infected Zone and a Buffer Zone and should be at least 10 km (~6.21 miles) in size from the closest IP(s). All susceptible animal movement will be stopped for a period sufficient to determine the scope of the disease outbreak. The potential modes of transmission (e.g., aerosol, water-borne, direct contact, or vector-borne) should be considered when determining the minimum size and shape of a control area.

- Infected Zone (IZ) **-** The Infected Zone (IZ) will encompass each IPs and include as many of the CPs as the situation requires logistically or scientifically. The boundary of the IZ initially should be at least 3 km (~1.86 miles) beyond the perimeters of the IP(s). The actual distance in any one direction is determined by factors such as known characteristics of the agent, terrain, the pattern of livestock movements, livestock concentrations, weather, prevailing winds, the distribution and movements of susceptible wild and feral animals, processing options (livestock and products), and effect on non-risk commodities. Boundaries of the IZ

can be modified when tracing and surveillance results become available and other factors become better defined.

- Buffer Zone (BZ) – The zone immediately surrounding the IZ is the Buffer Zone (BZ), which with the IZ comprises the CA. The boundary of the BZ should be 10 km (~6.21 miles) beyond the perimeter of the IP(s)

- Surveillance Zone (SZ) - A Surveillance Zone (SZ) should be established within and along the border of a Free Zone, separating the FZ from the BZ within the CA. Surveillance in the SZ will focus on premises determined to be at the highest risk of infection. SZ should be at least 10 km (~6.21 miles), but may be adjusted during an outbreak, as appropriate

- Free Zone (FZ) - A Free Zone is a zone in which the absence of the disease under consideration has been demonstrated by the meeting of requirements for disease-free (or "free") status as specified in the OIE International Animal Health Code. Within a Free Zone and at its borders, appropriate official veterinary control is applied for animals and animal products as well as for the transportation of animals and animal products

The following protocol will be utilized in conducting Commercial and Non-commercial Flock Surveillance in the Control Area.

Enhanced NAI Surveillance Testing for Commercial Birds in the CA

This commercial surveillance sampling will be performed by the personnel employed by the poultry company and will be required in the infected zone IZ and buffer zone BZ in addition to sampling already occurring in accordance with the Texas National Poultry Improvement Plan surveillance. .

Commercial poultry operations (broilers, breeders, turkeys, and/or layers) located in the IZ and BZ should initially collect samples from each biosecurity unit (house) located on the operation for testing. See the Enhanced Surveillance Protocol for Commercial Flocks in the Control Area for number of samples per biosecurity unit and sample type. A second round of sampling shall occur 14 to 21 days after the initial sampling. Samples should be collected from birds 3 weeks of age and older.

Collect samples from test eligible birds once during the initial sampling period. If birds will be sent to slaughter before the second sampling period, then slaughter surveillance protocols will suffice.

Appendix 11
Flock Plan Template

Enhanced Surveillance Protocol for Commercial Flocks in the Control Area

Test Type	Meat-Type Chicken and Turkey	Layers	Breeder	Pullet
Serology	30 birds per house	30 birds per house	30 birds per house	30 birds per house
PCR	11 birds per house	15 birds per house	15 birds per house	15 birds per house

Zone	Round 1		Round 2*	
	Serum	Swab**	Serum	Swab**
Infected Zone	YES	YES	No	YES
Buffer Zone	YES	YES	No	YES
Surveillance Zone	TBD	TBD	TBD	TBD

*Sampling for Round 2 will begin 14 to 21 days after Round 1 sampling.
**Only tracheal swab samples will be collected from commercial farms.
TBD (To be determined by SAHO)

Movement of Poultry, Hatching Eggs, Table Eggs, and Associated Byproducts

Movement of poultry, hatching eggs, and associated byproducts in the Infected Zone (IZ) will only be by permit from the SAHO. The following protocols will be utilized and may be modified only with the approval of the SAHO and the EDMC.

- Birds may not be moved out of the IZ for any purpose other than slaughter. A negative PCR must be obtained within 72 hours of movement. (See table above)

- Birds must be accompanied by a VS Form 1-27, Permit for Movement.

- Birds that are in the IZ may be moved to premises within the IZ. A Negative PCR must be obtained within 72 hours of movement. (See table above)

- It is highly recommended that birds from outside the IZ not be moved into the IZ. Once moved into the IZ, the flock will be quarantined and subject to the applicable testing regimen until the IZ is released.

<u>Movement onto Farms in Control Area will be:</u>

- Feed trucks (by permit from SAHO) which are cleaned and disinfected both ways. Trucks should have no direct contact with poultry. Feed truck should be dedicated to the Control Area. If no mill is located within the Control Area, additional feed should be transferred to the control area dedicated truck(s) at the edge of the Buffer Zone.

- Transportation trucks (case by case permit from SAHO) which are cleaned and disinfected both ways. Trucks are to transport poultry from a single farm directly to the

processing facility. All birds must be slaughtered and inspected within 24 hours of transportation. Catch crews will visit single farms and undergo complete biosecurity procedures before and after each farm contact.

- If a slaughter facility is located in the Control Area, all birds going to the facility from outside the Control Area will be permitted (case by case from SAHO) and all transportation equipment will undergo cleaning and disinfection prior to leaving the Control Area.

- Commercial eggs (by permit from SAHO) can leave the control area (CA) in new one-way packaging materials. Eggs must be sanitized prior to packing. Transportation equipment will undergo cleaning and disinfection prior to leaving the Control Area.

- Hatching eggs (by permit from SAHO) can leave the control area (CA) in new one-way packaging materials. Eggs must be sanitized prior to packing. Transportation equipment will undergo cleaning and disinfection prior to leaving the Control Area.

- Birds, Hatching Eggs, Table Eggs moving in and out of the control area (CA) will need to have a VS Form 1-27, Permit for Movement.

Controlled Marketing of H5/H7 LPAI –Negative Flocks

Negative flocks could be considered for controlled marketing in accordance with SAHO permitting (VS 1-27 Form)

At the discretion of the SAHO and APHIS, poultry that has been infected with or exposed to H5/H7 LPAI may be allowed to move for controlled marketing in accordance with the initial state response and containment plan described in proposed 9CFR part 56.10 and in accordance with the following requirements:

- Poultry infected with or exposed to H5/H7 LPAI must not be transported to a market for controlled marketing until approved by the SAHO.
- Within 72 hours each flock to be moved for controlled marketing must be tested for H5/H7 LPAI using a test approved by the SAHO and found to be free of the virus.
- Routes to slaughter must avoid other commercial poultry operations whenever possible. All load-out equipment, trailers, and trucks used on premises that have housed poultry that were infected with or exposed to H5/H7 LPAI must be cleaned and disinfected and not enter other poultry premises or facilities for 48 hours after removing such poultry from their premises.
- Flocks moved for controlled marketing must be the last poultry marketed during the week they are marketed.
- Poultry moved for controlled marketing will not be eligible for indemnity under §56.3. However, any costs related to cleaning and disinfection of premises, conveyances, and

materials that came into contact with poultry that are moved for controlled marketing will be eligible for indemnity under §56.3.

Repopulation and Monitoring

Poultry repopulation of the infected premises shall not occur until at least thirty days after completion of Cleaning and Disinfection and the disease is deemed to be eradicated by state and federal officials.

- Once the virus has been deemed to be eradicated, quarantines can be lifted provided that enhanced surveillance in accordance with Appendix 10 has been/is being conducted in the control area.
- The State Veterinarian, with input from the EDMC, shall consider repopulation of the house on a case by case basis.
- The IP shall be unoccupied for 30 days after C&D, premises must have negative environmental samples or sentinel birds placed on premises, the premises will be tested via serology and PCR at least once a minimum of 10 days after repopulation. The following protocol will be used: 30 serum samples per house and 10 Oropharyngeal/tracheal samples per house.
- The State Veterinarian, with input from the EDMC, shall consider repopulation of the house on a case by case basis.

The premises may not be restocked with poultry until the quarantine is lifted and written approval for restocking is received from Texas Animal Health Commission.

Producer/Grower: _____

Address of Affected Facility: _____

Owner Name: _____

Signature Producer/Grower Representative: _____ Date: _____

Signature State Veterinarian: _____Date: _____

Signature USDA APHIS VS District 4 Texas: _____ Date: _____

Signature USDA APHIS VS Regional Director: _____ Date: _____

APPENDIX 12
Compliance Agreement Template

Compliance Agreement
Between USDA, APHIS, Veterinary Services (VS), Texas Animal Health Commission (TAHC), and_____.

For LPAI Indemnity Payment
_____ County, TX

Date:_____

A. USDA, APHIS, VS agrees to:
Review, approve, and submit for payment indemnity claims arising from NAI eradication and control activities, including reasonable costs associated with cleaning and disinfection of premises after removal of birds. Approval will be granted on the agreed-on associated costs and expenses indicated in this document as documented by the following: 1. Itemized invoices, 2. Indemnity forms (VS Form 1-23), and 3. Other requested and justifiable documentation of expenses as described in VS Guidance 8601.1.

B. _____ Responsibilities:

1. To have fully complied with the Texas Initial State Response and Containment Plan (ISRCP) for H5/H7 LPAI for depopulation, removal, and disposal of affected poultry and materials as well as cleaning and disinfection of affected premises as provided and approved by USDA, APHIS, VS District 4 Texas, and TAHC.

2. To have a signed flock plan and compliance agreement in place before starting any activities for which indemnity will be claimed.

3. To have completed the procedures as described in the flock plan and this document and provided the requested documentation itemizing the associated costs.

4. To ensure that the premise is not repopulated until the quarantine is lifted and repopulation is authorized in writing by TAHC. This will include negative environmental sampling post cleaning and disinfection, approval of euthanasia and disposal, cleaning and disinfection, and surveillance procedures described in the required flock plan.

5. If the above responsibilities are not met, indemnity payments may be withheld and the replacement flock on the premises may be ineligible for future indemnification.

C. Inspection of the Premises:

1. Before commencing cleaning and disinfection, the premises to be cleaned should be closely inspected with the producer, officials from the Cooperating State Agency, and VS to determine if there are materials present for which cleaning and disinfection would be impractical (such as curtains and light traps). Indicate date of inspection _____.

2. Any items identified as impractical to clean and disinfect must be appraised and the fair market values and disposal costs indicated in the compliance agreement.

3. If during cleaning and disinfection, items not identified during the inspection are found to be impractical to clean or are becoming damaged during normal cleaning processes, cleaning should be halted. The producer should contact the Cooperating State Agency or VS to arrange for an immediate inspection and appraisal.

4. If all parties agree, an amendment can be made to the compliance agreement to cover the fair market value and disposal costs for these items. Items should not be disposed of until the amendment to the compliance agreement is signed by all parties.

5. Damage caused by cleaning activities may not be covered by indemnity, but will be reviewed on a case-by-case basis to determine if repairs would be eligible for indemnity.

D. Cost Estimates:

Activities that are required for this compliance agreement for cleaning and disinfection include the following for euthanasia, disposal, cleaning and disinfection of the infected premises. (Additional items/expense may be added if needed)

1. Insecticide and rodenticide application (chemicals must be approved by VS) – cost of the materials, labor cost per hour, and number of hours to complete.

2. Litter and compost removal and disposal – labor cost per hour and number of hours to complete, fuel for equipment, and any equipment rental required.

3. Equipment disassembly/reassembly – labor cost per hour and number of hours to complete.

4. Dusting/dry cleaning – labor cost per hour and number of hours to complete, fuel for equipment, and any equipment rental required.

5. Wet cleaning – labor cost per hour and number of hours to complete, fuel for equipment, and any equipment rental required. Compliance agreements should specify what items and areas are to be wet cleaned. Only areas with gross organic contamination that cannot be cleaned using dry processes should be wet cleaned. Power washers should be used sparingly and with caution as damage to surfaces and equipment can result.

6. Drying – cost of electricity, propane, or other fuel for the number of days in the billing cycle activities were performed.

7. Disinfection – cost of the materials, labor cost per hour, and number of hours to complete. Disinfectants used must comply with 9 CFR 71.10 and demonstrate efficacy for AI viruses. VS approval of the proposed disinfectants and application methods will be required to ensure that the product and application method are economical and efficacious in controlling AI in the specific structure and materials that are to be disinfected. Disinfectants should be applied as specified by the manufacturer. If the manufacturer specifies the use of a power washer to apply disinfectant, proper care should be taken not to cause damage to the building and other materials.

8. Litter replacement – cost of litter, labor cost per hour and number of hours to complete, fuel for equipment, and any equipment rental required.

If at any time during the disposal or cleaning and disinfection processes it becomes clear that the amounts provided in the initial compliance agreement were underestimated by more than 10 percent for a specific activity, the claimant should immediately contact the Cooperating State Agency or VS and submit an amendment to the compliance agreement. The amendment should include justifications for any additional amounts requested. No payment will be made for amounts more than 10 percent above the estimates for activities in the original compliance agreement if an amendment is not submitted and signed at the time the activity took place.
VS will review claims for indemnity for disposal and cleaning and disinfection to ensure that all expenditures relate directly to activities described in 9 CFR 56.5, the Texas ISRCP and this compliance agreement.

Producer/Grower: _____

Address of Affected Facility: _____

Owner Name: _____

Signature Producer/Grower Representative: _____Date: _____

Signature State Veterinarian: _____Date: _____

Signature USDA APHIS VS District 4 Texas: _____Date: _____

Signature USDA APHIS VS District 4 Director: _____Date: _____

Appendix 13
LPAI H5/H7 Vaccination Program.

Administrative approval of use of vaccine:

Any AI vaccination program would require a Memorandum of Understanding (MOU) between the Texas Animal Health Commission (TAHC), the poultry producer concerned, and USDA, APHIS, Veterinary Services (VS). The agreement would include adherence to an approved flock eradication plan using sentinel birds to assure that virus has been eliminated from each individual poultry house or unit, in addition to biosecurity plans, monthly reports, and an agreement to depopulate and dispose of spent hens.

- As worldwide epidemiology continues to evolve regarding AI, this plan may be amended to utilize the best available technology (lab testing, vaccine technologies, etc.) with the consent of TAHC, USDA-VS.

The agreement will be considered null and void, authorization for use of the vaccine will be withdrawn, and the vaccination program will be cancelled should the following conditions emerge:

- There is genetic evidence that AI isolates have mutated toward a highly pathogenic form.
- There is failure to meet protocol requirements.
- There is an indication after six months that vaccine is not benefiting the eradication effort. (Sera-conversion of sentinels or other evidence of virus circulation).
- There is significant trade bans imposed on the United States.

The MOU will include the following requirements:
Accurate records of all commercial vaccine purchased and used.

- Confirmation that vaccine use is strictly limited to poultry on the positive premises and those destined for placement on the positive premises.
- Confirmation that the accepted vaccination protocol is being followed.
- Accurate characterization of houses on the affected premises as positive or negative with vaccinates and sentinels.
- Access to all production and mortality records.
- A flock eradication plan.
- A compliance agreement for each farm regarding use of the AI inactivated vaccine.
- GIS coordinates for each production premises
- Vaccine records showing that only vaccinated pullets are being used under an “all-in/all-out” system in test negative houses on the affected premises.

Appendix 13
LPAI H5/H7 Vaccination Program.

Purchase and Administration of the Vaccine:

Vaccine would be purchased by the company and be under control and permitted for use by the Texas Animal Health Commission. The Federal role in the vaccination process will be limited to oversight and monitoring. It is the responsibility of the Texas Animal Health Commission and the company to administer the vaccine.

Vaccine will be administered by appropriate route and dosage.

Replacement Poultry - Commercial or Breeder flocks

Birds should be vaccinated a minimum of two weeks prior to moving to positive premises, so that there has been adequate time for antibody response.

A cohort of 75 replacement pullets will remain unvaccinated for AI. These will be individually leg banded and tested for negative AI status by AGID.

Upon movement to the laying house, these unvaccinated sentinels will be randomly placed throughout the positive premise.

Once moved to the laying house, every two weeks, 20 of the sentinels will be serologically sampled and tested by AGID. These samples will be collected or overseen by the Texas Animal Health Commission.

Positive AGID results will require sampling of (30) sentinels to determine whether virus is present using RT-PCR or virus isolation.

Vaccination of Laying Hens (Commercial Layers, Breeders, and Turkeys)

A minimum of 75 unvaccinated hens randomly placed throughout the laying house will be individually leg banded and tested for negative AI status by AGID.

20 of the sentinels will be serologically sampled and tested by AGID every 14 days. These samples will be collected or overseen by the Texas Animal Health Commission.

Positive AGID results will require sampling of (30) sentinels to determine whether virus is present using RT-PCR or virus isolation.

Spent hens must be depopulated in accordance with Texas Animal Health Commission guidance after completing their production cycle.

Appendix 13
LPAI H5/H7 Vaccination Program.

Monitoring following depopulation

Following depopulation of all positive flocks, 20 sentinels from each affected house will be monitored every 14 days.

After 3 months of negative sentinel tests, 20 sentinels from each affected house will be monitored every 30 days.

After 6 months of negative sentinel tests, the need to continue vaccination will be evaluated by the TAHC and EDMC.

TCEQ REGULATORY GUIDANCE
Waste Permits Divison
RG-326 • August 2009

Handling and Disposal of Carcasses from Poultry Operations

On-farm disposal of dead animals should always be carried out in a manner that protects public health and safety, does not create a nuisance, prevents the spread of disease, and prevents adverse effects on water quality.

If you hatch, raise, or keep poultry, state law (Texas Water Code 26.303, Handling and Disposal of Poultry Carcasses) requires you to properly dispose of any birds that may die while in your care or at your facility. The purpose of this law is to prevent poultry carcasses from creating a nuisance or endangering water quality. The law requires the TCEQ to develop rules that will achieve that purpose—in part, by banning routine on-farm burial of dead poultry. The law does allow on-farm burial, but only in the event of a major die-off.

Texas Water Code 26.303 and TCEQ-related rules (Title 30, Texas Administrative Code, Section 335.25, or 30 TAC 335.25) apply to you if you own or operate a poultry facility, regardless of whether you actually own the poultry. The rules also apply to you even if you are operating a "grandfathered" facility (one exempted because it predates rule enactment) or a facility that is otherwise exempt from TCEQ rules for animal-feeding operations.

Under TCEQ rules, you must use an approved method for handling routine losses and be prepared to handle the results of a *major die-off*, i.e., any incident that causes 0.3 percent or more of your flock to die per day.

Handling Routine Losses

By planning in advance how you will dispose of carcasses due to routine losses, your facility will be better prepared to deal with environmental and health issues both routinely and in an emergency. If you have a certified water quality management plan (WQMP) from the Texas State Soil and Water Conservation Board (TSSWCB), you should follow the guidance in your plan or contact the TSSWCB. If you do not have a certified WQMP, it is recommended that you contact your local TCEQ office.

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY • PO BOX 13087 • AUSTIN, TX 78711-3087
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The death of less than 0.3 percent of your flock per day is considered a *routine loss*. Routine losses must be managed by one or more of the methods listed below. Whichever method you choose, you must not allow the carcasses to cause a nuisance odor.

- Send the carcasses to a rendering plant,[1] another processing facility, or a permitted landfill.
- Process the carcasses on your farm by a method that is explicitly approved in TCEQ rules.
- Use any other method (except on-site burial), provided that you get TCEQ approval first.

TCEQ rules [30 TAC 335.25(c)] prohibit on-site burial of poultry carcasses due to routine losses.

How many carcasses should I be able to handle due to routine losses?

To ensure that you can comply with this rule, you should base your routine carcass-handling capacity on the largest number of live birds that your facility is capable of managing. Table 1 gives the number of birds equal to 0.3 percent for various flock sizes commonly managed in Texas.

Table 1. 0.3 Percent of Various Sizes of Flocks.

Flock Size	0.3% of Flock Size
16,000	48
64,000	192
128,000	384
192,000	576
256,000	768

Special requirements for animals that die of communicable diseases

Texas Animal Health Commission (TAHC) rules require disposal of animals that die from a disease recognized as communicable by the veterinary

[1] If the carcasses are to be rendered, the rendering plant must have authorization from the Texas Department of State Health Services (DSHS). Additionally, trucks hauling carcasses to a rendering facility must be registered with the DSHS. See <www.dshs.state.tx.us/msa/render.shtm>.

profession within time frames and by methods approved by the TAHC. A list of diseases that are reportable and approved methods of disposal may be obtained from the TAHC. Contact information for the TAHC appears on page 10.

But what if the TCEQ has given me permission to bury all carcasses or my permit requires burial?

Some older permits require that carcasses be buried. However, the statute establishing acceptable methods for carcass handling took effect after those permits were written, and the statute supersedes any related statements in those permits. The TCEQ will change this wording in your permit when you amend or renew it. However, if you have a permit that says you *may* or you *must* bury carcasses, the law requires you to begin to use another method starting *now.*

May I leave them for wild animals?

No. State law specifically prohibits this practice. When carcasses are left in the open, wild animals, rainfall runoff, or both can spread disease from the carcasses to humans and domestic animals, contaminate surface water and groundwater supplies, and cause nuisance odors.

What steps must be taken immediately?

Carcasses must be disposed of by an approved method, or stored in a refrigerated unit within 72 hours, for the owner or operator to remain in compliance with state law and to prevent nuisance odors. When disease is a concern, the TAHC may require immediate action and specify the method for handling and disposal of the carcasses. You must contact the TAHC (see page 10 for contact information) if disease is suspected.

Storing for 72 hours or less

Use a closed trash bin or similar varmint-proof, leakproof, spill-proof, and odor-preventing container. If you use this method, you are not required to register with, or obtain a permit from, the TCEQ.

Long-term storage

If you plan to hold the carcasses for more than 72 hours before you process them or have them removed, you must store them in a freezer or refrigerator at 40 degrees Fahrenheit or less. If you use this method, you generally will not be required to register with, or obtain a permit from, the TCEQ. However, if you intend to install an ammonia-based refrigeration unit like those used at large commercial refrigeration facilities, you must first verify that the unit will qualify for a permit by rule under TCEQ air-quality rules. If not, you must contact the TCEQ Air Permits Division to get a new permit or amend your current permit before you start building the refrigeration unit.

What kinds of processing are acceptable?

The following methods are approved for the routine disposal of carcasses:

- placement in a landfill permitted by the TCEQ to receive municipal solid waste
- cremation or incineration
- composting
- extrusion
- removal to an offsite rendering plant[2]

The method or methods you choose and the scale of your operation will determine whether you must register, apply for a permit, or notify the TCEQ. The TAHC may require a different method for disposal of diseased animals.

What are the regulatory requirements for carcass incineration?

Most incinerators used at poultry operations with an incineration capacity equal to or less than 200 lb/hr qualify for a permit by rule under the TCEQ air quality rules (Permit by Rule 106.494). If your incinerator doesn't meet the permit by rules requirements, you will need to obtain an individual air permit from the TCEQ (see page 10 for how to contact the TCEQ Air Permits Division).

Incinerators are typically authorized for use during daylight hours—that is, from one hour after sunrise until one hour before sunset. However, an incinerator with a CO or opacity monitor installed may burn after dark.

[2] If the carcasses are to be rendered, the rendering plant must have authorization from DSHS. Additionally, trucks hauling carcasses to a rendering facility must be registered with the DSHS. See <www.dshs.state.tx.us/msa/render.shtm>.

A list of poultry incinerators that have been registered with the TCEQ is posted on the TCEQ Web site at <www.tceq.state.tx.us/assets/public/permitting/air/Guidance/NewSourceReview/poultryincin_lst2_08.pdf>

You may also request a copy of the list of registered incinerators by writing or calling the Air Permits Division. Contact information appears on page 10.

How can I compost poultry carcasses?

TCEQ rules allow you to compost the carcasses of your own poultry on your own farm without registering with the TCEQ or applying for a permit, as long as your operation:

- Composts carcasses from your farm only with suitable bulking agents that have been purchased or have been obtained from your own farm only—for example, poultry litter, pine straw, wood shavings, landscape trimmings, and hay. (This requirement is important to ensure that you don't engage in activities that require additional authorizations.)
- Is kept at least 50 feet from the nearest property line if the total of composting materials and finished compost could exceed 2,000 cu yd.
- Creates no nuisance odors.
- Reduces exposure to "disease vectors"—that is, birds, flies, rodents, and other animals that could spread disease from the carcasses to humans, farm animals, pets, or wildlife.
- Does not discharge contaminants to surface water.
- Does not result in contamination of groundwater.
- Controls dust.

Composting in a covered area or in an enclosed bin can help in achieving these requirements. The USDA Natural Resource Conservation Service (NRCS) can recommend designs for bins that meet these criteria.

It is recommended (but not required) that composting operations be located at least:

- 150 ft from wells
- 150 ft from the nearest creek, stream, pond, lake, or river
- 50 ft from the nearest property line
- outside the 100-year floodplain

It is also recommended that composting operations take place in a location that is not visible to neighbors or traffic.

What are the requirements for carcass management using other methods?

If you choose another method of disposal, notify the Industrial and Hazardous Waste Permits Section in writing of your choice. Mail your notice to the address on page 10. If you are planning on using one of these methods on a large scale, contact the Air Permits Division (512-239-1240) to find out whether you need to obtain an air quality permit or, if you already have such a permit, amend it.

Handling Major Die-Offs

In the event of a major die-off (one in which 0.3 percent or more of your flock dies), you may bury the carcasses. However, if the die-off occurs among younger birds, you may find that your normal means of carcass handling will accommodate more carcasses than the number that corresponds to 0.3 percent of your overall inventory.

Carcass burial

If you choose to bury carcasses resulting from a major die-off on your farm and you have an approved water quality management plan for your site, you do not need to notify the TCEQ. The plan contains a burial map and information on how to bury the carcasses. The TSSWCB, NRCS, or local soil and water conservation district may be able to assist and confirm the appropriate location for burial in the event of a major die-off. (Information about the WQMP Program may be found at the Texas Soil and Water Conservation Web site, <www.tsswcb.state.tx.us>, or by calling 254-773-2250 or [toll-free] 800-792-3485.)

However, if you do not have a certified water quality management plan, you must notify the TCEQ Industrial and Hazardous Wastes Permits Section in a letter which contains your full name and address, the type of animals, and a short description of the locations on your farm where the carcasses will be buried. This letter will be considered as your compliance with 30 TAC 335.6 and will be acknowledged by the TCEQ. Mail your notification to the address listed on page 10.

It is also recommended that you notify the TCEQ regional office so that its staff can respond to public inquiries and to assist you with issues that may be encountered during an emergency situation.

If you do decide to bury the carcasses, then you remain responsible for controlling these and other potential impacts:

- contamination of groundwater
- contamination of surface water
- nuisance odors
- contact with disease vectors

To control these impacts, you need the right soil, the right site, and the right cover for burial of the carcasses.

Find the right soil

If you choose to bury the carcasses, you need to do so in soil that will retain the carcasses and their decomposition by-products within the excavation in order to prevent contamination of surface water or groundwater. If you have a certified WQMP, the NRCS can help you determine the suitability of your soils for burial of carcasses.

High-permeability soils such as sand may not be suitable for carcass burial without first lining the burial pit. Holders of certified water quality management plans should contact the TSSWCB or NRCS for assistance in determining the type of liner that may be appropriate for permeable soils. If you do not have a certified WQMP, you may contact the TCEQ Industrial and Hazardous Waste Permits Section (512-239-6595) for guidelines on liner construction.

Find the right site

The following are guidelines for locating an acceptable site for carcass burial based on the TCEQ rules for the disposal of household garbage, sludge, and wastewater:

- *Protect drinking-water wells.* Under TCEQ rules for wastewater holding tanks and sludge-application sites, the site must be at least 500 ft from the nearest public well, 150 ft from the nearest private well, and located outside of the 100-year floodplain.
- *Protect surface water.* TCEQ rules for septic tanks and drain fields require those facilities to be at least 50 ft from the nearest creek, stream, pond, lake, or river.
- *Protect your neighbors.* The burial site should be at least 50 ft from adjacent property lines; 200 ft or more is recommended.

Use the right cover

In order to control disease vectors and odors, the TCEQ municipal solid waste rules require that carcasses be covered with at least 2 ft of soil as soon as they

are placed in a landfill. This practice is also recommended for burial of poultry carcasses on individual farms.

You are responsible for protecting our state water resources

The guidelines for carcass burial are based on other rules developed to protect state water resources. By following them, you should be able to reduce the risk of contaminating water supplies or creating a nuisance. However, you are responsible for any problem that arises from your burial of the carcasses, even if you followed these guidelines when you buried them.

Call before you dig

We also recommend that you call 800-344-8377 to make sure you will not accidentally hit a gas or utility line on your property during excavation.

Do I have options besides burial?

There is no requirement to bury carcasses resulting from a major die-off.[3] Some alternatives to burial:

- Transport carcasses to a permitted landfill or processing facility.
- Arrange to use an extra waste container temporarily (up to 72 hours) until you can get rid of the carcasses through your normal means.
- Arrange to use a refrigerated unit temporarily until you can get rid of the excess carcasses through your normal means.

Whether these or other alternatives are practical depends on the size of your operation, the size of the die-off, and other factors. Use good judgment when evaluating your choices.

What are the Penalties for Violating the Poultry Carcass Handling and Disposal Act?

You could be fined up to $10,000 per violation of the act. Each day of noncompliance may be considered a separate violation.

The act appears in the Texas Water Code, Chapter 26, Subchapter H, Poultry Operations.

[3] If the die-off is as a result of a disease outbreak, the TAHC may specify the disposal method.

Where Can I Find the Rules on Handling Poultry Carcasses?

All TCEQ rules appear in Title 30, Texas Administrative Code (30 TAC). Rules that directly apply to poultry carcass handling:

Industrial Solid Waste (30 TAC 335)

- Section 335.6, Notification Requirements
- Section 335.25, Handling, Storing, Processing, Transporting, and Disposing of Poultry Carcasses

Other TCEQ rules that are applicable to the handling of poultry carcasses include:

Control of Air Pollution by Permitting (30 TAC 116)

Permits by Rule (30 TAC 106)

- Section 106.494, Incinerators
- Section 106.373, Refrigeration Systems
- Section 106.161, Animal Feeding Operations

Concentrated Animal Feeding Operations (30 TAC 321, Subchapter B)

Composting Operations (30 TAC 332)

Municipal Solid Waste (30 TAC 330)

- Cover Requirements when Burying Dead Animals, Subsection 330.136(b)(2)

All of the rules pertaining to proper handling of poultry carcasses are found on the TCEQ Web site:

<www.tceq.state.tx.us/goto/rules>

or order copies from TCEQ Publications:

e-mail: <puborder@tceq.state.tx.us>

fax: 512-239-4488

phone: 512-239-0028

mail: Publications Ordering, MC-195
TCEQ
PO Box 13087
Austin, TX 78711-3087

Who Do I Notify?

If you don't have a certified Water Quality Management Plan, mail your notification or any other correspondence on this topic to:

Industrial and Hazardous Waste Permits Section, MC 130
PO Box 13087
TCEQ
Austin, TX 78711-3087
phone: 512-239-6595
fax: 512-239-6383

For questions about air quality rules only, contact:

Air Permits Division, MC 162
TCEQ
PO Box 13087
Austin, TX 78711-3087
phone: 512-239-1240
fax: 512-239-1300

For questions regarding burial, soils, or other information about a water quality management plan, contact the TSSWCB Poultry Program at:

Poultry Program Office
TSSWCB
PO Box 633901
Nacogdoches, TX 75963
phone: 936-462-7020

In the event of a die-off suspected to have been caused by disease, contact the Texas Animal Health Commission at:

TAHC
PO Box 12966
Austin, TX 78711-2966
phone: 800-550-8242

Facilities with a certified water quality management plan may contact the USDA NRCS for assistance in composter design and environmental issues regarding carcass burial at:

USDA NRCS
101 South Main
Temple, TX 76501
phone: 254-742-9800
fax: 254-742-9819

Other Helpful Information and Recommended References

Texas Agriculture Code <www.statutes.legis.state.tx.us/?link=AG>, Chapters 161 to 168.

Texas Occupations Code <www.statutes.legis.state.tx.us/?link=OC> 801.361, Disposal of Animal Remains.

Texas Animal Health Commission. Call 800-550-8242 before disposing of diseased animals. The TAHC also can supply a list of reportable animal diseases.

Disposal of Domestic or Exotic Livestock Carcasses (TCEQ publication no. RG-419) explains suggested guidelines from the TCEQ and the TAHC for disposal of farm or ranch animals.

Catastrophic Animal Mortality Management (Burial Method), Technical Guidance, USDA Natural Resources Conservation Service, Texas State Soil and Water Conservation Board, February 11, 2002.

NRCS TX Conservation Practice Standards, Code 316, Animal Mortality Management.

OSHA Construction rules:
www.osha.gov/pls/oshaweb/owastand.display_standard_group?p_toc_level=1&p_part_number=1926

OSHA Excavation Rules:
www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=STANDARDS&p_id=10930

THE UNIVERSITY OF GEORGIA
COOPERATIVE EXTENSION
Colleges of Agricultural and Environmental Sciences & Family and Consumer Sciences

Composting Mass Poultry Mortalities

Casey W. Ritz
Extension Poultry Scientist

Introduction

Composting is a natural process where beneficial microorganisms decompose and transform organic materials into a useful and biologically stable end-product that is safe for the environment. This process has worked well for many poultry producers nationwide as a means of processing their daily poultry mortality.

Large volumes of poultry mortality have commonly been disposed of by means of burial. This practice, however, poses health and environmental risks from pathogens, particularly in areas prone to flooding or with a high water table. When substantial poultry mortality occurs due to disease, chemical residue or natural disaster, on-site composting of the carcasses will effectively process large mortality numbers into an environmentally stable product for land application.

Composting large volumes of dead birds requires a commitment to proper management in order for the process to be effective and successful. Proper siting of the windrow is necessary to facilitate composting and preventing nutrient runoff into surface waters.

Constructing the Windrow

If flock repopulation time schedules permit, forming windrows within the poultry house or litter shed is the ideal location for composting, with a level, firm base and protection from rainwater. If an under-roof site is not available, find a site that is well-drained, out of the flood plain, relatively free of rocks, accessible to machinery, and located away from areas of running or standing water. A temporary ground liner can prevent any potential leaching from the windrow. Bear in mind that the liner can cause difficulties with spreading equipment, as it will likely be torn during removal of the windrow. Temporary concrete barriers commonly used with highway construction projects or large hay bales have been successfully used to create a channel for compost containment. Protect open air piles from prolonged contact with rainwater with a covering that repels water, such as composting fleece or a plastic tarpaulin. Figure 1 illustrates the use of a composting fleece. A well-rounded windrow also will aid the shedding of rainwater.

Figure 1. Composting mortality windrows convered with a water-repelling compost fleece. If discarded tires are used to anchor the fleece in place, they should be cut in such a way that they do not retain rainwater.

Proper layering of the windrow is important for effective composting and helps ensure appropriate heating (Figure 2). Begin building the windrow with a base layer of poultry litter. This layer provides the foundation for the pile and helps prevent possible seepage. Additional litter, straw, sawdust or some other coarse carbon source is used as a bulking agent and is placed between layers of bird carcasses. This bulk material aids in aeration of the pile and helps provide an adequate supply of carbon. Poultry litter is convenient, inexpensive and serves this purpose well.

Each of the carcass layers should be only one bird deep. If the birds are carelessly loaded into the windrow, compost completion may be delayed and the carcasses may putrefy instead of decompose. Add sufficient water to the carcass layer to thoroughly wet the birds. It is unlikely that any additional water will be needed for the windrow if fresh poultry litter or damp carbon sources are used. Ideal moisture content will be 40-60 percent. Moisture levels either side of this range will delay and inhibit optimal composting action.

Repeat the layering sequence until the recommended windrow height of 5 to 6 feet is reached. Once the layering is complete, top the windrow off with at least 8 inches of dry poultry litter, making sure that all carcasses are well covered. The carbon-to-nitrogen (C/N) ratio needed for windrow composting is the same as that needed for composting of daily mortalities, with a C/N ratio between 20:1 and 30:1 being ideal for this process. Maintaining the proper C/N ratio will facilitate the composting process. Since the C/N ratio plays a role in regulating the rate of biological activity within the pile, variations from this ratio will alter the composting process, leading to delayed, ineffective or malodorous composting. Windrows that have sawdust, straw and mortalities as the recipe ingredients have been shown to maintain high temperatures for longer periods of time compared to recipes that use strictly poultry litter as the carbon source (Murphy, et al., 1996). Poultry litter supplies both carbon and nitrogen to the recipe, which can lead to a nitrogen excess if litter is not used in sufficient quantity.

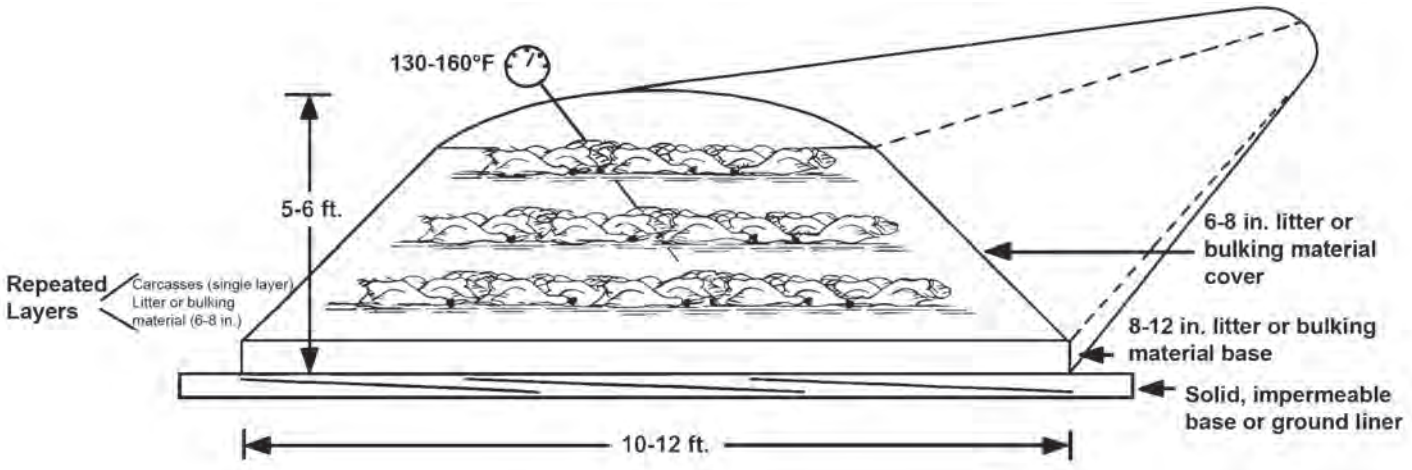

Figure 2. Windrow Cross Section.

Maintaining the Process

Rapid decomposition and maximum destruction of pathogens and pests are primary objectives with massive mortality situations. Reaching ideal composting temperature is important since temperature is the best indicator of proper biological activity. Monitoring windrow temperatures should become a priority and can be accomplished with a 36-inch probe-type stainless steel dial thermometer. Ideally, the temperature of the compost will rise above 140 degrees F within 5 to 10 days as microbial activity progresses. If the compost fails to heat up or is malodorous, the material is probably too wet. This can be corrected by turning the windrow and adding more poultry litter or additional carbon material. Turning will restore the pore space and oxygen level within the windrow. If the temperature falls below 120 degrees F or rises above 180 degrees F, turn the windrow.

Allow at least 3 to 4 weeks for the initial compost cycle to work. The pasteurizing effects of time and temperature in the composting process will destroy pathogenic organisms that are present in the original organic materials.

Once the temperature peaks and then drops below 120 degrees F, turn the windrow for a second aeration and temperature rise. You may need to add more water to the compost at this time to maintain the 40-60 percent moisture content. A second heat cycle is essential to deactivate human and avian pathogenic organisms. Two or more aeration cycles may be required to completely cure, decontaminate and deodorize the windrow. Typically, however, after the second heat cycle, the composted material may be safely stored or land applied.

When managed properly, the compost process is an economical, biosecure and environmentally sound method of converting substantial poultry losses into a biologically stable product for use as a soil amendment. Approval must first be sought from the State Department of Agriculture before beginning the process of composting mass poultry mortalities. Additional information on composting mortalities can be obtained from your local cooperative extension office. Consult your poultry company before proceeding.

References and Resources

Conner, D.E., J.P. Blake, J.O. Donald, and J.S. Kotrola. 1992. *Composting Poultry Carcasses: Microbiological Safety*. Proceedings of the 1992 National Poultry Waste Management Symposium, pp. 418-423.

Martin, J., D. Palmer, and L. Carr. 1996. *Using Composting For Disposal Of Catastrophic Losses In Chickens*. Extension Circular, University of Delaware.

Murphy, D.W., and L.E. Carr. 1990. *Composting Dead Birds*. FS 537. University of Maryland Cooperative Extension, College Park, Md.

Murphy, D.W. 1992. *New Developments in Mortality Composters*. Proceedings of the 1992 National Poultry Waste Management Symposium, pp. 33-40.

Poultry Water Quality Handbook. 1994. Poultry Water Quality Consortium, Chattanooga, Tenn.

Rynk, R., ed. 1992. *On-Farm Composting Handbook*. NRAES-54. Cooperative Extension, Northeast Regional Agricultural Engineering Service, Ithaca, N.Y.

Bulletin 1282 / Reviewed March 2011

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Fact Sheet

Fact Sheet 801

Guidelines for In-house Composting of Catastrophic Poultry Mortality*

Typical methods of disposal of poultry carcasses with highly pathogenic disease include burial, incineration, landfill disposal (this is not a routine disposal method, only for pathogenic or catastrophic events), rendering, and composting. Of these five methods, composting of mortalities on the farm appears to be the most acceptable because it averts potential groundwater pollution from burial, avoids high fuel cost and potential air pollution with incineration, and prevents potential disease spread associated with transportation to landfills and the associated transport costs and tipping fees. Properly done, in-house composting of poultry carcasses is a cost-effective and biosecure means of inactivating pathogenic organisms in both the carcass and litter. While every state has specific rules and regulations on the disposal of poultry mortalities, the following composting guidelines may help poultry companies and growers who may encounter large numbers of poultry mortalities due to diseases like Avian Influenza (AI) that require depopulation. If AI is diagnosed and a flock is depopulated, in-house composting is strongly recommended because this will keep AI virus from spreading.

Step 1

In consultation with the poultry company, State Veterinarian and/or the state's emergency poultry disease team, obtain the appropriate procedures and/or request assistance on proper euthanasia and depopulation procedures. Obtain a pre-approved list of vendors that supply or provide the following for the infected farm:

A. Personnel
The number of personnel and time needed will depend on the number, type, age, and weight of the birds.

B. Equipment and Supplies
- Skid steer loaders—2 machines
- Sawdust (see Table 1 for estimate)
- Tanker for water if needed (see Table 1)
- Composting thermometers (36" or 48" stem length)—1 per house
- Power wash and disinfecting equipment
- Recommended disinfectants (five disinfectants were recently tested by USDA): Tek-trol and One-Stroke Environ, which are phenolic disinfec-

* These are general guidelines for the information and guidance of poultry companies, growers, and other related parties. These guidelines are primarily designed for clear-span houses and may need some modification for houses with posts. Contact your company or State Veterinarian for specific guidelines on euthanasia and depopulation.

Table 1. Estimated Material Requirements for In-house Composting of Poultry Carcasses.[1]

Depth of litter (inches)	Volume of litter (cu. ft.)	Volume of sawdust/litter required (cu. ft.)	Volume of sawdust needed (cu. ft.)	Volume of water needed (gallons)[2]
2	3,340	13,000	9,660	12,500
4	6,660	13,000	6,340	12,500
6	10,000	13,000	3,000	12,500
8	13,340	13,000	0	12,500
10	16,660	13,000	0	12,500

[1] Estimated material requirements for 25,000 birds at 5 pounds per bird in a 40' x 500' house. (Note: The amounts of sawdust/litter and water needed are proportional to the bird weight, i.e., a 2.5 lb. bird will require approximately half the litter and water requirement.)

[2] Based on estimated 1/2 gallon volume of water needed to wet one bird (volume may be more or less; feathers must be thoroughly wet but be sure not to saturate the sawdust/litter mix).

tants; Lysol No-rinse, a quaternary ammonia compound; Virkon-S, a peroxy compound; and household bleach, a chlorine compound. All five disinfectants were effective at inactivating virus at the recommended concentrations (Suarez et al. 2002).

Formulas**

V = (X/12) x L x W (1)

V = litter volume–cubic feet
X = floor litter depth–inches
L = house length–feet
W = house width–feet

WRL1 = (Y/300) x BW (2A)

WRL1 = windrow length with a base 12 feet wide and 6 feet high
Y = total number of birds to be composted
300 = constant = pounds of poultry that can be composted per foot of windrow length
BW = bird weight

WRL2 = (Y/225) x BW (2B)

WRL2 = windrow length with a base 12 feet wide and 4 feet high
Y = total number of birds to be composted
225 = constant = pounds of poultry that can be composted per foot of windrow length
BW = bird weight

CV1 = 30 x WRL1 (3A)

CV1 = volume of sawdust/litter mix needed
30 = constant = cubic feet of sawdust/litter mix per foot of windrow length
WRL1 = windrow length with a base 12 feet wide and 6 feet high

CV2 = 22.5 x WRL2 (3B)

CV2 = volume of sawdust/litter mix needed
22.5 = constant = cubic feet of sawdust/litter mix per foot of windrow length

**These formulas may be used for other sizes of birds; volume of materials needed should be adjusted accordingly.

WRL2 = windrow length with a base 12 feet wide and 4 feet high

Step 2

Determine the total number of dead birds, their age, and the amount of litter needed (Table 1). If litter is inadequate, purchase sawdust or alternative carbon source such as wood chips.

Step 3

A. For chicken or turkey broiler houses:
   1. Raise feeder and drinker lines (Figure 1).
   2. Push mortalities toward the litter-door side of the house so the litter surface can be accessible for making the composting windrow. Additional carbon (sawdust) can be piled inside at the doors (Figure 2).
   3. Create a litter windrow 12 feet wide and 1 foot deep on one side of the house (Figure 3). Consider the location of the windrow in relation to overhead equipment such as feeder or drinker lines to give the loader enough height to maneuver.
   4. Scoop the dead birds with the loader and lay them on top of the litter base of the windrow. Spread the carcasses evenly with a rake until they are about 8 to 10 inches thick (Figure 4). For larger birds such as roasters, breeders and turkeys, the layer should be only one bird deep.

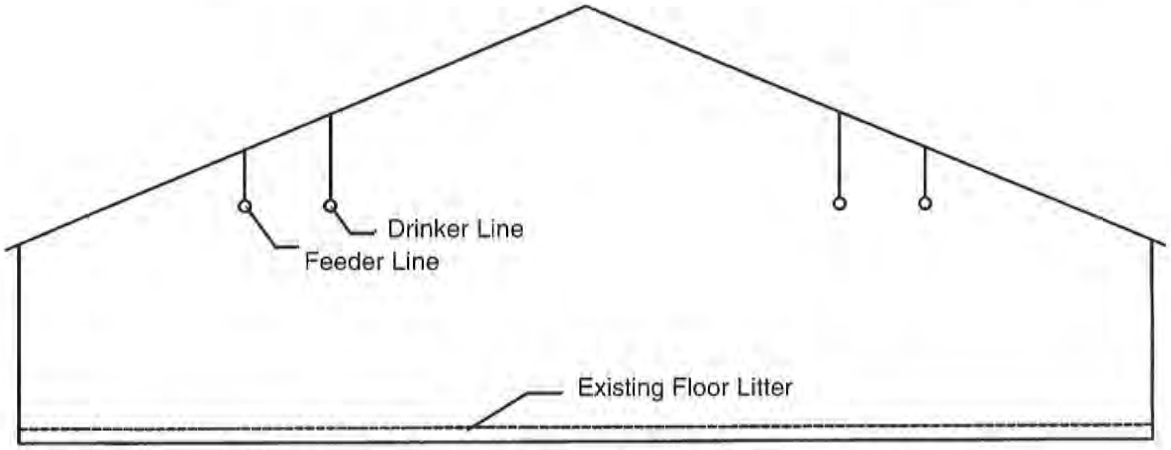


Figure 1. Cross-section of broiler house with feeder and drinker lines raised to ceiling.

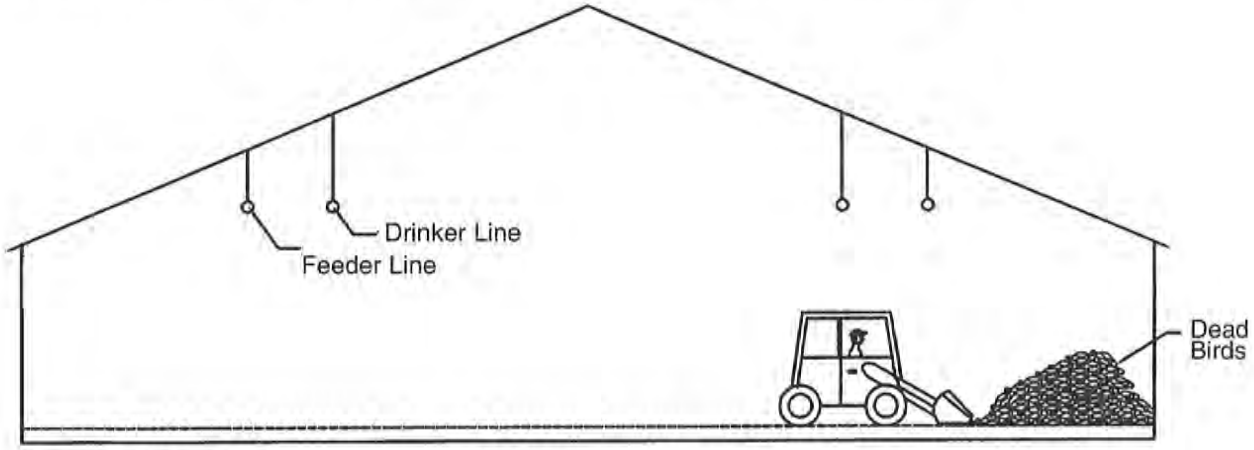


Figure 2. Use a skid loader to move dead birds to one side of the house.

5. Spray the carcasses with enough water to thoroughly wet the feathers but not saturate the sawdust/litter mix (Figure 5).
6. Deposit a 6- to 8-inch layer of sawdust/litter mix over the birds with a foot overlap on the sides. Leave no carcasses or bird parts exposed (Figure 6).
7. Repeat steps 4 to 6 two more times or until the pile is 6 feet high. If the height of the poultry house prevents a 6-foot high windrow, make only two layers, which will be approximately 4 feet high. In so doing, the windrow length requirement will increase by approximately one-third (use Equation 2B for exact calculation of windrow length and Equation 3B for volume of sawdust/litter mix). Figure 7 shows a windrow cross-section. To inactivate pathogens in the litter, all the litter in the house should be used in the composting process.

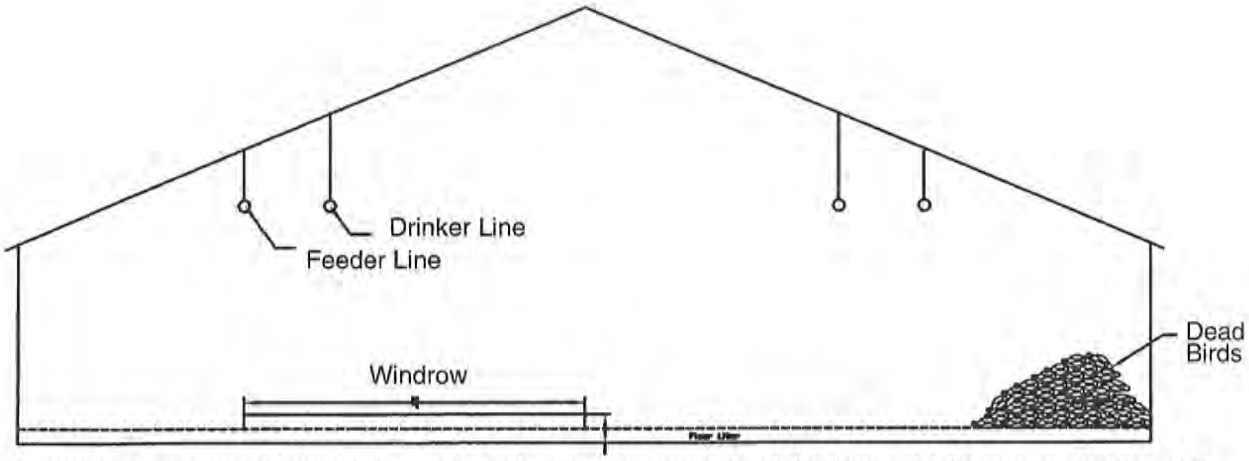


Figure 3. Create a windrow 12 feet wide with a base on one side of the house. Make sure outer edge of the windrow does not go beyond feeder line boundary.

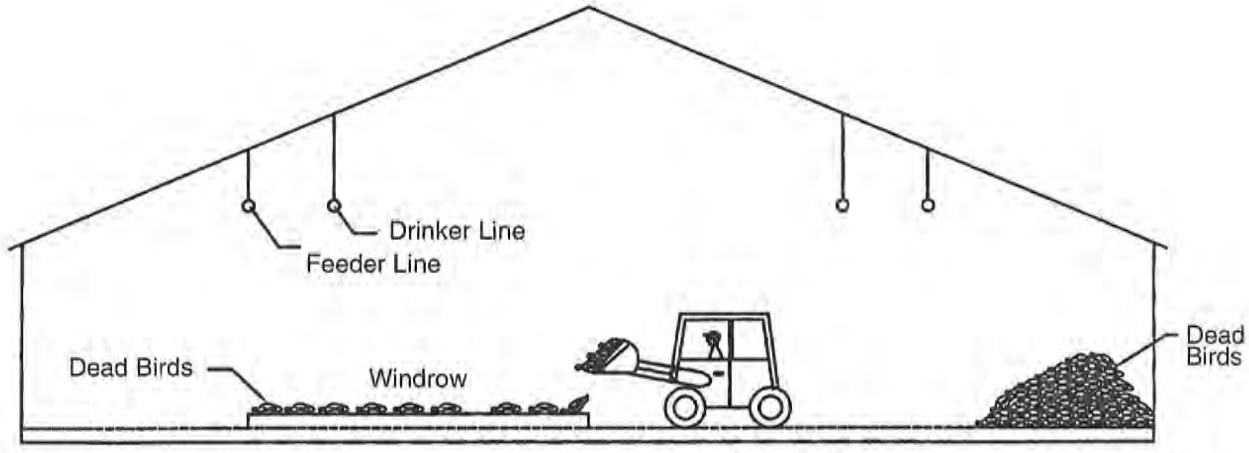


Figure 4. Scoop dead birds with loader and lay them on top of the base of the windrow. Limit bird layer thickness to 8 to 10 inches or one bird deep for roasters and turkeys.

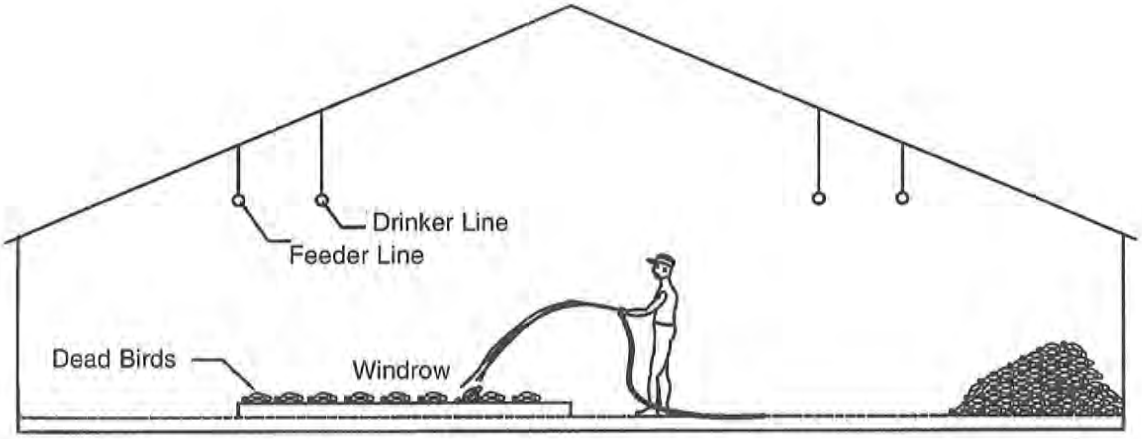


Figure 5. Spray the carcasses with enough water to saturate the feathers.

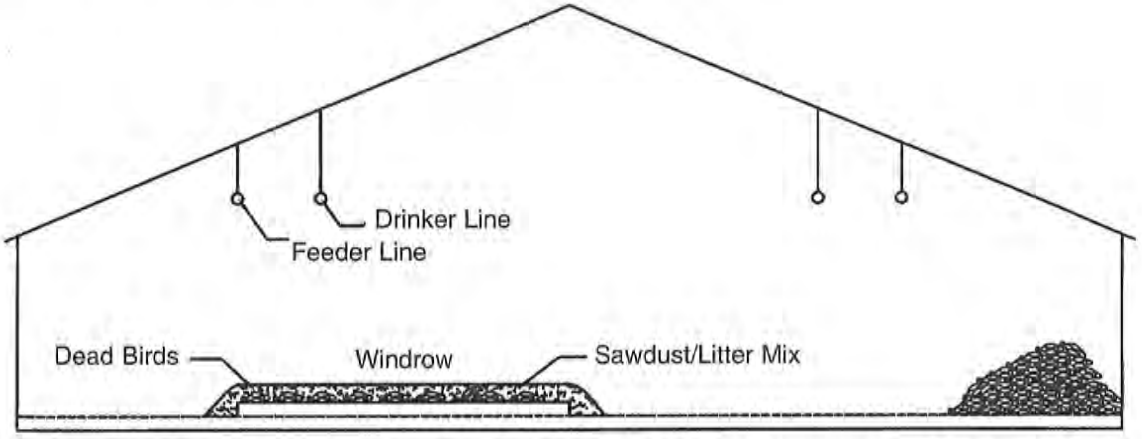


Figure 6. Deposit 6 to 8 inches of sawdust/litter mix to the width of the birds with a 12-inch overlap on each side of the windrow as shown.

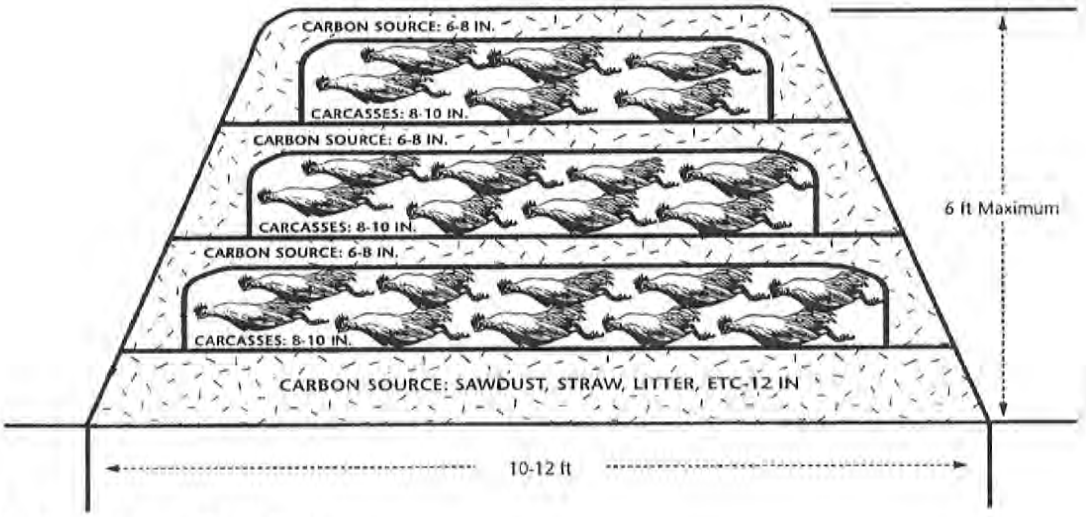


Figure 7. Cross-section of windrow

8. Cover the pile with a layer of litter, sawdust, or other bulking material 6 to 8 inches thick. Using a bucket loader, start at the bottom layer and work toward the top by tipping the bucket and moving forward to continually dump as the bucket moves up the side of the pile to make sure the sides are adequately covered. Make sure the sides of the pile are capped with a 12-inch layer of sawdust/litter mix. Make sure there are no exposed carcasses.

B. For broiler breeder houses with ⅔ slats and ⅓ litter, remove or set aside one side of the floor slats (either left or right side) and follow Items 1 to 8 under Step 3-A above.

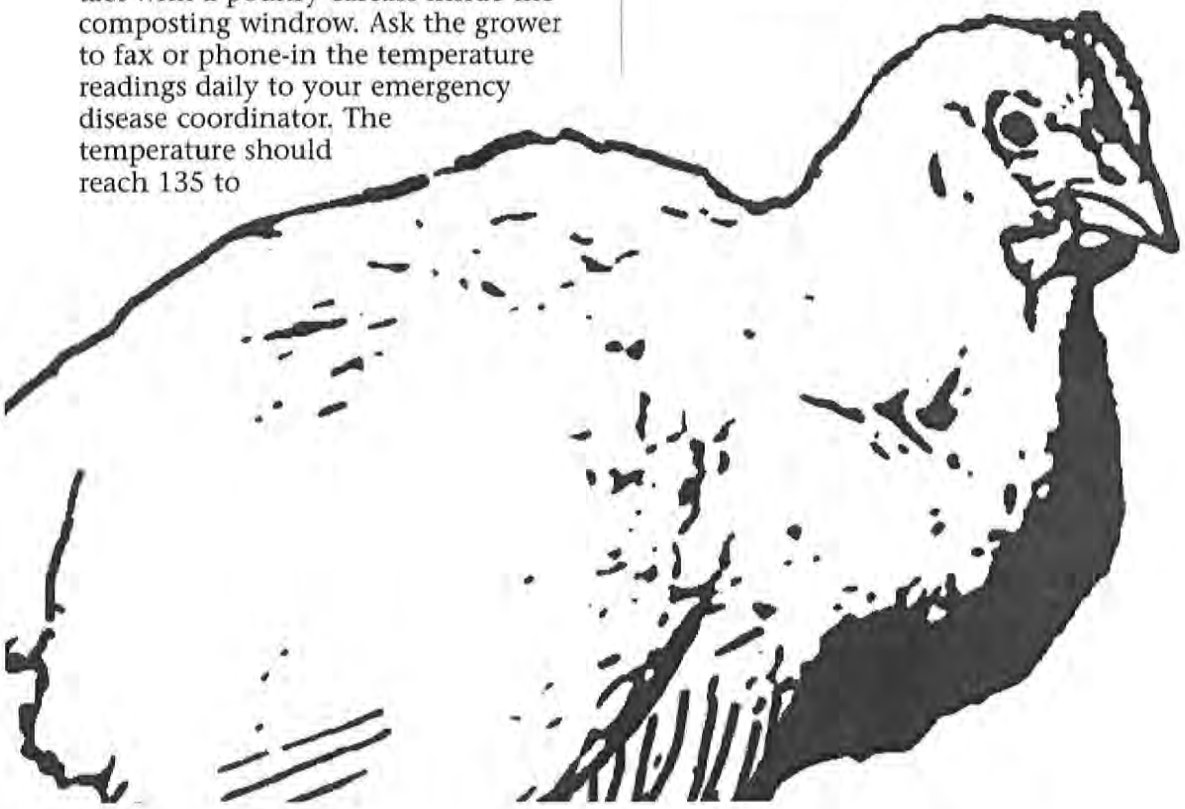
Step 4

Maintaining a Windrow

A. Use a long-stem composting thermometer to check daily temperatures in 3 to 5 sections of the windrow. The tip of the thermometer must be in contact with a poultry carcass inside the composting windrow. Ask the grower to fax or phone-in the temperature readings daily to your emergency disease coordinator. The temperature should reach 135 to 145°F within a week. If the temperature does not rise, call for assistance.

B. After 10 to 14 days, the temperature will decline. If the temperature declines before that time, be prepared to turn the windrow. As the temperature reaches 115 to 125°F, turn the windrow. Create a second windrow at a convenient distance from the existing windrow for maneuvering the skid loader. Then, on the other side of the house, create another windrow base 12 feet wide and 1 foot deep. Start on one end of the first windrow and move the contents to form a new, second windrow. Turning will aerate the material and increase the porosity of the pile. The material should be lifted and dropped, not just pushed to the new windrow.

C. If the material is excessively dry (does not leave the hand moist when squeezed), then add water while turning. If the material is excessively wet (drips more than two drops when squeezed in hand), add some dry litter or sawdust while turning.



D. Cap the new windrow with litter or other suitable material to cover any exposed carcass tissue on the surface.

E. After turning the compost windrow, the temperatures should equal or exceed those in the initial windrow.

F. After an additional 3 to 4 weeks, the compost can be stockpiled in the manure shed for storage prior to land spreading. This should pose no biosecurity risk because AI virus would have been deactivated after 10 days of composting at 140°F.

References

Carr, L.E., G.W. Malone, H.L. Brodie, D.H. Palmer, J.H. Martin, and N. Zimmermann. "Composting Catastrophic Event Poultry Mortalities." Maryland Cooperative Extension Fact Sheet 723.

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Acknowledgment

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Guidelines for In-house Composting of Catastrophic Poultry Mortality

by

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P2002

Development and Approval of Initial State Response and Containment Plans for H5/H7 Low Pathogencity Avian Influenza

1. Purpose and Background

This document provides guidance on the development and approval of Initial State Response and Containment Plans (ISRCPs) for H5/H7 low pathogenicity avian influenza (LPAI).

This guidance document represents the Animal and Plant Health Inspection Service's (APHIS) position on this topic. It does not create or confer any rights for or on any person and does not bind the U.S. Department of Agriculture (USDA) or the public. The information it contains may be made available to the public. While this document provides guidance for users outside Veterinary Services (VS), VS employees may not deviate from the directions provided herein without appropriate justification and supervisory concurrence.

2. Document Status

A. Valid until July 26, 2016.

B. This document replaces VS Memorandum 565.15, which is cancelled. The content of the document is the same as that of the former memorandum; only editorial and formatting changes have been made.

3. Reason for Reissuance

Not applicable.

4. Authority and References

A. Authorities (*Code of Federal Regulations*) and U.S. Code (U.S.C):
7 CFR 371.4
9 CFR part 56
9 CFR part 146

B. Related Documents:
- VS Guidance 8602.1, "Response, Communications, and Investigation of Notifiable Avian Influenza in Domestic Poultry," (7/11/12)
- VS Guidance 8603.1, "Procedures for Flock Plans, Compliance Agreements, and Indemnity Claims in Cases of H5/H7 Low Pathogenicity Avian Influenza Infection in Poultry," (07/26/13)

C. Definitions:
Flock plan: A flock plan is a written management agreement developed by APHIS and an official State agency with input from the flock owner (who may be either a poultry company or an individual) and other affected parties. Further information can be found in 9 CFR 56.1.

5. Audience

VS employees, other affected Federal and State agencies, and affected members of the public.

6. Guidance

A. General

On September 26, 2006, APHIS published an interim final rule titled "Low Pathogencity Avian Influenza; Voluntary Control Program and Payment of Indemnity," adding parts 56 and 146 to title 9 of the *Code of Federal Regulations.* The final rule took effect May 1, 2009. This rule established the H5/H7 LPAI program for commercial poultry as part of the National Poultry Improvement Plan (NPIP). It also set conditions for indemnity for poultry infected with or exposed to H5/H7 LPAI. One of the conditions for indemnity is that each official State agency (OSA) must develop an ISRCP and have APHIS approve it.

The ISRCP is only one of three requirements for State participation in the H5/H7 LPAI program. The other two are:

1. Maintenance of an active surveillance program for eligible commercial poultry.

2. Maintenance of a diagnostic surveillance program for all poultry.

A State must also ask APHIS for assistance and indemnity if an H5/H7 outbreak occurs.

B. ISRCP Development and Administration

1. Development

a. The ISRCP must be developed by the OSA and administered by the cooperating State agency in cooperation with the State's standing Emergency Disease Management Committee (EDMC) as set forth in 9 CFR 56.10(1).

b. The EDMC should be composed of representatives from:

1) Poultry industries, including table egg layer, meat-type chicken, meat-type turkey, and hatchery and breeder industries.

2) Speciality industries, including exhibition poultry, upland game bird, and ratite industries.

3) Laboratories.

4) State representatives.

5) State poultry health officials.

6) NPIP OSA representatives.

c. The VS official serving the State, the VS Emergency Coordinator, and VS poultry epidemiologists should serve as ex officio members of the committee.

2. Development Considerations

In developing the ISRCP, the committee should consider:

a. The variety of poultry industries in the State.

b. The resources available to the State.

c. The ability to work closely with adjacent States.

d. Consistency with the APHIS National Incident Management System and the APHIS Incident Command System.

3. Required Components

The State EDMC must use the 14 points below (as set forth in 9 CFR 56.10) to develop the ISRCP. It may, however, expand and tailor the plan's guidelines to meet the needs, conditions, and structure of the poultry industries within the State.

a. Provisions for a standing emergency disease management committee, including regular meetings, exercises, and coordination with any Tribal governments that may be affected.

1) The management committee should be structured as set forth in this guidance document.

2) A list of management committee members, with contact information, should be compiled and available to all requestors.

3) The management committee should meet annually and conduct exercises at least every 5 years.

b. A minimum biosecurity plan to be followed by all poultry producers.

   1) The biosecurity plan is to be used at all times in the State.

   2. The plan can be drafted using the general good management practices in 9 CFR 147.26.

   3. The U.S. Poultry and Egg Association also provides guidance for drafting biosecurity plans (available on CD).

c. Provisions for adequate diagnostic resources.

   1) List NPIP-authorized laboratories and National Animal Health Laboratory Network laboratories in the State capable of AI testing.

   2) Provide the normal testing capacity and surge capacity of each laboratory.

d. Detailed, specific procedures for initial handling and investigation of suspected cases of H5/H7 LPAI.

   1) Explain samples to be taken, adjustments to biosecurity, company responsibility, and quarantines.

   2) Assign actions to be taken by State health officials, companies, and laboratories.

e. Detailed, specific procedures for reporting test results to APHIS.

   1) A memorandum of understanding (MOU) or other agreement must be established between laboratories and the OSA that provides requirements for reporting consistent with 9 CFR 146.14.

   2) These MOUs or agreements must require the OSA to immediately report suspect and presumptive H5/H7 test results directly to APHIS.

   3) The National Veterinary Services Laboratories (NVSL) is the only laboratory that can confirm positive H5 or H7 results. Please submit all presumptive results to NVSL.

f. Detailed, strict quarantine measures for presumptive and confirmed index cases, providing:

   1) The actions the State needs for quarantine.

   2) What test results or clinical signs necessitate quarantine.

3) How quarantines are lifted or maintained.

g. Provisions for developing flock plans for infected and exposed flocks.

h. Detailed plans for disposal of infected flocks, including:

1) Preexisting agreements with regulatory agencies. States should consult with environmental agencies, transportation agencies, and other businesses involved in disposal issues.

2) Detailed plans for depopulation and disposal of poultry carcasses should follow the guidance set forth in 9 CFR 56.5 (a) and (b).

3) Detailed plans for disposal of materials that come into contact with poultry infected with or exposed to H5/H7 LPAI.

4) Detailed composting plans including determinates of when the process is completed and the disposition of the composted materials.

5) Disposal sites.

6) Resources for conducting disposal.

i. Detailed plans for cleaning and disinfection of premises, repopulation, and monitoring after repopulation. These plans should be consistent with 9 CFR 56.5(d).

j. Provisions for appropriate control and monitoring zones, contact surveys, and movement restrictions. These should include zone sizes and restrictions on movement of birds and products.

k. Provisions for monitoring control zone activities, including detailed instructions on how to conduct testing in each control zone.

l. A written plan for vaccination use, if the State wants to use vaccination. The State should obtain APHIS approval for the use of any vaccine. The plan should include:

1) Proper controls and provisions.

2) Monitoring of vaccination.

3) Monitoring AI status of premises, either by using sentinels or by differentiating infected from vaccinated animals.

4) Exit strategies.

5) Depopulation of vaccinated flocks.

m. Plans for H5/H7 LPAI-negative flocks that provide for quarantine, testing, and controlled marketing. Controlled marketing should be carried out in accordance with 9 CFR 56.5c.

n. AI public awareness and education programs, including:

1) Outreach plans for all commercial and other poultry producers in the State during both normal and outbreak situations.

2) Plans to reach out to small poultry producers emphasizing the importance of prompt reporting of clinical signs consistent with AI. This is required by 9 CFR 146.14.

A model ISRCP is available through the NPIP office. The ISRCP may be organized in outline form with detailed information in an appendix. This would allow users to quickly find the information they need.

4. Administration

The ISRCP is to be administered by the cooperating State agency.

C. ISRCP Approval

1. Once the EDMC develops the plan, the OSA representative, the State veterinarian, VS official serving the State sign it.

2. The OSA submits a copy of the signed plan to the NPIP office at 1506 Klondike Road, Suite 101, Conyers, GA 30094 for review and approval.

a. The NPIP staff and VS epidemiologist will review the plan for consistency with 9 CFR 56.10 and the guidance provided in this document.

b. If the plan needs corrections or additions, NPIP will return it to the OSA.

c. The OSA will revise and resubmit the plan.

d. Once NPIP and the VS epidemiologist approve the plan, an approval letter will be sent to the OSA. NPIP will keep a copy of this letter.

3. The OSA will submit a final copy to the State veterinarian and two copies to the VS office serving the State, which retains one copy and sends the other to the Regional or District Office for filing.

7. Inquiries

Inquiries should be made to the National Poultry Improvement Plan staff at 770-922-3496.

John R .Clifford
Deputy Administrator

Response, Communications, and Investigation of Notifiable Avian Influenza (NAI) in Domestic Poultry

1. Purpose and Background

This document describes procedures to ensure a common and consistent approach in Veterinary Services (VS) response to, communications regarding, and investigation of notifiable avian influenza (NAI) (H5/H7) low pathogenicity avian influenza (LPAI) and all high pathogenicity avian influenza (HPAI) detected in domestic poultry in the United States. This document is consistent with Animal and Plant Health Inspection Service (APHIS) regulations and World Organization for Animal Health (OIE) guidelines. The document applies to domestic poultry as defined by the OIE and regulated by VS. APHIS Wildlife Services conducts surveillance for HPAI viruses in wild migratory birds.

The APHIS National Poultry Improvement Plan (NPIP) and Live Bird Marketing System (LBMS) H5/H7 LPAI programs are voluntary. However, participants' response, communication, and investigation processes for H5/H7 LPAI must be structured consistently with title 9, *Code of Federal Regulations* (9 CFR) parts 56, 145, and 146.

The official State agency (OSA) will administer the NPIP and the LBMS H5/H7 LPAI Program within the State according to the applicable provisions in 9 CFR 145.23(h), 9 CFR 145.33(l), 9 CFR 145.43(g), 9 CFR 146.23(b), 9 CFR 146.33(b), 9 CFR 146.43(b), and 9 CFR 56 as well as the Memorandum of Understanding NPIP has with that State.

HPAI is a foreign animal disease (FAD) in the United States and is reportable to the Area Veterinarian in Charge (AVIC) according to 7 USC 8301 *et seq.* and 9 CFR part 71. HPAI is also reportable to the State animal health official. If HPAI is suspected based on either the VS National Surveillance Unit's epidemiological definition of a suspect case (a bird with clinical symptoms consistent with HPAI) or other clinical indications, animal health officials will conduct a FAD investigation as described in VS Memorandum 580.4, including notification procedures. In these instances, the notification processes described in this document do not apply.

This guidance document represents the Agency's position on this topic. It does not create or confer any rights for or on any person and does not bind the U.S. Department of Agriculture (USDA) or the public. The information it contains may be made available to the public. While this document provides guidance for users outside VS, VS employees may not deviate from the directions provided herein without appropriate justification and supervisory concurrence.

2. Document Status

A. Valid through July 11, 2015

B. This document replaces Veterinary Services Memorandum 565.16, which is cancelled. The content of the document is the same as that of the former memorandum; only editorial and formatting changes have been made.

3. **Reason for Reissuance**

Not applicable.

4. **Authority and References**

A. Authorities (*Code of Federal Regulations* and U.S. Code):
7 CFR 371.4
9 CFR part 53
9 CFR part 56
9 CFR part 71
9 CFR part 145
9 CFR part 146
7 USC 8301 *et seq.*

B. References
1) VS Memorandum 580.4, "Procedures for the Investigation of Potential Foreign Animal Disease/Emerging Disease Incidents (FAD/EDI)," 8/10/10

2) APHIS National HPAI Response Plan

3) Live Bird Marketing System Uniform Standards

4) Avian Influenza Chapter (10.4.1) of the 2008 OIE Terrestrial Code

C. Definitions:

(1) Notifiable Avian Influenza (NAI) is defined by the OIE in the Avian Influenza Chapter (10.4.1) of the 2008 Terrestrial Code as follows:

For the purposes of the *Terrestrial Code*, avian influenza in its notifiable form (NAI) is defined as an infection of poultry caused by any influenza A virus of the H5 or H7 subtypes or by any AI virus with an intravenous pathogenicity index (IVPI) greater than 1.2 (or as an alternative at least 75 percent mortality) as described below. NAI viruses can be divided into high pathogenicity notifiable avian influenza (HPNAI) and low pathogenicity notifiable avian influenza (LPNAI):

a. HPNAI viruses have an IVPI in 6-week-old chickens greater than 1.2 or, as an alternative, cause at least 75 percent mortality in 4-to 8-week-old chickens infected intravenously. H5 and H7 viruses which do not have an IVPI of greater than 1.2 or cause less than 75 percent mortality in an intravenous lethality test should be sequenced to

determine whether multiple basic amino acids are present at the cleavage site of the haemagglutinin molecule (HA0); if the amino acid motif is similar to that observed for other HPNAI isolates, the isolate being tested should be considered as HPNAI.

b. LPNAI are all influenza A viruses of H5 and H7 subtype that are not HPNAI viruses.

A further definition and description of the occurrence of infection with NAI virus are found in the Terrestrial Code chapter.

5. Audience

VS employees, other affected Federal and State agencies, and affected members of the public.

6. Guidance

A. Identification of NAI

(1) Sample Collection

Animal health officials will collect samples in the field and enter epidemiological information on VS Form 10-4, "Specimen Submission." The officials then submit the sample to an APHIS-authorized laboratory (the National Veterinary Services Laboratories (NVSL) or a laboratory in the National Animal Health Laboratory Network (NAHLN)) for AI testing.

(2) Notification Processes for Presumptive Positive NAI (Note: These actions should be taken concurrently.)

a. An APHIS-authorized laboratory will conduct requested diagnostic tests on the submitted samples and then notify the submitter, OSA, State animal health official, and AVIC of the affected State of any presumptive positive results for type A, matrix, H5, or H7 from active/passive surveillance samples. If the laboratory testing on the collected samples takes place in another State, then the laboratory will notify the submitter and the OSA, State animal health official, and AVIC of the State in which the laboratory testing was conducted. The AVIC of the laboratory's State will promptly notify the AVIC from the submitting State, who, in turn, will notify the OSA and State animal health official of the submitting State. These laboratory results will be considered to be presumptively positive until confirmatory testing is conducted by the APHIS National Veterinary Services Laboratories (NVSL).

Note: Type A or matrix-presumptive positive results will not distinguish hemagglutination (HA) types. Therefore, these tests will require further laboratory characterization before personnel on the NAI distribution list are notified.

b. The laboratory wishing to submit samples will call NVSL with presumptive positive H5 or H7 results or to request further characterization of type A or matrix results. The submitting laboratory will then fax submission forms to NVSL and to the AVIC before shipping the samples. If the authorized laboratory is in another State, then the submitting laboratory should also fax copies to the AVIC and the State animal health official in the testing laboratory's State as well. The State animal health official and the AVIC may facilitate shipping samples to NVSL.

c. The submitting State's AVIC will notify the Regional Office, including the Regional Poultry Epidemiologist. The Regional Office will notify the NPIP/Poultry Program staff and the National Center for Animal Health Emergency Management (NCAHEM). Concurrently, the Area Office or State animal health official from the affected State will initiate data entry into the Emergency Management Response System (EMRS) "AI World" and send notice of the new entry to the State animal health official or OSA, Regional Poultry Epidemiologist, NPIP/Poultry Program staff, and NCAHEM. The Regional Office will send a notice to the NAI distribution list.

(3) Cooperative Discussions

The AVIC will then initiate and facilitate cooperative phone discussions with the APHIS Area Office, Regional Poultry Epidemiologist, the States, and industry regarding the potential response to a presumptive NAI incident. A State may activate its Standing Emergency Disease Management Committee as described in 9 CFR 56.10. Federal action will be pending until the State officially requests Federal assistance in compliance with 9 CFR 56.2(c).

(4) Situation report (SITREP) preparation and distribution

a. An NAI SITREP template and an NAI Epidemiology Report template will be used for all domestic poultry NAI events (see Appendices 1 and 2).

b. After receiving a presumptive positive laboratory report, the Area Office will prepare an initial SITREP in consultation with the OSA and forward it to the Regional Management Team with a copy to the Regional Poultry Epidemiologist.

c. The Regional Poultry Epidemiologist will review and amend the SITREP as necessary and forward it to the NPIP/Poultry Program staff and NCAHEM. They will review it for completeness and add national information as needed.

d. NPIP/Poultry Program staff will distribute the amended SITREP to the NAI distribution list.

e. The NAI distribution list consists of:

1. The Deputy Administrator and his or her Chief of Staff
2. The Associate Deputy Administrators and their Chiefs of Staff
3. Regional Directors
4. Assistant Regional Directors
5. Director and Assistant Directors of Aquaculture, Swine, Equine, and Poultry Health Programs
6. National Center for Import and Export (NCIE) Sanitary International Standards Team and Import/Export Units
7. Export Staff at exportsproducts@aphis.usda.gov
8. NVSL
9. NPIP/Poultry Program staff
10. NCAHEM Preparedness and Incident Coordination Staff
11. Directors of Legislative and Public Affairs
12. The AVIC in the affected area

f. The AVIC will forward notifications to the State animal health official and OSA in the affected State.

g. NVSL will notify the submitting laboratory and the NAI distribution list if the samples do not arrive in the expected time.

h. NVSL will notify the submitter and report sample test results to the NAI distribution list as these become available. Area, Region, and Program staff will update the SITREP through the process stipulated in Step 4 as the following laboratory diagnostic results become available, or at least twice weekly:

1. Matrix, H5, H7, N1 real-time reverse-transcriptase polymerase chain reaction (rRT-PCR) tests
2. H and N subtyping
3. Cleavage site sequence (LPAI or HPAI) and/or pathogenicity testing
4. Virus isolation

i. If laboratory results and clinical signs indicate an HPAI event, go to section B of this document, "HPAI Response."

j. If laboratory results and clinical signs or the absence of clinical signs are indicative of an H5/H7 LPAI event, go to section C of this document, "H5/H7 LPAI (LPNAI) Response."

B. HPAI Response

HPAI response is described in 9 CFR part 53, VS Memorandum 580.4, and APHIS' National HPAI Response Plan.

C. H5/H7 LPAI (LPNAI) Response

The type of response and sequence of actions will depend on whether commercial poultry or birds in the LBMS are affected.

(1) Consistent with the State's H5/H7 LPAI Initial State Response and Containment Plan (ISRCP) per 9 CFR 56.10, the State's Standing Emergency Disease Management Committee may be activated. The Committee may not be activated for every H5/H7 LPAI detection in wholesale distribution or retail live bird markets in the LBMS (these may be considered to be "common findings" that do not require immediate notification to OIE), but communication and decisionmaking for the response will be ongoing between APHIS, the State, and the affected industry as described in the LBMS Uniform Standards.

(2) Aspects of the response to be addressed by officials include the following:

a. Quarantine and movement controls

b. Depopulation or controlled marketing

c. Vaccination options

d. Cleaning and disinfection and disposal (a compliance agreement will be prepared by the Area Office with assistance by the Regional Office)

e. Indemnity (see Appendices 3, 4, and 5)

f. Enhanced surveillance (a cooperative agreement package will be prepared by the State Cooperator and submitted to the Regional Office through the Area Office)

g. Epidemiological investigation: if an LPNAI event occurs in commercial poultry or the LBMS with one or more States involved, an epidemiological investigation will be conducted per 9 CFR part 56 and the LBMS Uniform Standards, respectively. The Regional Poultry Epidemiologist will lead the investigation with assistance from the NPIP/LBMS Poultry Program staff, the Area Office(s), and the respective State animal health authorities.

(3) In the event of an H5/H7 LPAI outbreak the State may request Federal assistance for any of these actions per 9 CFR 56.2(c) as follows:

a. The State will write to the AVIC requesting Federal assistance.

b. The AVIC will contact the Regional Office.

c. The Regional Office will call APHIS staff (NPIP/Poultry Program staff and NCAHEM) and the Area Office and will include the State animal health official or OSA in subsequent conference calls.

d. The Regional Office will make subsequent APHIS, State, and industry (stakeholder) conference calls promptly and expediently for local level response activities.

e. Area Office, Regional Office, and NPIP/Poultry Program staff will work with the State and affected industry to make decisions that are consistent with 9 CFR parts 145, 146, and 56 and with the LBMS Uniform Standards. They also will use the ISRCP as guidance. When making these decisions, they will consider factors of cost, time, availability, and the risks associated with movement.

f. The Regional Office will approve requests for indemnity with concurrence from NPIP/Poultry Program staff.

(4) The Area Office will update the NAI SITREPs and epidemiological investigation reports as new information becomes available, or at least twice weekly, in consultation with the OSA or State animal health official. The Area Office will forward these reports to the Regional Office. The Regional Poultry Epidemiologist will work with NPIP/Poultry Program staff and NCAHEM to review the reports for completeness and to add any relevant information. NPIP/Poultry Program staff distributes the SITREPs and epidemiological investigation reports to the NAI distribution list and the NCIE Directors.

(5) Event closure:

a. The NVSL reports the final confirmed results to the submitter and the NAI distribution list.

b. The Area Office finalizes the SITREP and epidemiological investigation reports in collaboration with the Regional Epidemiologist. These reports include information on quarantine, depopulation or controlled marketing, cleaning and disinfection, indemnity, and any enhanced surveillance activities.

c. The Regional Office sends the final reports to NPIP/Poultry Program staff and NCAHEM for final review. NPIP/Poultry Program staff will send the final reports to the NAI distribution list.

d. The Regional Office will process requests for indemnity.

7. Inquiries

Please contact the Aquaculture, Swine, Equine, and Poultry health staff at (301) 851-3610 with any questions.

for Dr. John R. Clifford
Deputy Administrator

APPENDIX 1

SITUATION REPORT

FOR OFFICAL USE ONLY

INSERT DAY, DATE, and TIME

INSERT [UPDATE] 'SITREP' NUMBER

INSERT PREPARER'S NAME AND CONTACT INFORMATION

To: VS Leadership Team and NAI Distribution List

Regarding:
Summary Statement
Background
Epidemiology Report
Response Actions
NVSL Results

Current Significance:

Submitted by:

Current Trade Status:

APPENDIX 2

NAI Epidemiology Report
Prepared by:

I. Background information

At a minimum, please include the following background information:

A. Referral control number from EMRS
B. Date presumptive positive result was reported and date that sample was tested at APHIS-authorized laboratory
C. Name of APHIS authorized laboratory that tested sample
D. Date the sample was collected
E. Date the sample was sent to NVSL
F. Date the presumptive positive birds were delivered to the market or wholesale operation
G. Type of sample and type of test
H. Reason for sampling
I. County of premises where presumptive positive sample was collected
J. Species of bird from which each presumptive positive sample was collected
K. Number of birds on the premises by species
L. Type of flock and its purpose (breeding, production, backyard, other)
M. Number of birds tested (number of birds per sample if pooled)
N. Number of presumptive positive samples
O. NVSL confirmed laboratory test results (all)
P. Description of clinical signs
Q. Description of personnel involved

II. List of current actions for the incident

III. List of completed actions for the incident

At a minimum, please include the following operational response information as it becomes available:

A. Type of response - quarantine, sell down, depopulation, other
B. Date and method of depopulation or date of sell down
C. Date, method, and location of carcass disposal
D. Date of completion of cleaning and disinfection
E. Date, description, and results of environmental sampling after cleaning and disinfection
F. Date of quarantine release or market reopening
G. Trace out information:
    1. Markets: include wholesaler/distributor, hauler, producer, other
    2. Producers: include hatchery, distributors birds were sold to, haulers used, other premises owned by same company, etc.
    3. Backyard birds: include any bird movement into or out of the flock, any exhibitions where birds were shown, or auctions, small sales, etc., where birds were taken

IV. Detailed information on the epidemiology investigation

Include information on:

A. Each infected premises
B. Exposed and contact premises
C. Number of commercial and noncommercial premises involved
D. Description of surveillance zones established (if any)
E. Source of virus
F. Estimated time of infection
G. Description of enhanced surveillance activities

V. Diagram of the epidemiological links

Officials will submit an initial report to the Area Office when a presumptive positive H5/H7 is detected and will follow that with interim reports as significant information becomes available, or at least twice weekly. Officials will submit a final report to the Area Office when they have received all results, completed all operational responses, and closed the epidemiological investigation.

APPENDIX 3

General Criteria for H5 and H7 LPAI Indemnification in the LBMS

I. Requirement for indemnification: Any positive H5 or H7 specimen confirmed by the NVSL.

A. Even when the requirement is met, indemnity is not guaranteed, but Federal and State officials should discuss it as an option.

B. Presumptive positive H5 or H7 results from a NAHLN laboratory should initiate quarantine and, at the State's discretion, a possible sell-down of the affected premises, but eligibility for indemnity requires laboratory test confirmation by NVSL unless otherwise approved by VS.

II. Flocks or premises eligible for indemnity funds:

Live bird marketing system participants (markets, distributors, and producers) are eligible. Once the LPAI program is established in a given State, participants must comply with the Uniform Standards and all State regulations.

III. Fair market value at distributor/wholesale and retail market level:

A. This is the purchase price of the bird at wholesale if the bird is currently located at the retail market or the purchase price of the bird at production level if the bird is currently located at a wholesaler or distributor.

B. In addition to an inventory verified by State or Federal officials at the time of depopulation, valid documentation of purchase is required.

C. Alternatively, without receipts, authorized State or Federal officials will conduct a survey of relevant wholesalers to determine the value.

IV. Fair market value at production level and breeder birds:

A. The indemnity value of production (meat-type) birds is the expected or previous price the owner received from a wholesaler or retailer adjusted for the actual age or weight of the bird at the time of destruction.

B. Appraisal value of chicken meat-type breeder birds, at a minimum, is the same as commercial parent broiler breeder birds. Higher appraisal values for chicken meat-type breeder birds may be obtained if the owner can provide the necessary production and financial records required for determining value using an income appraisal approach. Minimum appraisal value of other types of breeder birds used in the LBMS shall be the price the producer receives for his or her adult birds based on receipts or other evidence of prices received. Higher appraisal values for other types of breeder birds may be obtained if the owner can provide the necessary production and financial records required for determining value using an income appraisal approach.

C. Appraisal value for all other birds will be determined either by APHIS-developed valuation lists or by official Federal or State appraising officials.

V. Decision to depopulate:

A. The State makes this decision in consultation with industry, stakeholders, and VS. In each incident, VS must concur with the State approach to controlling H5/H7 LP AI before indemnity funds can be distributed.

B. Depopulation is not the only possible response to H5/H7 LPAI. Quarantine or controlled marketing or quarantine and vaccination (for production flocks only) also may be appropriate.

VI. Indemnity funds (as per 9 CFR 56) may be used for 100 percent of the appraised value of depopulated birds and the costs of depopulation, disposal, cleaning and disinfection.

APPENDIX 4

A. H5/H7 LPAI Indemnity – Live Bird Marketing System (LBMS)

CFR	Percentage	Items	Recipient	Clearance	Instrument for Indemnity
9 CFR 56.8	100% of fair market value[1]	Destruction and disposal of **breeder and production** poultry infected or exposed to H5/H7 LPAI **(suppliers to LBMS)**	Grower	Region and staff	Compliance agreement/ appraisal
LBMS Uniform Standards (revised August 2008)[1]	100% fair market value of bird at wholesale[1]	Destruction and disposal of poultry in **distributor and retail markets** that are infected or exposed to H5/H7 LPAI	Distributor or market owner	Region and staff	Compliance agreement/ appraisal
LBMS Uniform Standards (revised August 2008)[1]	100%[1]	Cleaning and disinfecting of premises, conveyances, and materials	Grower/ distributor or market owner	Region and staff	Compliance agreement
9 CFR 56.2 (a)(1)	100%	Surveillance and monitoring	State	Region and staff	Cooperative agreement

[1] LBMS Uniform Standards (revised August 2009):
Requirements for indemnification: Any positive H5 or H7 specimen confirmed by the NVSL. Even when the requirement is met, indemnity is not guaranteed, but Federal and State officials should discuss it as an option. Presumptive positive H5 or H7 results from a NAHLN laboratory should initiate quarantine and, at the State's discretion, a possible sell-down of the affected premises, but eligibility for indemnity requires laboratory test confirmation by NVSL unless otherwise approved by VS.
Indemnity funds (9 CFR 56) may be used for 100 percent of the appraised value of depopulated birds and the costs of depopulation, disposal, cleaning, and disinfection.

B. H5/H7 LPAI Indemnity – National Poultry Improvement Plan (NPIP) Commercial Table-Egg Layers and Meat-Type Chickens and Turkeys; Egg-and Meat-Type Chicken and Turkey Breeding Birds

	CFR	Percentage		Items	Recipient	Clearance	Instrument for Indemnity
1	9 CFR 56.2 (a)(2)	100%[1]	25%[2]	Transfer of vaccine	Cooperating State Agency	Region and staff	Cooperative agreement
2	9 CFR 56 (a)(3)	100%[1]	25%[2]	Vaccine administration	Cooperating State Agency	Region and staff	Cooperative agreement
3	9 CFR 56.8	100%[3]	25%[4]	Destruction and disposal of poultry infected or exposed to H5/H7 LPAI[5]	Contract grower/ owner	Region	Compliance agreement/ flock plan/ appraisal
4	9 CFR 56.4 (c)	100%[3]	25%[4]	Cleaning and disinfection of premises, conveyances, and materials	Contract grower/ owner	Region	Compliance agreement/ flock plan
5	9 CFR 56.2 (a)(1)	100%[1]	25%[2]	Surveillance and monitoring	Cooperating State Agency	Region and staff	Cooperative agreement
6	9 CFR 56.4 (b)	100%[3]	25%[4]	Destruction of eggs[5]	Contract grower/ owner	Region	Compliance agreement/ flock plan/ appraisal

[1] Cooperating State Agency that participates in the NPIP diagnostic surveillance program for H5/H7 LPAI, as described in 9 CFR 146.14, and has an ISRCP for H5/H7 LPAI approved by APHIS, as described in 9 CFR 56.10.

[2] Cooperating State Agency that does not participate in the NPIP diagnostic surveillance program for H5/H7 LPAI, as described in 9 CFR 146.14, or does not have an ISRCP for H5/H7 LPAI approved by APHIS, as described in 9 CFR 56.10.

[3] The infected or exposed poultry are associated with a flock or slaughter plant that participates in the NPIP's U.S. H5/H7 Avian Influenza Monitored program:

1. Table-egg layers from a premises that has 75,000 or more birds (9 CFR 146.33(b));
2. Meat-type chickens associated with a slaughter plant that slaughters 200,000 or more per week (9 CFR 146.33(b));
3. Meat-type turkeys associated with a slaughter plant that slaughters 2 million or more per 12 months (9 CFR 146.43(b)); or egg-and meat-type chicken breeding flocks that participate in the U.S. Avian Influenza Clean (9 CFR 145.23(h), 145.33(l), 145.73(f), and 145.83(g)); turkey breeding flocks that participate in U.S. H5/H7 AI Clean (9 CFR 145.43(g)) of the NPIP, are

located in a State that participates in the NPIP diagnostic surveillance program for H5/H7 LPAI (9 CFR 146.14) and has an ISRCP for H5/H7 LPAI that is approved by APHIS (9 CFR 56.10).

[4] The infected or exposed poultry are associated with a flock or slaughter plant that does not participate in the NPIP's U.S. H5/H7 Avian Influenza Monitored program:

1. Table-egg layers from a premises that has 75,000 or more birds (9 CFR 146.23(b));
2. Meat-type chickens associated with a slaughter plant that slaughters 200,000 or more per week (9 CFR 146.33(b));
3. Meat-type turkeys associated with a slaughter plant that slaughters 2 million or more per 12 months (9 CFR 146.43(b)); or egg-and meat-type chicken breeding flocks that do not participate in the U.S. AI Clean program of the NPIP (9 CFR 145.23(h), 145.33(I), 145.73(f), and 145.83(g)); or turkey breeding flocks that do not participate in U.S. H5/H7 AI Clean (9 CFR 145.43(g)) of the NPIP, or are located in a State that does not participate in the NPIP diagnostic surveillance program for H5/H7 LPAI (9 CFR 146.14) or does not have an ISRCP for H5/H7 LPAI that is approved by State and Federal officials.

[5] When poultry or eggs have been destroyed pursuant to this part, the Administrator may pay claims to any party with which the owner of the poultry or eggs has entered into a contract for the growing or care of the poultry or eggs. The indemnity the Administrator may pay to such a party is explained in 9 CFR 56.8(a-d).

C. HPAI Indemnity

CFR	Percentage	Items	Recipient	Clearance	Instrument for Indemnity
9 CFR 53.8	**Up to 100 percent** of the appraised fair market value of the animals, the expense of destruction, the costs for disposition, and the value of the materials destroyed.	Destruction and disposal of poultry infected with or exposed to HPAI and materials that are required to be destroyed because of contamination or exposure to HPAI.	Owner (grower added)	Region NCAHEM DA May require request for CCC or other emergency funding	Compliance agreement/ appraisal
9 CFR 53.7 9 CFR 53.2	Expenses incurred in connection with such cleaning and disinfection shall be shared according to the agreement reached with the State in which the work is done.	Disinfection of premises, conveyances, and materials	Owner (grower added)	Region NCAHEM DA May require request for CCC or other emergency funding	Compliance agreement

APPENDIX 5

Low Pathogenicity Avian Influenza Indemnity Request

Report of Estimated Indemnity

State:	Market/Distributor/Flock Owner:
City:	County:
Date of Report:	Report Prepared By:

1. Referral Control#:	2. Reason for Test*:
3. Date of Presumptive Positive:	4. # Birds in Flock/Market
5. Date of Confirmed Positive:	6. Number of H5 Positives:
7. Number Tested:	8. Number of H7 Positives:
9. Participant in LPAI Program? Yes No	10. State Response Plan in Place? Yes No
11. Date of Appraisal:	12. Name of Appraiser:
13. Estimated Indemnity: $	14. Estimated Depopulation Costs: $
15. Estimated C&D Costs: $	16. Estimated Disposal Costs: $

*Reason for Test: Routine Surveillance Trace Out Sick Bird Call Other (Describe Reason)

AVIC Signature_____Date_____

Regional Office Use Only:

Priority: Indemnity: ____High ____Medium ____Low	Reason:	LBMS/Backyard/Commercial _____

Regional Epidemiologist Signature_____Date_____

Budget Approval_____Date_____Amount_____Acct. Code_____

Regional Officer Approval_____Date_____

Report of Actual Indemnity, Cost of Destruction, Transportation, and Disposal

Date of Report:	Report Prepared By:
17. Epi Report Received: Yes No	18. Date Last + Flock Depopulated:
19. Date of C&D:	20. Actual Indemnity: $
21. USDA Cost of C&D: $	22. USDA Cost of Destruction: $
23. USDA Cost of Disposal: $	

AVIC Signature_____Date_____

Actual Indemnity Break-Out

Poultry Type	Number	Value/Bird	Subtotal
		TOTAL:	**$**

United States Department of Agriculture
Marketing and Regulatory Programs
Animal and Plant Health Inspection Service
Veterinary Services

Procedures for Flock Plans, Compliance Agreements, and Indemnity Claims in Cases of H5/H7 Low Pathogencity Avian Influenza Infection in Poultry

1. Purpose and Background

Title 9 of the *Code of Federal Regulations* (9 CFR) part 56 provides direction to States participating in the National Poultry Improvement Plan (NPIP) H5/H7 low pathogencity avian influenza (LPAI) voluntary control program. The regulations outline the procedures to receive indemnity for the destruction and disposal of poultry and eggs and the costs of cleaning and disinfection after confirmation of infection with or exposure to an H5/H7 LPAI virus. This document provides specific guidance on the procedures and documentation required to receive indemnity and ensures a common and consistent approach in the payment of indemnity for LPAI claims throughout the United States.

On September 26, 2006, the Animal and Plant Health Inspection Service (APHIS) published an interim rule, "Low Pathogencity Avian Influenza; Voluntary Control Program and Payment of Indemnity." The rule added parts 56 and 146 to title 9 of the CFR. It also established the NPIP H5/H7 LPAI program in commercial poultry and set conditions for indemnity for poultry infected or exposed to H5/H7 LPAI.

For poultry owners within a State to be eligible for indemnity under part 56, the NPIP Official State Agency (OSA) must have an APHIS-approved Initial State Response and Containment Plan (ISRCP) in place. The ISRCP provides detailed procedures for responding to an H5/H7 LPAI event in the State. More information on the development and approval of ISRCPs can be found in the Veterinary Services (VS) Guidance 8601.1, "Development and Approval of Initial State Response and Containment Plans for H5/H7 Low Pathogencity Avian Influenza."

The regulations at 9 CFR 56.4 describe the procedures for determining indemnity amounts for destruction and disposal of poultry and eggs and the cleaning and disinfection of premises, conveyances, and materials that came into contact with poultry infected with or exposed to H5/H7 LPAI.

Part 56 and the following procedures apply to all domesticated poultry infected with H5/H7 LPAI, including commercial flocks, live bird marketing system participants, upland game bird and waterfowl farms, and backyard flocks. States are responsible for requesting Federal assistance under part 56 if needed in the event of an outbreak of H5/H7. Indemnity is not guaranteed, even if States meet indemnification requirements, but depends on the availability of funds.

This guidance document represents the Agency's position on this topic. It does not create or confer any rights for or on any person and does not bind the U.S. Department of Agriculture (USDA) or the public. The information it contains may be made available to the public. While this document provides guidance for users outside VS, VS employees may not deviate from the directions provided herein without appropriate justification and supervisory concurrence.

2. Document Status

A. Valid until July 26, 2016.

B. This is a new document.

3. Reason for Reissuance

Not applicable.

4. Authority and References

A. Authorities (*Code of Federal Regulations*):
7 CFR 371.4
9 CFR part 56
9 CFR 71.10
9 CFR part 146

B. References:
VS Guidance 8601.1, "Development and Approval of Initial State Response and Containment Plans for H5/H7 Low Pathogencity Avian Influenza" (released concurrently with this document)
VS Guidance 8602.1, "Response, Communications, and Investigation of Notifiable Avian Influenza (NAI) in Domestic Poultry," (7/11/12)
VS Form 1-23, "Appraisal and Indemnity Claim for Animals Destroyed/Materials Destroyed" (5/84)

5. Audience

VS employees, other affected Federal and State agencies, and affected members of the public.

6. Guidance

A. Confirmation and Response to H5/H7 LPAI

LPAI infection must be confirmed by the National Veterinary Services Laboratories (NVSL). VS Guidance 8602.1," Response, Communications, and Investigation of Notifiable Avian Influenza (NAI) in Domestic Poultry" provides guidance on response activities that should be followed during a LPAI event.

1) After an H5/H7 presumptive positive result is disclosed and while NVSL confirms, the Area Office or Area Veterinarian in Charge (AVIC) will contact the appropriate Regional epidemiology officer to discuss the potential need and eligibility of the affected flock for indemnity. The Region will also discuss the potential need for indemnity with VS poultry program staff.

2) The State will consult with industry, stakeholders, and VS regarding whether to depopulate. VS must concur with the State approach to controlling H5/H7 LPAI before it authorizes indemnity funds. Destruction of poultry is not the only possible response to H5/H7 LPAI; quarantine with controlled marketing or quarantine with vaccination also may be appropriate. VS encourages the use of controlled marketing in the absence of virus, or when the specific situation allows time to achieve a virus-negative status.

3) A flock plan will be developed for **all** premises with confirmed LPAI infection or exposure. (see Flock Plan template – Appendix A)

   a. The flock plan sets out the steps to eradicate H5/H7 LPAI from a flock and to prevent its spread to other flocks. It also specifies the procedures required to get the facility back into production, including requirements for quarantine release.

   b. The flock plan will include cleaning and disinfection requirements, but does not require cost estimates. The flock plan must be developed according to the requirements in 9 CFR 56.5 and the State ISRCP.

   c. The flock plan must be signed by the owners, the OSA, and the AVIC before depopulation of the infected or exposed poultry, with copies promptly provided to the Regional Office and VS poultry program staff.

4) A compliance agreement must be developed if depopulation, disposal, or cleaning and disinfection will be performed by personnel other than Federal or State officials or the OSA, and indemnity will be requested for those activities.

   a. A compliance agreement is separate from the flock plan. The flock plan specifies the necessary procedures for the premises to resume normal production; a compliance agreement indicates what tasks will be completed, who will be responsible for each task, and how much the work is expected to cost. A compliance agreement is comparable to a statement of work produced for a contract.

   b. A signed compliance agreement is required before beginning any work for which indemnity funds will be requested.

B. Appraisal and Initial Request for Indemnity

Indemnity for the destruction of poultry and eggs infected with or exposed to H5/H7 LPAI will be based on the fair market value of the poultry as determined by appraisal. The appraisal will be conducted by a designated VS official appraiser and a designated State official appraiser jointly, or, if VS and the State authorities agree, by either a VS official appraiser or a State official appraiser alone. Poultry appraisals must be reported on VS forms as set forth in this document.

1) The appraiser will consult with the Area and Regional offices to determine the fair market value of the poultry and eggs that will be destroyed.

a. For commercial poultry, these values will be determined using the current APHIS appraisal calculator values which are available through the Regional epidemiology officer.

b. For birds to be indemnified within the live bird marketing system (LBMS):

1. Appraisal of birds in a retail market will be based on the wholesale purchase price of the birds, not the price at which the birds are being sold in the market.

2. Appraisal of birds located at a wholesaler or distributor premises will be based on the purchase price of the birds at the production level.

3. Appraisal of birds located at an LBMS producer premises will be based on the fair market value of the birds as determined by current wholesale value considering age, class of bird, and production time.

4. While receipts are the best method of valuing birds within the LBMS, if receipts are not available, a survey of relevant wholesalers should be conducted to determine comparable value.

c. For specialty flocks, backyard flocks, or other flocks that need individualized appraisal support, the Regional epidemiology officer will contact the compensation specialist at the Centers for Epidemiology and Animal Health to establish an appropriate range of values for the birds. This information will be sent to the Area Office to help the appraiser.

2) The appraiser will complete VS Form 1-23 with the animal and egg inventory and value per head/egg as well as an appraisal report that explains how the values were determined. The appraiser, owner, and all mortgagees must sign this form to indicate agreement with the appraisal amount.

3) Initial Indemnity Request Package:

To be eligible for indemnity under 9 CFR 56, appraisals of poultry must be signed by the Regional Office before destruction of the poultry, unless the owners, the OSA, and the Regional Office agree in writing that the poultry be destroyed immediately.

a. A copy of the completed and signed VS Form 1-23 (Appraisal and Indemnity Claim Form), the Appraisal Report, the signed flock plan, the LPAI Indemnity Request Form (Appendix B) and all supporting documentation (the indemnity request package) should be submitted to the Area Office to send to the Regional Office for approval. The appraiser should keep all copies of original VS Forms 1-23 until depopulation is complete.

b. The LPAI Indemnity Request Form also requires estimated costs for depopulation, disposal, and cleaning and disinfection. These costs are

expected to be estimates; however, documentation indicating how the estimates were calculated should be attached to the indemnity request package before submission to the Regional Office.

c. The producer, OSA, and VS should decide who will perform the tasks outlined in the forms and their approximate costs. This information will be used to develop a compliance agreement.

C. Development of a Compliance Agreement

The signatories should start developing the compliance agreement as soon as an H5/H7 LPAI exposure or infection is considered highly likely. The agreement can be developed and signed in parts. For example, if the producer is planning to dispose of depopulated poultry by in-house composting, this part of the compliance agreement can be developed and signed very quickly, while the portion of the agreement for cleaning and disinfection is developed.

The compliance agreement should be specific enough for costs to be accurately estimated. Costs should be listed by activity. Suggested activities that should be included in a compliance agreement for cleaning and disinfecting include:

1) Insecticide and rodenticide application (chemicals must be approved by VS) – cost of the materials, labor cost per hour, and number of hours to complete.

2) Closing or heating of building – utility cost for the number of days in the billing cycle activities were performed.

3) Composting – labor cost per hour and number of hours to complete, cost of any additional carbon sources needed, fuel for equipment, and any equipment rental required.

4) Litter (bedding material)/compost removal or disposal – labor cost per hour and number of hours to complete, fuel for equipment, and any equipment rental required.

5) Equipment disassembly/reassembly – labor cost per hour and number of hours to complete.

6) Dusting/dry cleaning – labor cost per hour and number of hours to complete, fuel for equipment, and any equipment rental required.

7) Wet cleaning – labor cost per hour and number of hours to complete, fuel for equipment, and any equipment rental required. Compliance agreements should specify what items and areas are to be wet cleaned. Only areas with gross organic contamination that cannot be cleaned using dry processes should be wet cleaned. Power washers should be used with caution as they can damage surfaces and equipment. Indemnity will not cover costs associated with damage caused by irresponsible cleaning techniques.

8) Drying – utility cost for the number of days in the billing cycle activities were performed.

9) Disinfection – cost of the materials, labor cost per hour, and number of hours to complete. Disinfectants used must comply with 9 CFR 71.10 and demonstrate efficacy for AI viruses. The Regional Office must approve the proposed disinfectants and application methods to ensure that they are economical and efficacious in controlling AI in the specific structure and materials to be disinfected. Disinfectants should be applied as specified by the manufacturer. If a power washer is used to apply disinfectant, care should be taken not to damage the building and other materials.

10) Litter replacement – cost of litter, labor cost per hour and number of hours to complete, fuel for equipment, and any equipment rental required.

This list is an example of the types of activities performed based on the cleaning and disinfection requirements in 9 CFR 56.5. Actual processes will depend on the requirements in the State ISRCP and the type of facility being cleaned.

The compliance agreement should be written with guidance from the OSA and VS. Templates for compliance agreements and documents to track costs for indemnity submissions are available as appendices to this document. (See Appendix C for a sample compliance agreement, and Appendices D and E (in a separate Excel spreadsheet) for accompanying cost estimate and cost reporting templates.)

D. Indemnity Claims for Depopulation of Poultry and/or Eggs

1) Approval of Indemnity Request Package

Once the Regional Office approves the indemnity request, the number of animals indicated on the VS Form 1-23 may only be changed by the appraiser if the head count at the time of depopulation differs from the previous inventory. Both the appraiser and the owner must initial and date any changes to the inventory. The price per head cannot be changed without resubmission of the entire package.

2) Destruction of Poultry and Eggs

a. Poultry and eggs must be destroyed in accordance with the State's ISRCP and in consultation with VS.

b. Depopulation of poultry should be conducted by State or Federal personnel, or under their direct supervision.

c. All parties must sign the compliance agreement before depopulation so the producer can be reimbursed for the indemnifiable poultry.

d. Once the poultry have been destroyed and the final inventory count appears on VS Form 1-23, the original form should be submitted to the Regional Office for immediate payment.

3) Indemnification of the OSA

a. VS may indemnify the OSA for costs associated with a confirmed H5/H7 LPAI infection under a cooperative agreement.

b. Reimbursable costs include those incurred by the OSA for depopulation, disposal, cleaning and disinfection, and area-enhanced surveillance in accordance with the State's ISRCP.

c. The OSA should contact the Area Office as soon as it determines that a cooperative agreement will be requested for information on developing a work plan, the allowable costs, and the records that will be required for reimbursement.

E. Indemnity Claims for Disposal, Cleaning, and Disinfection

1) As stated in part 56, indemnity for disposing of poultry and eggs and cleaning and disinfecting premises, conveyances, and materials that came into contact with poultry infected with or exposed to H5/H7 LPAI will be based on receipts or other documentation maintained by the claimant verifying expenditures for activities authorized by the part.

2) In the case of materials, if the cost of cleaning and disinfection would exceed the value of the materials, or cleaning and disinfection would be impractical, indemnity for the destruction and disposal of the materials would be based on the appraised fair market value of those materials. Materials will be appraised by a designated VS official appraiser and a designated State official appraiser jointly, or, if VS and State authorities agree, by either a VS official appraiser or a State official appraiser alone.

3) Any disposal of poultry and eggs and cleaning and disinfection of premises, conveyances, and materials for which indemnity is requested must be performed under a compliance agreement signed by the claimant, the OSA, and VS. All parties must sign the agreement before starting any activities for which indemnity is claimed. Any work performed before the agreement is signed will not be eligible for reimbursement.

4) Cleaning and Disinfection

a. Before starting cleaning and disinfection, the premises to be cleaned should be closely inspected by the producer, OSA officials, and VS to determine if there are materials present for which cleaning and disinfection would be impractical such as curtains or light traps (devices that prevent light from entering poultry barns around fans or other fixtures).

b. Any items identified as impractical to clean and disinfect must be appraised and the fair market values and disposal costs indicated in the compliance agreement.

c. If, during cleaning and disinfection, items not identified during the inspection are found impractical to clean or are becoming damaged during normal cleaning, cleaning should be halted. The producer should contact the OSA or VS to arrange for an immediate inspection and appraisal.

d. If all parties agree, the compliance agreement can be amended to cover the fair market value and disposal costs for these items. Items should not be disposed of until all parties sign the compliance agreement amendment.

e. Damage caused by cleaning may not be covered by indemnity, but will be reviewed on a case-by-case basis to determine if repairs would be eligible for indemnity.

5) If at any time during cleaning and disinfection or disposal it becomes clear that the amounts in the initial compliance agreement for a specific activity were underestimated by more than 10 percent, the claimant should immediately contact the OSA or VS and submit an amendment to the compliance agreement. The amendment should include justification for any additional amounts requested. VS will not pay more than 10 percent above the estimates for activities in the compliance agreement if an amendment is not submitted and signed at the time of the activity.

6) VS will review indemnity claims for cleaning, disinfection, and disposal to ensure that all expenditures relate directly to activities described in 9 CFR 56.5 and in the ISRCP described in 9 CFR 56.10.

F. Routing of Documents

Completed compliance agreements must be signed by the producer, the OSA (State veterinarian), the AVIC, and the Regional Director before starting any work for which indemnity is to be claimed under the agreement.

Once work has been completed, receipts and documentation detailing cleaning, disinfection, and disposal activities specified in the compliance agreement should be forwarded to the Area Office with the final compliance agreement for the AVIC's review and approval. All documentation should be submitted to the Area Office no later than 30 days after the formal quarantine release of the infected or exposed premises. Once approved by the AVIC, the entire package should be submitted to the Regional Office for final approval and payment. (Please see Appendix E for a suggested template for the documentation of costs submitted for reimbursement.)

G. Unreimbursable Indemnity Claims

Indemnity claims submitted for the following costs will not be approved:

1) Costs for indemnity for birds depopulated before receiving written approval from the Regional Office.

2) Costs for disposal, cleaning, or disinfection incurred before receipt of a signed compliance agreement.

3) Costs not approved by the signed compliance agreement or its amendments.

4) Damage to property by personnel performing the work in the compliance agreement, unless they are Federal employees or contractors paid directly through Federal contracts.

5) Work not specified in the State ISRCP. Any deviation from the accepted ISRCP must be authorized in writing by APHIS and the OSA.

6) Work not associated with LPAI exposure or infection.

7) Infection or exposure caused by actions not in accordance with part 56, the ISRCP, or the signed flock plan.

7. Inquiries

Please contact VS poultry staff at (301) 851-3524 with any questions.

Dr. John R. Clifford
Deputy Administrator

Attachments: Appendices A-C

Appendix A
Sample Flock Plan Template

Flock Plan
H5/H7 LPAI Depopulation, Controlled Marketing, Disposal, Cleaning and Disinfection Procedures for Commercial Premises in {insert State}

This is a written flock management agreement developed between USDA, APHIS, Veterinary Services (VS) and the {insert Cooperating State Agency}, with input from (Owner) _____ and (Producer/Grower) _____. {If applicable}

{Remove sections that do not apply}

Depopulation will be the primary responsibility of _____ who may be reimbursed for certain expenses before depopulation based on the fair market value of the poultry, as determined by an appraisal. Appraisals of poultry must be signed by the owners of the poultry before the destruction of the poultry, unless the owners, VS, and {insert Cooperating State Agency} agree that the poultry may be destroyed immediately.

Controlled marketing will be the primary responsibility of _____. Poultry moved for controlled marketing will not be eligible for indemnity.

Disposal will be the primary responsibility of _____, who may be reimbursed for certain expenses before disposal.

Cleaning and disinfection of premises, conveyances, and materials will be the primary responsibility of _____, who may be reimbursed for certain expenses based on receipts or other documentation maintained by the claimant verifying expenditures for cleaning and disinfection activities.

Quarantine and Enhanced Biosecurity:

{Insert details of the quarantine placed on the premises as well as biosecurity measures that must be followed for the duration of the quarantine period, such as policies for visitors, personnel, deliveries, carcass disposal, etc.}

Requests for Indemnity for Disposal, Cleaning, and Disinfection Activities

Any disposal of poultry and eggs and cleaning and disinfection of premises, conveyances, and materials for which indemnity is requested must be performed under a separate compliance agreement between the claimant, the Cooperating State Agency, and VS. The compliance agreement must be signed by all parties before the start of any of the activities for which

indemnity is claimed. Any work performed before the compliance agreement is signed will not be eligible for reimbursement.

The quarantine will be lifted and restocking allowed after the following procedures have been completed:

{Remove sections that do not apply}

Depopulation
The affected premises will be depopulated in a timely manner. Workers will be fit tested and medically approved before entering the farm and will don appropriate personal protective equipment. Biosecurity will be maintained using a clean area and dirty area, to be established before depopulation and disposal start. An aerial photo of the affected premises may help determine the location of certain equipment used in the process.

Poultry will be depopulated using _____. Personnel from _____ will conduct the process. Personnel from _____ will supervise the process. Depopulation must be conducted under the direct supervision of State or Federal personnel.

Controlled Marketing
Poultry infected with or exposed to H5/H7 LPAI must not be transported to a slaughter plant or market for controlled marketing until 21 days after the acute phase of the infection. Within 7 days before slaughter, each flock moved for controlled marketing must be tested for H5/H7 LPAI and found to be free of the virus. {Insert testing procedures to be used here; note that antigen capture is not an appropriate test to determine virus freedom} Poultry moved for controlled marketing will not be eligible for indemnity; however, costs related to cleaning and disinfection of premises, conveyances, and materials that came into contact with poultry that are moved for controlled marketing will be eligible for indemnity.

{Insert biosecurity measures for load-out and transport (i.e. end-of-day slaughter, truck routes to avoid other poultry premises, etc.) and cleaning and disinfection procedures for conveyances here}

Disposal of Destroyed Poultry and Eggs
The destroyed birds and eggs within the poultry houses will be disposed of by {insert disposal method} with the concurrence of VS, {insert Cooperating State Agency}, and {insert local environmental regulatory agency} following the procedures below.

{Insert carcass disposal procedures as specified in the Initial State Response and Containment Plan (ISRCP) and appropriate to the facility. Include cleaning and disinfection requirements for conveyances.}

Preparation for Cleaning and Disinfection

{Insert pre-cleaning and disinfection procedures as specified in the ISRCP and appropriate to the facility including heating, closing of the buildings, rodenticide and insecticide application, cleaning of feathers and debris from the outside of the facility, and, if applicable, carcass composting procedures}

Do not clean out the house or move or spread litter until any H5/H7 LPAI virus that may have contaminated the manure and litter is inactivated, as determined by {insert Cooperating State Agency} and in accordance with {insert appropriate section of ISRCP}.

{Insert disposal procedures as specified in the ISRCP and appropriate to the facility including procedures for removing and disposing of litter, compost, feed, and any other organic materials as well as cleaning and disinfection of conveyances}

Destruction and Disposal of Materials

In the case of materials for which the cost of cleaning and disinfection would exceed the value of the materials or for which cleaning and disinfection would be impractical for any reason, the destruction and disposal of the materials must be conducted in accordance with the ISRCP and in accordance with VS Guidance 8601.1. Prior VS approval is required for destruction of materials for which indemnity will be claimed.

Cleaning and Disinfection

Before commencing cleaning and disinfection procedures, the premises to be cleaned should be closely inspected with the producer, officials from the Cooperating State Agency, and VS to determine if there are materials present for which cleaning and disinfection would be impractical (such as curtains or light traps). Any items identified as impractical to clean and disinfect must be appraised and the fair market values and disposal costs determined. If during the cleaning and disinfection process items not identified during the inspection are found to be impractical to clean or are becoming damaged during normal cleaning processes, cleaning should halt. The Cooperating State Agency or VS should be contacted to arrange for an immediate inspection and appraisal of these items.

Cleaning and washing should ensure that all materials and substances contaminated with H5/H7 LPAI virus, such as manure, dried blood, and other organic materials, are removed from all surfaces.

{Insert cleaning procedures as specified in the ISRCP and appropriate to the facility. Note that wet cleaning or pressure washing is not required in all cases and cleaning procedures should be developed for each facility based on the facility construction, weather, and amount of organic contamination. The procedures listed here should specify what items and areas are to be wet cleaned. Only areas with gross organic contamination that cannot be cleaned using dry

processes should be wet cleaned. Power washers should be used sparingly and with caution as damage to surfaces and equipment can result.}

Disinfection of premises and materials: When cleaning has been completed and all surfaces are dry, all interior surfaces of the structure should be saturated with a disinfectant authorized in 9 CFR 71.10(a) and approved by the VS Regional Director. Disinfectants should be applied as specified by the manufacturer. If the manufacturer specifies the use of a power washer to apply disinfectant, care should be taken not to cause damage to the building and other materials. Apply disinfectant to all surfaces, making sure that the disinfectant gets into cracks and crevices. Pay special attention to automatic feeders and other closed areas to ensure adequate disinfection. {Insert specific disinfection procedures as specified in the ISRCP and appropriate to the facility here}

Cleaning and disinfection of conveyances: Clean and disinfect all trucks and vehicles used in transporting affected poultry or materials before soil dries in place. Both exterior surfaces, including the undercarriage, and interior surfaces, including truck cabs, must be cleaned. The interior of truck cabs should be washed with clean water and sponged with a disinfectant authorized in 9 CFR 71.10(a) and approved by the VS Regional Director. Manure and litter removed from these vehicles should be handled in a manner similar to that described in 9 CFR 56.5 (d)(2)(i). {Insert specific disinfection procedures as specified in the ISRCP and appropriate to the conveyances here.}

Surveillance of Control/Monitoring Zones, Contact Surveys, and Movement Restrictions:

{Insert surveillance plan as specified in the ISRCP and appropriate to the location and type of facility}

Activities after Cleaning and Disinfection

Premises should be checked for virus before repopulation in accordance with the ISRCP. This will include negative environmental sampling after cleaning and disinfection and completion of the surveillance procedures described above. {Insert specific environmental sampling, down-time, and inspection requirements as specified in the ISRCP and appropriate to the premises here.}

The premises may not be restocked with poultry until the quarantine is lifted and written approval for restocking is received from {insert Cooperating State Agency}.

Producer/Grower:

Address of Affected Facility:

Owner Name:

Signature Producer/Grower Representative: _____ Date: _____

Signature Emergency Management: _____ Date: _____

Signature State Veterinarian: _____ Date: _____

Signature USDA APHIS VS {insert Area} AVIC: _____ Date: _____

Signature USDA APHIS VS Regional Director: _____ Date: _____

Appendix B
Low Pathogenicity Avian Influenza Indemnity Request Form

Report of Estimated Indemnity:

State:	Market/Distributor/Flock Owner:
City:	County:
Date of Report:	Report Prepared by:

1. Referral Control #:	2. Reason for Test*:
3. Date of Presumptive Positive:	4. # Birds in Flock/Market:
5. Date of Confirmed Positive:	6. Number of H5 Positives:
7. Number Tested:	8. Number of H7 Positives:
9. Participant in LPAI Program? Yes No	10. State Response Plan in Place? Yes No
11. Date of Appraisal:	12. Name of Appraiser:
13. Estimated Indemnity: $	14. Estimated Depopulation Costs: $
15. Estimated C&D Costs: $	16. Estimated Disposal Costs: $
17. Estimated Supplemental Cooperative Agreement: $	

*Reason for Test: Routine Surveillance Trace Out Sick Bird Call Other (Describe Reason)

(Please include information on how estimates were derived as an attachment)

AVIC Signature _____Date_____

Regional Office Use Only:

Priority: __High __Medium __Low	Reason:	LBMS/Backyard/Commercial _____

Regional Epidemiologist Signature _____ Date_____
Budget Approval _____Date _____ Amount _____Acct. Code_____
Regional Officer Approval _____Date _____
Poultry Staff Officer Approval _____ Date_____

Report of Actual Indemnity, Cost of Destruction, Transportation, and Disposal:

Date of Report:	Report Prepared by:
17. Epi Report Received: Yes No	18. Date Last + Flock Depopulated:
19. Date of C&D:	20. Actual Indemnity: $
21. USDA Cost of C&D: $	22. USDA Cost of Destruction: $
23. USDA Cost of Disposal: $	24. Cooperative Agreement: $

AVIC Signature _____Date _____

Actual Indemnity Break-Out:

Poultry Type	Number	Value/Bird	Subtotal
		Total:	**$**

AVIC Signature ___________________________________**Date** __________________

Appendix C
Sample Compliance Agreement Template

Compliance Agreement
Between USDA, APHIS, Veterinary Services (VS), {Insert Cooperating State Agency}, and
{Insert producer/owner name}
For LPAI Indemnity Payment

A. USDA, APHIS, VS agrees to:

Review, approve, and submit for payment indemnity claims arising from low pathogencity avian influenza (LPAI) eradication and control activities, including reasonable costs associated with cleaning and disinfection of premises after removal of birds. Approval will be granted on the agreed-on associated costs and expenses indicated in this document as documented by the following: 1. Itemized invoices; 2. indemnity forms (VS Form 1-23); and 3. other requested and justifiable documentation of expenses as described in VS Guidance 8601.1.

B. Producer Responsibilities:

1. To have fully complied with the {insert State} Initial State Response and Containment Plan (ISRCP) for H5/H7 LPAI for depopulation, removal, and disposal of affected poultry and materials as well as cleaning and disinfection of affected premises as provided and approved by USDA, APHIS, VS {insert Area}, {insert Cooperating State Agency}, and the {insert State} Emergency Disease Management Committee.

2. To have a signed flock plan and compliance agreement in place before starting any activities for which indemnity will be claimed.

3. To have completed the procedures as described in the flock plan and this document and provided the requested documentation itemizing the associated costs.

4. To ensure that the premises is not repopulated until the quarantine is lifted and repopulation is authorized in writing by {insert State Agency}. This will include negative environmental sampling post cleaning and disinfection and approval of depopulation and disposal, cleaning and disinfection, and surveillance procedures described in the required flock plan.

5. If the above responsibilities are not met, indemnity payments may be withheld and the replacement flock on this premises may be ineligible for future indemnification.

C. Inspection of the Premises:

1. Before commencing cleaning and disinfection, the premises to be cleaned should be closely inspected with the producer, officials from the Cooperating State Agency, and VS to determine if there are materials present for which cleaning and disinfection would be impractical (such as curtains and light traps). Indicate date of inspection: {insert date}

2. Any items identified as impractical to clean and disinfect must be appraised and the fair market values and disposal costs indicated in the compliance agreement.

3. If during cleaning and disinfection items not identified during the inspection are found to be impractical to clean or are becoming damaged during normal cleaning processes, cleaning should be halted. The producer should contact the Cooperating State Agency or VS to arrange for an immediate inspection and appraisal.

4. If all parties agree, an amendment can be made to the compliance agreement to cover the fair market value and disposal costs for these items. Items should not be disposed of until the amendment to the compliance agreement is signed by all parties.

5. Damage caused by cleaning activities may not be covered by indemnity, but will be reviewed on a case-by-case basis to determine if repairs would be eligible for indemnity.

D. Cost Estimates:

{The compliance agreement should be specific enough for costs to be accurately estimated. It is suggested that costs be listed by activity. This list is an example of the types of activities performed based on the cleaning and disinfection requirements in 9 CFR 56.5, but actual processes will depend on the requirements in the State ISRCP and the type of facility being cleaned. Detailed cost estimates should be listed under each activity. A cost estimate template can be found in Appendix D (in a separate document) to assist with determining reasonable estimates; see examples below}

Activities that are required for this compliance agreement for cleaning and disinfection include:

{Remove any items that do not apply; add any items necessary for the specific facility}

1. Insecticide and rodenticide application (chemicals must be approved by VS) – cost of the materials, labor cost per hour, and number of hours to complete.

{For Example:
Application of insecticide and rodenticide: estimated 1.5 hours of labor at $16.50 per hour, plus $150 for two bottles of Durashield insecticide and $72 for one pail of Formula-10 rodenticide (applied as per label directions).
Cost: $246.75}

2. Closing or heating of building – cost of electricity, propane, or other heating fuel for the number of days in the billing cycle activities were performed.

{For example:
See Appendix E (separate document) - Cost Reporting Template
Cost: $243.66}

3. Composting – labor cost per hour and number of hours to complete, cost of any additional carbon source if needed, fuel for equipment, and any equipment rental required

4. Litter and compost removal and disposal ─ labor cost per hour and number of hours to complete, fuel for equipment, and any equipment rental required

5. Equipment disassembly/reassembly ─ labor cost per hour and number of hours to complete

6. Dusting/dry cleaning ─ labor cost per hour and number of hours to complete, fuel for equipment, and any equipment rental required

7. Wet cleaning ─ labor cost per hour and number of hours to complete, fuel for equipment, and any equipment rental required. Compliance agreements should specify what items and areas are to be wet cleaned. Only areas with gross organic contamination that cannot be cleaned using dry processes should be wet cleaned. Power washers should be used sparingly and with caution as damage to surfaces and equipment can result.

8. Drying ─ cost of electricity, propane, or other fuel for the number of days in the billing cycle activities were performed.

9. Disinfection ─ cost of the materials, labor cost per hour, and number of hours to complete. Disinfectants used must comply with 9 CFR 71.10 and demonstrate efficacy for AI viruses. Regional approval of the proposed disinfectants and application methods will be required to ensure that the product and application method are economical and efficacious in controlling AI in the specific structure and materials that are to be disinfected. Disinfectants should be applied as specified by the manufacturer. If the manufacturer specifies the use of a power washer to apply disinfectant, proper care should be taken not to cause damage to the building and other materials.

10. Litter replacement – cost of litter, labor cost per hour and number of hours to complete, fuel for equipment, and any equipment rental required.

If at any time during the disposal or cleaning and disinfection processes it becomes clear that the amounts provided in the initial compliance agreement were underestimated by more than 10 percent for a specific activity, the claimant should immediately contact the Cooperating State Agency or VS and submit an amendment to the compliance agreement. The amendment should include justifications for any additional amounts requested. No payment will be made for amounts more than 10 percent above the estimates for activities in the original compliance agreement if an amendment is not submitted and signed at the time the activity took place. VS will review claims for indemnity for disposal and cleaning and disinfection to ensure that all expenditures relate directly to activities described in 9 CFR 56.5, the {insert State} ISRCP and this compliance agreement. {See Cost Reporting Template for an example of how actual costs might be reported and the documentation required. Note that in the example the actual costs were actually more than 10 percent over the estimate and observe how this was authorized.}

Producer/Grower:
Address of Affected Facility:
Owner Name:
Signature Producer/Grower Representative: _____
Date: _____

Signature Emergency Management: _____ Date: _____

Signature State Veterinarian: _____ Date: _____

Signature VS {insert Area} AVIC: _____ Date: _____

Signature VS Regional Director: _____ Date: _____

Attachment(s): {Indicate any attachments to the signed document including cost estimate information}
{Compliance Agreement Cost Template (separate document)}