

# DEPOPULATION & DISPOSAL

## HIGHLY PATHOGENIC AVIAN INFLUENZA STANDARD OPERATING PROCEDURES

These Standard Operating Procedures are part of the *Tennessee HPAI Response Base Plan*  
produced in concert with the Tennessee Avian Influenza Task Force

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# DEPOPULATION

## INTRODUCTION

During a Highly Pathogenic Influenza (HPAI) outbreak, depopulation (also known as “culling”) is the best practice in mitigating and preventing the spread of the disease through the elimination of the infected, exposed, or potentially exposed poultry. Depopulation and disposal of contaminated poultry protects the agricultural and national economy, and protects public health. This document outlines the process and guidelines for depopulation and disposal efforts during a HPAI outbreak in the state of Tennessee.

This SOP focuses on the responsibilities of depopulation and disposal personnel, evaluation options, execution and optional methods. Several documents compliment this SOP and provide further detail when necessary. For further information and guidance, please see the following documents:

- Tennessee HPAI Response Plan
- Foreign Animal Disease Preparedness & Response Plan: *Highly Pathogenic Avian Influenza Response Plan THE RED BOOK*
- Depopulation documents
  - Foreign Animal Disease Preparedness & Response Plan: *NAHEMS Guidelines: Mass Depopulation and Euthanasia*
- Disposal documents
  - National Cooperative Highway Research Program: *A Guide to Traffic Control of Rural Roads in an Agricultural Emergency*
- Highly Pathogenic Avian Influenza Standard Operating Procedures Annex: *Biosecurity*

### Interagency coordination

In the event of a HPAI outbreak is detected in the state of Tennessee appropriate local, State and Federal agencies and their partners in the private sector (e.g. poultry industry) must respond in a coordinated effort to:

- Determine the nature of the outbreak
- Initiate appropriate response and agencies
- Eliminate and control the outbreak
- Facilitate recovery

Regardless of the response level, the agricultural community must be prepared to work closely with local and state emergency management agencies to deal with the HPAI outbreak. The Incident Command System (ICS) is used to efficiently manage personnel and resources during a HPAI incident in the state of Tennessee.

### 1. RESPONSIBILITIES OF DEPOPULATION PERSONNEL

When the decision is made to depopulate, interaction and collaboration with several groups occur. The Depopulation Group, with approval from Tennessee Animal Health official, determines the method(s) of depopulation. These groups play an important role in the decision to depopulate and determining the method and extent of the depopulation effort. Whenever possible Tennessee Department of Agriculture (TDA) will comply with recommendations regarding the methods and approaches used for depopulation

detailed in the American Veterinary Medical Association's (AVMA) guidelines as well as the recommendation outlined in Chapter 7.6 of the 2009 World Organization for Animal Health (OIE) Terrestrial Animal Health Code.

All personnel should read and understand the procedures discussed in these guidelines. Personnel should also be trained or familiar with the use and proper maintenance of equipment used for mass depopulation as well as the hazards and other factors influencing efficiency of the described processes and procedures. Review of additional information sources and participation in educational sessions and/or emergency response exercises will help expand knowledge and expertise of depopulation principles and procedures. Only qualified and trained personnel may perform depopulation procedures. This section of the guidelines discusses the responsibilities of various depopulation personnel as well as the importance of cooperation with other groups and units. The Depopulation Group:

- Provides advice and recommendation to the Command level on depopulation procedures
- Notifies owners or operators of affected or contact premises (potentially exposed) of mass depopulation and procedures that will be used and secures acceptance for these procedures
- Coordinates closely with Logistics Section to secure the necessary equipment and supplies
- Coordinates essential decisions such as scheduling and location of the depopulation activities with those planned by the Disposal Group
- Performs other services as appropriate and needed

### **1.1 Key Positions**

The Depopulation Group consists of skilled and trained individuals who depopulate livestock and poultry on affected and/or contact premises. Each Depopulation Group may be responsible for a designated area or a certain number of premises. The following section details Logistic and Operations personnel considerations and responsibilities in the event of an animal health crisis. Sections on depopulation methods and considerations may be used by any organization or personnel involved in the process. The Incident Commander is charged with overseeing all activities related to the event, including Logistics, Planning, Operations, and Finance/Administration.

The number of personnel for the Depopulation Group will vary depending on the size and scope of the incident. Key Depopulation personnel would include:

- The Depopulation Group Supervisor is in charge of all Depopulation Teams (Strike Team and Task Force) and Depopulation Team Members
- Depopulation Team Leaders supervise Depopulation Teams. Two types of teams may be deployed: a Strike Team or a Task Force
  - A Strike Team is composed of resources, including personnel, from the same category. Usually, these are composed of 5 to 7 personnel with similar job duties from the same agency led by a team leader.
  - A Task Force is any combination of resources assembled to meet a specific tactical need. Usually, these are composed of 5 to 7 personnel with various job duties from various agencies led by a task force leader.
- Depopulation Teams are responsible for activities at specific premises, depopulation stations, or checkpoints; members may include personnel with expertise from multiple government and private sources.

## Depopulation Group Supervisor

The Depopulation Group Supervisor should be identified well before an animal health emergency occurs. This individual reports to the Disease Management Branch Director or Operations Section Chief and is in charge of all Depopulation Teams, and has the primary responsibility for ensuring that depopulation measures are implemented effectively during an animal disease emergency and that all depopulation personnel are familiar with the proper depopulation techniques for the specific incident being managed. This individual has extensive training and/or experience in the proper cleaning and disinfection methods following an animal disease emergency event and possesses the management skills needed to organize and direct all depopulation activities for the incident.

The Depopulation Group Supervisor should work with State emergency management agencies to identify Depopulation Team Members with required expertise from multiple government and private sources and should advise the Operations Section Chief of any personnel requirements that cannot be satisfied locally so that arrangements for additional personnel can be made. The Depopulation Group Supervisor will also work with appropriate officials to issue leases and contracts regarding equipment or personnel for the depopulation operations. See Section 3.9 for a discussion of the 3D Commercial Services for personnel available through the National Veterinary Stockpile.

Additional duties of the Depopulation Group Supervisor include:

- Maintaining up-to-date contact information on personnel willing and qualified to server on the Depopulation Group members
- Maintaining a working knowledge of state of Tennessee and Federal regulation pertaining to depopulation and mass depopulation
- Determining the number and types of personnel, vehicles and equipment needed to conduct depopulation operations. This includes communicating with the Operations Section Chief to ensure that the required resources are available
- Identifying personnel training requirements and orienting new personnel to the specifics of their duties within the Depopulation Group
- Assigning Depopulation personnel as necessary to achieve the goals of the Incident Commander
- Ensuring that all new personnel receive the Safety Officer's briefing
- Coordinating Depopulation Group activities with other response Groups (e.g., Carcass Disposal, Biosecurity and Surveillance)
- Supervising all personnel assigned to Depopulation Group
- Coordinating with farm owners and/or management regarding all phases of depopulation
- Verifying the accuracy and completeness of all required reports and submitting them promptly
- Preparing regular briefings and reports for the Operations Section Chief and notifying immediately of any problems
- Cooperating with appropriate animal health emergency groups

## Depopulation Team Leaders

The Depopulation Team Leader will primarily focus on ensuring that safe, humane, effective depopulation procedures are performed on animals in all premises involved in a HPAI outbreak. The Depopulation Team

Leader should be identified well before a HPAI outbreak.

This individual:

- Assists the Depopulation Group Supervisor in determining the number and types of personnel, vehicles, and depopulation-related equipment needed to conduct depopulation and/or depopulation operations
- Instructs and trains Depopulation Team Members in depopulation protocols, policies and procedures, humane animal handling methods, and general safety precautions. Safety precautions are coordinated with the Safety Officer
- Assigns tasks to Depopulation Team Members and supervises their work
- Serves as a liaison to various premises, informing owners and managers and providing technical and other additional information related to depopulation activities as needed
- Serves as a technical resource for information on current depopulation and depopulation methods and procedures
- Prepares briefings and reports for the Depopulation Group Supervisor and notifies him or her immediately of any issues or problems
- Works closely with other units and groups in the animal emergency response organization, particularly the Appraisal and Compensation Group whose activities precede depopulation activities and the Disposal Group whose activities follow depopulation. If approval is gained, then depopulation activities can begin or continue without prior appraisal. However, it is critical that the Appraisal and Compensation Group appraise animals before depopulation activities begin whenever possible. Also, coordination and communication with the Disposal Group is recommended to prevent logistical problems with carcass disposal.

## **Depopulation Team Members**

Depopulation Team Members are typically assigned to a clearly defined area or premises. Personnel may be designated as Strike Team or Task Force Members. Depending on the size of the response, there may be several Depopulation Strike Teams, each with its own Strike Team Leader. The Depopulation Strike Team is composed of members who are experienced or trained in depopulation SOP and can carry out animal depopulation under supervision of or by order of a veterinarian. This team also may employ similar resources to carry out depopulation tasks on a specific or closely related premise. Team members have experience and knowledge in depopulation techniques applicable to specific diseases.

The Depopulation Task Force is composed of individuals with a wide variety of resources that may include addressing depopulation tasks related to multiple species or large, complex, or diverse premises. Team members typically have experience and knowledge in depopulation techniques applicable to more than one species. In the event of an animal disease emergency, the work of the Depopulation Team Members on infected or exposed premises is essential to the containment and control of a HPAI outbreak. The Depopulation Group Supervisor should assign duties to Depopulation Teams as soon as possible after an infected or contact premise is declared.

Several State and Federal entities will have preceded the Depopulation Group's arrival on a premise. A foreign animal disease diagnostician (FADD) or other designated official suited to address the emergency will have visited the premises to observe the animals for clinical signs of disease and to obtain diagnostic samples. Evidence of disease, which should be documented in the electronic medical record system or other agreed-upon alternative reporting system, will indicate that the animals and other materials on the premises are at risk of transmitting the disease. The U.S. Department of Agriculture (USDA) and Animal and Plant Health Inspection Service (APHIS) personnel are responsible for the final decision on whether to depopulate. The Epidemiology Group and the Vaccination Group also play a role in a decision to depopulate. The Depopulation Group, with approval from the Epidemiology Group, the Animal Welfare Officer, and State Animal Health Official, determines the method of depopulation. The Incident Commander must approve the plan before implementation. The Appraisal and Compensation Group should also review with the State and USDA the process for the valuation, appraisal, and indemnification of animals.

All depopulation personnel should learn as much as possible about the procedures discussed in these guidelines and in other information sources such as those mentioned in the previous section. They also should participate in educational sessions and emergency response exercises designed to expand their knowledge and expertise in the area of animal health emergency management.

## **1.2 Cooperating with the Animal Welfare Group**

The Depopulation Group should work closely with personnel from the Animal Welfare Group on all aspects of depopulation related to animal welfare. The Animal Welfare Group is located in the Operations Section. Animal Welfare Group personnel will include qualified Veterinary Medical Officers and field personnel who have had training in animal welfare and depopulation procedures. These individuals will serve in an advisory capacity to ensure that animals are appropriately housed, maintained, and depopulated humanely. A separate Animal Welfare Officer must be assigned to the group to consult with the Depopulation Group Supervisor and monitor the operation. Before commencing, the method of depopulation must be approved by the on-site Animal Welfare Officer. The Depopulation Group should make a concerted effort to

- Coordinate with personnel from the Animal Welfare Group for on-premises visits to help plan, implement, and observe depopulation activities
- Consult regularly with Animal Welfare Group personnel on animal welfare issues, requesting their advice as needed on individual questions or issues that arise
- Make every effort to comply with the counsel of APHIS Animal Welfare personnel when it is reasonable and practical to do so

## **1.3 Hazard Communication**

Depopulation Group members should review the hazards associated with the depopulation methods likely to be used. The Team Leader should confirm that all personnel associated with the premises to be depopulated have been briefed on the depopulation procedure and any applicable depopulation-related hazards. If requested, Depopulation Group members can assist in communication of information to the owner, owner's family, and premises employees. Depopulation Group members will coordinate closely with teams from other groups (e.g., the Appraisal, Biosecurity, or Disposal Groups) that may visit the premises.



Specific safety precautions or hygiene requirements should be explained to witnesses and stakeholders before the Depopulation Group enters the premises. This is particularly important if a zoonotic disease is involved. Personal Protective Equipment (PPE) appropriate for the disease, situation, and individual will be supplied accordingly as determined by the Safety Officer. All PPE must be used according to guidelines established by the Safety Officer. Depopulation Group Members should wear appropriate personal protective gear to ensure personal safety and compliance with Occupation Safety and Health Administration (OSHA) standards.

Additional biosecurity and cleaning/disinfection procedures may be required to address the risks posed by serious zoonotic diseases. For further information on Biosecurity please see the HPAI-BP annex of this plan.

#### **1.4 Personnel Briefings and Verification of Training**

The Depopulation Group Supervisor must identify all Depopulation Group members and the specific tasks for which each is responsible. They also are responsible for credential verification, training, and security clearances for Depopulation Group members. If necessary, the Depopulation Group Supervisor arranges just- in-time training for personnel. However, just-in-time training in depopulation methods should occur only when absolutely necessary, because the techniques often require practice to master. It is essential that personnel are properly trained in the depopulation method(s) that will be utilized before they participate in depopulation activities. No one will be allowed to enter premises without verified credentials. The Depopulation Group Supervisor will also identify specific briefings required before depopulation activities, including safety requirements, site conditions, and specific tasks.

#### **1.5 Assessing Needs**

The Depopulation Group Supervisor, in consultation with leadership associated with the Depopulation Task Force Leaders and Strike Team Leaders, will determine personnel needs such as vehicles and equipment. The Depopulation Group Supervisor will work with State emergency management agencies to identify depopulation personnel with the required expertise from multiple Government and private sources including industry stakeholders who may possess specialized equipment and/or training.

The Depopulation Group Supervisor should advise the Operations Section Chief of any personnel requirements that cannot be satisfied locally so that arrangements for additional personnel can be made. The Depopulation Group Supervisor also will work with appropriate officials to issue contracts and leases regarding any equipment, supplies, or personnel for depopulation operations.

#### **1.6 Partnerships with Industry Stakeholders for Depopulation Activities**

Expertise in depopulation and mass depopulation may also be available within particular industries. For example, large poultry operations may have personnel trained in depopulation and may also possess associated specialized equipment. In some situations, industry stakeholders may be included in species-specific planning and assist in depopulation activities. It is critical that participating personnel be trained in ICS to be successfully integrated into a response. In addition, involved industry stakeholders must embrace the importance of cooperation with other groups and units.

## **1.7 Depopulation, Disposal and Decontamination (3D) Commercial Services**

The National Veterinary Stockpile (NVS) is maintained by National Center for Animal Health Emergency Management (NCAHEM) through USDA-APHIS. The NVS is the nation's repository of veterinary countermeasures, including supplies, equipment, field tests, vaccines, and commercial support services. The NVS mission is to provide States the countermeasures they need to respond to catastrophic animal disease outbreaks that terrorists or nature may create.

As part of this mission, the NVS can also arrange service contracts for mass depopulation, disposal, and decontamination teams, called 3D Teams, if additional assistance is required. NVS will be mobilized as needed through pre-arranged coordination efforts with State Animal Health Officials, the VS area veterinarian in charge, the VS regional office, and the NVS director. For more information about the NVS, visit <http://nvs.aphis.usda.gov>.

These commercial services, provided through contracts with 3D Teams, can rapidly supply large numbers of personnel with equipment to support States that do not have sufficient personnel and resources. The 3D Teams are equipped to handle many types of emergencies and provide their own personnel, safety items, and equipment for most situations. They can be quickly mobilized and expanded to 600 personnel in three days, 1,000 in one week, and more if required.

When evaluating a disaster response situation, including mass depopulation, States that require additional resources can request assistance from a contracted 3D Team source. Once APHIS approves the 3D support, the approved State must provide a short statement of work. The NVS will assist with the process by providing examples of previous short statements of work. The basic information to include is a description of the support that is needed, the amount of support needed, and the location. It should be noted that funding must be available for initial tasks before a work authorization begins. Depending on the type of disaster, funding can be available from the USDA or FEMA.

For more information on the National Veterinary Stockpile and 3D teams, refer to: [http://www.aphis.usda.gov/animal\\_health/emergency\\_management/nvs.shtml](http://www.aphis.usda.gov/animal_health/emergency_management/nvs.shtml)

For more information regarding the use of 3D teams, refer to: [http://www.aphis.usda.gov/animal\\_health/emergency\\_management/downloads/ga3dsupport.pdf](http://www.aphis.usda.gov/animal_health/emergency_management/downloads/ga3dsupport.pdf)

## **2. DEPOPULATION: GENERAL CONSIDERATIONS**

In a HPAI outbreak, large numbers of poultry may be transmitting pathogens to other poultry. Thus, the more quickly large-scale disease containment activities can be completed, the more rapidly pathogen transmission can be contained. During an animal health crisis, the goal of disease containment is to minimize depopulation activities while maximizing disease control. Modeling may be necessary to determine the optimal depopulation strategy during an animal health crisis.

Because timely initiation of depopulation procedures is critical to containing disease, depopulation personnel must be familiar with general considerations that are essential to planning an effective depopulation program. A thorough understanding of primary aspects of depopulation can help depopulation personnel to act quickly and decisively in a crisis situation.

Central to successful depopulation activities are factors such as using humane depopulation methods, gaining public support for depopulation activities, documenting the use of controlled substances, and minimizing personnel and owner stress. These factors are discussed below.

## 2.1 Humane and Aesthetic Considerations

Depopulation should take place in such a way as to minimize an animal's pain and stress. To meet this requirement, the animal should be rendered unconscious as quickly as possible. Essential to the fulfillment of this objective are the careful selection of the quickest, most humane depopulation methods, and skillful use of these methods on the part of the Depopulation Team, as outlined in these guidelines. Public perceptions of the humaneness of the procedures used also are important, as discussed below. Depopulation should be performed or closely supervised by a veterinarian. Each animal should be checked at the conclusion of the procedure to ensure that death has occurred.

## 3. GENERAL GUIDANCE FOR SELECTING METHOD OF DEPOPULATION

### 3.1 Reference Materials and Training

Those personnel responsible for directing depopulation operations should have a working knowledge of the goals for depopulation outlined in these guidelines.

In addition to this Guideline, *FAD PReP Standard Operating Procedures (SOP): Mass Depopulation & Euthanasia* and other USDA documents provide additional information. The Standard Operating Procedure, or SOP, is written to accompany the Guidelines and provide critical technical information related to what is described in the Guidelines. This SOP specifically documents the way depopulation-related activities should be conducted so that a consistent conformance to recommendations and expectations can be facilitated. It is expected that personnel participating in depopulation-related activities in the context of an animal health crisis will have read and understood all sections in the SOP document that apply to them.

An important component of depopulation during an animal health crisis centers around the expertise of the individuals performing the depopulation and its impact on animal welfare. **The role of proper personnel training in minimizing animal pain and stress during depopulation or depopulation activities cannot be overemphasized.** It is critical that personnel who are assigned these responsibilities have appropriate training and experience with the animal species to be depopulated and be knowledgeable and comfortable using the chosen method.

## 3.2 Response Strategy for Control and Eradication of HPAI

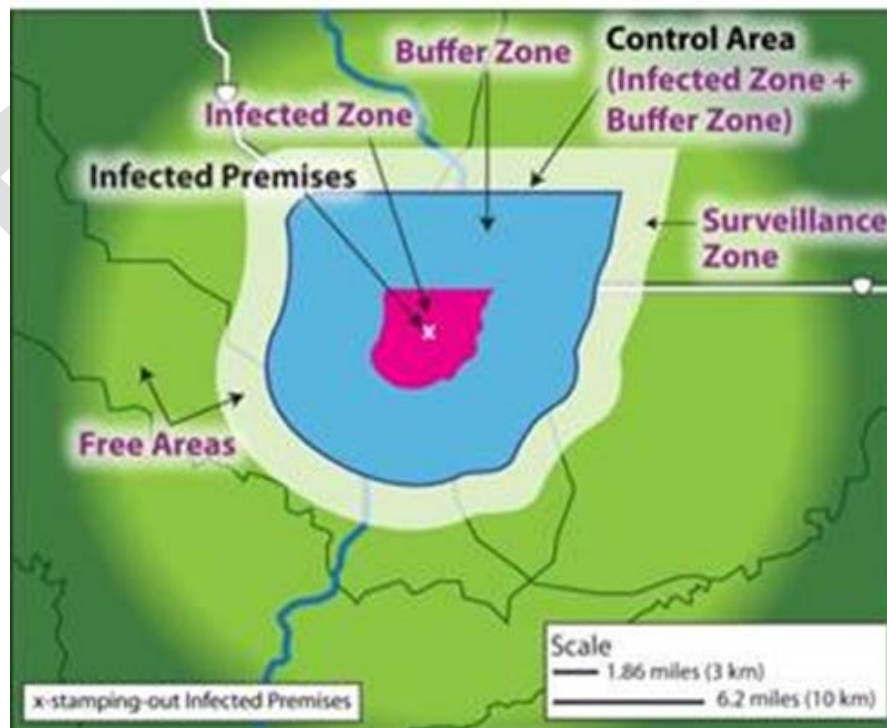
### Stamping-Out as a Response Strategy

Stamping-out is a response strategy for control and eradication for HPAI in poultry. Stamping-out is the depopulation of clinically affected and in-contact susceptible poultry. Key elements of stamping-out are listed in the box below.

#### Stamping-Out: Critical Goals

- Within 24 hours (or as soon as possible after) a premises being classified as an Infected Premises (IP), infected poultry will be depopulated in the quickest, safest, and most humane way possible. In many cases, poultry on Contact Premises (CP) may also be depopulated as soon as possible.
- Where resources are limited, premises will be prioritized so that those with the highest potential for active HPAI spread are 'stamped-out' first.
- Based on the epidemiology of the outbreak, prioritizing the poultry to depopulate first may be necessary.
- Public concerns about stamping-out require a well-planned and proactive public relations and liaison campaign. Stakeholders, the public, and the international community must be involved.

### Zones and Areas in Relation to Stamping-out



### **3.3 Materials, Supplies, and Equipment**

It is critical that the materials, supplies, and equipment necessary to perform the depopulation methods recommended in the proposed depopulation plan are available. A detailed list of equipment and supplies that are generally needed for depopulation are included in section 13.4.2 of the *FAD PReP Standard Operating Procedures (SOP): Mass Depopulation and Euthanasia*.

### **3.4 Sequence of Depopulation Activities**

Before depopulation activities are initiated, animals designated for depopulation must be appraised by personnel from the Appraisal Group to assure proper compensation of livestock losses. For further details see the *FAD PReP/NAHEMS Guidelines: Appraisal and Compensation (2011)*.

Depopulation personnel should plan to depopulate the designated animals on premises in a sequence that takes into account the risk the animals pose for the spread of the disease agent. In general, animals should be depopulated in descending order of priority, as follows:

- Poultry with the greatest propensity to shed disease agent (e.g., infected swine are reported to produce 100 to 1000 times greater concentration of FMD virus in aerosols than do cattle)
- Poultry showing clinical signs of the disease of concern
- Poultry that have had contact with the diseased animals
- Poultry that are in an epidemiologically determined area of high risk (e.g., downwind of a swine herd infected with FMD)
- Poultry susceptible to the disease of concern

Professional judgment should be exercised when determining exactly which animals are to be depopulated first. When prioritizing, consider animal well-being and humane issues, level of agitation of individual animals, and difficulty of handling individual animals. Specific animals slated for depopulation should be decided prior to initiation of depopulation activities. Depopulation personnel should be cautioned to only depopulate those animals that are designated as part of the depopulation activities.

## **4. GENERAL CONSIDERATIONS IN PLANNING DEPOPULATION ACTIVITIES**

A number of issues must be considered when selecting the method of depopulation. These issues include:

- Number of infected poultry
- Disposal after depopulation
- Environment where the poultry are maintained
- Need for specialized equipment
- Risk of spreading HPAI via depopulation/depopulation procedure
- Personnel /human safety
- Hazard to the environment
- Weather and environmental conditions

#### **4.1 Mass Depopulation of poultry and other production avian species**

As required for the mammalian species, depopulation must be performed by competent personnel trained and experience in species-specific depopulation methods. The process should be carried out according to guidelines established by the Safety Officer.

#### **4.2 Methods of Depopulation**

- Cervical Dislocation
- Carbon Dioxide
- Foam

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# DISPOSAL

## Introduction

During a Highly Pathogenic Avian Influenza (HPAI) outbreak, effective disposal of animal carcasses and materials is a key component of a successful response. Proper disposal can help prevent or mitigate the spread of pathogens. The overall goal is to protect the agricultural economy in Tennessee and through the control and containment of disease by conducting operations in a timely, safe, bio-secure, aesthetically acceptable and environmentally responsible manner. If any materials (for example cages) are potentially contaminated with the virus, they must undergo treatment or disposal to inactivate or contain the virus. Waste requiring disposal following an outbreak include: carcasses, contaminated manure, litter, cages, and contaminated personal protective equipment (PPE).

This SOP focuses on the responsibilities of disposal personnel, evaluation of disposal options, selection and execution of optimal methods, and the disposal of related waste. Several documents that compliment this SOP and provide further detail when necessary. For further information, please see the following documents:

- Tennessee HPAI Response Plan
- Foreign Animal Disease Preparedness & Response Plan: *Highly Pathogenic Avian Influenza Response Plan **THE RED BOOK***
- Depopulation documents
  - Foreign Animal Disease Preparedness & Response Plan: *NAHEMS Guidelines: Mass Depopulation and Euthanasia*
- Disposal documents
  - National Cooperative Highway Research Program: *A Guide to Traffic Control of Rural Roads in an Agricultural Emergency*
- Highly Pathogenic Avian Influenza Standard Operating Procedures Annex: *Biosecurity*

This SOP also draws from the latest information from other sources such as other states currently responding to HPAI, USDA, and from working groups. As circumstances and training are constantly changing and a consensus has yet to be reached on specific procedures, the reader should seek advice from experts. The purpose of this document is to give the reader all reasonable options and methods for disposal most suitable for the state of Tennessee and the poultry industry.

## Preparedness Goals

The preparedness goals for disposal are:

- Establish disposal protocols or procedures that meet regulatory requirements before an outbreak for consistency and safeguarding
- Identify suitable disposal personnel, supplies, materials and equipment prior to an outbreak.
- Prevent the spread of the disease with little or no effect on the environment
- Conduct operations in a bio-secure safe and effective manner

## **Response Goals**

The response goal for disposal is to properly dispose of contaminated carcasses and materials as soon as possible while limiting contamination, having stakeholder acceptance, maintaining cost effectiveness and maintaining personnel safety.

## **Guidelines**

Disposal will be done in a manner that will support the containment of the HPAI outbreak, minimizes the impact to public health and the environment. If available personnel are insufficient, the Incident Commander or responsible official should request emergency 3D (depopulation, disposal, decontamination) contractor support from the National Veterinary Stockpile (NVS).

## **Coordination**

The Disposal Group must complete the following coordination activities:

- Coordinate with Epidemiology Group to select the most appropriate disposal method for the infected carcasses and materials.
- Coordinate with Appraisal and Compensation Group before beginning disposal.
- Coordinate supply requirements and delivery location, date, and time with the Logistics Section.
- Coordinated facility access and personnel requirements with the Facility Manager or designated representative.
- Coordinate with the Depopulation Group to ensure that
  - The rate of depopulation does not exceed the rate of disposal,
  - There is a minimum delay between the confirmation of death and disposal, and
  - There is a properly chosen location to store animal carcasses if the time to disposal is prolonged.
- Coordinate with the Biosecurity Group to ensure that the disposal process is conducted in a bio-secure manner and that the disposal group personnel are familiar and exercise appropriate biosecurity measures.
- Obtain local regulations and procedures for carcass disposal from the State Animal Health Official or State response team.
- Identify and coordinated required supplies with the Cleaning & Disinfection (C&D) and Depopulation Groups.

## **Assumed Ongoing or Completed Response Activities**

The following outbreak response activities are assumed in progress or completed before disposal:

- Disease confirmation-completed/ongoing
- Appraisal and compensation-completed/ongoing
- Depopulation-completed/ongoing
- Security measures and crowd control-completed/ongoing
- Quarantine-ongoing
- Movement control (animals, delivery trucks, and vehicles)-ongoing



- Surveillance-ongoing
- Monitoring-ongoing
- Biosecurity procedures-ongoing
- Health and safety procedures-ongoing

## **Purpose**

This SOP provides official response personnel with procedures for carcass and related waste disposal in the event of an outbreak. This SOP is relevant to HPAI outbreaks varying sizes whether the outbreak is isolated to single premises, spans region to numerous premises/regions. The Incident Command Structure (ICS) referenced in this SOP is both flexible and scalable. Deviations from these procedures may be necessary to address the given situation; details in this plan may need to be combined with other plans or collaboration with other agencies to meet the specific requirements.

## **1. RESPONSIBILITIES**

The number of personnel and the organizational structure depend highly on the size and complexity of the HPAI incident.

In the event of an HPAI outbreak the State and Federal agricultural authorities will collaborate to execute an HPAI response strategy to include disposal and decontamination of the affected poultry and related materials, equipment, or infrastructure. These agricultural authorities may need support from other agencies based on the scope of the outbreak.

### **Federal Authorities**

The Department of Health and Human Services (HHS), USDA, DHS and Environmental Protection Agency (EPA) will:

- Provide technical assistance and guidance to State and local authorities who are coordinating the disposal of carcasses and other outbreak-related waste
- Coordinate with Federal, State and local authorities as well as food and agricultural industry during the investigation, response, decontamination, disposal and recovery efforts
- Coordinated with Department of Homeland Security (DHS), State, local and other Federal agencies on public messaging to ensure that communications are consistent and accurate
- During an HPAI outbreak USDA will coordinate further Federal support to the event
- Provide information sharing and operational coordination
- Provide leadership by assuring the safety and security of poultry and poultry products
- Regulate the management of hazardous waste and disposal of non-hazardous waste, issuing appropriate permits, and enforcing municipal regulatory requirements set forth by local, State, and Federal entities.

## **2. INCIDENT COMMAND STRUCTURE AND POSITIONS**

The Incident Command System (ICS), a component of the National Incident Management System (NIMS), is designed to enable proficient and effective domestic incident management by integrating facilities, equipment, personnel, procedures, and communications operating within a common organizational structure. Tennessee has adopted NIMS and ICS organizational structures to manage emergencies and other incidents, including response to an HPAI outbreak. The Governor's Executive Order number 23 dated June 28, 2005 establishes the NIMS as the Emergency Incident Management Tool for the state of Tennessee.

## **2.1 Disposal Group Supervisor**

This Disposal Group Supervisor is in charge of all Disposal (Strike Team and Task Force) and Disposal Team members. This is an individual with extensive training and experience in the proper disposal methods of depopulated animal and animal materials, including biohazard materials, generated during a response following a HPAI outbreak. This Disposal Group Supervisor must have demonstrated knowledge of applicable environmental and waste transportation regulations. The Disposal Group Supervisor serves as a technical resource for information on current disposal methods and procedures, and consults with a disposal subject matter expert as needed to select a site and method, and to determine the operational timeline. This person also possesses the management skills needed to organize and direct all disposal activities for an incident. The Disposal Group Supervisor should be identified and trained before a HPAI outbreak occurs.

## **2.2 Disposal Team Leader**

The Disposal Team Leader supervises a Disposal Team assigned to a clearly defined area. Depending on the size of the response, there may be several Disposal Teams, each with its own Team Leader. The Disposal Team Leader must have demonstrated experience in carcass disposal operations.

# **3. PROCEDURES**

Before a HPAI outbreak the state of Tennessee and Department of Agriculture should identify the following services:

- Heavy equipment and operators
- Disposal sites
- Carcass composting expertise and materials
- Biohazard waste disposal
- Burial expertise and material
- Mass depopulation experts, materials and personnel
- Other disposal equipment sources for storage and refrigeration
- Disposal/treatment sites

## **3.1 Approved Methods Disposal**

The approved methods of carcass disposal include; composting and burial on-site or off-site. The primary method of disposal is composting or burial on-site, keeping the infected poultry and poultry products on site limits the spread of the virus. The selection of ideal disposal sites in an animal health incident involves a variety of factors and concerns

## **3.2 Site-Specific Assessment**

The assessment phase is an information-gathering phase to assist with planning the disposal response for each premise.

Essential information includes:

- The owner's name and mailing address of the premises
- The owner of the poultry/poultry products name and mailing address
- The GPS coordinates for the premises and any disposal sites it may contain (if obtainable)
- Background on-site operations
- A topographic or satellite image map of the site
- An inventory of the supplies, equipment, and personnel available on-site to facilitate disposal
- Site characteristics
- Regulatory permits and approvals required
- Personnel training required
- Operational timeline

### **3.3 Site-Specific Disposal Plan**

Planning is essential to the disposal plan to ensure that all resources for the task are available and ready. The Disease Management Team will consult with the owner (land/poultry), local, state and Federal agencies to approve the plan before implementation.

#### **Site Characteristics**

Obtain a line drawing of the premises and a map of the area from the Natural Resources Conservation Service (NRCS) which maintains an online GIS database of land characteristics that can be used to identify locations for burial. Show all the following features on the drawing and/or map (list is not inclusive):

- Proximity to services and access to roads
- Response operation access points and staging areas including biosecurity control zones
- Proximity to natural resources

#### **Selecting Site-Specific Disposal Options**

Selecting an optimal disposal option during an animal health outbreak it includes many complex factors and concerns. For detailed implementation procedures for approved disposal options, see attachments A and B.

#### **Disposal Options Checklist**

If poultry and poultry products are going to be composted follow checklist:

1. Is site suitable for composting?
  - a. Is the house suitable for in-house composting?
    - i. Sufficient space to maneuver composting equipment and construct windrows? The facility should contain enough open space and ceiling must be high enough to allow the loader to construct windrows 6 feet high and 12 feet wide. Facilities with columns, such as double-deck houses, restrict such formations.

- ii. Located in an area that is accessible by the composting equipment? This facilitates the delivery of carbon source and compost removal.
  - iii. Can doors be secured against scavengers or disease vectors?
  - iv. Sufficient local supply of carbon source?
  - v. If answer to all above questions is yes, then see In-House Composting Training Module at [www.aphis.usda.gov/emergency\\_response/tools/aphis\\_role\\_emergency\\_to\\_ols.shtml](http://www.aphis.usda.gov/emergency_response/tools/aphis_role_emergency_to_ols.shtml) and implement in-house composting. If not, see below
- b. Is the site suitable for outdoor composting?
- i. Is the site conditions suitable for composting the number of animals affected?
    - 1) At least 200 feet from water wells, surface water bodies (lakes, streams, rivers, etc.), sinkholes, seasonal seeps or other landscape features that indicates the area is hydrologically sensitive?
    - 2) Adequate land area to build compost piles (assume approximately one acre per 100 cows)?
    - 3) Located away from neighbors and/or out of sight?
    - 4) Located downward from neighbors and/or houses?
    - 5) Located away from environmentally-sensitive areas?
    - 6) Located close to the livestock facility or have clear access for transport?
    - 7) Clear of overhead utility lines?
    - 8) Void of excess water?
    - 9) Located on a gentle slope (1%–3%) so there will be no water ponding?
  - ii. If so, is there a sufficient local supply of carbon source such as wood chips (3 pounds carbon source per pound of livestock)?
  - iii. If answer to all above questions is yes, then see Outdoor Composting Training Module at: [www.aphis.usda.gov/emergency\\_response/tools/aphis\\_role\\_emergency\\_tools.shtml](http://www.aphis.usda.gov/emergency_response/tools/aphis_role_emergency_tools.shtml) and implement outdoor composting. If not, see below:
2. Is site suitable for onsite burial?
- a. Are soils suitable (see USDA NRCS online Web Soil Survey)? If so,
  - b. Based on the expert written opinion of an experienced groundwater hydrologist, will leachate contaminate groundwater in excess of public health standards? If not,
  - c. Is adequate land available for on-site burial? (See excavation volume chart in Attachment 14.I ). If so,
  - d. Is burial permitted by applicable regulatory authorities? Can permit requirements be met? If so,
  - e. Will land owner accept on-site burial and associated environmental liabilities?
  - f. If the answer is yes to all the above questions, then implement on-site burial and see the On-site Burial and Treatment Training Module at [www.aphis.usda.gov/emergency\\_response/tools/aphis\\_role\\_emergency\\_tools.shtml](http://www.aphis.usda.gov/emergency_response/tools/aphis_role_emergency_tools.shtml).

In any case where on-site disposal methods (burial or composting) are not feasible, plans should be made for the safe, efficient transfer of carcasses and materials to another site for disposal. Examples of situations in which off-site disposal may be considered include the following:

- Constraints due to ownership of land and poultry differ

- On-site constraints such as insufficient space, unsuitable soil, or seasonal conditions
- All on-site locations are too close to human habitation

Reference: FAD PReP Foreign Animal Disease Preparedness and Response Plan

## Storage

In order to address situations where Depopulation Group generates mortalities more quickly than the Disposal Group can process them, some means of temporary carcass storage must be provided. The site-specific plan must address where carcasses can be collected and stored until disposal can commence.

Some planning considerations are listed below:

- Can the storage area be secured to prevent unauthorized access, scavengers, odors, rapid decomposition, and potential disease spread to susceptible species?
- Will the carcasses be stored using refrigeration or some other stabilization method?
- Are the equipment, supplies and materials available to perform selected method(s)?
- Will the storage capacity be sufficient to accommodate the difference between the maximum expected depopulation rate and the maximum disposal rate? If not,
- Avoid depopulating animals at a rate that exceeds disposal and storage capacity. When maximum disposal and storage capacities are reached, curtail depopulation until adequate capacity is available.
- Can wastewater and storm water runoff be controlled from the storage facilities?
- Create a recordkeeping system for identifying and tracking all carcasses and other materials entering and exiting the storage facilities.
- Can the storage facility be adequately cleaned and disinfected during and/or after the response?
- Can storage containers be made leak-proof?
- Is there sufficient space for heavy equipment which may be needed to move large loads?
- What safeguards will be used to protect soil and groundwater from a release?
- Ensure the storage method will contain leachate, address pressure buildup, and avoid uncontrolled release of gases and pathogens.

## Transportation

Transport vehicles will be needed to transport items (carcasses or other materials) to the disposal site whether it is on or off premises. If the waste must travel on public roads, it should be transported in closed, leak-proof trucks or containers. State and Federal guidelines should be referenced before transportation, if there are any questions State and Federal assets should be contacted. Other considerations for transportation include the following:

- Pre-planning (vehicle used, route, detours, traffic, etc)
- Government officials must be notified of the transport
- Prior to loading the carcasses or material must be sprayed thoroughly with a disinfectant appropriate for the pathogen of concern
- Handling of carcasses and material must be kept to a minimum

- After the carcasses and material are unloaded the vehicle must be disinfected before they leave the disposal site and upon return to the facility
- Transporting vehicle should not be moved to an unaffected premise during the course of the outbreak (avoid cross contamination)

For further guidance on transportation during an HPAI event or agricultural emergency reference the National Cooperative Highway Research Program document *A Guide to Traffic Control of Rural Roads in an Agricultural Emergency*.

## **Waste/Waste Classification**

A list of common waste material types likely to be encountered during a response include:

- Animal carcasses
- Animal products
- Cages
- Feed
- Equipment, supplies and materials (PPE equipment, vaccination/diagnostic syringes and trash)
- Debris
- Other

Waste disposal response goals as defined here:

- Efficient outbreak containment
- Environmental sustainability including minimizing waste
- Stakeholder acceptance
- Cost effectiveness

To ensure compliance with State and Federal regulations regarding waste management and classification check with the State and EPA for the most current information.

## **Regulatory Permits and Approvals**

The lead emergency response agency is responsible for ensuring compliance with all legal requirements, including obtaining permits or approvals before beginning work. Permits may be issued by a variety of entities for various purposes. Typical permit-requiring activities include:

- Storing and transporting infectious or hazardous waste materials
- Implementing the chosen disposal method
- Discharging waste liquids and air emissions
- Digging in an area where utilities may be present

## **Materials, Supplies, and Equipment**

Personnel must identify all necessary material, supplies and equipment to carry out the chosen site-specific disposal method(s). The disposal options below in order of preference (based on disposal advantages/disadvantages) may require various types of materials, supplies, and equipment. This list is not

all-inclusive, but provides an example of types of equipment and supplies needed. For further information regarding materials, supplies and equipment contact State Department of Agriculture.

- Composting-Carbon source, compost thermometers, material-handling equipment, water, electricity, fuel for equipment, dust suppression system, hand tools, trained compost specialist, active compost culture, etc.
- Burial- earth moving equipment and operators and fuel for equipment

## **Personnel Training and Briefings**

Disease Management Strike Team will be responsible for overseeing depopulation, disposal, biosecurity, and decontamination; the strike team is also responsible for providing safety and training briefings. Personnel will be briefed on safety requirements, site conditions, tasks, donning and doffing PPE and other health and safety needs. All personnel entering site must:

- Meet security requirements as established by the Incident Commander
- Present documentation of verified credential showing they are qualified to perform their assigned tasks
- Present documentation that they have received all required safety and biosecurity briefings
- Have a fit test
- Wear the required PPE (disposable)
- Follow all safety and biosecurity procedures
- Follow decontamination procedures

### **Other briefings are as follows:**

- Site Safety Officer will brief all responders on safety precautions for each operation
- The Biosecurity Officer will brief all responders on biosecurity protocols before entering a Hot Zone
- Orientation Training Group personnel will brief Disposal Group members on the nature of the disease and any other circumstances that might affect the response.

## **4. OPERATIONS**

### **4.1 Site Preparation**

Upon arriving at the premises to begin disposal operations, refer to the Disposal Group Supervisor for locations of work area, access point and staging area.

### **4.2 Waste Characterization**

Response personnel should perform the following waste related actions:

- Mark waste materials appropriate, and verify with the Disposal Group Supervisor that all designated materials are to be disposed of
- Sort material by type, such as recyclables, putrescible waste, debris, and potentially hazardous waste. Consult with a qualified disposal specialist
- Estimate the quantities of each waste type and record the information for reference when arranging for disposal

- Characterize each waste type in accordance with all applicable local, State and Federal regulations. Consult a qualified waste management specialist to ensure proper characterization so the correct disposal option can be selected for each waste stream. Improper waste disposal can result in significant penalties and fines
- Document the characteristics of each waste type, and label all waste types in accordance with applicable regulatory requirements

### **4.3 Operational Timeline for Disposal**

A schedule will be developed for all disposal tasks; when the tasks will begin and end, completion of task, resources needed for task and final inspection.

#### **Demobilization**

Remove any miscellaneous debris, equipment, excess material, and any other waste that is not essential to ongoing decontamination, composting or burial procedures. Leave the facility clean in preparation for subsequent activities and re-population.

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# Attachments

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## **Attachment A Composting**

### Planning for On-Site Poultry Composting

1. Identify service providers for:
  - a. Mortality composting. Personnel should be trained on operational procedures, composting procedures and the proper disposal and composting of animal carcasses.
  - b. Heavy equipment operations.
  - c. Carbon source production and delivery (assume 2-3 pounds of carbon source per pound of carcass).
2. Identify regulatory requirements and obtain-pre-approval.
3. Identify the facility that
  - a. has sufficient space to maneuver composting equipment and construct windrows. The facility should contain enough open space and ceiling must be high enough to allow the loader to construct windrows 6 feet high and 12 feet wide. Facilities with columns, such as double-deck houses, restrict such formations;
  - b. is located in an area that is accessible by the composting equipment. This facilitates the delivery of carbon source and compost removal; and
  - c. offers access doors that can be secured against vandals, scavengers, or disease vectors.
4. Obtain all necessary equipment, supplies, materials, personnel, and services identified in the Site Specific Disposal Plan and as required by the Biosecurity and Health and Safety/PPE SOPs, such as PPE, carbon source, skid-steer or front-end loaders, long-stemmed thermometers, pH meters, bulk-density testing devices, and log books.
5. Ensure all compost team members are trained on proper procedures for composting infected carcasses, biosecurity procedures, work safety issues, and the use of PPE. If they are not, see below.
6. Train personnel on biosecurity, work safety issues, and the use of PPE based on the Site Specific Disposal Plan, the NAHEMS Guidelines: Biosecurity and Biosecurity SOP, and NAHEMS Guidelines: Health and Safety, NAHEMS Guidelines: PPE, and the Health and Safety/PPE SOP.
7. Identify a qualified disposal team member to oversee the composting operations.

The content in this attachment is from the Cornell Waste Management Institute

<http://cwmi.css.cornell.edu/composting.htm>.

## Operations for On-Site Indoor Composting

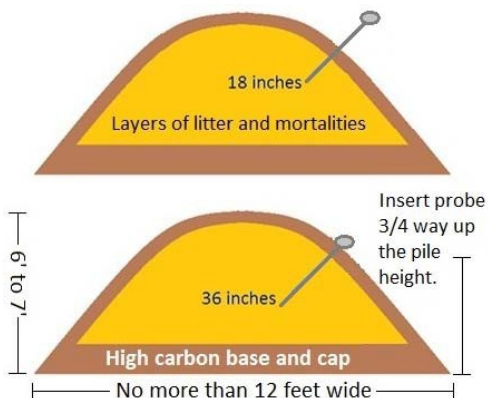
1. Don all required PPE
2. The date of setting the compost pile will be determined by regulatory staff.
3. For in-house composting the poultry house will be vented naturally but mechanical ventilation should be turned off.
4. Site cleanliness is an important as composting; it deters scavengers, helps control odors, and helps maintain good neighbor relationships.
5. Push litter and feed off to the side of the barn/house. Lay 18inch deep bed of coarse wood chips, 8-12 feet wide (depending on structure and equipment constraints) and as long as space permits.
6. Add a 12-15 inch layer of litter and birds, then cover with a 12-15 inch layer of wood chips or other carbon sources.
7. Add another layer of litter and birds until the windrow is two or three layers high and as long as needed.
8. Compost pile must meet all Board standards for routine composting including two heat cycles.
9. Make sure all mortalities are well-covered to keep odors down, generate heat and keep vermin or unwanted animals out of the windrow.
10. Composted materials will be monitored daily for leachate and temperature and recorded.
11. Process Requirements:
  - a. The compost pile temperature must reach a minimum of 130°F, or a temperature deemed sufficient by regulatory staff.
  - b. When the temperature plateau is reached and begins to fall by at least 2°F from peak, or the pile has been set for 11-14 days, the pile is ready to be turned inside. Only after 14 days, the pile may be moved outside.
    - i. The pile may be turned in the barn, allowed to return to 130°F for virus kill for at least 2 days, then turned again for another complete cycle in barn or outside, or
    - ii. The pile may be taken outside for complete cycle for further composting purposes, or
    - iii. The pile may be taken outside for burial.
12. After 28 days, the composted material can be released for off-site for land application, stockpiling, or incineration with approval from the Incident Commander (IC).

### **Operations for On-Site Outdoor Composting (not able to compost indoors)**

1. Don all required PPE
2. The date of setting the compost pile will be determined by regulatory staff.
3. Site selection:
  - a. Site must be 200 feet or more from any public road or right of way.
  - b. Site must be 300 feet from any open water, seasonal drainage, wetland, wellhead or property line
  - c. Soil type and surface must be reviewed and approved
4. Process Requirements:
  - a. Composted material must be covered with adequate fine textured carbon material (sawdust)
  - b. After 28 days, the composted material can be released for off-site for land application, stockpiling, or incineration with approval from the Incident Commander (IC).
5. Push litter and feed off to the side of the barn/house. Lay 18inch deep bed of coarse wood chips, 8-12 feet wide (depending on structure and equipment constraints) and as long as space permits.
6. Add a 12-15 inch layer of litter and birds, then cover with a 12-15 inch layer of wood chips or other carbon sources.
7. Add another layer of litter and birds until the windrow is two or three layers high and as long as needed.
8. Compost pile must meet all Board standards for routine composting including two heat cycles.
9. Make sure all mortalities are well-covered to keep odors down, generate heat and keep vermin or unwanted animals out of the windrow.
10. Composted materials will be monitored daily for leachate and temperature and recorded.

## COMPOST TEMPERATURE MONITORING PROCEDURE

Take the compost pile temperatures once per day in the morning. The pile may have up to ten flags. Take two temperatures at each flag, one at 18 inches and one at 36 inches. Place the thermometer probe about  $\frac{3}{4}$  of the way up the pile at a 45 degree angle. For example, if the pile is six feet high, the thermometer should enter the pile about 4  $\frac{1}{2}$  feet above the floor and at a 45 degree angle to the floor. Check the units on the thermometer. The interval on a Reotemp thermometer is two degrees between a pair of lines. See the photo below.

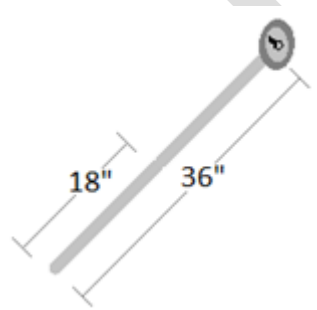


### INSTRUCTIONS

- Open the doors and curtains to all the houses containing compost piles to allow them to air out and maximize natural ventilation
- **USE THE BUDDY SYSTEM.** Entering a barn with active compost or dead birds requires a two person team (production of ammonia)
- Place stem of the thermometer approximately 18 inches and then 36 inches into the compost pile  $\frac{3}{4}$  of the way up the pile at a 45 degree angle
- Leave the thermometer at each depth and point for at least 60 seconds
- Log the reading from the thermometer from each flag and at both depths
- After completing the house readings, close the doors and curtains
- Calculate the average temperature for each pile and not in on the

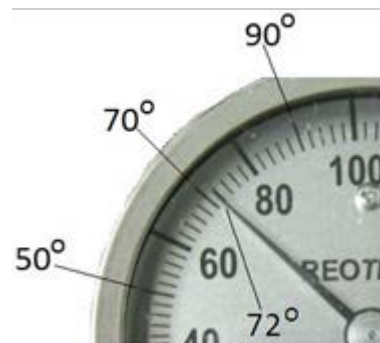
#### Composting Temperature Log

- Disinfect the thermometer and return it to its protective case
- Each thermometer will be kept at the respective premises being monitored. Do not take a thermometer from one premises to another premises
- To kill the HPAI virus, the compost pile must generate and maintain temperatures above 110 degrees F for several days. The compost pile should reach these temperatures within a week after construction. The composting consultants will evaluate the temperatures and days for each compost pile before approval is granted to turn the pile at 14 days or to release it at 28 days. The pile must go through two heat cycles-one before turning and one after turning



Take two temperature readings at each flag on the compost pile.

The lines on the Reotemp thermometer are in two degree increments. If the needle is on a mark, the temperature is an even number. If the needle is between two marks, the temperature is an odd number. This thermometer is reading 72 degrees not 66 degrees.



## **Attachment B: Burial**

All burial must be approved prior to, during and post burial (Review State and Federal regulations).

- Consult with appropriate State regulatory agencies about permits for potential sites before initiating operations.
- Site Selection:
  - Site must be accessible in all climate conditions
  - Site must not be within 1,000 feet of surface water, private well or potable water
  - Site must not lie within a floodplain or wetland
  - Site must be in excess of 200 ft from any roadway or property line
  - Soil type and subsurface must be reviewed and approved

### **Process Requirements:**

- Test holes in excess of five feet must be drilled in the base of the proposed pit to determine if proper (five ft.) separation from ground water. Multiple test holes may be required. Test holes are backfilled
- Carcasses/compost must be covered with a minimum of five feet of cover or four feet of cover with a one foot deep berm, no water may collect in any depression left by the burial
- Location must be recorded by a lat/long, and distance to a permanent landmark such as a building

## Operations for Burial

- 1) Obtain all appropriate permits and approvals, including landowner's permission and acceptance of long-term environmental liability, to begin burial process.
- 2) Don all required PPE
- 3) Fence and stake burial site.
- 4) Obtain the heavy equipment, machinery and materials required for excavating
- 5) Excavate the appropriate sized trench based on the excavation design parameters.
- 6) Puncture/vent the carcasses by stabbing the area posterior to the ribs and the thoracic and abdominal cavities.
- 7) Place carcass in the trench.
- 8) Cover the carcasses with the excavated earth, being sure to grade the surface soil to facilitate runoff.
- 9) See the surface of the excavated area to minimize soil erosion.
- 10) Clean and disinfect all the disposal equipment.
- 11) Regularly inspect and maintain the site by adding additional backfill to prevent pooling of water.

# Attachment C: Equipment Checklist for Depopulation Mobilization

## EQUIPMENT CHECKLIST FOR DEPOP MOBILIZATION

COUNTY ID:

FARM OWNER

CONTACT NAME:

EMAIL:

REQUEST NOTIFICATION PRIOR TO DEPOP

POULTRY OWNER

CONTACT NAME:

PHONE:

EMAIL:

BARN SPECS:

BARN NAME	LENGTH	WIDTH	# BIRDS	AGE

VENTILATION TYPE: SLIDING DOOR

CURTAIN

CHECK BOX IF EQUIPMENT IS AVAILABLE FOR USE:

SKID-STEER LOADER

TRACTOR

WATER SOURCE: ON SITE OFF SITE

BATHROOM FACILITY: DIRTY SIDE CLEAN SIDE

PORT-A-JOHN: DIRTY SIDE CLEAN SIDE

PRESSURE WASHER(S) # \_\_\_\_\_

FARM HANDS TO ASSIST WITH DEPOP # \_\_\_\_\_

CARTS OR BINS (CHICKENS ONLY) # \_\_\_\_\_

OTHER:

ADDITIONAL COMMENTS:



## Attachment D: Information for 3D Depopulation, Disposal and Decontamination

Information Needed for 3D ( Depopulation, Disposal, Decontamination)												
Name of Facility												
Address:												
USDA Case Manager Name and Cell:												
Disposal Team Leader Name and number												
Euthanasia Team Leader Name and number												
Best Airport to Fly into:												
# Hours from airport to premises:												
Depopulation Date:												
30												
Barn No.	Ceiling Height	Width	Length	Door Height and Width	Type Of Barn (pole, clear span	Type Of Operation (Breeder,Caged, Floor, Finish Toms, Finish Hens)	No. Birds	Type/Age of Bird	Avg. Wt.	Depth of Litter		
Fresh Bedding Available on Premises: Y/N: Type=												
Pile No.	Height	Width	Length	Comments:								

**Attachment E: In-house Composting Temperature Log**

In-house Composting Temperature Log				
Farmhouse Name/Number: _____				
Date	Time	Temperature 1	Temperature 2	Employee