

# 2015 USDA HPAI Response Case Management Guidance

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Case Manager: \_\_\_\_\_ Premise Name: \_\_\_\_\_ Premise ID: \_\_\_\_\_

**Initial Assessment**

***Date completed***

- Quarantine established \_\_\_\_\_
- Infected premises mini-memo \_\_\_\_\_
- Discuss/review biosecurity with owner \_\_\_\_\_
- Infected premises epidemiology questionnaire \_\_\_\_\_
- Appraisal (VS 1-23) date \_\_\_\_\_
  - Date authorized by USDA \_\_\_\_\_
- Complete ACH Vendor Enrollment Form \_\_\_\_\_
- Authorized Signatures Form \_\_\_\_\_

**Creation of Flock Plan**

- Draft Flock Plan based on discussion with owner \_\_\_\_\_
- Flock Plan approved by the ACU and HPAI Ops (e-signed) \_\_\_\_\_
  - If NOT approved by ACU reviewer:
    - The draft will be returned with suggested changes and corrections.
    - Make these changes and re-submit the revised draft to ACU.
  - If approved by ACU reviewer and HPAI Ops, an approved Flock Plan will come from [HPAI.IA.plans@aphis.usda.gov](mailto:HPAI.IA.plans@aphis.usda.gov)
- Owner approved and signed Flock Plan \_\_\_\_\_
- Flock Plan finalized \_\_\_\_\_
  - (contains all signatures; submitted to [HPAI.IA.plans@aphis.usda.gov](mailto:HPAI.IA.plans@aphis.usda.gov)) \_\_\_\_\_

\*\*\*ANY SUBSEQUENT CHANGES TO THE FLOCK PLAN MUST BE APPROVED BY THE OWNER, ACU, AND HPAI OPS\*\*\*

**Cooperative Agreements – See Cooperative Compliance Agreements Section for more detail**

- Owner applied for Pre-Award Letter \_\_\_\_\_
- Cost Estimate Pre-Award Letter Completed \_\_\_\_\_
  - If Cost Estimate is less than \$3,000, can use Compliance Agreement
  - If Cost Estimate is greater than \$3,000, use Cooperative Agreement
- Pre-award letter sent to owner \_\_\_\_\_
- Work with producer to write Work Plan (may be similar to Flock Plan) \_\_\_\_\_
- Work with producer to write Financial Plan (may be similar to Cost Estimate) \_\_\_\_\_
- Coordinate with AS and ADODR to complete Cooperative Agreement \_\_\_\_\_

**Depopulation**

- Depopulation \_\_\_\_\_
  - Start date \_\_\_\_\_
- Disposal \_\_\_\_\_
  - Start date \_\_\_\_\_



# Acronyms/Abbreviations

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ACRT	Agreement Cost Review Team
ACU	Appraisal-Compliance Unit of the IMT Plans Section
ADO	Authorized Departmental Officer
ADODR	Authorized Departmental Officer's Designated Representative
AHT	Animal Health Technician
APHIS	Animal and Plant Health Inspection Service
AS	Agreement Specialist (for CCAs)
C&D	Cleaning and Disinfection
CCA	Cooperative Compliance Agreement
CEAH	Center for Epidemiology and Animal Health (part of APHIS)
CFR	Code of Federal Regulations
CM	Case Manager
DBD	Disease Branch Director of the IMT Operations Section
Depop.	The depopulation of the flock (also called euthanasia and disposal)
DNR	Department of Natural Resources
DRO	Disease Reporting Officer
DU	Documents Unit of the IMT Plans Section
E&D	Euthanasia and Disposal (also called depopulation)
EPA	U.S. Environmental Protection Agency
Epi	Epidemiology
FP	Flock Plan
HPAI	Highly Pathogenic Avian Influenza
IC	Incident Command
ICP	Incident Command Post
ICS	Incident Command Structure
IDALS	Iowa Department of Agriculture and Land Stewardship

IMT	Incident Management Team
ISRCP	Initial State Response and Containment Plan
KED	Koechner's Euthanasia Device
NAHLN	National Animal Health Laboratory Network
NOA	Notice of Agreement
NPIP	National Poultry Improvement Plan
NVS	National Veterinary Services OR National Veterinary Stockpile
NVSL	National Veterinary Services Laboratory
OIE	World Animal Health Organization
Ops	ICT Operations Section
PAL	Pre-Award Letter
PCR	Polymerase Chain Reaction
POC	Point of Contact
PPE	Personal Protective Equipment
Repop	Repopulation
SOP	Standard Operating Procedure
SPRS	Surveillance, Preparedness, & Response Services (part of APHIS-CEAH)
TED	Turkey Euthanasia Device
TIN	Taxpayer ID Number
VS	Veterinary Services
VMO	Veterinary Medical Officer
WP	Work Plan (also called Work and Financial Plan)
WFP	Work and Financial Plan

## Positive Premise

A premise is assigned to a Case Manager (CM) when it is deemed either a presumptive or confirmed positive by a National Animal Health Laboratory Network (NAHLN) laboratory. The premise may or may not already be in quarantine by the time a case manager (CM) is assigned.

**\*\*\*PLEASE remember that this is an extremely taxing situation for responders and for owners and workers at affected premises. Empathy and understanding are essential components of good case management and quality communication with premise personnel.**

## Initial Assessment

This is what needs to happen immediately after the premise is considered positive and BEFORE depopulation. Call the owner, inform him/her that their premises are positive for HPAI, verbally establish or reiterate quarantine and biosecurity needs, and set-up a time/place to meet to go collect information necessary to move forward. This meeting can be in the operation's office or may need to be off-site (NOT in the barn, perhaps a coffee shop or restaurant).

- Quarantine established
  - The State places the initial quarantine for suspect premises. Veterinary Services will both confirm and reaffirm the quarantine IMMEDIATELY upon confirmed HPAI positive result. This means that no birds may come on or off of the property and proper biosecurity protocols should be reviewed with the premise owner, manager, etc.
- Discuss/review biosecurity with owner
  - This may take very little time, but biosecurity is ESSENTIAL. Take a moment to check-in with the premise owner/manager and discuss biosecurity. Most of these people have an excellent understanding of what is involved and may have discussed biosecurity with state or national animal health officials recently, but it should still be discussed.
- Infected premises mini-memo
  - The mini-memo is a short document that captures preliminary details on the premise. Ideally, some information is collected over the phone prior to a site/premise visit. This should be completed with the owner, in person, at the initial site visit where the Appraisal form is completed, the Epi Questionnaire begun, and biosecurity and quarantine reviewed with the owner.
- Appraisal (VS 1-23) filled out, approved, and e-signed
  - This is how producers are reimbursed for the birds and/or eggs that must be depopulated. This form is ONLY for the birds or eggs. It is HIGHLY RECOMMENDED that you fill separate forms out for birds and for eggs; this ensures that if there is a problem with the processing of the reimbursement for one of the products, it will not hold up the entirety of the reimbursement checks to the producer.
  - This form may ONLY be used if the farm owner ALSO owns the birds/eggs. Some producers lease or "mortgage" the birds from a larger company. In this event, the farm owner is NOT the owner of the birds or eggs and CANNOT legally sign and authorize the VS 1-23 form.
  - The VS 1-23 form can be digitally signed and emailed to the Planning Section (PLANS) and Administration/Finance Section (FSA) at the Incident Command Post. The VS 1-23 is then sent to Operations Section (OPS) where values are applied and returned to the CM via the PLANS to have the flock owner sign. The CM also signs the 1-23 at that time and returns the completed 1-23 to PLANS and FSA for return to the HPAI OPS for final approval. Once approved and signed by OPS, the 1-23 is returned to PLANS and depopulation may be scheduled and carried out.
  - This form MUST be completed prior to depopulation. It is what transfers ownership of the birds and eggs to the USDA and allows animal health officials to depopulate the flock without violating property rights, etc.
  - NO ACTIVITY CAN BEGIN ON FARM UNTIL THIS STEP IS COMPLETE.
- Authorized Signatures Form
  - This form is what allows owners to sign electronically and for other people the authorization to sign or approve official paperwork and actions. Examples of people listed on the authorization sheet include farm managers, foremen, etc. This form can make life much easier for all involved as this process continues. This will need to make it back to ICP asap.
- ACH Authorized Vendor Form
  - THIS MUST BE FILLED OUT! This form allows the Federal Government to pay the producers, depositing the funds into the bank account for the indemnities, etc.
- Infected premises epidemiology questionnaire

- *THIS QUESTIONNAIRE IS LONG – it will take a few hours to complete (estimate 2.5h) and may need to be revisited to collect all relevant information. When possible, try to forward the owner this questionnaire prior to meeting so that they may have an idea of what information is needed (truck and delivery information, personnel files, etc.).*
- *The information collected in the epidemiology questionnaire (EQ) is vitally important for determining how the virus spreads, risk factors, future preventative best practice strategies, etc. Its purpose is to assess potential pathways of initial introduction of HPAI viruses into commercial poultry operations and the potential lateral transmission routes of HPAI viruses from infected to non-infected premises.*
- *Try to collect this information during the initial meetings with the farm workers/owners. This document must be started no later than 1 week following detection in a commercial flock.*

### Creation and Authorization of Flock Plan

- Draft Flock Plan based on discussion with owner
  - CM drafts the Flock Plan using the most current template (v9, 13 May 2015) and input from the owner.
  - Save the draft Flock Plan as 15IAHPAI.COUNTY.BUSINESSNAME.PREMID.DRAFT FLOCK PLAN.DATE
    - Fill in the highlighted lines with the Premises' specific information
- Flock Plan approved by the Appraisal Compliance Unit (ACU) and HPAI Ops (e-signed)
  - If NOT approved by ACU reviewer, the draft should be returned to CM with suggested changes and corrections. Make these changes and re-submit the revised draft to ACU.
  - If approved by ACU reviewer and HPAI Ops, the CM will receive an approved Flock Plan from [HPAI.IA.plans@aphis.usda.gov](mailto:HPAI.IA.plans@aphis.usda.gov)
- Owner approved and signed Flock Plan
- Flock Plan finalized (contains all signatures and submitted to [HPAI.IA.plans@aphis.usda.gov](mailto:HPAI.IA.plans@aphis.usda.gov))
  - Plans Section will change the title to 15IAHPAI.COUNTY.BUSINESSNAME.PREMID.FLOCK PLAN final signed.DATE and will upload the plan to EMRS.

**\*\*\*ANY CHANGES TO THE FLOCK PLAN MUST BE SENT BACK TO BE APPROVED BY THE OWNER, ACU, AND HPAI OPS!\*\*\***

### Cooperative Agreements

*Cooperative Agreements are what allow the premise owner to use their own resources to depopulate, clean, disinfect, compost, or otherwise be involved with the disposal, cleaning, and decontamination process AND be reimbursed for that work by the Federal Government. Premise owners do NOT have to enter a cooperative agreement with the USDA, but it is an option and they are welcome to do so. Cooperative agreements are generally developed prior to depopulation and during the creation and authorization of the Flock Plan.*

**CHECK WITH ICP TO ENSURE YOU ARE WORKING WITH THE MOST UP-TO-DATE INFORMATION**

*CMs will be working closely with Agreement Specialists and Authorized Departmental Officers (ADOs) and their Designated Representatives (ADODRs) to create and approve these agreement documents.*

- Owner applied for Pre-Award Letter
  - *There is a draft of this application letter.*
- Cost Estimate Pre-Award Letter Completed
  - If Cost Estimate is less than \$3,000 can use Compliance Agreement
    - *It is very, very rare that the costs will be less than \$3,000 and/or that the Compliance Agreement is used.*
  - If Cost Estimate is greater than \$3,000, use Cooperative Agreement
    - *The Pre-Award Letter is what authorizes work to START on the farm. This allows the owner/producer to start work and approves the accrual of reimbursable costs. This is NOT a legally binding document or a guarantee of repayment. A Financial Plan must still be developed and the Notice of Award is the promissory note that guarantees repayment. The Case Manager helps to create and transmit the Pre-Award Letter; CMs are not involved with the Notice of Award.*
- Pre-award letter sent to owner
- Work with producer to write Work Plan (may be similar to Flock Plan)
- Work with producer to write Financial Plan (may be similar to Cost Estimate)
- Coordinate with AS and ADODR to complete Cooperative Compliance Agreement

### Depopulation

- Depopulation

- REMEMBER THAT DEPOPULATION CANNOT BEGIN UNTIL THE INDEMNITY AGREEMENT (VS 1-23) IS FINALIZED.
- This step is coordinated through the Operations Section of the ICP. It may involve foaming, KEDs, TEDs, or other tools used to euthanize the birds. Depending on the size of the premises, this may take several days. Ensure that all animals are treated humanely and their carcasses with respect.
- Depending on the status of the flock, the animals may still be alive, partially deceased, or entirely deceased when depopulation commences. This could affect the on-farm procedures.
- Disposal planned
  - The disposal methods should have been planned as a part of the Flock Plan (and potentially as a part of the Cooperative Agreement). This may be done through:
    - Burial
    - Composting
    - Incineration
    - Roll-off disposal/Landfill
    - Other
  - Coordinate with Operations.
- Composting
  - Start date (date last pile completed) and number of piles \_\_\_\_\_
  - Compost completed

**Cleaning and Disinfection – List by Barn #s and Date**

- Feathers, etc. removed from outside of barns
    - Once the birds have been depopulated, the feathers and bird-related materials must be cleaned from the exterior of the barns and the premises.
  - Rodenticide / Insecticide treatment outside of barns
    - After the feathers have been removed (or while they are being removed), the exterior of the premises must be treated with rodenticide and insecticides to reduce potential disease vectors.
- If a premises has more than one barn, each of these steps must be completed for EACH barn. Document the date of completion for each barn. The 21-day downtime post-disinfection is 21 days from the date the LAST BARN was disinfected.
- C&D walk-through inspection (before any cleaning)
    - This is a good planning moment to assess what must be done to prepare for C&D. This is also where any materials that cannot be cleaned and disinfected are identified and discussed with the owner. Obtain the depreciated values of these materials from the owner for use for reimbursement. An example is that manure curtains cannot be effectively cleaned and disinfected; the USDA has authorized the reimbursement of the owner for these materials “where applicable”, so that the original manure curtains may be removed and destroyed.
  - Dry cleaning of barns
    - All organic and particulate material must be removed from the barns so that the disinfectants can penetrate and work to destroy the virus. Ensure that there is a plan in place to dispose of the material cleaned out of the barn (should be in the Flock Plan). This is the point where the removal of barn curtains, egg rollers, and other items might be necessary to ensure adequate disinfection.
  - C&D walk-through inspection (after dry clean)
    - Verify that the dry cleaning was adequately completed before commencing the wet cleaning.
  - Wet cleaning / Washing of barns
    - This is the scrubbing of the barn with water and fluids (ergo, “wet” cleaning) to further remove dust, dirt, etc. prior to disinfection.
  - C&D final inspection (following wet cleaning, prior to disinfection)
    - Inspection to ensure the surfaces are prepared for disinfection
  - Disinfection of barns
    - Follow Flock Plan and ensure that SOPs are followed and proper safety precautions are taken.
  - Rodenticide / Insecticide treatment of interior of barns
    - Important. Do NOT want insects or rodents to serve as vectors.
  - Environmental sampling
    - Is a part of the Flock Plan and continuing surveillance.
  - 21-day downtime post-disinfection of the LAST BARN.
    - MUST be completed before re-stocking. Has to be from the date the last barn was disinfected.

- *The “Start Date” is therefore the same day that the last barn’s disinfection was completed.*

#### **Return to Production/Re-stocking and Release of Quarantine**

- Restocking approved by APHIS and State Officials
  - *Restocking MUST be approved by APHIS and State Officials. If it is not and the premises tests positive for the same strain of HPAI, those premises will NOT be eligible for indemnity payments.*
  - Date of restocking
    - *Should be the same as Testing @ day 1*
  - Testing @ day 1
    - *Note that the birds MUST be at least 21 days old at the time of the first sampling for testing.*
  - Testing @ day 14
    - *This is the final test to release the premises back to normal operations and to release the quarantine.*
- Quarantine released if/when both tests are negative 😊
  - *This is the happy moment when the CM’s job is over (for this premise)!*
  - *BUT REMEMBER – the premises may be individually cleared yet remain under quarantine if they are still in the quarantine zone(s) of other nearby infected premises.*

Hello! My name is Dr. \_\_\_\_\_. I am with the USDA HPAI TASK FORCE.

I am calling about the positive HPAI lab result we received for your premises.

I will need to meet with you to discuss the indemnity process and the next steps involved in dealing with this situation. I also must remind you that your farm is under quarantine for this disease.

Moving forward, it will make it easier for all of us and help expedite this process if you have the following documentation prepared for our meeting. We will need:

- Flock inventory records for the last 2 weeks
- Mortality records for the last 2 weeks
- Egg inventory records for the last 2 weeks; we will need to determine the number of eggs on hand today for indemnity purposes.

We will also need to discuss biosecurity measures that you should implement immediately to minimize the spread of this virus to other producers and friends.

Do you have any questions for me at this point? Does that sound ok?

Do you have a suggestion of where we could meet in privacy to complete some paperwork? It is not necessary to meet at the infected site.

*Establish time, date, location for meeting. Repeat these details to producer to confirm. Sign off.*

## DRAFT First Phone Call

Hello! Is this Mr./Ms. \_\_\_\_\_ of Such and Such Farms?

This is [*Who you are*] with the USDA. We have confirmed that your farm is positive for High Path Avian Influenza.

I needed to call you to let you know that the diagnosis has been confirmed, get some information from you, and set up a good time where I can come and meet with you so we can get the ball rolling on taking care of your farm.

First off, your farm is a positive premise now. That means it is under strict quarantine. As you know, that means no birds in or out, no eggs in or out, and nothing else in or out of the barns.

Next thing, I just need to review what your current biosecurity protocols are. We do not want anyone on your farm to accidentally carry virus off the farm and infect anyone else.

*(review biosecurity as needed)*

I also need to gather a few nuggets of information from you: contact information, etc.

*(fill in contact info part of the mini memo)*

Last thing for today: when would be a good time to meet with you to discuss our next steps? This will take some time, but is essential for moving forward with taking care of your farm so that we can get you back in business. If you have an office or if you'd like to meet somewhere, just let me know.

*(establish time/location)*

Thank you for your time. I'll see you at [*Time*] at [*location*].

## Mini-Memo for <Farm Name>

Date: \_\_\_\_\_

Person completing mini memo: \_\_\_\_\_

1. **Name of facility/complex:**
2. **GPS coordinates (lat/long) and 911 address of premises:**
3. **Company Address:**
4. **County of premises:**
5. **Name of owner/manager & Phone Number:**
  - a. Owner of Premises:
  - b. Bird Owner:
6. **Type of flock (turkey, chicken, layer, breeder, backyard, etc.):**
7. **Flock information including the inventory by house/barn (species, breed, age, sex, production stage, number molted, number of days post-molt, number of days in lay, number of eggs)**
8. **Date of onset of clinical signs (if present):**
9. **Date of facility quarantine:**
  - a. Date of verbal quarantine:
  - b. Date of written quarantine:
    - i. Copy of written quarantine in case file: Y / N
10. **Reason for test (area surveillance, pre-movement, NPIP, sick-bird call):**
11. **Name of NAHLN lab submitting samples:**
12. **Who will handle the following tasks (e.g. poultry owner, farm owner, farm/poultry owner contractor, VS (NVS) paid contractor, etc.):**
  - a. Bird euthanasia:
    - i. What method?
  - b. Removal of dead birds from the building:
  - c. Disposal of dead birds by burial, incineration, transport in bio-bags or sealed containers to landfill:
  - d. Removal of manure/litter from the building:
  - e. Disposal of manure and litter from the farm (either composted on site or filled bio-bags removed by transport to landfill):

- f. Cleaning and disinfection of premises and conveyances:
  - g. Removal and disposal of material that cannot be cleaned and disinfected:
  - h. Rodent and insect control:
13. **Estimate of resources needed for depopulation operations:**
- a. Personnel -- <insert # and type of personnel required>
  - b. Equipment/Materials -- <insert # and type of equipment/materials required>
  - c. Support Crews/Equipment -- <insert type of support crews and equipment required>

**Additional Remarks:**



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

## **APPROVAL OF THE VS 1-23 FORM**

The VS 1-23 Form is used to document the animal inventory and appraised value of birds and eggs.

### **Procedure**

1. The appraiser (State or Federal official) collects barn records and completes a preliminary inventory.
2. The appraiser completes the VS 1-23 Form with data indicating the age, sex, and breed of the birds.
3. The appraiser (State or Federal official) visually verifies the bird numbers and updates the inventory if mortality has continued. The appraiser completes the VS 1-23 Form with those numbers.
4. The appraiser works with VS Incident Coordination Group HPAI Operations (Ops) Section (the email address for the Operations Section is [HPAIops@aphis.usda.gov](mailto:HPAIops@aphis.usda.gov)) to develop bird and egg values to be entered on the VS 1-23 Form.
5. The determined value is placed on the form.
6. The appraiser and producer sign the VS 1-23 Form. Indemnity numbers are not finalized until the producer signs the document. If there is a delay in signing, a new census will need to be conducted.
7. Once the producer signs the VS 1-23 Form, the Incident Management Team (IMT) forwards the form to HPAI Ops Section for final review.
8. Once HPAI Ops Section has reviewed, HPAI Ops Section sends the Incident Management Team confirmation that the VS 1-23 has been approved and then forwards the VS 1-23 to the HPAI Budget Section (the email address for the Budget Section is [hpai.budget.team@aphis.usda.gov](mailto:hpai.budget.team@aphis.usda.gov)) for final signature by the HPAI Budget Section Lead and subsequent processing.
9. The IMT Finance/Admin Group will process signed Electronic Funds Transfer (EFT) forms received from producers through Minneapolis and obtain a vendor number. Vendor numbers for corporations with multiple affected flocks will be added to a SharePoint file so that all IMTs can access. Vendor numbers obtained for other producers will be sent to [HPAI Budget Section](#).
10. HPAI Budget Section will post the approved VS 1-23 Form on a SharePoint site accessible to IMT and District Finance personnel.

## **PROCESSING OF THE VS 1-23 FORM FOR PAYMENT**

The HPAI Budget Section will hold the approved VS 1-23 Form and not submit for payment until the flock plan has been approved. HPAI Ops Section will notify HPAI Budget Section when the flock plan is approved and the birds listed on the VS 1-23 have been depopulated. HPAI Budget Section will then submit the VS 1-23 to Minneapolis for payment.

## Procedure

1. HPAI Budget Section receives confirmation from HPAI Ops Section that the flock plan has been approved and that the birds listed on the VS 1-23 have been depopulated.
2. HPAI Budget Section prepares MRPBS Cover Sheet and VS 1-31 Form.
3. HPAI Budget Section submits the MRPBS Cover Sheet, VS 1-31 Form, and VS 1-23 Form to MRPBS for payment.
4. HPAI Budget Section will update the status of the indemnity on a SharePoint site accessible to IMTs and District Finance personnel.

## DOCUMENT RETENTION

Emergency Management Response Services (EMRS) is the designated records system for this incident. Hard copies of documents should, however, be kept within the IMT records or at the District Office until further guidance on record retention and management is provided at the end of the incident.

## USDA HPAI BUDGET CONTACT INFORMATION

For Processing Forms and Paperwork:

HPAI Operations Section: [HPAIOps@aphis.usda.gov](mailto:HPAIOps@aphis.usda.gov)

HPAI Budget Section: [hpai.budget.team@aphis.usda.gov](mailto:hpai.budget.team@aphis.usda.gov)

For Specific Questions on Budget:

[Carol.A.Tuszynski@aphis.usda.gov](mailto:Carol.A.Tuszynski@aphis.usda.gov)

[Patricia.Donohue-Galvin@aphis.usda.gov](mailto:Patricia.Donohue-Galvin@aphis.usda.gov)

## **2015 IOWA HPAI INDEMNITY DOCUMENT FLOW (effective 04 June 2015)**

**Important – The following naming conventions must be followed:**

**File Names: 15IAHPAI.CountyXX.OwnerName.Prem-id.FormDescription.Date**

**Subject Lines: IA CountyXX Prem-id DescriptionI**

1. CM provides HPAI IA Plans with the information specified in Appendix 1. This information is usually transmitted in the minimemo. **This information should be provided as early as possible so that the following steps can be completed on time.**
2. HPAI IA Plans will send to HPAI Ops to determine values to enter in VS 1-23. HPAI Ops may request more information at this point.
3. When values are received, HPAI IA Plans will enter into the VS 1-23 and send to the CM for signatures by appraiser (usually the CM) and owner.

**Very Important – The owner must initial the appropriate mortgage certification space**

4. Scans of the VS 1-23 with owner and appraiser signatures are forwarded to HPAI Ops (either thru HPAI IA Plans or with a cc to HPAI Plans).

**Very Important – Scans must be legible and sent by cutoff time to allow HPAI Ops time to approve.**

5. HPAI Ops sends an email to HPAI Plans
  - a. Requesting more information or clarification **-or-**
  - b. the VS 1-23 is approved and authorization is given to depopulate
6. HPAI Plans will alert CM and Logistics section that depopulation is approved.
7. **Very Important – A paper copy with original owner signature, mortgage certifications initials, and appraiser signature must be delivered to the HPAI IA Finance Section.**



## Information needed for Appraisal and Indemnity Claim Forms

### Guidance: Information and Documentation Needed for Completion of VS 1-23 (and 1-24, as needed)

#### General:

- Date of the actual appraisal. This should go into VS 1-23 block 26. The appraisal date should be on or after the date of the presumptive positive diagnosis (see below under “No. units” for clarification).
- Date of Certification and Appraisal Certificate, block 27, should reflect the applicable date (i.e. either occur on or after the date in block 26).
- Ensure owner-claimant mortgage certification is initialed in the appropriate space. READ CAREFULLY to ensure the correct space is initialed.
- All appraisal information listed below must be accompanied by verified inventory records (these can be electronic or hard copy) from the premises.
  - Actual inventory records and receipts for any animals, products (including receipts for salvage received from eggs going to the breaker, etc.) or materials from the date of appraisal must be submitted with the information below to HPAI OPS for appraisal values and approval. WITHOUT THESE RECORDS, THE SUBMISSION IS INCOMPLETE AND CANNOT BE PROCESSED.

#### Layers:

11. Description – e.g., layers, barn number, stage of lay
  - Stage of Lay is determined by the number of times the layer hen has gone through molt. A 1<sup>st</sup> lay hen has never molted; a 2<sup>nd</sup> lay hen has molted once.
  - If the bird has molted, record the date of the molt.  
Example: Layer hens, Barn 16, 1<sup>st</sup> lay
12. Species
13. Age is reported in weeks by stage of lay
  - For 1<sup>st</sup> lay birds, use the total age of the bird as the age. Do NOT use the number of weeks in lay.  
Example: A 75 week old bird who has NOT molted is a 75 week, 1<sup>st</sup> lay bird.
  - For 2<sup>nd</sup> lay birds, use the number of weeks since the start of the molt as the age of the bird (round to the nearest week: 6 weeks + 4 days = 7 weeks and 6 weeks + 3 days = 6 weeks).  
Example: A 75 week old bird that was molted 3 weeks ago is a 3 week, 2<sup>nd</sup> lay bird
14. Sex
15. Breed
16. Grade, Purebred
17. Unit
18. No. Units
  - Bird numbers/inventory on/or after the date of the presumptive positive diagnosis [the day the NAHLN lab (or NVSL if they go straight there) reports the H5]. Work with the owner to determine the appropriate date for the appraisal
  - **NOTE: the appraisal date should be the same for birds and eggs on the same premises.**

#### Breeder birds: - specify parent or grand-parent breeder

Box 13: Age in weeks and by stage in lay for females, as detailed above.

#### Meat birds:

11. Description (e.g., meat birds, barn number etc.)
12. Species
13. Age in days
14. Sex

15. Breed
16. Grade, Purebred/Materials
17. Unit
18. No. Units
  - Bird numbers/inventory on/or after the date of the presumptive positive diagnosis (work with the owner to determine the appropriate date for appraisal)

**Eggs:**

- Appraisal date should be the same as the birds (see layers/breeders above)
- Table eggs( for eating) are priced by the dozen
- Hatching eggs (to become birds) are priced per egg
- If eggs go to the breaker information and amount received should be recorded on VS 1-24 and the total value recorded on Grand Total of line 21 (salvage – from VS 1-24) on form VS 1-23; salvage will be deducted from Total Appraisal value.
- **NOTE: Eggs laid after the appraisal date cannot be added to the appraisal; they are owned by USDA as part of the hen. However, the owners can send them to a breaking facility and keep the proceeds.**

**For organic production** – need USDA Organic Certificate attached to appraisal and for organic prices on the VS 1-23.

**FOR ALL FORMS:**

It is very important that the authorized representative initial the correct space in the “**Owner-Claimant Mortgagor Certification**” box. If the incorrect space is initialed, it can delay the VS 1-23 approval process for days and thus delay depopulation for days. For this purpose, the birds/eggs either ARE or ARE NOT mortgaged.

- IF THE BIRDS/EGGS ARE MORTGAGED, this means that the birds/eggs are owned by another group/person/organization, such as a bank or a larger corporation.
- IF THE BIRDS/EGGS ARE NOT MORTGAGED. This means that the birds/eggs are owned by the owner/producer.

This information is required to be completed for the appraisal of animals, for which indemnity is claimed. No monies or other benefits may be paid out unless the report is completed and filed as authorized under (9. CFR 51).	According to the Paperwork Reduction Act of 1085, no persons are required to respond to a collection of information unless it displays a valid OMB number. The valid OMB control number for this information collection is 0579-0047. The time to complete this collection of information is estimated to average .0160 hours per response, including the time for reviewing instruction, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the form.	OMB NUMBER 0579-0047
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UNITED STATES DEPARTMENT OF AGRICULTURE ANIMAL AND PLANT HEALTH INSPECTION SERVICE VETERINARY SERVICES  <b>APPRAISAL AND INDEMNITY CLAIM FOR</b>  <input type="checkbox"/> ANIMALS DESTROYED <input type="checkbox"/> MATERIALS DESTROYED	<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width:50%; padding: 5px;">1. VS PROGRAM DISEASE NAME</td> <td style="width:50%; padding: 5px;">2. PREMISES IDENTIFICATION NO.</td> </tr> <tr> <td style="padding: 5px;">3. HERD/FLOCK IDENTIFICATION NO.</td> <td style="padding: 5px;">4. HERD/FLOCK DISEASE STATUS</td> </tr> <tr> <td style="padding: 5px;">5. DATE ANIMALS/MATERIALS DESTROYED</td> <td style="padding: 5px;">6. DATE OF CLEANING AND DISINFECTING</td> </tr> </table>	1. VS PROGRAM DISEASE NAME	2. PREMISES IDENTIFICATION NO.	3. HERD/FLOCK IDENTIFICATION NO.	4. HERD/FLOCK DISEASE STATUS	5. DATE ANIMALS/MATERIALS DESTROYED	6. DATE OF CLEANING AND DISINFECTING
1. VS PROGRAM DISEASE NAME	2. PREMISES IDENTIFICATION NO.						
3. HERD/FLOCK IDENTIFICATION NO.	4. HERD/FLOCK DISEASE STATUS						
5. DATE ANIMALS/MATERIALS DESTROYED	6. DATE OF CLEANING AND DISINFECTING						

7.a. OWNER-CLAIMANT LEGAL NAME	9.a. PREMISES WHERE APPRAISAL WAS MADE (If different from Item 7)				
7.b. OWNER-CLAIMANT MAILING ADDRESS (Number & street, or RFD)	9.b. PREMISES ADDRESS (Number & street, or RFD)				
7.c. CITY	7.d. STATE	7.e. ZIP CODE	9.c. CITY	9.d. STATE	9.e. ZIP CODE
8. IF JOINT OWNERSHIP, GIVE FULL NAME OF ALL OWNERS (If same as Item 7.a., so state)					10. COUNTY

APPRAISED							APPRAISAL			TOTAL APPRAISAL			AMOUNT DUE FROM				
L	I	N	E	11. DESCRIPTION/IDENTIFICATION/PAGE NO. OF VS FORM 1-23A (Description of Materials of Animal-reactortag No., Animal ID No., tattoo, Tag, or Brand)	12. SPECIES	13. AGE	14. SEX	15. BREED	16. GRADE PUREBRED/MATERIALS	17. UNIT (head, lb, ton, etc)	18. NO. UNITS/WEIGHT	19. VALUE PER UNIT	20. TOTAL APPRAISAL	21. SALVAGE VS FORM 1-24	22. DIFFERENCE	23. UNITED STATES	24. STATE AGENCY
25. SOURCE OF PRICING DATA AND/OR SPECIAL FACTORS AFFECTING VALUE OF ANIMALS AND/OR MATERIALS									<b>GRAND TOTALS</b> (Basis for payment)								

26. DATE ANIMALS/MATERIALS APPRAISED AND/OR TAGGED AND BRANDED	<b>OWNER-CLAIMANT MORTGAGOR CERTIFICATION</b> I certify that the animals and/or materials identified in this claim are (initials) _____, are not (initials) _____, not applicable _____ (initials) mortgaged. I further certify that I own or am authorized to represent the owner, or am otherwise the claimant, of the animals and/or materials identified in this claim. I make claim for all amounts due me in accordance with all applicable laws and regulations governing the payment for the animals and/or materials identified in this claim. I fully understand my right to compensation in accordance with applicable laws and regulations. I hereby agree that the appraised value of animals and/or materials shown here is in accordance with all applicable laws and regulations, and I hereby expressly waive any claim I may have to compensation for animals and/or materials identified in this claim above the value at which such animals and/or materials are appraised as shown on this claim. I further agree to the destruction of said animals and/or materials.
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<b>CERTIFICATION AND APPRAISAL CERTIFICATE</b> I certify that materials and/or materials listed above are properly identified and are eligible for indemnity and animals and/or materials requiring appraisals are appraised individually unless all animals or materials in a group are of equal value.		28. TITLE	30. SIGNATURE OF OWNER-CLAIMANT OR AUTHORIZED REPRESENTATIVE IN	31. TITLE OF CLAIMANT
27. NAME AND SIGNATURE OF GOVERNMENT APPRAISER OR REPRESENTATIVE	29. NAME AND SIGNATURE OF SPECIAL EXPERT APPRAISER	32. DATE SIGNED	33. IF MORTGAGED, FEDERAL INDEMNITY CHECK WILL BE DRAWN IN FAVOR OF MORTGAGOR AND SHOULD BE MAILED TO: <input type="checkbox"/> OWNER-MORTGAGOR (Item 7) <input type="checkbox"/> MORTGAGEE (Item 7)	

<b>STATE CERTIFICATION</b> I certify the amount in Item 25 as due from the State Agency is correct and each such amount has been or will be paid the Owner-Claimant.		34.a. NAME AND SIGNATURE OF MORTGAGEE OR AUTHORIZED REPRESENTATIVE				
35. NAME AND SIGNATURE	36. TITLE	34.b. MORTGAGEE MAILING ADDRESS				
37. STATE AGENCY	38. DATE	34.c. CITY	34.d. STATE	34.e. ZIP CODE		

APPROVED	39. FOR \$	40. ALLOTMENT NO.	41. BY NAME AND SIGNATURE	42. TITLE	43. DATE	44. PAGE OF
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# Authorized Signatures

List the name and title of those individuals in your organization who are authorized to execute proposals, contracts, agreements, bonds and other documents and/or instruments on behalf of the organization. Specify if more than one signature is required.

Name (Typed)	Signature	Title

I certify that the names of the individuals identified on this listing are current as of the date of execution below and that these individuals are authorized to sign Agreements and other legally binding documents related to Agreements with the Animal Plant Health Inspection Service – APHIS on behalf of ( **Name of Cooperator/Producer**). I understand and agree that the (**Name of Cooperator/Producer**) has a duty to ensure that this listing is immediately updated and communicated to APHIS whenever any of the authorized signatories above is no longer employed or have their responsibilities changed resulting in their no longer being authorized to sign Agreements with APHIS or whenever new signatories are designated.

For privacy purposes DO NOT ATTACH any documentation containing personal information, such as bank account numbers, social security numbers, driver’s licenses, home addresses, social security cards or any other personally identifiable information that you do not want released as part of a public record. APHIS reserves the right to publish the names and titles of authorized signatories of contractors.

**COOPERATOR LEGAL NAME:** \_\_\_\_\_

**COOPERATOR DUNS Number:** \_\_\_\_\_

\_\_\_\_\_  
Authorized Signature

\_\_\_\_\_  
Date

\_\_\_\_\_  
Title

\_\_\_\_\_  
Email

\_\_\_\_\_  
Telephone





\*\*\*\*\*F QO GUVIE XGP F QTU<  
ACH VENDOR ENROLLMENT FORM  
(Please type or print all information)

Company/Payee Name \_\_\_\_\_

Address \_\_\_\_\_

Taxpayer ID Number (TIN) \_\_\_\_\_ (9 digits)

Financial Institution Name \_\_\_\_\_

Financial Institution Routing Transit Number \_\_\_\_\_ (9 digits)

Depositor Account Title \_\_\_\_\_

Depositor Account Number \_\_\_\_\_

Type (check one)    Checking       Savings

Vendor's Contact Person \_\_\_\_\_ Phone \_\_\_\_\_

Vendor's Contact E-mail \_\_\_\_\_

I am no longer doing business with USDA APHIS. Please deactivate my account.

Vendor's Authorized Signature \_\_\_\_\_ Date \_\_\_\_\_

Privacy Act Statement: Collection of this information is authorized by 31 U.S.C. 3332(g), 3325(d), and 7701(c). The information will be used by the Government to make payments by electronic funds to a vendor. This information may also be used for income reporting and for collecting and reporting any delinquent amounts arising out of a vendor's relationship with the Government. Disclosure of the information by the vendor is mandatory. Failure to provide the requested information may result in the delay or withholding of payments to the vendor.

MAIL TO:    USDA, APHIS, FMD  
              Attn: Financial Operations Services Team (FOST)  
              100 North Sixth Street, Suite 510C  
              Minneapolis, MN 55403

FAX TO:    612-336-3561



## SOP: 15IAHPAI Flock Plan Work Flow

1. Case Manager (CM) sends Draft Flock plan to [HPAI.AI.plans@aphis.usda.gov](mailto:HPAI.AI.plans@aphis.usda.gov)  
Doc Title format- **15IAHPAI.COUNTY.BUSINESSNAME.PREPID.DRAFT FLOCK PLAN.DATE**
2. Flock plan reviewed by Appraisal-Compliance Unit (ACU) in the Plans Section
3. After approval by Plans Section ACU reviewer, they sends draft flock plan forward – using **15IAHPAI.IA Plans shared mailbox** to [HPAIOps@aphis.usda.gov](mailto:HPAIOps@aphis.usda.gov) to request approval. (see diagram below)
4. After approval by HPAI Ops, they send the approved draft to [HPAI.AI.plans@aphis.usda.gov](mailto:HPAI.AI.plans@aphis.usda.gov)
  - The Assigned Plans Section ACU reviewer retrieves the document and applies document Title change: **15IAHPAI.COUNTY.BUSINESSNAME.PREPID. FLOCK PLAN for Signature.DATE**
5. ACU reviewer uses **HPAI.IA Plans shared mailbox** to send the renamed document to the CM and Operations Section Disease Branch Director (DBD)
  - CM obtains signature of flock owner/premises owner.
6. After CM obtains signatures of flock/premises owners, CM (or DBD) scans the signed **15IAHPAI.COUNTY.BUSINESSNAME.PREPID. FLOCK PLAN for Signature.DATE** to [HPAI.AI.plans@aphis.usda.gov](mailto:HPAI.AI.plans@aphis.usda.gov) or hand carries the hard copy to Plans Section.
7. ACU personnel apply title change to:  
**15IAHPAI.COUNTY.BUSINESSNAME.PREPID. FLOCK PLAN for IC signature.DATE**
  - ACU sends the renamed document to **HPAI.IA Plans shared mailbox** to request Plans Section Documents Unit (DU) to route for signatures. When practicable, Plans Section DU will batch flock plans before transmitting or delivering for IC signature.
8. IC signs flock plans, transmits to the Plans Section DU or to [HPAI.AI.plans@aphis.usda.gov](mailto:HPAI.AI.plans@aphis.usda.gov): subject = “flock plan for State Veterinarian signature” and changes doc title to:  
**15IAHPAI.COUNTY.BUSINESSNAME.PREPID. FLOCK PLAN for final signature.DATE**
9. Plans Section DU transmits renamed flock plans with IC signature to State Veterinarian for signature. State Veterinarian signs the flock plan and returns the fully signed flock plan to [HPAI.AI.plans@aphis.usda.gov](mailto:HPAI.AI.plans@aphis.usda.gov): subject = Flock plan, final signed flock plan
10. DU changes title to **15IAHPAI.COUNTY.BUSINESSNAME.PREPID. FLOCK PLAN final signed.DATE**

At each transition, Plans Section Documentation Unit receives flock plan, uploads plan to EMRS and ensures the appropriate stage is updated in EMRS.

**START**

Case **Manager (CM)** drafts flock plan using most current template, (v9, May 13, 2015)

HPAI Ops responds to [HPAI.AI.plans@aphis.usda.gov](mailto:HPAI.AI.plans@aphis.usda.gov) with **approval** or **comments**

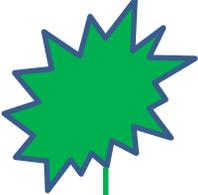
**Appraisal-Compliance Unit (ACU)** reviewer approval

**CM** responds to [HPAI.AI.plans@aphis.usda.gov](mailto:HPAI.AI.plans@aphis.usda.gov) with agreed changes

If approved by **ACU** reviewer, they sends flock plan to [HPAIOps@aphis.usda.gov](mailto:HPAIOps@aphis.usda.gov)  
From [HPAI.AI.plans@aphis.usda.gov](mailto:HPAI.AI.plans@aphis.usda.gov)

**YES**      **NO**

If not approved by **ACU** reviewer, send back to **CM** with suggested changes/corrections



After the draft is approved by **ACU** reviewer and **HPAI Ops**, **ACU** Flock plan reviewer sends to **CM**  
From [HPAI.AI.plans@aphis.usda.gov](mailto:HPAI.AI.plans@aphis.usda.gov) and **CM** obtains signature of owners

After owners sign, **CM** delivers to Plans Section [HPAI.AI.plans@aphis.usda.gov](mailto:HPAI.AI.plans@aphis.usda.gov)

See work flow steps 7, 8, 9 above



**Flock Plan**  
for HPAI Euthanasia, Disposal,  
and Cleaning and Disinfection Procedures for Commercial Premises in (State)

**Note: This is a general flock plan template intended to serve as a guide. It must be amended as necessary to be specific to the premises listed below.**

Premises ID: (Premises identification number)

Premises State, county, and site number: (Two-letter State abbreviation, county, site number)

Premises Owner: (Name of premises owner)

Premises name and address: (Name of affected premises)  
(Street address, city, State, zip)

Premises Contact Person: (Contact name)  
(Phone number)  
(Email address)

Poultry Owner: (Name of poultry owner)  
(Name of representative, if applicable)  
(Street address, city, State, Zip)

Poultry present: (Census, type, purpose, age in days)

Brief History: (Clinical signs, test results etc.)

This is a written flock management agreement developed between USDA, APHIS, Veterinary Services (VS) and the (State agency) (hereafter, "the State" or "State") with input from (poultry owner and/or premises owner). This flock will be handled in accordance with the State Initial State Response and Containment Plan (ISRCP), HPAI Response Plan Red Book for Highly Pathogenic Avian Influenza (hereafter, "HPAI Response Plan Red Book"), and Code of Federal Regulations (CFR).

The main tenets of this plan include

- Depopulation of all poultry on affected premises
- Composting of poultry, litter, and any other appropriate materials
- Cleaning and disinfection of the premises, [equipment and personnel in order to minimize transmission](#)
- Assuring the premises is disease free
  - Downtime and environmental testing
  - Repopulation and monitoring for disease

### Primary Responsibilities

Euthanasia will be the primary responsibility of (add responsible parties and specify those who will be doing oversight). The poultry owner(s) will be eligible for indemnification. All necessary

indemnity documents regarding the live poultry will be completely filled out and signed prior to euthanasia. The value of the poultry will be obtained by a VS-prepared calculator based on the fair market value of the birds.

Disposal of dead poultry, litter (poultry bedding), and other contaminated materials that result from the depopulation will be the primary responsibility of (add responsible parties) with oversight by VS and the State. These materials will be managed by on-site composting (or insert other method), with concurrence from VS, State and State DNR, followed by approved disposal, as described below.

(The poultry/premises owner) will be primarily responsible for cleaning of the equipment, contaminated barns/areas, conveyances, and other contaminated materials during the composting/C&D process. (The poultry/premises owner) will also apply the insecticide and rodenticide.

Disinfection of equipment, conveyances, and other contaminated materials associated with the depopulation will be the primary responsibility of (poultry/premises owner, depopulation crew, or contractor) and VS. The disinfectant used will be approved by VS and the State from a list that has been EPA approved for use with HPAI.

### **Quarantine and Enhanced Biosecurity**

The standard avian influenza quarantine form was issued on (date). This document was signed by (poultry or premises owner, or representative). The quarantine states that no animals, poultry, poultry products (hatching eggs), or other contaminated materials (manure, mortalities, eggs, shells, feed, etc.) are to enter or leave the premises without a permit issued by the State and appropriate biosecurity established.

Quarantine instructions include increasing biosecurity measures to minimize traffic and implementing protocols to clean and disinfect vehicles and equipment. The quarantine will not be released before

- contaminated materials are composted or otherwise disposed of;
- the farm is cleaned and disinfected according to measures outlined in the ISRCP and HPAI Response Plan Red Book;
- all flock and environmental testing in the Control Area has been completed with negative results; and
- repopulated poultry are confirmed to be free of virus.

Control Area quarantines and movement control restrictions will be maintained until at least 21 days have elapsed since the decontamination of all confirmed infected premises and negative results for all surveillance activities within the Control Area are documented by the State.

### **Establishment of Biosecurity Line and Measures**

In order to minimize disease transmission and clarify for all parties the agreed upon dirty/clean Biosecurity line, a combination of T-posts, rope, cones and signs will be installed by VS. The attached picture (attach google earth image of property with appropriate warm/hot zones, entry point(s), and exit point(s) for decontamination) communicates the agreed upon visible line to be established on the premises. In addition, the following Biosecurity measures shall be used upon entering and exiting the dirty/clean biosecurity line

- At a minimum, entering the established dirty zone shall require the donning of overalls, rubber boots, gloves, and a hairnet or hood. The use of other personal protective equipment is recommended such as a safety glasses, Tyvek suit, and particulate dust mask. If a respirator is used, all parties shall insure personnel are properly fitted.
- Any personnel, vehicle or equipment exiting the dirty zone shall go through the agreed upon exit decontamination point for final cleaning and disinfection. All vehicles, equipment and reusable personal protective equipment shall be free of visible debris prior to final disinfection. Personnel shall leave this point with no contaminated clothing, rubber boots, gloves, hairnet/hood and other protective equipment. Disposal of personnel protective equipment in a sealed trash bag is appropriate and recommended. If reusable, properly cleaned and disinfected protective equipment may be worn into the clean area. The use of a disinfectant bath or spray with approved disinfectant at the exit decontamination point shall be used on all reusable personal protective items, vehicles and equipment.

### **Epidemiologic Investigation**

An epidemiologic investigation to assess potential pathways of initial introduction of HPAI viruses onto this operation and potential lateral transmission routes of HPAI viruses from this infected premises to non-infected premises is to be conducted by a State or Federal veterinarian. This investigation should be initiated as soon as possible, preferably no later than one (1) week following detection.

An investigation form is provided and should serve as a guide for conducting a systematic and standardized assessment of potential pathways of initial virus movement onto the farm and potential movement of the virus off the farm. All sections of the form should be completed through direct conversation with the individual(s) most familiar with the farm's management and operations and questions are to be answered for the period of two (2) weeks prior to the detection of HPAI. Direct observation of the biosecurity or management practices asked about should be conducted, where applicable.

Completed investigations are to be forwarded to USDA APHIS, Office of the Chief Epidemiologist with a copy to the signatories of this plan.

### **Requests for Indemnity for Disposal, Cleaning, and Disinfection Activities**

Any disposal of poultry and cleaning and disinfection of premises, conveyances, and materials for which indemnity is requested by (the premises and/or poultry owner(s)) must be performed under a separate cooperative compliance agreement between the claimant and VS. The cooperative compliance agreement or a pre-award letter for the 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 cooperative compliance agreement or pre-award is signed will not be eligible for reimbursement.

### **Euthanasia**

All flocks on 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 (PPE). Biosecurity will be maintained using a clean area and dirty area, to be established before euthanasia and disposal start.

Poultry **will be/was** euthanized by **(a contractor, owner - name)** using **(method – foam, CO<sub>2</sub>, etc.)**. The depopulation crew expects to begin euthanasia on **(date) or completed euthanasia on (date)**. Euthanasia **will be/was/ was not** conducted under the direct supervision of State or Federal (VS) personnel.

### **Disposal of Euthanized Poultry**

The euthanized birds will be composted on site following the procedures below. **(If other methods in addition to, or instead of, composting are used, specify these procedures below.)**

1. **Disposal of all euthanized poultry and eggs.** These items will be composted on site by **(an authorized contractor/owner)** with supervision by the State and/ VS. **(Insert other method if applicable.)**
2. **Disposal of litter, manure, debris, and feed.** These items will be composted on site by **(an authorized contractor/owner)** with supervision by the State and VS. **(Insert other method if applicable.)**
3. **Monitoring of materials.** Composted materials will be monitored by State and/or VS personnel to ensure virus destruction and to identify when material can be turned or removed from the facility. **(Include specific information describing who is monitoring compost temperatures and who will be reviewing that information to direct the compost management.)**

### **Cleaning and Disinfection of Conveyances Following Depopulation**

All vehicles and equipment used in holding, handling, or transporting, or that have been in contact with, affected poultry, poultry products, or contaminated materials will be cleaned and disinfected prior to leaving the premises. The exterior, including the undercarriage, and interior surfaces, including truck cabs, will be cleaned. The interior of the truck cabs will be washed with clean water and a disinfectant applied as authorized in 9 CFR § 71.10(a). The cleaning and disinfection of these items will be completed by **(specify)**, with approval and oversight by State or VS personnel.

Drivers will be instructed to avoid contaminating the cab of the truck. Should exiting the vehicle become necessary, plastic boot covers will be provided along with instructions on their proper use and disposal.

Manure, litter, and other debris removed from these vehicles will be handled in a manner similar to that described above.

### **Preparation for Cleaning and Disinfection**

Following the depopulation of poultry on the premises, the following procedures will 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 and clean any debris from around the exterior of the poultry houses.
- Apply insecticides and rodenticides immediately after the depopulation of the birds. This will be documented by State and/or VS personnel. The buildings will remain undisturbed, with the exception of required compost monitoring, for as long as possible in order to allow as much of the HPAI virus as possible to deteriorate to a non-infective state.

## **Destruction and Disposal of Contaminated Materials that Can't be Cleaned and Disinfected**

Before cleaning and disinfection, the premises will be inspected by the poultry or premises owner and personnel from the State and/or VS to determine if there are contaminated items 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 another reason. The fair market value (used price) of these items will be determined by a State or VS appraiser with input from the owner. The destruction and disposal of these items will be conducted in accordance with VS Guidance 8603.1. Prior VS approval is required for destruction of items for which indemnity will be claimed.

### **When to Clean**

Manure and litter will be composted within the poultry houses and must complete composting prior to any cleaning of the houses. **(Remove if in-house composting is not occurring and specify when cleaning can commence.)** Houses should not be cleaned out or litter moved until all potential HPAI virus that may have contaminated the manure and litter is inactivated, as determined by State and/or VS personnel and in accordance with the ISRCP and HPAI Response Plan Red Book. All compost material must remain on the infected premises for at least 30 days.

### **Cleaning and Disinfection**

Cleaning and disinfection will be performed on all contaminated buildings and surfaces including pump houses and service areas.

- 1. Disposal of all litter, manure, debris, and feed.** These items will be composted under the direction of State and/or VS personnel and in accordance with the ISRCP and HPAI Response Plan Red Book and allowed to remain undisturbed for an amount of time approved by State and/or VS personnel. The interior of the compost piles must reach a temperature determined by the State or VS as measured at multiple sites within the compost piles. The compost piles will be turned (at the direction of the State or VS) so that un-composted areas will be moved to the interior of the pile. Once the composted piles reach the required temperature a second time, as measured at multiple sites, the composting may be completed. This process will be monitored and directed by State or VS personnel. All composted material must remain on the premises for a minimum of 30 days. Composting will be the responsibility of **(insert responsible parties)**.

Once composting is completed and the compost material is considered safe to move, said material can be **(insert disposal method, spread on field, stored etc., and preferably be 2 miles from any other commercial poultry premises)**. State and/or VS personnel will oversee, monitor, and document this process. After use, equipment used to clean out manure, litter, debris, and feed will be washed, disinfected, and inspected at the site to where those materials were 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 State and VS.

- 2. Cleaning of the premises and equipment.** Dry cleaning (the removal of contaminated materials without the use of water) and wet cleaning (washing) processes will be sufficient to ensure that all materials and substances contaminated with HPAI virus, such as manure, dried blood, and other organic materials, are removed from all surfaces.

Equipment will be disassembled as required to clean all contaminated surfaces. Special attention will be given to automatic feeders and other closed areas to ensure adequate cleaning. Houses and equipment will be inspected and documented by the State and/or VS to ensure that cleaning has removed all contaminated materials or substances and that houses and equipment are completely dry before applying disinfectant.

- 3. Disinfection of premises and materials.** (Insert parties) will be responsible for disinfection. When cleaning has been completed and all surfaces are dry, all contaminated interior surfaces of the structure should be saturated with a disinfectant as approved by EPA and selected by the State and/or VS. Disinfectants will be applied as specified by the manufacturer, ensuring disinfection of all surfaces occurs, and that the disinfectant gets into cracks and crevices. Special attention will be given to automatic feeders and other closed areas to ensure adequate disinfection. Disinfection procedures will be overseen and documented by State and/or VS personnel.

### **Ensuring the Premises is Free of Avian Influenza**

- 1. Environmental Testing:** Following depopulation, cleaning and disinfection, the premises will remain free of avian species for 21 days. Quarantine and movement control restrictions in the Control Area will be maintained until at least 21 days have elapsed since the decontamination of all confirmed infected premises and negative results of surveillance activities within the Control Area determined by the State and/or VS. During this time environmental sampling will be performed by State and/or VS personnel.
- 2. Repopulation and flock monitoring:** The State and APHIS officials must concur in writing prior to any restocking activities. If restocking occurs without prior written approval of State and APHIS officials, this repopulation is at the producer's risk; APHIS will not indemnify previously affected premises that are restocked without prior written approval and subsequently become re-infected.

### **Birds Restocked After 21 Day Downtime**

After repopulation of the premises, the repopulation flock must undergo at least three tests for avian influenza. Sampling for the tests must occur at least seven days apart. All birds sampled for testing must be at least 21 days old. The birds will be tested by collection of tracheal swabs and submission of the samples to (NAHLN lab) for PCR testing for evidence of avian influenza.

### **Post-Quarantine Avian Influenza Poultry Surveillance**

Besides normal NPIP surveillance, all post-quarantine abnormal mortality within 180 days of quarantine release should be investigated and tested for avian influenza by State and/or VS personnel. Abnormal mortality is defined as follows: (Remove info that does not apply to this flock.)

- Commercial broiler turkeys: mortality in excess of 2 birds/1,000 per day for 2 consecutive days;
- Commercial breeder turkeys: mortality in excess of 2 birds/1,000 per day (after 21 days of age);

- Commercial layers: 4 times normal daily mortality for 2 consecutive days (0.5 per 1,000 per day for layers from 2-50 weeks and 0.75 per 1,000 per day for layers over 50 weeks) or 5 percent drop in egg production over 3 days.

Producer/Grower Representative:

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Poultry Owner Representative:

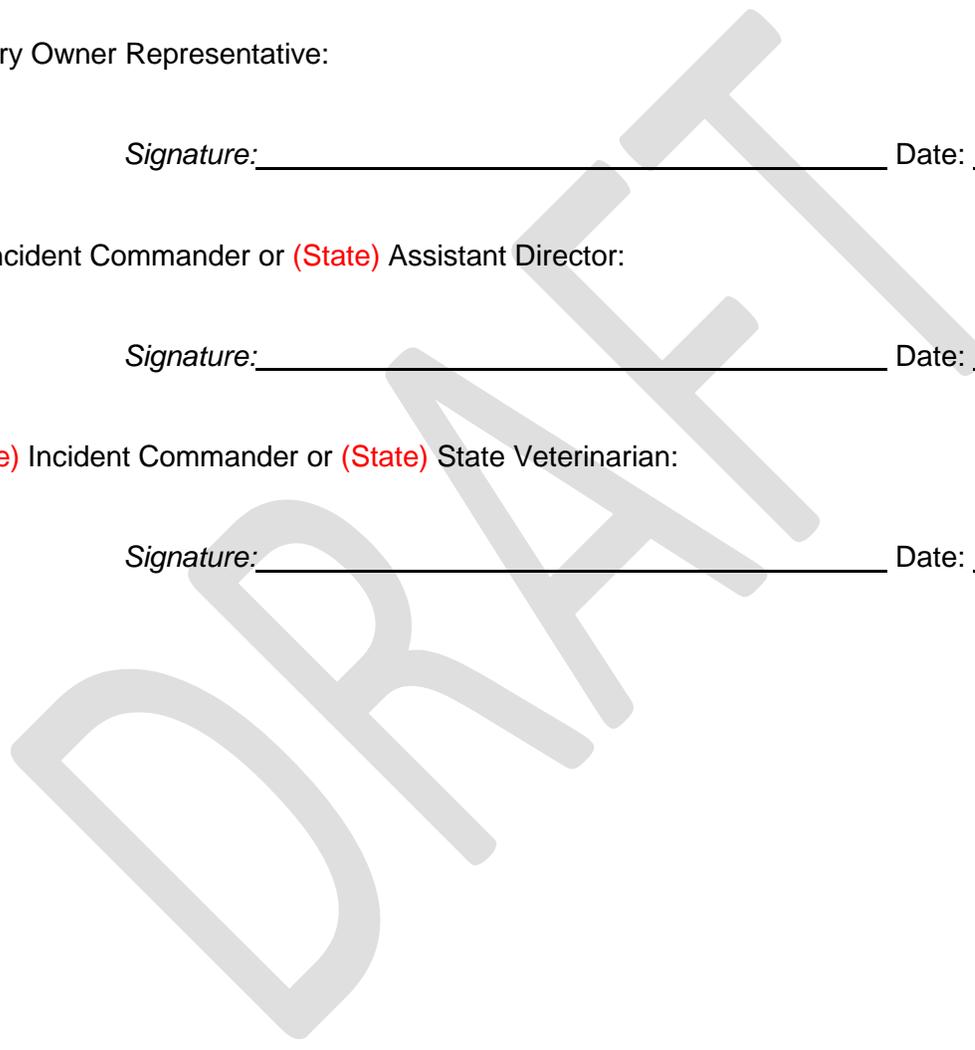
Signature: \_\_\_\_\_ Date: \_\_\_\_\_

VS Incident Commander or (State) Assistant Director:

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

(State) Incident Commander or (State) State Veterinarian:

Signature: \_\_\_\_\_ Date: \_\_\_\_\_





**EXAMPLE Flock Plan – Turkey (fictional names, addresses, etc.)**  
for HPAI Euthanasia, Disposal,  
and Cleaning and Disinfection Procedures for Commercial Premises in Iowa

Premises ID: 008M2RZ

Premises State, County, and site number: IA, Polk, Polk 03

Premises Owner: Jack and Jill Hill

Premises name and address: JJ Pail Farms  
1234 75th Ave  
Somewhere, IA 50123

Premises Contact Person: Jack and Jill Hill  
515-123-4567  
jjpailfarms@gmail.com

Poultry Owner: Turkey Brands dba Lotta Foods  
Bob Crown  
987 Main St, Another Place, IA 50456

Poultry present: Heavy Hybrid Tom turkeys, 135 days of age, total census 30,892

Brief History: Pre-movement test prior to movement to slaughter at 20 weeks of age. Verbal quarantine provided by Dr. Smith during visit on 28 APR 2015.

This is a written flock management agreement developed between USDA, APHIS, Veterinary Services (VS) and the Iowa Department of Agriculture and Land Stewardship (hereafter, “the State” or “State”) with input from Jack and/or Jill Hill (premises owners) and Bob Crown of Turkey Brands (poultry owner). This flock will be handled in accordance with the State Initial State Response and Containment Plan (ISRCP), HPAI Response Plan Red Book for Highly Pathogenic Avian Influenza (hereafter, “HPAI Response Plan Red Book”), and Code of Federal Regulations (CFR).

The main tenets of this plan include

- Depopulation of all poultry on affected premises
- Composting of poultry, litter, and any other appropriate materials
- Cleaning and disinfection of the premises
- Assuring the premises is disease free
  - Downtime and environmental testing
  - Repopulation and monitoring for disease

### **Primary Responsibilities**

Euthanasia will be the primary responsibility of the USDA and IDALS. The poultry owner(s) will be eligible for indemnification. All necessary indemnity documents regarding the live poultry will

be completely filled out and signed prior to euthanasia. The value of the poultry will be obtained by a VS-prepared calculator based on the fair market value of the birds.

Disposal of dead poultry, litter (poultry bedding), and other contaminated materials that result from the depopulation will be the primary responsibility of a USDA approved contractor with oversight by VS and the State. These materials will be managed by on-site composting, with concurrence from VS, State and State DNR, followed by approved disposal, as described below.

Jack and/or Jill Hill will be primarily responsible for cleaning of the equipment, contaminated barns/areas, conveyances, and other contaminated materials during the composting/C&D process. Jack and/or Jill Hill and Turkey Brands will also apply the insecticide and rodenticide.

Disinfection of equipment, conveyances, and other contaminated materials associated with the depopulation will be the primary responsibility of a private contractor and VS. The disinfectant used will be approved by VS and the State from a list that has been EPA approved for use with HPAI.

### **Quarantine and Enhanced Biosecurity**

The standard avian influenza quarantine form was issued on April 29, 2015. This document was signed by Jill Hill. The quarantine states that no animals, poultry, poultry products (hatching eggs), or other contaminated materials (manure, mortalities, eggs, shells, feed, etc.) are to enter or leave the premises without a permit issued by the State and appropriate biosecurity.

Quarantine instructions include increasing biosecurity measures to minimize traffic and implementing protocols to clean and disinfect vehicles and equipment. The quarantine will not be released before

- contaminated materials are composted or otherwise disposed of;
- the farm is cleaned and disinfected according to measures outlined in the ISRCP and HPAI Response Plan Red Book;
- all flock and environmental testing in the Control Area has been completed with negative results; and
- repopulated poultry are confirmed to be free of virus.

Control Area quarantines and movement control restrictions will be maintained until at least 21 days have elapsed since the decontamination of all confirmed infected premises and negative results for all surveillance activities within the Control Area are documented by the State.

### **Epidemiologic Investigation**

An epidemiologic investigation to assess potential pathways of initial introduction of HPAI viruses onto this operation and potential lateral transmission routes of HPAI viruses from this infected premises to non-infected premises is to be conducted by a State or Federal veterinarian. This investigation should be initiated as soon as possible, preferably no later than one (1) week following detection.

An investigation to assess the potential pathways of initial virus movement onto the farm and potential movement of the virus off the farm should be completed through direct conversation with the individual(s) most familiar with the farm's management and operations and questions are to be answered for the period of two (2) weeks prior to the detection of HPAI. Direct

observation of the biosecurity or management practices asked about should be conducted, where applicable.

### **Requests for Indemnity for Disposal, Cleaning, and Disinfection Activities**

Any disposal of poultry and cleaning and disinfection of premises, conveyances, and materials for which indemnity is requested by Turkey Brands must be performed under a separate cooperative compliance agreement between the claimant and VS. The cooperative compliance agreement or a pre-award letter for the 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 cooperative compliance agreement or pre-award is signed will not be eligible for reimbursement.

### **Euthanasia**

All flocks on the affected premises were depopulated in a timely manner. Workers were fit tested and medically approved before entering the farm and did don appropriate personal protective equipment (PPE). Biosecurity was maintained using a clean area and dirty area, which was established before euthanasia and disposal started.

Poultry were euthanized by a private contractor using foam. The depopulation crew performed euthanasia on 2 & 4 May 2015. Euthanasia was conducted under the direct supervision of State or Federal (VS) personnel.

### **Disposal of Euthanized Poultry**

The euthanized birds will be composted on site following the procedures below:

1. **Disposal of all euthanized poultry.** These items will be composted on site by the owner and a private contractor with supervision by the State and/ VS.
2. **Disposal of litter, manure, debris, and feed.** These items will be composted on site by the owner and a private contractor with supervision by the State and VS.
3. **Monitoring of materials.** Composted materials will be monitored by State and/or VS personnel to ensure virus destruction and to identify when material can be turned or removed from the facility. State or VS personnel will monitor temperature on compost piles and oversee the movement of any compost material and maintain records as required by the USDA.

### **Cleaning and Disinfection of Conveyances Following Depopulation**

All vehicles and equipment used in holding, handling, or transporting, or that have been in contact with, affected poultry, poultry products, or contaminated materials will be cleaned and disinfected prior to leaving the premises. The exterior, including the undercarriage, and interior surfaces, including truck cabs, will be cleaned. The interior of the truck cabs will be washed with clean water and a disinfectant applied as authorized in 9 CFR § 71.10(a). The cleaning and disinfection of these items will be completed by Jack and/or Jill Hill or a private contractor, with approval and oversight by State or VS personnel.

Drivers will be instructed to avoid contaminating the cab of the truck. Should exiting the vehicle become necessary, plastic boot covers will be provided along with instructions on their proper use and disposal.

Manure, litter, and other debris removed from these vehicles will be handled in a manner similar to that described above.

### **Preparation for Cleaning and Disinfection**

Following the depopulation of poultry on the premises, the following procedures will 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 and clean any debris from around the exterior of the poultry houses.
- Apply insecticides and rodenticides immediately after the depopulation of the birds. This will be documented by State and/or VS personnel. The buildings will remain undisturbed, with the exception of required compost monitoring, for as long as possible in order to allow as much of the HPAI virus as possible to deteriorate to a non-infective state.

### **Destruction and Disposal of Contaminated Materials that Can't be Cleaned and Disinfected**

Before cleaning and disinfection, the premises will be inspected by the poultry or premises owner and personnel from the State and/or VS to determine if there are contaminated items 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 another reason. The fair market value (used price) of these items will be determined by a State or VS appraiser with input from the owner. The destruction and disposal of these items will be conducted in accordance with VS Guidance 8603.1. Prior VS approval is required for destruction of items for which indemnity will be claimed.

### **When to Clean**

Manure and litter will be composted within the poultry houses and must complete composting prior to any cleaning of the houses. Houses should not be cleaned out or litter moved until all potential HPAI virus that may have contaminated the manure and litter is inactivated, as determined by State and/or VS personnel and in accordance with the ISRCP and HPAI Response Plan Red Book. All compost material must remain on the infected premises for at least 30 days.

### **Cleaning and Disinfection**

Cleaning and disinfection will be performed on all contaminated buildings and surfaces including pump houses and service areas.

1. **Disposal of all litter, manure, debris, and feed.** These items will be composted under the direction of State and/or VS personnel and in accordance with the ISRCP and HPAI Response Plan Red Book and allowed to remain undisturbed for an amount of time approved by State and/or VS personnel. The interior of the compost piles must reach a temperature determined by the State or VS as measured at multiple sites within the compost piles. The compost piles will be turned (at the direction of the State or VS) so that un-composted areas will be moved to the interior of the pile. Once the composted piles reach the required temperature a second time, as measured at multiple sites, the composting may be completed. This process will be monitored and directed by State or

VS personnel. All composted material must remain on the premises for a minimum of 30 days. Composting will be the responsibility of a USDA approved contractor.

Once composting is completed and the compost material is considered safe to move, said material can be spread on fields and stored on pastures, preferably be 2 miles from any other commercial poultry premises. State and/or VS personnel will oversee, monitor, and document this process. After use, equipment used to clean out manure, litter, debris, and feed will be washed, disinfected, and inspected at the site to where those materials were 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 State and VS.

- 2. Cleaning of the premises and equipment.** Dry cleaning (the removal of contaminated materials without the use of water) and wet cleaning (washing) processes will be sufficient to ensure that all materials and substances contaminated with HPAI virus, such as manure, dried blood, and other organic materials, are removed from all surfaces. Equipment will be disassembled as required to clean all contaminated surfaces. Special attention will be given to automatic feeders and other closed areas to ensure adequate cleaning. Houses and equipment will be inspected and documented by the State and/or VS to ensure that cleaning has removed all contaminated materials or substances and that houses and equipment are completely dry before applying disinfectant.
- 3. Disinfection of premises and materials.** A USDA approved private contractor will be responsible for disinfection. When cleaning has been completed and all surfaces are dry, all contaminated interior surfaces of the structure should be saturated with a disinfectant as approved by EPA and selected by the State and/or VS. Disinfectants will be applied as specified by the manufacturer, ensuring disinfection of all surfaces occurs, and that the disinfectant gets into cracks and crevices. Special attention will be given to automatic feeders and other closed areas to ensure adequate disinfection. Disinfection procedures will be overseen and documented by State and/or VS personnel.

### **Ensuring the Premises is Free of Avian Influenza**

- 1. Environmental Testing:** Following depopulation, cleaning and disinfection, the premises will remain free of avian species for 21 days. Quarantine and movement control restrictions in the Control Area will be maintained until at least 21 days have elapsed since the decontamination of all confirmed infected premises and negative results of surveillance activities within the Control Area determined by the State and/or VS. During this time environmental sampling will be performed by State and/or VS personnel.
- 2. Repopulation and flock monitoring:** The State and APHIS officials must concur in writing prior to any restocking activities. If restocking occurs without prior written approval of State and APHIS officials, this repopulation is at the producer's risk; APHIS will not indemnify previously affected premises that are restocked without prior written approval and subsequently become re-infected.

### **Birds Restocked After 21 Day Downtime**

After repopulation of the premises, the repopulation flock must undergo at least three tests for avian influenza. Sampling for the tests must occur at least seven days apart. All birds sampled for testing must be at least 21 days old. The birds will be tested by collection of tracheal swabs

and submission of the samples to Iowa State University for PCR testing for evidence of avian influenza.

**Post-Quarantine Avian Influenza Poultry Surveillance**

Besides normal NPIP surveillance, all post-quarantine abnormal mortality within 180 days of quarantine release should be investigated and tested for avian influenza by State and/or VS personnel. Abnormal mortality is defined as follows:

- Commercial broiler turkeys: mortality in excess of 2 birds/1,000 per day for 2 consecutive days;

Producer/Grower Representative:

*Signature:* \_\_\_\_\_ *Date:* \_\_\_\_\_

Poultry Owner Representative:

*Signature:* \_\_\_\_\_ *Date:* \_\_\_\_\_

VS Incident Commander or Iowa Assistant Director:

*Signature:* \_\_\_\_\_ *Date:* \_\_\_\_\_

Iowa HPAI Incident Commander or Iowa State Veterinarian:

*Signature:* \_\_\_\_\_ *Date:* \_\_\_\_\_

**EXAMPLE Flock Plan for Layer/Pullet Flock**  
for HPAI Euthanasia, Disposal,  
and Cleaning and Disinfection Procedures for Commercial Premises in Iowa

Premises ID: (Premises identification number) 00WHO3X

Premises State, county, and site number: IA Polk 12

Premises Owner: Chicken Eggs Pullets, LLP

Premises name and address: 1234 Somewhere Ave  
Small Town, IA 51000

Premises Contact Person: Bonnie Peep  
515-123-4567  
[lilbopeep@chickeneggs.com](mailto:lilbopeep@chickeneggs.com)

Poultry Owner: Chicken Eggs Pullets, LLP  
Francis Muffet, CFO  
123 Random St  
Other Town, IA 51000

Poultry present: 321,123 hen pullets 6 weeks of age

Brief History: On 14 May 2015, a pullet flock was sampled to meet pre-movement requirements out of a control zone. Tracheal swabs were submitted to Iowa State University and were designated to presumptively positive on 15 May 2015. There were 321,123 pullets on the facility at the time of testing.

This is a written flock management agreement developed between USDA, APHIS, Veterinary Services (VS) and the Iowa Department of Agriculture and Land Stewardship (IDALS) (hereafter, "the State" or "State") with input from Chicken Eggs Pullets, LLP. This flock will be handled in accordance with the State Initial State Response and Containment Plan (ISRCP), HPAI Response Plan Red Book for Highly Pathogenic Avian Influenza (hereafter, "HPAI Response Plan Red Book"), and Code of Federal Regulations (CFR).

The main tenets of this plan include

- Depopulation of all poultry on affected premises
- Composting of poultry, litter, and any other appropriate materials
- Cleaning and disinfection of the premises
- Assuring the premises is disease free
  - Downtime and environmental testing
  - Repopulation and monitoring for disease

## **Primary Responsibilities**

Euthanasia will be the primary responsibility of Chicken Eggs Pullets, LLP. The poultry owner(s) will be eligible for indemnification. All necessary indemnity documents regarding the live poultry will be completely filled out and signed prior to euthanasia. The value of the poultry will be obtained by a VS-prepared calculator based on the fair market value of the birds.

Disposal of dead poultry, litter (poultry bedding), and other contaminated materials that result from the depopulation will be the primary responsibility of Clean Harbors on contract with APHIS, with oversight by VS and the State.

Chicken Eggs Pullets, LLP will be primarily responsible for cleaning of the equipment, contaminated barns/areas, conveyances, and other contaminated materials during the C&D process. Clean Harbor will apply the insecticide and rodenticide. Clean Harbor will provide lined roll offs and transport cost for disposal of infected material at an approved landfill. Chicken Eggs Pullets, LLP will secure and remove all feathers that might blow around outside the house in which the infected or exposed poultry were held and clean any debris from around the exterior of the poultry houses prior to application of the insecticide and rodenticide.

Disinfection of equipment, conveyances, and other contaminated materials associated with the depopulation will be the primary responsibility of Chicken Eggs Pullets, LLP with VS oversight. The disinfectant used will be approved by VS and the State from a list that has been EPA approved for use with HPAI.

## **Quarantine and Enhanced Biosecurity**

The standard avian influenza quarantine form was issued on May 15, 2015. This document was signed by Francis Muffet, CFO. The quarantine states that no animals, poultry, poultry products (hatching eggs), or other contaminated materials (manure, mortalities, eggs, shells, feed, etc.) are to enter or leave the premises without a permit issued by the State and appropriate biosecurity.

Quarantine instructions include increasing biosecurity measures to minimize traffic and implementing protocols to clean and disinfect vehicles and equipment. The quarantine will not be released before:

- contaminated materials are composted or otherwise disposed of;
- the farm is cleaned and disinfected according to measures outlined in the ISRCP and HPAI Response Plan Red Book;
- all flock and environmental testing in the Control Area has been completed with negative results; and
- repopulated poultry are confirmed to be free of virus.

Control Area quarantines and movement control restrictions will be maintained until at least 21 days have elapsed since the decontamination of all confirmed infected premises and negative results for all surveillance activities within the Control Area are documented by the State.

## **Epidemiologic Investigation**

An epidemiologic investigation to assess potential pathways of initial introduction of HPAI viruses onto this operation and potential lateral transmission routes of HPAI viruses from this

infected premise to non-infected premises is to be conducted by a State or Federal veterinarian. This investigation should be initiated as soon as possible, preferably no later than one (1) week following detection.

An investigation form is provided and should serve as a guide for conducting a systematic and standardized assessment of potential pathways of initial virus movement onto the farm and potential movement of the virus off the farm. All sections of the form should be completed through direct conversation with the individual(s) most familiar with the farm's management and operations and questions are to be answered for the period of two (2) weeks prior to the detection of HPAI. Direct observation of the biosecurity or management practices asked about should be conducted, where applicable.

Completed investigations are to be forwarded to USDA APHIS, Office of the Chief Epidemiologist with a copy to the signatories of this plan.

### **Requests for Indemnity for Disposal, Cleaning, and Disinfection Activities**

Any disposal of poultry and cleaning and disinfection of premises, conveyances, and materials for which indemnity is requested by Chicken Eggs Pullets; LLP must be performed under a separate cooperative compliance agreement between the claimant and VS. The cooperative compliance agreement or a pre-award letter for the 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 cooperative compliance agreement or pre-award is signed will not be eligible for reimbursement.

### **Euthanasia**

All flocks on 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 (PPE). Biosecurity will be maintained using a clean area and dirty area, to be established before euthanasia and disposal start.

Poultry were euthanized by Chicken Eggs Pullets, LLP using CO<sub>2</sub>. The depopulation crew completed euthanasia on 6/5/2015. Euthanasia was conducted under the direct supervision of State or Federal (VS) personnel.

### **Disposal of Euthanized Poultry**

The euthanized birds will be disposed of by Clean Harbor via landfill.

1. **Disposal of all euthanized Poultry and eggs:** These items were put in 36 roll off containers and will be disposed of in an authorized landfill by Clean Harbor.
2. **Disposal of litter, manure, debris and feed.** These items were put in 21 roll off containers and will be disposed of in an authorized landfill by Clean Harbor.

### **Cleaning and Disinfection of Conveyances Following Depopulation**

All vehicles and equipment used in holding, handling, or transporting, or that have been in contact with, affected poultry, poultry products, or contaminated materials will be cleaned and disinfected prior to leaving the premises. The exterior, including the undercarriage, and interior

surfaces, including truck cabs, will be cleaned. The interior of the truck cabs will be washed with clean water and a disinfectant applied as authorized in 9 CFR § 71.10(a). The cleaning and disinfection of these items will be completed by Chicken Eggs Pullets, LLP, with approval and oversight by State or VS personnel.

Drivers will be instructed to avoid contaminating the cab of the truck. Should exiting the vehicle become necessary, plastic boot covers will be provided along with instructions on their proper use and disposal.

Manure, litter, and other debris removed from these vehicles will be handled in a manner similar to that described above.

### **Preparation for Cleaning and Disinfection**

Following the depopulation of poultry on the premises, the following procedures will be completed prior to cleaning and disinfection:

1. Secure and remove all feathers that might blow around outside the house in which the infected or exposed poultry were held and clean any debris from around the exterior of the poultry houses.
2. Apply insecticides and rodenticides immediately after the depopulation of the birds. This will be documented by State and/or VS personnel. The buildings will remain undisturbed, with the exception of required compost monitoring, for as long as possible in order to allow as much of the HPAI virus as possible to deteriorate to a non-infective state.

### **Destruction and Disposal of Contaminated Materials that Can't be Cleaned and Disinfected**

Before cleaning and disinfection, the premises will be inspected by the poultry or premises owner and personnel from the State and/or VS to determine if there are contaminated items 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 another reason. The fair market value (used price) of these items will be determined by a State or VS appraiser with input from the owner. The destruction and disposal of these items will be conducted in accordance with VS Guidance 8603.1. Prior VS approval is required for destruction of items for which indemnity will be claimed.

### **When to Clean**

Cleaning will begin after approval from VS.

### **Cleaning and Disinfection**

Cleaning and disinfection will be performed on all contaminated buildings and surfaces including pump houses and service areas.

1. **Disposal of all litter, manure, debris, and feed.** These items will be disposed by Clean Harbor.

2. **Cleaning of the premises and equipment.** Dry cleaning (the removal of contaminated materials without the use of water) and wet cleaning (washing) processes will be sufficient to ensure that all materials and substances contaminated with HPAI virus, such as manure, dried blood, and other organic materials, are removed from all surfaces. Equipment will be disassembled as required to clean all contaminated surfaces. Special attention will be given to automatic feeders and other closed areas to ensure adequate cleaning. Houses and equipment will be inspected and documented by the State and/or VS to ensure that cleaning has removed all contaminated materials or substances and that houses and equipment are completely dry before applying disinfectant.
3. **Disinfection of premises and materials.** Chicken Eggs Pullets, LLP will be responsible for disinfection. When cleaning has been completed and all surfaces are dry, all contaminated interior surfaces of the structure should be saturated with a disinfectant as approved by EPA and selected by the State and/or VS. Disinfectants will be applied as specified by the manufacturer, ensuring disinfection of all surfaces occurs, and that the disinfectant gets into cracks and crevices. Special attention will be given to automatic feeders and other closed areas to ensure adequate disinfection. Disinfection procedures will be overseen and documented by State and/or VS personnel.

### **Ensuring the Premises is Free of Avian Influenza**

1. **Environmental Testing:** Following depopulation, cleaning and disinfection, the premises will remain free of avian species for 21 days. Quarantine and movement control restrictions in the Control Area will be maintained until at least 21 days have elapsed since the decontamination of all confirmed infected premises and negative results of surveillance activities within the Control Area determined by the State and/or VS. During this time environmental sampling will be performed by State and/or VS personnel.
2. **Repopulation and flock monitoring:** The State and APHIS officials must concur in writing prior to any restocking activities. If restocking occurs without prior written approval of State and APHIS officials, this repopulation is at the producer's risk; APHIS will not indemnify previously affected premises that are restocked without prior written approval and subsequently become re-infected.

### **Birds Restocked After 21 Day Downtime**

After repopulation of the premises, the repopulation flock must undergo at least three tests for avian influenza. Sampling for the tests must occur at least seven days apart. All birds sampled for testing must be at least 21 days old. The birds will be tested by collection of tracheal swabs and submission of the samples to Iowa State University for PCR testing for evidence of avian influenza.

### **Post-Quarantine Avian Influenza Poultry Surveillance**

Besides normal NPIP surveillance, all post-quarantine abnormal mortality within 180 days of quarantine release should be investigated and tested for avian influenza by State and/or VS personnel. Abnormal mortality is defined as follows:

- Commercial layers: 4 times normal daily mortality for 2 consecutive days (0.5 per 1,000 per day for layers from 2-50 weeks and 0.75 per 1,000 per day for layers over 50 weeks) or 5 percent drop in egg production over 3 days.

Producer/Grower Representative:

*Signature:* \_\_\_\_\_ *Date:* \_\_\_\_\_

Poultry Owner Representative:

*Signature:* \_\_\_\_\_ *Date:* \_\_\_\_\_

VS Incident Commander or Iowa Assistant Director:

*Signature:* \_\_\_\_\_ *Date:* \_\_\_\_\_

Iowa Incident Commander or Iowa State Veterinarian:

*Signature:* \_\_\_\_\_ *Date:* \_\_\_\_\_

## **Cooperative Compliance Agreement (CCA) Position Roles and Responsibilities**

### **Case Manager (CM)**

The CM is the first individual to contact the producer when a premise is determined to have a presumptive positive case. The CM is the producer's advocate, helping him/her to keep processes moving in a positive and timely manner. The CM is responsible for assisting the producer with various processes, including creation of a Flock Plan, processing indemnity claims, and ensuring depopulation and disposal of flocks and cleaning and disinfection of premises. The latter activities require a Cooperative Compliance Agreement (CCA).

The CM will assist the producer with the initial steps of the CCA to include the Pre-Award Letter, Work Plan, Financial Plan and the Authorized Signature Form. The CM will assist the ADODR in ensuring approved activities are accomplished.

### **Authorized Departmental Officer's Designated Representative (ADODR)**

The ADODR is the Federal representative who will oversee the management, program activities and related costs of the CCA. The ADODR will verify completion of activities and approve payment requests. The ADODR, along with the Agreement Specialist, will be a contact for the producer for the entire life of the agreement.

### **Agreement Specialist (AS)**

The AS processes and tracks all CCA related documents, reviewing for completeness and accuracy. The AS is the central point of contact for the producer, CM, ADODR, ADO and ACRT. The AS prepares the CCA Notice of Award and accompanying documents, incorporating the Work and Financial Plans. The AS, along with the ADODR, will be a contact for the producer for the entire life of the agreement.

### **Agreement Cost Review Team (ACRT)**

The ACRT is responsible for reviewing all Work and Financial Plans ensuring continuity of activities and reasonableness of costs.

### **Authorized Departmental Officer (ADO)**

The ADO approves the pre-award letter and is the designated signatory on the actual CCA Notice of Award. The ADO is accountable for ensuring the legal processes of the CCA. The ADO for CCA documents is the appropriate SPRS District Director.

## **Cooperative Compliance Agreement Document Flow for New HPAI Cases**

### **PRE-AWARD LETTER (PAL)**

An approved PAL authorizes the cooperator/producer to begin work and accrue reimbursable expenses. It is a request from the cooperator/producer to the Authorized Departmental Officer (ADO). Cost estimates are not required to accompany this letter. The new “fast track” PAL reflects a minimum reimbursement of \$3,000. Reimbursement cannot be processed based on an approved PAL.

#### **Flow:**

- The Case Manager (CM) will assist the cooperator/producer in finalizing the PAL.
- The CM will forward the PAL to the Agreement Specialist (AS) for processing.
- The AS will forward the PAL to the Authorized Departmental Officer’s Designated Representative (ADODR) for signature.
- The ADODR reviews/signs the PAL and returns document to the AS.
- The AS forwards document to the ADO for signature.
- The ADO reviews/signs the PAL and returns document to the AS.
- The AS files the PAL and forwards a copy to the cooperator/producer.

### **WORK PLAN (WP) and FINANCIAL PLAN (FP)**

The WP outlines the activities to be performed by the cooperator/producer, State representative and APHIS-VS. The WP template lists the most common compliance agreement activities; space is provided to add additional information.

The FP accompanies the WP. It is the cooperator/producer’s estimated cost to complete the WP activities. Both documents will outline the work and related costs to be accomplished within a 12-month period. Both documents are required to complete the compliance agreement process.

#### **Flow:**

- The CM will provide the cooperator/producer with the WP/FP for completion, explaining requirements and assisting where appropriate.
- The cooperator/producer is asked to complete and sign the WP/FP within 3 weeks and return it to the AS. (Additional time can be granted, with the note that the longer it takes to receive these documents, the longer it will be before reimbursement can be processed.)
- The AS will forward the WP/FP to HPAI Agreements Cost Review Team (ACRT) for review and approval of costs.
- If the ACRT has questions regarding the activities and/or related costs, they will work with the CM, ADODR and cooperator/producer for a resolution.

- If there are no concerns, or when all parties agree to the terms of the WP/FP, the ACRT will sign/return the documents to the AS.
- The AS will forward the WP/FP to the State Representative and ADODR for review and signatures.
- The AS will provide the cooperator/producer a final/approved WP/FP.
- The final/approved WP/FP will trigger the AS to process the Notice of Award and related documents.

### **AUTHORIZED SIGNATURE FORM**

An Authorized Signature Form allows a cooperator/producer to provide copies of signed documents (i.e., all agreement documents and Flock Plan). An original, signed Authorized Signature Form is required to be on file for this purpose.

#### **Flow:**

- The CM will provide the cooperator/producer with the Authorized Signature Form.
- All cooperating parties who may sign/authorize compliance agreement documents (and the Flock Plan) will sign this Form.
- If it is signed in front of the CM, the CM will return the document to the AS.
- If it is not signed in front of the CM, the cooperator/producer will return it to the AS.
- The AS will maintain the Form on file.

### **NOTICE OF AWARD and RELATED DOCUMENTS**

The Notice of Award is the legal document outlining the cooperative agreement between the cooperator/producer and APHIS-VS. This document obligates the government and permits reimbursement of costs. It is signed by the cooperator/producer and the ADO.

The AS will work with the cooperator/producer, ADODR and ADO to complete and process the Notice of Award and related documents. The WP and FP are required to final process a Notice of Award. The remaining required documents are:

- SF-424, Application for Federal Assistance
- SF-424A, Budget Information
- SF-424B, Assurances for Non-Construction Programs
- Certification of Lobbying Form
- SF-LLL, Disclosure of Lobbying Activities
- Recipient Organization Authorized Representative (ROAR) Form
- Federal Funding Accountability and Transparency Act (FFATA) Form
- APHIS-63, Justification for Non-Competitive Federal Assistance
- Decision Memo

### **SF-270, REQUEST FOR ADVANCE OR REIMBURSEMENT**

The SF-270 is the request for reimbursement from the cooperator/producer. The cooperator/producer can submit the SF-270 as often as desired to request reimbursement. This document must be accompanied by receipts verifying the dollar amount requested. The SF-270 is signed by the cooperator/producer and the ADODR.

#### **Flow:**

- The cooperator/producer will forward the SF-270 and accompanying receipts to the AS.
- The AS will review for accuracy and forward to the ADODR for review and approval.
- The ADODR will verify work accomplishments by reviewing EMRS check points, and/or communicating with the CM and cooperator/producer.
- The ADODR will sign and return the SF-270 to the AS.
- The AS will submit the SF-270 to Minneapolis for payment.

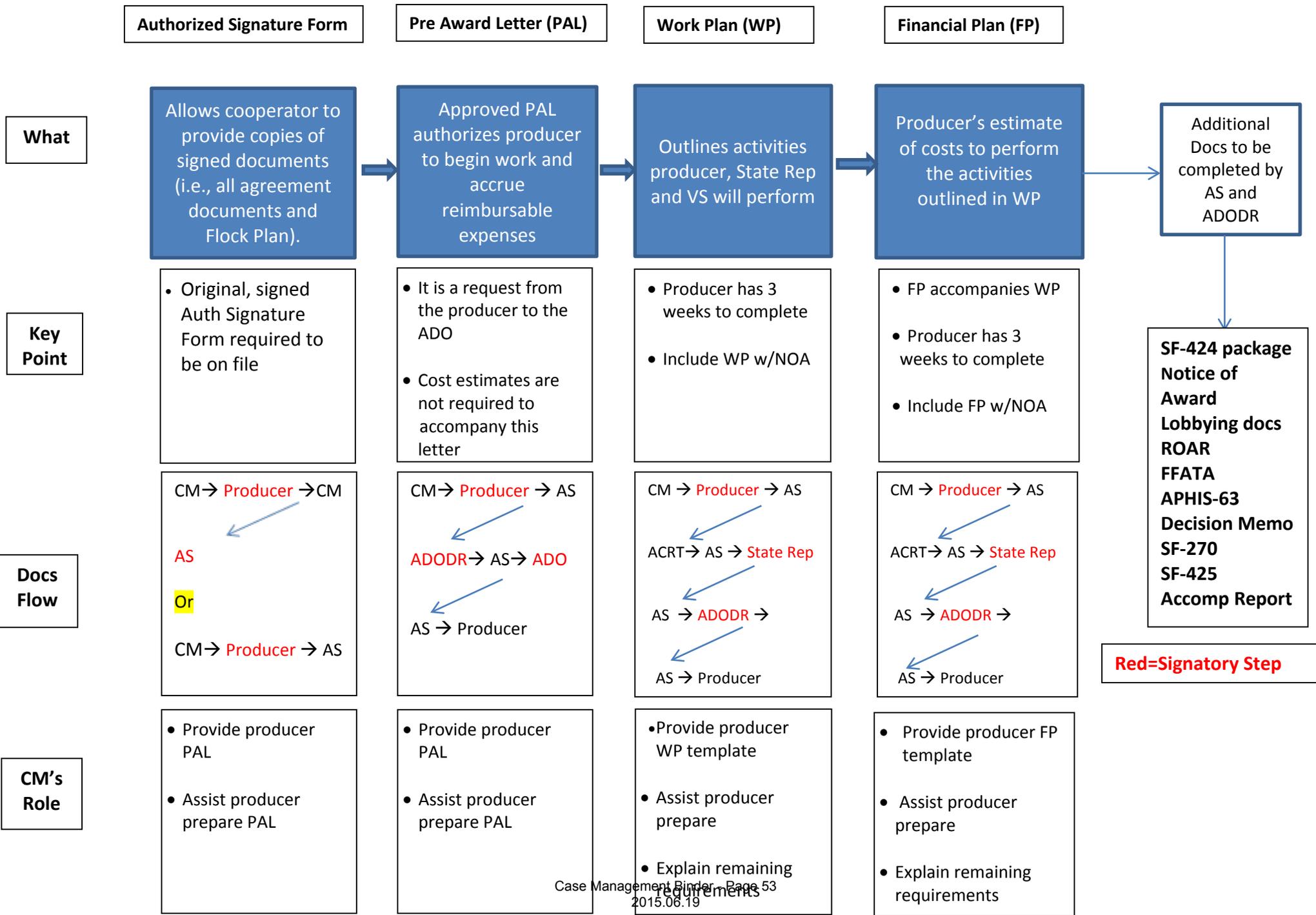
### **ACCOMPLISHMENT REPORT and SF-425, FEDERAL FINANCIAL REPORT**

The Accomplishment Report outlines the completed activities. The SF-425, Federal Financial Report outlines the final and total costs. These reports are due annually.

#### **Flow:**

- The cooperator/producer will forward these documents to the AS.
- The AS will review for completeness and forward copies to the ADODR.
- If there are any concerns with the Accomplishment Report or SF-425, the AS and/or ADODR will work with the cooperator/producer to resolve.
- The AS will maintain the original documents on file.

## First Four Documents of the Compliance Agreement Process



**Red=Signatory Step**



**PREAWARD REQUEST FROM COOPERATOR**

**DATE:** \_\_\_\_\_

**TO:** APHIS ADO (Awarding Official) \_\_\_\_\_ *(Insert name)*

**THROUGH:** APHIS ADODR \_\_\_\_\_ *(Insert name)*

Please accept my request to begin work and accrue costs for reimbursement for compliance agreement activities. Your concurrence is requested to allow **minimum** pre-award costs in the amount of \$3,000 for a FY2015 Notifiable Avian Influenza Cooperative Agreement beginning on \_\_\_\_\_ *(Insert presumptive positive date)*. It is necessary to begin work at this time for depopulation and disposal of flocks, and cleaning and disinfection of infected premises due to the Notifiable Avian Influenza Outbreak.

I agree to manage the approved Cooperative Agreement funded by Federal money in accordance with Title 2 Code of Federal Regulations Part 200 and the associated Office of Management and Budget (OMB) Circular governing costs allowed, and all other applicable laws, regulations and guidelines.

I understand that APHIS is under no obligation, in the absence of an appropriation, if the award is not made, or if an award is made for a lesser amount than expected. Further, I understand that reimbursements of such costs are contingent upon full execution of an award of Federal funding for this project.

Sincerely,

\_\_\_\_\_  
*(Cooperator's signature)*

Cooperator's Name:

Address:

City, State and Zip Code:

Phone Number:

Email Address:

Premise ID#:

Case Mgr:

**Concurrences:** \_\_\_\_\_  
Agreement Specialist Date

\_\_\_\_\_  
ADODR Date

**Approved:** \_\_\_\_\_  
APHIS ADO Date



**Notifiable Avian Influenza  
Cooperative Compliance Agreement  
Work Plan  
FY-2015**

<b>Cooperator Name:</b>	
<b>Premises ID:</b>	
<b>Street Address:</b>	
<b>City, State and Zip Code:</b>	
<b>County Name and Number Designator:</b>	

<b>Premises Point of Contact:</b>	
<b>Title:</b>	
<b>Mailing Address:</b>	
<b>City, State and Zip Code:</b>	
<b>Phone:</b>	
<b>Fax:</b>	
<b>E-Mail:</b>	

<b>Case Manager:</b>	
<b>Contact Information:</b>	

## A. PURPOSE

The purpose of the Cooperative Compliance Agreement is to provide Federal assistance for activities involving (1) the depopulation and disposal of flocks and (2) the cleaning and disinfection of premises affected by Notifiable Avian Influenza (NAI) outbreaks. This Work Plan outlines the responsibilities of the State representative, APHIS-VS and the Cooperator. The accompanying Financial Plan details the estimated costs for reimbursement to the Cooperator.

## B. COOPERATOR RESPONSIBILITIES:

The Cooperator agrees:

1. To fully comply with the State's Initial State Response and Containment Plan (ISRCP)/HPAI Response Plan Red Book ([http://secureeggsupply.com/wp-content/uploads/2013/11/summary\\_hpai\\_response\\_plan.pdf](http://secureeggsupply.com/wp-content/uploads/2013/11/summary_hpai_response_plan.pdf)) for NAI for depopulation, removal, and disposal of affected poultry and materials as well as cleaning and disinfection of affected premises as provided and approved by APHIS-VS and

*(Insert State Agency)* \_\_\_\_\_.

2. To have an approved/signed pre-award letter in place before any reimbursable activities begin.
3. To complete the procedures as described in the approved Flock Plan and this Work Plan, and provide a Financial Plan itemizing the associated costs.
4. To request payment, the Cooperator must work with APHIS-VS to finalize a Cooperative Agreement Notice of Award. Once finalized, the Cooperator must submit to APHIS-VS a properly certified Request for Advance or Reimbursement (SF-270) as well as itemized receipts, invoices and personnel records documenting actual expenses.

If the responsibilities outlined in Section B, Items 1-4 of this Work Plan are not met, the Cooperator understands that payments may be withheld and the replacement flock on this premise may be ineligible for future indemnification.

5. To register with the System for Award Management (SAM). SAM is the Federal repository into which an entity must provide information required for the conduct of business as a recipient. Additional information about registration procedures may be found at the SAM Internet site (<http://www.sam.gov>).

Before registering in SAM, be sure to have a current Data Universal Numbering System (DUNS) number. For information on obtaining a DUNS number by telephone (866-705-5711) or the Internet (<http://fedgov.dnb.com/webform>).

### C. INSPECTION OF PREMISES:

1. **Before commencing** cleaning and disinfection activities, officials from the cooperating State agency or APHIS-VS will closely inspect the premises with the cooperator to determine if there are materials present for which cleaning and disinfection would be impractical. The cooperator must schedule an inspection prior to commencing cleaning and disinfection.

Requested date of inspection is:\_\_\_\_\_.

2. Any items identified as impractical to clean and disinfect must be appraised by an APHIS-VS designee. The fair market values and disposal costs will be indicated on this Work Plan and the Financial Plan.
3. Cleaning should be halted if items become damaged during the cleaning and disinfection process, or if items not previously identified during the inspection are found to be impractical to clean. The cooperator should immediately contact APHIS-VS to arrange for an immediate inspection and appraisal. ***Damage caused by cleaning and disinfection activities may not be reimbursed.***

### D. ACTIVITIES:

Activities that may be funded by this Cooperative Compliance Agreement for the purposes as described above include (insert additional details in spaces if necessary):

1. Preparing barns for depopulation activities, including movement of birds and/or equipment — labor cost per hour, estimated number of hours to complete, materials and supplies.
2. Approved depopulation and disposal activities — cost of CO<sub>2</sub> and rental of CO<sub>2</sub> carts, labor cost per hour, number of hours to complete, equipment and supplies.

3. Insecticide and rodenticide application using EPA licensed products (chemicals must be approved by APHIS-VS) — cost of the materials, labor cost per hour, and estimated number of hours to complete.
  
4. Composting — labor cost per hour and estimated number of hours to complete, cost of any additional carbon source if needed, fuel for equipment, and any equipment rental required.
  
5. Feed destroyed — confirmation/documentation of purchase price required.
  
6. Removal of litter and compost from the barns or fields (all compost must remain on premises for a minimum of 30 days) — labor cost per hour and estimated number of hours to complete, fuel for equipment, and any equipment rental required.
  
7. Equipment disassembly/reassembly — labor cost per hour and estimated number of hours to complete.

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

9. Wet cleaning — labor cost per hour and estimated number of hours to complete, fuel for equipment, and any equipment rental required.

10. Disinfection (disinfectants must be approved by APHIS-VS) — cost of the materials, labor cost per hour, and estimated number of hours to complete.

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

12. Biosecurity supplies (e.g., Tyvek coveralls, N95 masks, gloves, etc.).

13. Items to be destroyed at appraised fair market value.

14. Additional supplies and activities not listed above on this Work Plan may be reimbursed upon approval by APHIS-VS officials. Please list additional items below and include estimated costs on the Financial Plan.





**NOTE: RECEIPTS, INVOICES, AND EMPLOYEE LOG SHEETS MUST BE SUBMITTED TO VALIDATE ALL OF THE FOLLOWING EXPENSES**

	Barn # _____				
Dimensions (l x w):					

**Preparation of barns for euthanasia:** Personnel to prepare barns, removal of feed lines, waterers, feeders, etc.

Hours of preparation per barn					
Wage (\$/hr)	\$	\$	\$	\$	\$
<b>Total labor to prepare barns (in \$):</b>	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
				<b>TOTAL</b>	<b>\$0.00</b>

**Bird care prior to euthanasia:** Includes care and monitoring of birds prior to euthanasia, feed and water.

Bird care labor per barn					
Wage (\$/hr)	\$	\$	\$	\$	\$
<b>Total labor to prepare barns (in \$):</b>	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
				<b>TOTAL</b>	<b>\$0.00</b>

**Bird Removal:** FROM LAYER HOUSES.

Labor hours for removing birds from cages per barn					
Number of workers per barn					
Wage (\$/hr)	\$	\$	\$	\$	\$
<b>Total labor to prepare barns (in \$):</b>					
				<b>TOTAL</b>	<b>\$0.00</b>

**NOTE: RECEIPTS, INVOICES, AND EMPLOYEE LOG SHEETS MUST BE SUBMITTED TO VALIDATE ALL OF THE FOLLOWING EXPENSES**

	Barn # _____				
<b>Equipment to Build Compost Rows:</b> Includes equipment operations costs to clear litter and pile birds, haul and mix feed into compost, haul and mix all litter stored on farm into compost, and haul and mix all manure stored on farm into compost according to Compost Specialists'					
<b>Payloader (OWNED)</b> , including operator and fuel (\$/hour)					
Number of Payloaders used					
# of loader hours per barn					
Total OWNED Payloader expense to prepare barns (in \$):	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
				<b>TOTAL</b>	<b>\$0.00</b>
<b>Payloader (RENTED)</b> , including operator and fuel (\$/hour)					
Number of Payloaders rented					
# of loader hours per barn					
Total RENTED Payloader expense to prepare barns (in \$):	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
				<b>TOTAL</b>	<b>\$0.00</b>
<b>Skidsteer (OWNED)</b> , including operator and fuel (\$/hour)					
Number of Skidsteers used					
# of skidsteer hours per barn					
Total OWNED Skidsteer expense to prepare barns (in \$)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
				<b>TOTAL</b>	<b>\$0.00</b>
<b>Skidsteer (RENTED)</b> , including operator and fuel (\$/hour)					
Number of Skidsteers rented					
# of skidsteer hours per barn					
Total RENTED Skidsteer expense to prepare barns (in \$)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
				<b>TOTAL</b>	<b>\$0.00</b>
Misc Equipment Name:	\$	\$	\$	\$	\$
Misc Equipment Name:	\$	\$	\$	\$	\$
				<b>TOTAL</b>	<b>\$0.00</b>

**NOTE: RECEIPTS, INVOICES, AND EMPLOYEE LOG SHEETS MUST BE SUBMITTED TO VALIDATE ALL OF THE FOLLOWING EXPENSES**

	Barn # _____				
<b>Supplies for Compost:</b> Includes fair market value for existing clean litter, exposed bulk feeds onsite, and procurement of additional carbon sources as recommended by Compost Specialist.					
Value of onsite clean litter added to compost: Dollars per POUND, TON or LOAD X No. of POUNDS, TONS or LOADS= \$ _____ Specify Units of Measurement _____	\$	\$	\$	\$	\$
Value of feed on site: Dollars per POUND, TON or LOAD X No. of POUNDS, TONS or LOADS= \$ _____ Specify Units of Measurement _____	\$	\$	\$	\$	\$
Purchase of additional feed: Dollars per POUND, TON or LOAD X No. of POUNDS, TONS or LOADS= \$ _____ Specify Units of Measurement _____	\$	\$	\$	\$	\$
Purchase of additional feed: Dollars per POUND, TON or LOAD X No. of POUNDS, TONS or LOADS= \$ _____ Specify Units of Measurement _____	\$	\$	\$	\$	\$
Purchase of wood shavings/wood chips: Dollars per POUND, TON or LOAD X No. of POUNDS, TONS or LOADS= \$ _____ Specify Units of Measurement _____	\$	\$	\$	\$	\$
Purchase of additional carbon source: Dollars per POUND, TON or LOAD X No. of POUNDS, TONS or LOADS= \$ _____ Specify Units of Measurement _____	\$	\$	\$	\$	\$
<b>TOTAL (per barn):</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>
				<b>TOTAL</b>	<b>\$0.00</b>
<b>Personnel to Record Temperatures &amp; Monitor Piles:</b> Includes opening and closing of curtains for ventilation, monitoring piles for leachate and recording temperatures into log book. Record up to 10 temps per pile, per day for 30 days.					
Hours per barn					
Wage (\$/hour)	\$	\$	\$	\$	\$
<b>TOTAL (per barn):</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>

**NOTE: RECEIPTS, INVOICES, AND EMPLOYEE LOG SHEETS MUST BE SUBMITTED TO VALIDATE ALL OF THE FOLLOWING EXPENSES**

	Barn # _____				
<b>Equipment to Turn Compost Piles at Approximately 14 Days:</b> Once approval has been attained, includes equipment and fuel expenses to turn existing piles and restack windows to begin second 14 day compost cycle.					
<b>Payloader (OWNED),</b> including operator and fuel (\$/hour)	\$	\$	\$	\$	\$
Number of Payloaders used					
# of loader hours per barn					
Total OWNED Payloader expense to prepare barns (in \$):	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
				<b>TOTAL</b>	<b>\$0.00</b>
	\$0.00				
<b>Payloader (RENTED),</b> including operator and fuel (\$/hour)	\$	\$	\$	\$	\$
Number of Payloaders rented					
# of loader hours per barn					
Total RENTED Payloader expense to prepare barns (in \$):	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
				<b>TOTAL</b>	<b>\$0.00</b>
<b>Skidsteer (OWNED),</b> including operator and fuel (\$/hour)	\$	\$	\$	\$	\$
Number of Skidsteers used					
# of skidsteer hours per barn					
Total OWNED Skidsteer expense to prepare barns (in \$)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
				<b>TOTAL</b>	<b>\$0.00</b>
<b>Skidsteer (RENTED),</b> including operator and fuel (\$/hour)	\$	\$	\$	\$	\$
Number of Skidsteers rented					
# of skidsteer hours per barn					
Total RENTED Skidsteer expense to prepare barns (in \$)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
				<b>TOTAL</b>	<b>\$0.00</b>
Misc Equipment Name:	\$	\$	\$	\$	\$
Misc Equipment Name:	\$	\$	\$	\$	\$
				<b>TOTAL</b>	<b>\$0.00</b>

**NOTE: RECEIPTS, INVOICES, AND EMPLOYEE LOG SHEETS MUST BE SUBMITTED TO VALIDATE ALL OF THE FOLLOWING EXPENSES**

	Barn # _____				
<b>Equipment to Load Completed Compost:</b> Includes equipment and fuel necessary to load compost piles from barns or outdoor windows and store on site. <b>NOTE: We do not pay to move compost offsite.</b>					
<b>Payloader (OWNED)</b> , including operator and fuel (\$/hour)	\$	\$	\$	\$	\$
Number of Payloaders used					
# of loader hours per barn					
Total OWNED Payloader expense to prepare barns (in \$):	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
				<b>TOTAL</b>	<b>\$0.00</b>
<b>Payloader (RENTED)</b> , including operator and fuel (\$/hour)	\$	\$	\$	\$	\$
Number of Payloaders rented					
# of loader hours per barn					
Total RENTED Payloader expense to prepare barns (in \$):	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
				<b>TOTAL</b>	<b>\$0.00</b>
<b>Skidsteer (OWNED)</b> , including operator and fuel (\$/hour)	\$	\$	\$	\$	\$
Number of Skidsteers used					
# of skidsteer hours per barn					
Total OWNED Skidsteer expense to prepare barns (in \$)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
				<b>TOTAL</b>	<b>\$0.00</b>
<b>Skidsteer (RENTED)</b> , including operator and fuel (\$/hour)	\$	\$	\$	\$	\$
Number of Skidsteers rented					
# of skidsteer hours per barn					
Total RENTED Skidsteer expense to prepare barns (in \$)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
				<b>TOTAL</b>	<b>\$0.00</b>
Misc Equipment Name:	\$	\$	\$	\$	\$
Misc Equipment Name:	\$	\$	\$	\$	\$
				<b>TOTAL</b>	<b>\$0.00</b>

**NOTE: RECEIPTS, INVOICES, AND EMPLOYEE LOG SHEETS MUST BE SUBMITTED TO VALIDATE ALL OF THE FOLLOWING EXPENSES**

	Barn # _____				
<b>Personnel to Clean Areas Around Barns:</b> This category includes removing and/or disposing of debris stored adjacent to barns. Mowing or hand clearing a 3-4 foot pathway around exterior of barns; labor to fill and secure holes where critters or wild birds may access interior areas. <b>Not</b>					
Hours per barn					
Wage per hour (in \$)	\$	\$	\$	\$	\$
<b>Total labor to prepare barns (in \$ per barn):</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>
<b>Personnel to Dry Clean Barns and Equipment:</b> Includes labor to disassemble and reassemble water/feed dishes, clear manure, mud, and dust from interior barn walls, cages, floors and surfaces (including fans). Scraping, vacuuming, sweeping, blowing with air compressors, etc. (Note: Record					
Hours per barn					
Wage per hour (in \$)	\$	\$	\$	\$	\$
<b>Total labor to prepare barns (in \$ per barn):</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>
<b>Owned or Rented Equipment used to Dry Clean Interior Barn Surfaces:</b> Includes costs to rent and operate owned/rented equipment to clear manure, mud, and dust from interior barn walls, cages, floors and surfaces (including fans); scraping, dry brushing, vacuuming, sweeping, blowing					
<b>Payloader (OWNED),</b> including operator and fuel (\$/hour)	\$	\$	\$	\$	\$
Number of Payloaders used					
# of loader hours per barn					
Total OWNED Payloader expense to prepare barns (in \$):	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
				<b>TOTAL</b>	<b>\$0.00</b>
<b>Payloader (RENTED),</b> including operator and fuel (\$/hour)	\$	\$	\$	\$	\$
Number of Payloaders rented					
# of loader hours per barn					
Total RENTED Payloader expense to prepare barns (in \$):	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
				<b>TOTAL</b>	<b>\$0.00</b>
<b>Skidsteer (OWNED),</b> including operator and fuel (\$/hour)	\$	\$	\$	\$	\$
Number of Skidsteers used					
# of skidsteer hours per barn					
Total OWNED Skidsteer expense to prepare barns (in \$):	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
				<b>TOTAL</b>	<b>\$0.00</b>

**NOTE: RECEIPTS, INVOICES, AND EMPLOYEE LOG SHEETS MUST BE SUBMITTED TO VALIDATE ALL OF THE FOLLOWING EXPENSES**

	Barn # _____				
<b>Skidsteer (RENTED)</b> , including operator and fuel (\$/hour)	\$	\$	\$	\$	\$
Number of Skidsteers rented					
# of skidsteer hours per barn					
Total RENTED Skidsteer expense to prepare barns (in \$)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
				<b>TOTAL</b>	<b>\$0.00</b>
Misc equipment (RENTED):	\$	\$	\$	\$	\$
Misc equipment (RENTED):	\$	\$	\$	\$	\$
				<b>TOTAL</b>	<b>\$0.00</b>
<b>Personnel to Wet Clean Interior Barn Surfaces:</b> Includes labor to rinse manure, mud, and dust from interior barn walls, cages, floors and surfaces (including fans). Hosing, spraying, operining small equipment, etc.					
Hours labor per barn					
Wage per hour (in \$)	\$	\$	\$	\$	\$
<b>Total labor to prepare barns (in \$):</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>
<b>Equipment Needed to Wet Clean Interior Barn and Equipment:</b> Includes costs to rent or purchase equiptment required to clear manure, mud, and dust from interior barn walls, cages, floors and surfaces (including fans). Example : pressure washer rental, purchase of detergent					
Pressure washers					
Dollars per unit X No. units= \$ _____	\$	\$	\$	\$	\$
Scaffold lift					
Dollars per unit X No. units= \$ _____	\$	\$	\$	\$	\$
Tractor for lift					
Dollars per unit X No. units= \$ _____	\$	\$	\$	\$	\$
Other equipment					
Dollars per unit X No. units= \$ _____	\$	\$	\$	\$	\$
<b>Total wet clean equipment (per barn):</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>

**NOTE: RECEIPTS, INVOICES, AND EMPLOYEE LOG SHEETS MUST BE SUBMITTED TO VALIDATE ALL OF THE FOLLOWING EXPENSES**

	Barn # _____				
<b>Supplies Needed to Wet Clean Interior Barn and Equipment:</b> Includes costs to purchase equipment required to clear manure, mud, and dust from interior barn walls, cages, floors and surfaces (including fans). Example: purchase of detergent					
Detergent (optional): Dollars per unit X No. units= \$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____
Other supplies Dollars per unit X No. units= \$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____
<b>Total supplies for wet cleaning (per barn):</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>
<b>Rodenticide and Insecticide Application:</b> personnel costs to apply and monitor bait stations.					
Hours labor per day _____ X 60 days= _____ hours					
Wage per hour (in \$)	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____
<b>Total labor rodenticide and insecticide application:</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>
<b>Rodenticide and Insecticide Supplies:</b> Costs to purchase bait, bait stations, and related supplies					
Rodenticide product: _____ and cost (in \$)	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____
Insecticide product: _____ and cost (in \$)	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____
<b>Total for pest control supplies (in \$):</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>
<b>Personnel to Disinfect Interior Barn Surfaces:</b> Includes labor to rinse manure, mud, and dust from interior barn walls, cages, floors and surfaces (including fans). Hosing, spraying, operining small equipment, etc.					
Hours labor per barn					
Wage per hour (in \$)	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____
<b>Total labor to prepare barns (in \$):</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>

**NOTE: RECEIPTS, INVOICES, AND EMPLOYEE LOG SHEETS MUST BE SUBMITTED TO VALIDATE ALL OF THE FOLLOWING EXPENSES**

	Barn # _____				
<b>Equipment Needed to Disinfect Interior Barn and Equipment:</b> Includes costs to rent or purchase equipment required to clear manure, mud, and dust from interior barn walls, cages, floors and surfaces (including fans). Example : pressure washer rental, purchase of detergent					
Pressure washers Dollars per unit X No. units= \$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____
Dollars per unit X No. units= \$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____
Tractor for lift Dollars per unit X No. units= \$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____
Other equipment Dollars per unit X No. units= \$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____
Other equipment Dollars per unit X No. units= \$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____
<b>Total disinfection equipment (per barn):</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>
<b>Supplies Needed to Disinfect Interior Barn and Equipment:</b> Includes costs to purchase equipment required to clear manure, mud, and dust from interior barn walls, cages, floors and surfaces (including fans). Example: purchase of detergent					
Disinfectant: Dollars per unit X No. units= \$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____
Other supplies Dollars per unit X No. units= \$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____
<b>Total disinfection supplies (per barn):</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>
<b>Litter replacement (post C&amp;D):</b>					
Purchase of new litter	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____
Misc supplies associated with litter					
<b>Total Litter replaced (per barn):</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>

**NOTE: RECEIPTS, INVOICES, AND EMPLOYEE LOG SHEETS MUST BE SUBMITTED TO VALIDATE ALL OF THE FOLLOWING EXPENSES**

	Barn # _____				
<b>Owned or Rented Equipment used to Repalce Litter in the Barns:</b> Includes costs to rent and operate owned/rented equipment to spread new litter.					
<b>Payloader (OWNED),</b> including operator and fuel (\$/hour)	\$	\$	\$	\$	\$
Number of Payloaders used					
# of loader hours per barn					
Total OWNED Payloader expense to prepare barns (in \$):	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
				<b>TOTAL</b>	<b>\$0.00</b>
<b>Payloader (RENTED),</b> including operator and fuel (\$/hour)	\$	\$	\$	\$	\$
Number of Payloaders rented					
# of loader hours per barn					
Total RENTED Payloader expense to prepare barns (in \$):	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
				<b>TOTAL</b>	<b>\$0.00</b>
<b>Skidsteer (OWNED),</b> including operator and fuel (\$/hour)	\$	\$	\$	\$	\$
Number of Skidsteers used					
# of skidsteer hours per barn					
Total OWNED Skidsteer expense to prepare barns (in \$):	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
				<b>TOTAL</b>	<b>\$0.00</b>
<b>Skidsteer (RENTED),</b> including operator and fuel (\$/hour)	\$	\$	\$	\$	\$
Number of Skidsteers rented					
# of skidsteer hours per barn					
Total RENTED Skidsteer expense to prepare barns (in \$):	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
				<b>TOTAL</b>	<b>\$0.00</b>
Misc equipment (RENTED):	\$	\$	\$	\$	\$
Misc equipment (RENTED):	\$	\$	\$	\$	\$
				<b>TOTAL</b>	<b>\$0.00</b>

**NOTE: RECEIPTS, INVOICES, AND EMPLOYEE LOG SHEETS MUST BE SUBMITTED TO VALIDATE ALL OF THE FOLLOWING EXPENSES**

	Barn # _____				
<b>Items/supplies destroyed on farm:</b> items destroyed on farm (misc, etc.)					
Misc items/supplies destroyed	\$	\$	\$	\$	\$
Misc items/supplies destroyed	\$	\$	\$	\$	\$
<b>Total items/supplies destroyed (per barn):</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>
<b>Additional Supplies:</b> personal protective equipment (ex: booties, tyvek, gloves)					
Personal Protective Equipment (PPE) (Total in \$)	\$	\$	\$	\$	\$
Other supplies					
Dollars per unit X No. units= \$_____	\$	\$	\$	\$	\$
<b>Total additional supplies (per barn):</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>
<b>Additional Equipment:</b>					
Dumpster rental and service (in \$)	\$	\$	\$	\$	\$
Truck rental (in \$)	\$	\$	\$	\$	\$
Other equipment (in \$)	\$	\$	\$	\$	\$
<b>Total additional equipment (per barn):</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>
<b>Personnel Needed for Equipment Assembly/Disassembly:</b> (equipment assembled/disassembled on farm for composting, cleaning, etc.)					
Hours labor per barn					
Wage per hour (in \$)	\$	\$	\$	\$	\$
<b>Total labor to prepare barns (in \$):</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>

**NOTE: RECEIPTS, INVOICES, AND EMPLOYEE LOG SHEETS MUST BE SUBMITTED TO VALIDATE ALL OF THE FOLLOWING EXPENSES**

	Barn # _____				
<b>Contractual Obligations:</b> Non-government subcontractor expenses (may include cleaning companies, C&D contractors, portajohn rentals, etc.):					
Name:	\$	\$	\$	\$	\$
Name:	\$	\$	\$	\$	\$
Name:	\$	\$	\$	\$	\$
<b>Other:</b> Includes utilities (if pre-approved), curtains, etc.					
Other:	\$	\$	\$	\$	\$
<b>Litter replacement (post C&amp;D):</b> Cost to replace and spread new clean litter in barns.					
Purchase of new litter: Dollars per POUND, TON or LOAD X No. of POUNDS, TONS or LOADS= \$ _____ Specify Units of Measurement _____	\$	\$	\$	\$	\$
<b>Owned or Rented Equipment used to replace litter in barns (post C&amp;D):</b> Includes costs to rent and operate owned/rented equipment to spread new litter in barns.					
<b>Payloader (OWNED)</b> , including operator and fuel (\$/hour)	\$	\$	\$	\$	\$
Number of Payloaders used					
# of loader hours per barn					
Total OWNED Payloader expense to prepare barns (in \$):	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
				<b>TOTAL</b>	<b>\$0.00</b>
<b>Payloader (RENTED)</b> , including operator and fuel (\$/hour)	\$	\$	\$	\$	\$
Number of Payloaders rented					
# of loader hours per barn					
Total RENTED Payloader expense to prepare barns (in \$):	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
				<b>TOTAL</b>	<b>\$0.00</b>
<b>Skidsteer (OWNED)</b> , including operator and fuel (\$/hour)	\$	\$	\$	\$	\$
Number of Skidsteers used					
# of skidsteer hours per barn					
Total OWNED Skidsteer expense to prepare barns (in \$)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00

**NOTE: RECEIPTS, INVOICES, AND EMPLOYEE LOG SHEETS MUST BE SUBMITTED TO VALIDATE ALL OF THE FOLLOWING EXPENSES**

	Barn # _____				
				<b>TOTAL</b>	<b>\$0.00</b>
<b>Skidsteer (RENTED)</b> , including operator and fuel (\$/hour)	\$	\$	\$	\$	\$
Number of Skidsteers rented					
# of skidsteer hours per barn					
Total RENTED Skidsteer expense to prepare barns (in \$)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
				<b>TOTAL</b>	<b>\$0.00</b>
Misc equipment (RENTED):	\$	\$	\$	\$	\$
Misc equipment (RENTED):	\$	\$	\$	\$	\$
				<b>TOTAL</b>	<b>\$0.00</b>

**NOTE: RECEIPTS, INVOICES, AND EMPLOYEE LOG SHEETS MUST BE SUBMITTED TO VALIDATE ALL OF THE FOLLOWING EXPENSES**

	Barn # _____				
<b>FOR INTERNAL USE ONLY - TOTAL PERSONNEL (Bird Euthasia associated costs) BUDGET</b>					
Barn preparation	\$0.00				
Bird care prior to euthanasia	\$0.00				
Bird removal	\$0.00				
<b>FOR INTERNAL USE ONLY - TOTAL PERSONNEL (Labor Costs) BUDGET</b>					
Composting (temperatures & pile monitoring, barn preparation	\$0.00				
Dry Cleaning	\$0.00				
Wet Cleaning	\$0.00				
Disinfection	\$0.00				
Rodenticide/Insecticide Application	\$0.00				
Equipment disassembly/reassembly	\$0.00				
<b>FOR INTERNAL USE ONLY - TOTAL EQUIPMENT (Equipment / Machinery Costs) BUDGET</b>					
Composting	\$0.00				
Compost Removal	\$0.00				
Dry Cleaning	\$0.00				
Wet Cleaning	\$0.00				
Disinfection	\$0.00				
Litter replacement	\$0.00				
<b>FOR INTERNAL USE ONLY - TOTAL SUPPLIES BUDGET</b>					
Composting ( cost of any additional carbon source if needed)	\$0.00				
Wet Cleaning (detergent, etc.)	\$0.00				
Disinfection	\$0.00				
Rodenticide/Insecticide	\$0.00				
Litter replacement	\$0.00				
Additional supplies	\$0.00				

**NOTE: RECEIPTS, INVOICES, AND EMPLOYEE LOG SHEETS MUST BE SUBMITTED TO VALIDATE ALL OF THE FOLLOWING EXPENSES**

	Barn # _____	Barn # _____	Barn # _____	Barn # _____	Barn # _____
<b>FOR INTERNAL USE ONLY - TOTAL CONTRACTUAL BUDGET</b>					
<b>FOR INTERNAL USE ONLY - TOTAL OTHER BUDGET</b>					
<b>FOR INTERNAL USE ONLY - GRAND TOTAL</b>					
<b>GRAND TOTAL:</b>	<b>\$0.00</b>				

**NOTE: RECEIPTS, INVOICES, AND EMPLOYEE LOG SHEETS MUST BE SUBMITTED TO VALIDATE ALL OF THE FOLLOWING EXPENSES**

	Barn # _____				
Dimensions (l x w):					
<b>Personnel to Prepare Composting Area (Clear Barns or Outdoor Space):</b> Example: labor to raise feeders and remove waterers in barns to prepare for tractor work, removing debris from fields where compost piles will be built, etc.:					
Hours of preparation per barn					
Wage (\$/hr)	\$	\$	\$	\$	\$
Total labor to prepare barns (in \$):	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
<b>Equipment to Build Compost Rows:</b> Includes equipment operations costs to clear litter and pile birds, haul and mix feed into compost, haul and mix all litter stored on farm into compost, and haul and mix all manure stored on farm into compost according to Compost Specialists' recommendations.					
<b>Payloader (OWNED), including operator and fuel (\$/hour)</b>					
Number of Payloaders used					
# of loader hours per barn					
Total OWNED Payloader expense to prepare barns (in \$):	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
<b>Payloader (RENTED), including operator and fuel (\$/hour)</b>					
Number of Payloaders rented					
# of loader hours per barn					
Total RENTED Payloader expense to prepare barns (in \$):	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
<b>Skidsteer (OWNED), including operator and fuel (\$/hour)</b>					
Number of Skidsteers used					
# of skidsteer hours per barn					
Total OWNED Skidsteer expense to prepare barns (in \$)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
<b>Skidsteer (RENTED), including operator and fuel (\$/hour)</b>					
Number of Skidsteers rented					
# of skidsteer hours per barn					
Total RENTED Skidsteer expense to prepare barns (in \$)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Misc Equipment Name:	\$	\$	\$	\$	\$
Misc Equipment Name:	\$	\$	\$	\$	\$

**Supplies for Compost:** Includes fair market value for existing clean litter, exposed bulk feeds onsite, and procurement of additional carbon sources as recommended by Compost Specialist.

Value of onsite clean litter added to compost: Dollars per POUND, TON or LOAD X No. of POUNDS, TONS or LOADS= \$ _____ Specify Units of Measurement _____	\$	\$	\$	\$	\$
Value of feed on site: Dollars per POUND, TON or LOAD X No. of POUNDS, TONS or LOADS= \$ _____ Specify Units of Measurement _____	\$	\$	\$	\$	\$
Purchase of additional feed: Dollars per POUND, TON or LOAD X No. of POUNDS, TONS or LOADS= \$ _____ Specify Units of Measurement _____	\$	\$	\$	\$	\$
Purchase of additional feed: Dollars per POUND, TON or LOAD X No. of POUNDS, TONS or LOADS= \$ _____ Specify Units of Measurement _____	\$	\$	\$	\$	\$
Purchase of wood shavings/wood chips: Dollars per POUND, TON or LOAD X No. of POUNDS, TONS or LOADS= \$ _____ Specify Units of Measurement _____	\$	\$	\$	\$	\$
Purchase of additional carbon source: Dollars per POUND, TON or LOAD X No. of POUNDS, TONS or LOADS= \$ _____ Specify Units of Measurement _____	\$	\$	\$	\$	\$

**Personnel to Record Temperatures & Monitor Piles:** Includes opening and closing of curtains for ventilation, monitoring piles for leachate and recording temperatures into log book. Record up to 10 temps per pile, per day for 30 days.

Hours per barn					
Wage (\$/hour)	\$	\$	\$	\$	\$
Total labor for monitoring piles (in \$)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00

**Equipment to Turn Compost Piles at Approximately 14 Days:** Once approval has been attained, includes equipment and fuel expenses to turn existing piles and restack windows to begin second 14 day compost cycle.

<b>Payloader (OWNED), including operator and fuel (\$/hour)</b>	\$	\$	\$	\$	\$
Number of Payloaders used					
# of loader hours per barn					
Total OWNED Payloader expense to prepare barns (in \$):	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
<b>Payloader (RENTED), including operator and fuel (\$/hour)</b>	\$	\$	\$	\$	\$
Number of Payloaders rented					
# of loader hours per barn					
Total RENTED Payloader expense to prepare barns (in \$):	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
<b>Skidsteer (OWNED), including operator and fuel (\$/hour)</b>	\$	\$	\$	\$	\$
Number of Skidsteers used					
# of skidsteer hours per barn					
Total OWNED Skidsteer expense to prepare barns (in \$)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
<b>Skidsteer (RENTED), including operator and fuel (\$/hour)</b>	\$	\$	\$	\$	\$
Number of Skidsteers rented					
# of skidsteer hours per barn					
Total RENTED Skidsteer expense to prepare barns (in \$)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Misc Equipment Name:	\$	\$	\$	\$	\$
Misc Equipment Name:	\$	\$	\$	\$	\$

**Rodenticide and Insecticide Application:** personnel costs to apply and monitor bait stations.

Hours labor per day _____ X 60 days= _____ hours					
Wage per hour (in \$)	\$	\$	\$	\$	\$
Total labor	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00

**Rodenticide and Insecticide Application:** Costs to purchase bait, bait stations, and related supplies

Rodenticide product: _____ and cost (in \$)	\$	\$	\$	\$	\$
Insecticide product: _____ and cost (in \$)	\$	\$	\$	\$	\$
Total for pest control supplies (in \$)	\$	\$	\$	\$	\$

<b>Additional Supplies:</b> personal protective equipment (ex: booties, tyvek, gloves)					
Personal Protective Equipment (PPE) (Total in \$)	\$	\$	\$	\$	\$
Disinfectant (Type: _____ )					
Dollars per unit X No. units= \$ _____	\$	\$	\$	\$	\$
Disinfectant (Type: _____ )					
Dollars per unit X No. units= \$ _____	\$	\$	\$	\$	\$
<b>Additional Equipment:</b>					
Dumpster rental and service (in \$)	\$	\$	\$	\$	\$
Truck rental (in \$)	\$	\$	\$	\$	\$
<b>BELOW THIS LINE FOR INTERNAL USE ONLY</b>					
Personnel	\$0.00				
Equipment	\$0.00				
Supplies (compost, carbon source, disinfectant, detergent, pesticides, PPE, etc. ):	\$0.00				
Contractual Obligations:	\$0.00				
Other	\$0.00				



# Authorized Signatures

List the name and title of those individuals in your organization who are authorized to execute proposals, contracts, agreements, bonds and other documents and/or instruments on behalf of the organization. Specify if more than one signature is required.

Name (Typed)	Signature	Title

I certify that the names of the individuals identified on this listing are current as of the date of execution below and that these individuals are authorized to sign Agreements and other legally binding documents related to Agreements with the Animal Plant Health Inspection Service – APHIS on behalf of ( **Name of Cooperator/Producer**). I understand and agree that the (**Name of Cooperator/Producer**) has a duty to ensure that this listing is immediately updated and communicated to APHIS whenever any of the authorized signatories above is no longer employed or have their responsibilities changed resulting in their no longer being authorized to sign Agreements with APHIS or whenever new signatories are designated.

For privacy purposes DO NOT ATTACH any documentation containing personal information, such as bank account numbers, social security numbers, driver’s licenses, home addresses, social security cards or any other personally identifiable information that you do not want released as part of a public record. APHIS reserves the right to publish the names and titles of authorized signatories of contractors.

**COOPERATOR LEGAL NAME:** \_\_\_\_\_

**COOPERATOR DUNS Number:** \_\_\_\_\_

\_\_\_\_\_  
Authorized Signature

\_\_\_\_\_  
Date

\_\_\_\_\_  
Title

\_\_\_\_\_  
Email

\_\_\_\_\_  
Telephone



## HPAI Iowa 2015

### COMMERCIAL DEPOPULATION SOP

#### *Caged Layer House – Cart Method*

##### Materials:

- CO<sub>2</sub> carts/Depopulation carts
- Catch crew
- CO<sub>2</sub> cylinders
- Biosecurity equipment for crew
  - Including gloves/sleeves covering forearms

##### Procedures:

1. Work flow should be determined before work progresses, as aisles only permit one way movement of persons and carts within the house.
2. Crew is assembled to pull birds from cages and place in cart pre-charged with CO<sub>2</sub>. An on-site team leader is designated to ensure safety.
3. Typically there is one cart for every 1 – 2 workers due to space limitations within the caged layer aisles of the house.
4. Depending upon cart size, 150 – 200 birds may be placed in cart.
5. Cart is recharged with CO<sub>2</sub> to complete killing process. This may take 3 – 5 minutes.
6. Carts are taken to end of house when filled and killing completed.
7. Main panel is opened to allow removal of birds.

##### Safety Procedures:

1. This operation has a number of potential Occupational Health and Safety risks. Training in each step is required of inexperienced operators before commencing the depopulation. Therefore, it is desirable to appoint an on-site Safety Officer for the duration of the task.
  - a. Carbon dioxide (CO<sub>2</sub>) – Very toxic. Personnel must not be allowed to inhale the gas in any quantity. If there is any suspicion of a person being affected by the gas, first aid must be administered immediately.
    - i. Symptoms associated with CO<sub>2</sub> poisoning include: dull headache, weakness, dizziness, nausea and vomiting, shortness of breath, confusion, blurred vision.
    - ii. Treatment: move to fresh air; seek medical care immediately.
    - iii. Prolonged skin contact may result in frost-bite.
  - b. Manual handling – Gas cylinders are heavy and can be difficult to handle. Mechanical assistance (e.g. hand truck or dolly) should be provided to reduce manual handling. Cylinders must be securely strapped in all transport devices (e.g. dollies, carts, vehicles)
  - c. Personnel working near the CO<sub>2</sub> filled barrel may need to be rotated to avoid long exposures to gas.
  - d. Slips, trips, and falls – the nature of the catching, carrying, and placing of birds in the barrels and carts has the potential for these accidents. Personnel should be encouraged

to work within their limits and suitable breaks taken. Personnel should be matched to the tasks at hand.

- e. Cuts and scratches – the operating environment will present many edges, sharps, etc. that have the potential to inflict injury. This includes the birds themselves. Areas of exposed skin should be minimized, including the wearing of extra gloves (especially for birds in cages). Potential hazards should be either removed and/or protected (covered) and/or marked with a hazard warning such as hazard tape. Where the risk of injury cannot be minimized, an alternate approach should be sought.
- f. Eye injuries – the flapping of wings, rapid movement of hands, etc. all present the possibility of foreign matter in eyes including dust particles, etc. Eye protection is required to be worn by all personnel.
- g. Emotional well-being – personnel will be affected differently by the experience. It is possible some personnel will be unable to be involved/complete this task. Careful selection of personnel is essential. It is essential that all personnel are provided with the opportunity to access appropriate support.

Premise Name:

Premise ID:

Depop team:

Euthanasia assigned:

Depop start date:

Depop End date:

Depop method:

Disposal team:

Disposal assigned:

Disposal start date:

Disposal End date:

Disposal method:

Depop Summary:



**DISPOSAL OF POULTRY CARCASSES: Highly Pathogenic Avian Influenza**

*All poultry carcasses must be composted for one turn in the barn unless exempted by State Veterinarian*

**1. INDOOR COMPOSTING – Directed by regulatory staff**

- The date of setting the compost pile will be determined by regulatory staff.
- Compost pile must meet all Board standards for routine composting including two heat cycles.
- Composted materials will be monitored daily for leachate and temperature and recorded.
- Process requirements:
  - The compost pile temperature must reach a minimum of 130°F, or a temperature deemed sufficient by regulatory staff.
  - When 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.
    - 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 the barn or outside, or
    - The pile may be taken outside for a complete cycle for further composting purposes, or
    - The pile may be taken outside for burial.
  - 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).

**2. OUTDOOR COMPOSTING (not able to compost indoors)– Directed by regulatory staff**

- The date of setting the compost pile will be determined by regulatory staff.
- Compost pile must meet all Board standards for routine composting including two heat cycles.
- Composted materials will be monitored daily for leachate and temperature and recorded.
- Site selection:
  - Site must be 200 ft. or more from any public road or right of way
  - Site must be 300 ft. from any open water, seasonal drainage, wetland, wellhead or property line
  - Soil type and surface must be reviewed and approved by Board of Animal Health staff
- Process requirements:
  - Composted material must be covered with material approved by the Board OR capped with adequate fine textured carbon material (ie sawdust)
  - 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)

**3. BURIAL PROTOCOL AFTER ONE COMPOSTING HEAT CYCLE**

- All burial must be approved by Board of Animal Health staff prior to, during and post burial.
- Site Selection:
  - Site must be accessible in all climate conditions
  - Site must not be within 1,000 ft. 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 by Board of Animal Health staff
- 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 lat/long, and distance to a permanent landmark such as a building.

May 7, 2015



# **VS RED IMT: IOWA HPAI 2015**

## **In-House Poultry Composting Protocol<sup>1</sup>**

***Follow HPAI Biosecurity and PPE procedures for working in a poultry barn/house.  
Ventilate the building at least one hour before working in the poultry barn/house.***

### **Establishing Windrows:**

#### **Mixing and Piling**

- 1. Carcasses will be covered and mixed with existing litter base and shavings.**
- 2. Water will be added as needed.**
- 3. A disk or other equipment will be used to reduce carcass size.**
- 4. The existing litter in the house will be loosened to form a litter base of 6-10 inch depth in 1-2 windrows in each house (number of windrows are dependent on house size and number of birds).**
- 5. Carcass/shavings/litter mix will be evenly distributed on top of the prepared litter base using skid steer loader forming 1-2 windrows in each house as needed.**
- 6. Additional shavings, sawdust, spoiled hay etc. will be used as a carbon source, as needed, to layer with and fully cover the carcasses.**
- 7. The shavings/carcasses will be sprayed with water as needed during the process.**
- 8. A 2<sup>nd</sup> layer of litter base will be added to the carcasses.**
- 9. A 2<sup>nd</sup> layer of carcass mixture will be evenly distributed on top of the litter.**
- 10. A 2<sup>nd</sup> layer of shavings will be added.**
- 11. The shavings/carcasses will be sprayed with water.**
- 12. Repeat series as needed.**
- 13. A final layer of litter 6 – 10 inch depth will cap the windrow.**
- 14. Alert a representative of the USDA Disposal Group if the temperature is not coming up or there is leachate from the pile or other problems.**
- 15. Once established compost temperatures are monitored once daily. (*See details in Compost Temperature Monitoring SOP*)**
- 16. Compost must reach minimum temperature of 135° degrees on 5 of 14 days.**
- 17. Turn compost at 14 days.**
- 18. After turning, monitor temperature with target of 135° for 3 – 5 days for finishing.**

<sup>1</sup>Adapted from CA H5N8 HPAI Kings H5N8 2015

# COMPOSTING TEMPERATURE LOG

Farm Name:

House Number:

Date	Depth	1	2	3	4	5	6	7	8	9	10	Daily Average
	18"											
	36"											
	18"											
	36"											
	18"											
	36"											
	18"											
	36"											
	18"											
	36"											
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	36"											
	18"											
	36"											
	18"											
	36"											
	18"											
	36"											

**A representative of the USDA Disposal Group will coordinate on site flag setting, temperature reading, recording and auditing.**

- ◆ Follow IA HPAI Personal Protective Equipment and biosecurity procedures for infected premises contact.
- ◆ Make arrangements to ventilate the building prior to arrival if possible.  
If not possible on arrival open the doors to all of the houses containing compost piles to allow them to air out and bring in fresh air.
- ◆ Recommended to have a two person team but may not be practical in all situations.
- ◆ Temperature readings will be taken once per day.
- ◆ The compost piles have been flagged with 10 pre-designated monitoring points by a representative of the USDA Disposal Group.
- ◆ Calibrate thermometers prior to beginning temperature monitoring. To calibrate the thermometers they must all be placed in the same location of a pile at the same time for at least one minute. The readings from each of the thermometers should be compared to the others. If a thermometer is off from the others by more than three degrees Fahrenheit it must not be used.
- ◆ Each compost pile will have its own log page.
- ◆ Place the stem of the thermometer approximately 18 inches and then 36 inches into the compost pile half way up the pile at a 45 degree angle.
- ◆ Leave the thermometer at each point for at least 60 seconds.
- ◆ Record or log the reading from the thermometer.
- ◆ After completing the house readings close the doors.
- ◆ Calculate the average temperature for each pile and note in the log.
- ◆ Disinfect the thermometers and return to their protective cases (If provided).
- ◆ Each set of thermometers will be kept at its respective premises being monitored.
- ◆ No thermometers will be taken from one premise to the other.
- ◆ A well-constructed compost pile should generate and maintain temperatures ranging from 120°F to 140°F for several weeks.
- ◆ Minimum temperature for virus kill is 135°.
- ◆ These temperatures should be reached 5-7 days after the compost pile has been constructed.
- ◆ If temperature is not reached within 5-7 days contact representative of VS Disposal Group or Subject Matter Expert as soon as possible.

Red IMT IA HPAI Farm Composting Workbook

Farm Name	Farm Point of Contact	Phone No.	Depop Complete Date
Compost Location:	Inside <input type="checkbox"/> Outside <input type="checkbox"/>		
Subject Matter Expert Assessment	Date of Assessment:		

Red IMT IA HPAI Farm Composting Workbook

	Start Date	End Date	Carbon Delivery Start Date	Carbon Delivery End Date	Number of Loads
House/Barn 1, Pile 1					
House/Barn 1, Pile 2					
House/Barn 1, Pile 3					
House/Barn 2, Pile 2					
House/Barn 2, Pile 2					
House/Barn 2, Pile 2					
House/Barn 3, Pile 1					
House/Barn 3, Pile 2					
House/Barn 3, Pile 3					
House/Barn 4, Pile 1					
House/Barn 4, Pile 2					
House/Barn 4, Pile 3					
House/Barn 5, Pile 1					
House/Barn 5, Pile 2					
House/Barn 5, Pile 3					
House/Barn 6, Pile 1					
House/Barn 6, Pile 2					
House/Barn 6, Pile 3					
House/Barn 7, Pile 1					
House/Barn 7, Pile 2					
House/Barn 7, Pile 3					
House/Barn 8, Pile 1					
House/Barn 8, Pile 2					
House/Barn 8, Pile 3					
House/Barn 9, Pile 1					
House/Barn 9, Pile 2					
House/Barn 9, Pile 3					
House/Barn 10, Pile 1					
House/Barn 10, Pile 2					
House/Barn 10, Pile 3					

**COMPOSTING CHECKLIST FOR IA HPAI INFECTED FLOCKS**

The purpose of this document is to verify that the composting procedures used on premises determined to be affected with avian influenza are in compliance with the IA HPAI State and/or federal representatives should verify that items on the checklist (that apply) have been completed and sign in the designated areas.

Premises Owner Name: \_\_\_\_\_

Address: \_\_\_\_\_  
 \_\_\_\_\_

Phone number: \_\_\_\_\_ Premises Number \_\_\_\_\_

<b>YES (X)</b>	<b>NO (X)</b>	<b>Data capture for composting procedures for HPAI</b>
		1. Composting crew type: regulatory personnel, producer, contractor (Circle)
		2. Composting location: in house, outdoor (Circle)
		3. Species identified: chicken, turkey, other* (Circle or define*)
		4. Date pile established as set:
		5. Temperature logs confirmed:
		6. Date pile turned for 1 <sup>st</sup> heating cycle:
		7. Date pile released:
		8. Other information:

The information listed confirms composting is completed in accordance with the USDA IA HPAI procedures and the approved flock plan.

\_\_\_\_\_  
 Premises Owner (type or print)

\_\_\_\_\_  
 Signature Date

\_\_\_\_\_  
 State/Federal Official (type or print)

\_\_\_\_\_  
 Signature Date

**POULTRY MORTALITY STORAGE CONTAINERS  
LEACHATE MANAGEMENT SOP**

The purpose of this document is to mitigate leachate from poultry mortality storage units on High Path AI premises in compliance with the Iowa Avian Influenza Response and Containment.

State and/or federal representatives should verify that the appropriate steps listed below have been completed to contain any leakage of leachate or poultry material adequately to prevent the spread of HPAI.

Premises Owner Name: \_\_\_\_\_

Address: \_\_\_\_\_  
\_\_\_\_\_

Phone number: \_\_\_\_\_ Premises Number \_\_\_\_\_

1. Identify the specific container by number and GPS (if possible).
2. Confirm that container door hinge mechanism has been tightened and seals have been hydrated/lubricated to produce an adequate liquid seal.
3. Apply a layer of absorbent material (saw dust, wood chips, etc.) to floor of container prior to lining with plastic or bio-bag.
4. If bio-bags or liners are identified as leaking, transfer solids from bag and container to new container with new liner and/or bio-bag.
5. Add appropriate material(saw dust, wood chips, litter, feed waste, etc.) to absorb any liquid material left in the leaking container.
6. Transport the damaged bag and contents to the new lined/bio-bag container.
7. Apply additional material to the now-empty container to absorb any additional liquid material from the container and transfer to the new lined container.
8. Properly wash and C&D interior and exterior of the emptied container with Virkon® or other approved prior to moving off site.
9. Apply approved disinfectant to exterior of new container and liner/bio-bag after sealing liner or bag.

\_\_\_\_\_  
Site Manager Name (Type or Print)

\_\_\_\_\_  
Signature

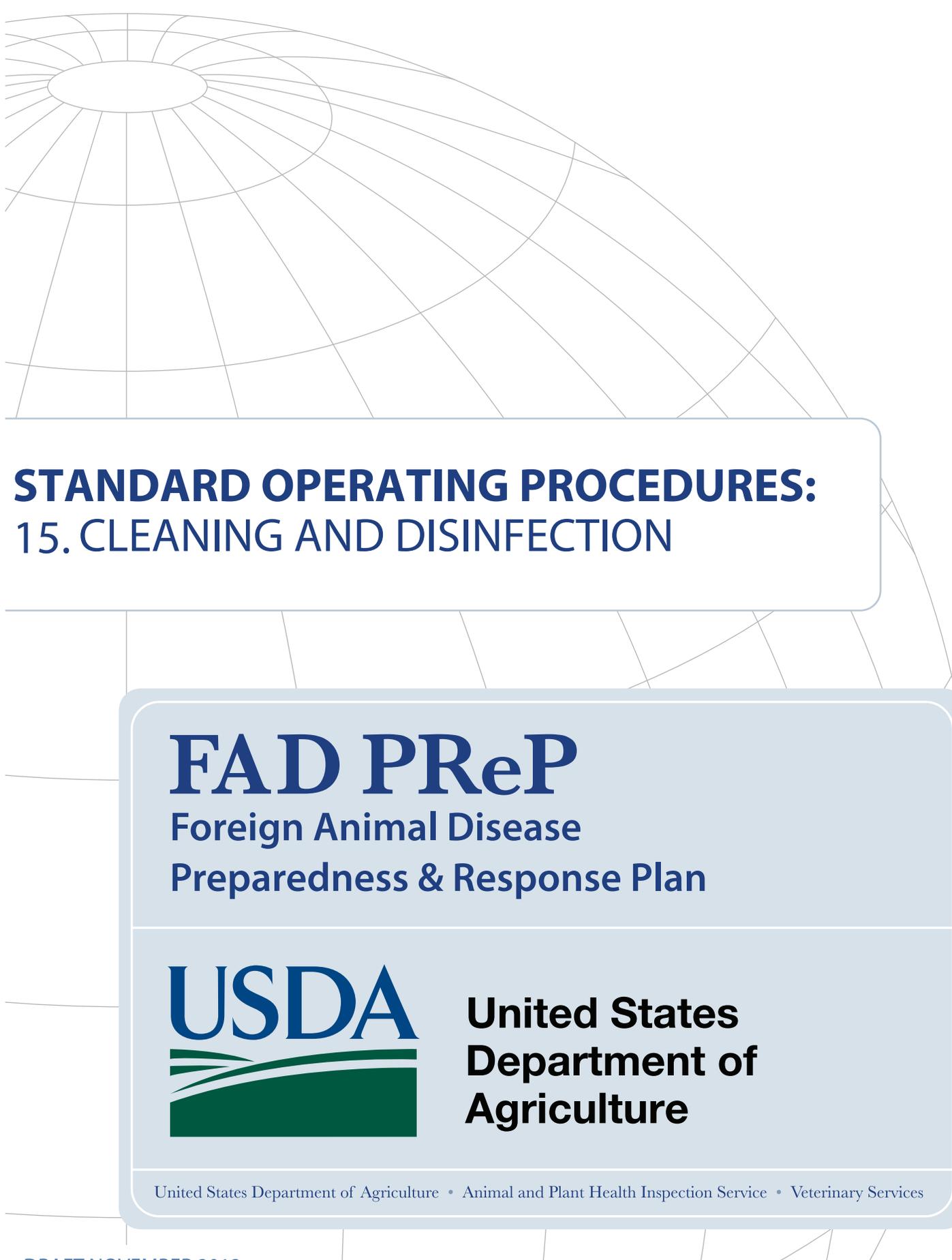
\_\_\_\_\_  
Date

\_\_\_\_\_  
State/Federal Official (Type or Print)

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date





**STANDARD OPERATING PROCEDURES:  
15. CLEANING AND DISINFECTION**

**FAD PReP**

**Foreign Animal Disease  
Preparedness & Response Plan**



**United States  
Department of  
Agriculture**

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

DRAFT NOVEMBER 2013

The Foreign Animal Disease Preparedness and Response Plan (FAD PReP) Standard Operating Procedures (SOPs) provide operational guidance for responding to an animal health emergency in the United States.

These draft SOPs are under ongoing review. This document was last updated in **November 2013**. Please send questions or comments to:

National Preparedness and Incident Coordination  
Veterinary Services  
Animal and Plant Health Inspection Service  
U.S. Department of Agriculture  
4700 River Road, Unit 41  
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E-mail: [FAD.PReP.Comments@aphis.usda.gov](mailto:FAD.PReP.Comments@aphis.usda.gov)

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

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## 15.1 Introduction

The cleaning and disinfection (C&D) of equipment, materials, and premises is done to prevent or mitigate the spread of foreign animal diseases (FADs) during an outbreak in order to stabilize animal agriculture, the food supply, and the economy, and to protect public health and the environment. This standard operating procedure (SOP) provides C&D Group personnel with guidance on choosing and using optimal C&D methods following an FAD outbreak in domestic livestock and poultry.

Several key Animal and Plant Health Inspection Service (APHIS) documents complement this SOP and provide further detail when necessary. This SOP references the following APHIS documents:

- Foreign Animal Disease Preparedness and Response Plan (FAD PReP)/National Animal Health Emergency Management System (NAHEMS) Guidelines:
  - Cleaning and Disinfection
  - Wildlife Management and Vector Control
- FAD PReP SOP:
  - Biosecurity
  - Disposal
  - Health and Safety and Personal Protective Equipment (PPE).

These documents are available on the internal APHIS FAD PReP website for those who have access to the APHIS intranet at <http://inside.aphis.usda.gov/vs/em/fadprep.shtml>, and the public can access them at [http://www.aphis.usda.gov/animal\\_health/emergency\\_management/](http://www.aphis.usda.gov/animal_health/emergency_management/).

### 15.1.1 General

During an FAD outbreak, C&D is an important component of a biosecurity program. C&D is an effective means of lessening the threat of animal diseases by reducing the presence of pathogenic microorganisms and preventing the spread of disease agents. C&D involves the use of physical, chemical, or biological processes to remove, inactivate, reduce, or destroy pathogenic microorganisms.

Specifically, cleaning involves the removal of organic material (for example, manure and bedding), and washing removes materials (for example, oils and grease) that can inhibit the action of disinfectants. Disinfection is a process that destroys most pathogenic and non-pathogenic microorganisms, but not all microbial forms, such as bacterial spores, to an acceptable level. Sterilization is a process that destroys all forms of microbial life, including bacterial spores, to an acceptable level. If conducted properly, these processes should be highly effective in preventing the spread of disease and zoonoses (if applicable).<sup>1</sup>

<sup>1</sup> Block, S., (Ed.) (2001). *Disinfection, Sterilization, and Preservation*, 5th Edition (Lippincott, Williams, and Wilkins, Philadelphia, PA), pp. 25–27.

## 15.1.2 Goals

### 15.1.2.1 Preparedness Goals

The preparedness goals for C&D are as follows:

- Establish cleaning and disinfecting protocols or procedures before an outbreak for consistency and safeguarding.
- Identify disinfectants (or pesticides) that are Environmental Protection Agency (EPA) approved for specific FAD agents. Have the ability to acquire these disinfectants, both in finite immediate quantities for the start of an FAD incident or outbreak and in indefinite estimated quantities for surge capacity requirements beyond the initial immediate need.

### 15.1.2.2 Response Goals

The response goals for C&D are as follows:

- Ensure that C&D is conducted on any premises where a disease agent is presumed or confirmed to exist within 48 hours of disposal of depopulated animals.
- Remove, inactivate, reduce, or destroy pathogens at infected premises.

## 15.1.3 Guidelines

Proper cleaning and disinfecting is essential to contain the spread of a disease agent and is an integral part of the eradication plan. Pest control must be completed before C&D can commence. Care must be taken to reduce the generation and dispersal of infective dust and aerosols. If items cannot be adequately cleaned and disinfected, they must be disposed of by burial, burning, or other appropriate means.

If available personnel or materials are insufficient, Incident Command can request emergency 3D (depopulation, disposal, and decontamination) contractor support from the National Veterinary Stockpile (NVS).

## 15.1.4 Coordination

The C&D Group must complete the following coordination activities:

- Consult with the Epidemiology Group<sup>2</sup> to gain a better understanding of the disease and its properties so that an effective C&D strategy can be developed. Include in the C&D strategy a discussion of the environmental conditions (for example, relative humidity and temperature) that may impact the strategy.
- Coordinate supply requirements and delivery location, date, and time with the Logistics Section.
- Coordinate facility access and personnel requirements with the Operations Section Chief.
- Coordinate personnel supplies and needs with the Logistics Section.

<sup>2</sup> In situations without an activated Epidemiology Group, such as a small-scale event, the C&D Group will consult with the Operations Section Chief.

- Coordinate setting up C&D stations that adhere to biosecurity measures such as vehicle entry and movement control checkpoints with the Animal Biosecurity and Disease Prevention Group.
- Coordinate with the Disposal Group to ensure that the C&D and disposal processes are properly conducted.
- Coordinate with the property owner to ensure a smooth effort.

### 15.1.5 Assumed Ongoing or Completed Response Activities

These procedures assume the following outbreak response activities are in progress or have been completed before C&D:

- Disease confirmation—*completed/ongoing*
- Movement control—*ongoing*
- Quarantine—*ongoing*
- Surveillance—*ongoing*
- Monitoring, countermeasure use, and inoculation—*ongoing*
- Biosecurity procedures—*ongoing*
- Security measures and crowd control—*completed/ongoing*
- Health and safety procedures—*ongoing*
- Effluent and runoff control—*ongoing*
- Appraisal and compensation—*completed*
- Depopulation—*completed/ongoing*
- Disposal—*completed/ongoing*.

## 15.2 Purpose

The C&D SOP provides USDA APHIS Veterinary Services (VS) and other official response personnel with operational guidance on cleaning and disinfecting procedures for animal health emergency deployments. The guidance in this SOP is relevant in FAD outbreaks of varying sizes, whether the outbreak is isolated to a single premises or spans across a region to multiple premises, because the Incident Command System (ICS) structure from which this SOP is based is both flexible and scalable. These procedures serve as guidance for response personnel performing C&D activities. If these procedures conflict with State, Tribal, Territorial, or local laws, regulations, or procedures, always follow the laws within your jurisdiction.

## 15.3 Responsibilities

The C&D Group is part of the Operations Section (see Figure 15-1 for an example of the ICS structure). The C&D Group provides services that are essential to an effective animal health emergency response by helping control and eliminate the disease agent. This section describes the responsibilities of C&D personnel as well as the importance of cooperation with the

Disposal, Euthanasia, and Appraisal Groups. This SOP also addresses the topics of hazard communication, exercising biosecurity measures, personnel orientation, and needs assessment.

All C&D personnel should learn as much as possible about the procedures described in this SOP, the NAHEMS Guidelines: Cleaning and Disinfection, and other information sources. They also should participate in educational sessions and emergency response exercises designed to help them expand their knowledge of C&D processes, methods, and safety considerations (see [Attachment 15.A](#) for suggested training courses).

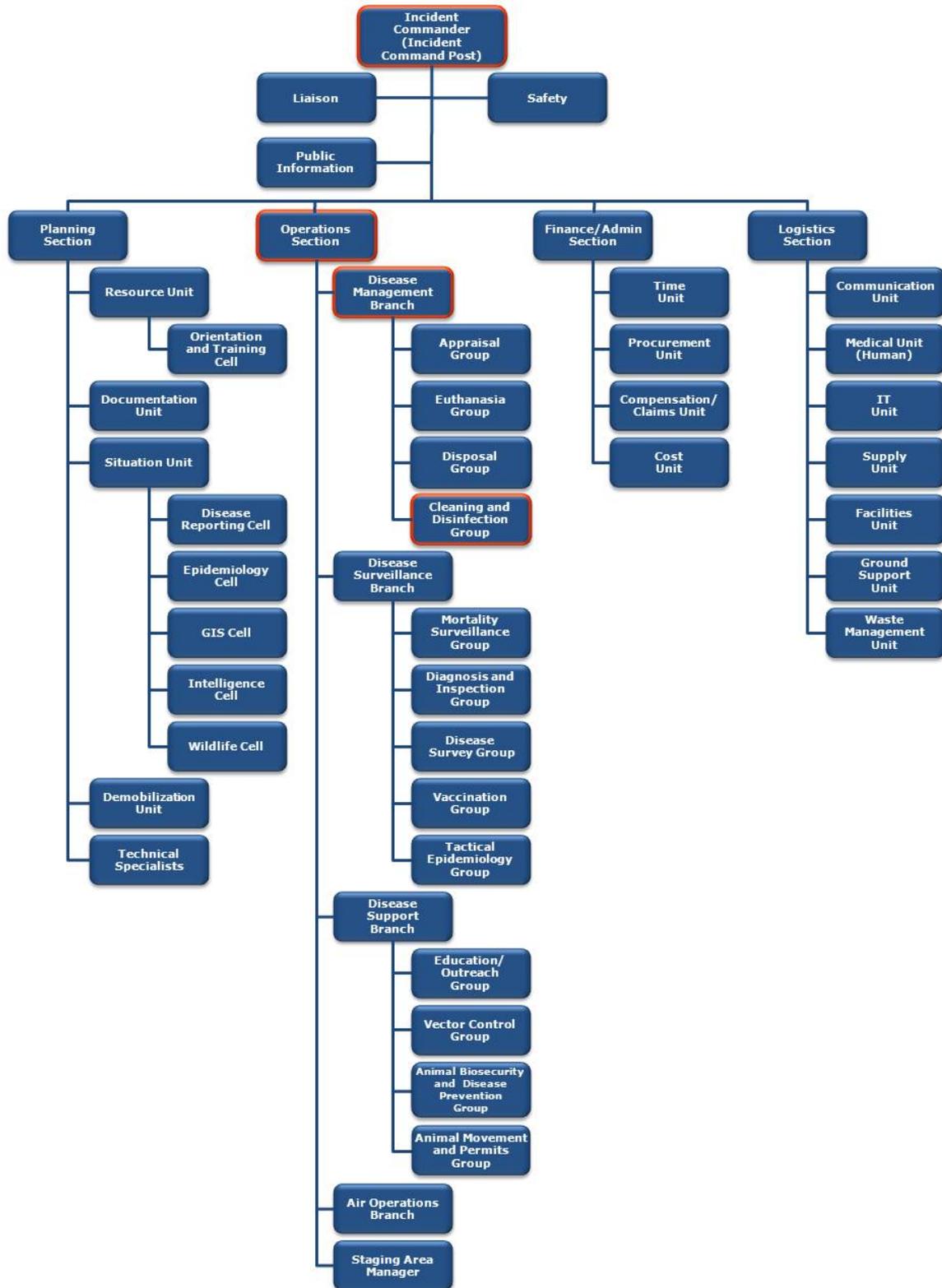
The Incident Commander (IC) oversees all activities (Planning, Operations, Finance/Administration, and Logistics). In large scale incidents involving multiple premises and covering large areas, the IC reports to an Area Commander.

The C&D Group is led by the C&D Group Supervisor, who reports to the Disease Management Branch Director. Depending on the incident, the C&D Group Supervisor may deploy a C&D Group Strike Team or Task Force. Strike Teams are groups that have expertise in and complete a specific skill whereas Task Forces are composed of personnel with more generalized but varied skills. See Figure 15-2 for the C&D Group command structure.

In general, the C&D Group is responsible for the following:

- Providing input on C&D procedures (for example, technical advice, briefings, and daily reports).
- Providing technical advice on C&D issues to owners or operators of Infected or Contact Premises.
- Coordinating closely with the Logistics Section to secure the necessary equipment and supplies and ensure an ample supply of chemical disinfectant products.
- Coordinating C&D Team activities with other response teams (for example, Surveillance, Appraisal, and Biosecurity).
- Establishing, operating, and maintaining C&D stations as needed, including quarantined premises, personnel, and animal decontamination stations.
- Providing personnel to supervise C&D activities.
- Scheduling and certifying C&D procedures on the Infected Premises (IP) or other affected areas.
- See Figure 15-2 depicts the C&D Incident Command structure.

Figure 15-1. Example of Incident Command Structure



Note: GIS = Geographical Information Systems; IT = Information Technology.

**Figure 15-2. C&D Incident Command Structure**



### 15.3.1 Cleaning and Disinfection Group Supervisor

The C&D Group Supervisor is assigned to the Incident Command Post and manages all C&D Teams (Strike Team and Task Force) and C&D Team members if their expertise is required. The C&D Group Supervisor has extensive training and experience in proper C&D methods following an FAD outbreak. This individual also possesses the management skills to organize and direct all C&D activities for an incident. The C&D Group Supervisor reports to the Disease Management Branch Director.

The NAHEMS Guidelines: Cleaning and Disinfection provides additional information on C&D Group Supervisor responsibilities.

### 15.3.2 Cleaning and Disinfection Team Leaders

C&D Team Leaders supervise the on-site activities of the C&D Team (or C&D teams, depending on the size and needs of the Infected or Contact Premises). C&D Team Leaders have responsibility for one of the specific C&D functions, such as the individual C&D stations or checkpoints. In a large incident, different C&D Team Leaders may manage the functions of vehicle disinfection stations, equipment, supplies on quarantined premises (which will include on-site coordination with the Biosecurity Team), and supervision of premises to be cleaned and disinfected.

Each C&D Team Leader supervises a C&D Team assigned to a clearly defined area or premises. Depending on the size of the response, there may be several C&D Teams, each with its own Team Leader. Two types of teams may be deployed:

- *C&D Strike Team.* A Strike Team has experience and technical knowledge in C&D techniques applicable to specific diseases. A Strike Team employs similar resources to execute disposal tasks on a specific premises or set of closely related premises.
- *C&D Task Force.* A Task Force has the skills and experience necessary to execute C&D tasks on a large complex premises or a diverse group of premises. This team has a wide

variety of resources and does not possess the technical knowledge in C&D techniques applicable to specific diseases.

The C&D Team Leaders (Strike Team or Task Force) should be identified well before an outbreak occurs. Team Leaders report to the C&D Group Supervisor.

The NAHEMS Guidelines: Cleaning and Disinfection provides additional information on C&D Team Leader responsibilities.

### 15.3.3 C&D Team Member

The number of C&D Team members will depend on the characteristics of the premises (number of buildings, size and separation of buildings, size of the area, sanitary conditions of the premises, and the time frame with which work can or must be completed). The work of the C&D Team on an Infected or Contact Premises is essential for containing and controlling a disease outbreak. The C&D Group Leader assigns personnel to C&D teams, identifies a C&D Team Manager, and assigns these individuals to Infected or Contact Premises as soon as possible.

The C&D Team consists of individuals who are experienced and skilled in C&D procedures and familiar with handling cleansers and disinfectants. The Teams visit their assigned premises to implement C&D processes to impede the spread of pathogenic microorganisms. Multiple teams may be assigned to a single premises. Personnel serving on a C&D Team may be drawn from a number of sources. USDA APHIS and State cooperators have Animal Health Technicians with the training and experience to supervise C&D and handle and apply C&D agents. Local pest control companies have experience in working with the spray equipment and pressure pumps commonly used in C&D. In the agricultural community, there are businesses that specialize in C&D of facilities. Members of the military from the Department of Defense may be available through memorandums of understanding between departments. Local hires can be trained for specific application activities.

The NAHEMS Guidelines: Cleaning and Disinfection provides additional information on C&D Team member responsibilities.

## 15.4 Procedures

Before beginning any C&D procedure, the C&D Group Leader, in consultation with the C&D Group Supervisor, needs to carefully assess the situation and plan the C&D response accordingly to ensure a well-coordinated approach. Proper planning helps to ensure the elimination or reduction of pathogens, prevents further movement of pathogens, and helps to ensure the safety of response personnel, animals, and the environment. It also minimizes the possibility that a lack of resources impedes the C&D process.

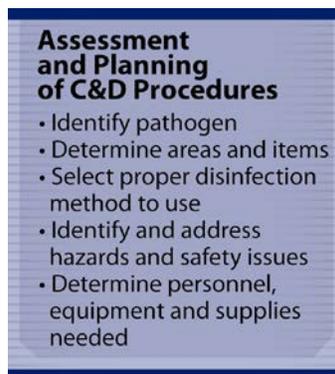
### 15.4.1 Assessment

In the assessment phase, information is gathered to assist with the planning of the C&D response. It includes the following (see Figure 15-3):

1. Identifying the FAD to be controlled or eliminated.

2. Meeting with the premises owner to
  - a. conduct a property assessment (location of electricity poles and lines, underground cables, phone lines, fuse box, and meter),
  - b. determine areas and items requiring C&D,
  - c. identify areas requiring specific decontamination action,
  - d. identify any potentially hazardous situations, and
  - e. identify the location of drainages and run off destinations.
3. Estimating the time frame needed to address the situations.

**Figure 15-3. Assessment and Planning of C&D Procedures**



Source: Andrew Kingsbury, Iowa State University.

## 15.4.2 Planning—Site-Specific C&D Plan

Information gathered during the assessment phase helps the C&D Group Supervisor to effectively plan the response and ensure the safe handling of chemical compounds. The C&D Group Supervisor or designee—in consultation with the owner or the owner’s agent and other officials—prepares a site-specific C&D plan. The C&D Group Supervisor, along with the Disease Management Director, must approve the plan before implementation.

### 15.4.2.1 Outline

Provide a written plan detailing how C&D is performed at a given site. The plan should include the following:

- A review, design, and setup of the premises.
- Definition of the area to be cleaned and disinfected.
- Identification of appropriate locations for the C&D setup and process, and holding areas for
  - vehicles and heavy equipment,
  - personnel, and
  - small equipment.

- Selection of EPA approved C&D products to be used.
- Description of proper C&D methods and processes to include
  - cleaning,
  - washing (pre-soaking, scrubbing, rinsing, and drying),
  - disinfecting, and
  - downtime.
- Personnel requirements and assignments.
- Materials, supplies, and equipment.
- Regulatory permits and approvals.
- Plans for proper disposal of disinfectants and materials. (See the NAHEMS Guidelines: Disposal and the Disposal SOP).
- Quality Assurance and Quality Control.

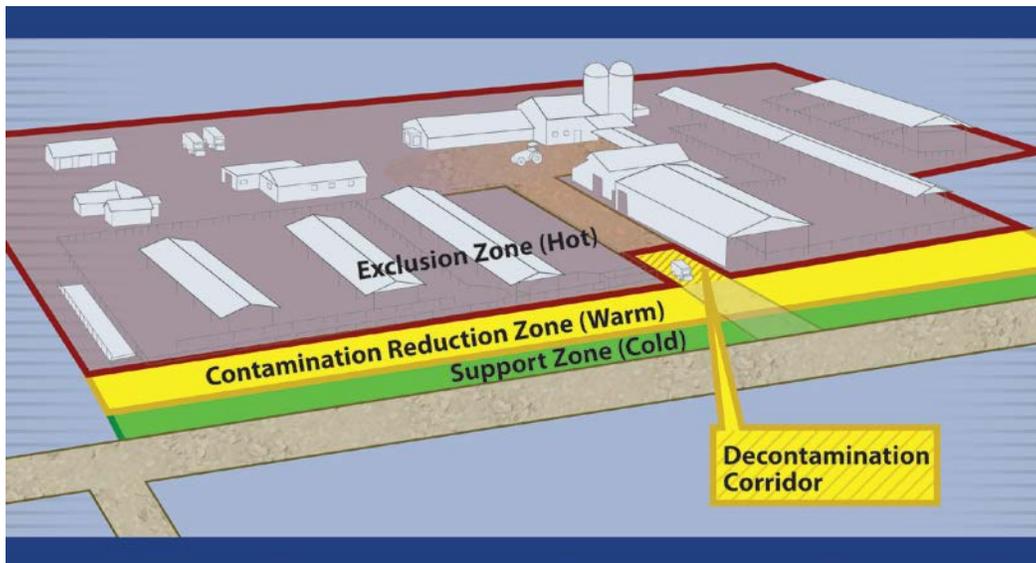
#### 15.4.2.2 Review, Design, and Setup of the Premises in the C&D Plan

During the assessment phase, gather sufficient information to design and setup the premises for C&D. This part of the plan should include:

1. Selecting the most appropriate sites to conduct disinfection and decontamination for equipment and personnel. (See the NAHEMS Guidelines: Cleaning and Disinfection for the requirements for selecting disinfection and decontamination sites). The chosen location should
  - a. have minimal environmental impact, and
  - b. have adequate drainage to a holding tank.
2. Determining areas on the premises that need C&D. Consider the following, for example, when defining the C&D area:
  - a. Interior and exterior surfaces that need C&D.
  - b. Other structures or items such as fences that need C&D.
  - c. Potential environmental risks for outdoor disinfection.
3. Designing and setting up the different stations, to include the following:
  - a. Holding areas, Hot Zone/Exclusion Zone (EZ), Warm Zone/Containment Reduction Zone (CRZ), and Cold Zone/Support Zone (SZ) for heavy equipment/machinery.
  - b. Holding areas, Hot Zone/EZ, Warm Zone/CRZ, and Cold Zone/SZ for small equipment and tools.
  - c. Hot Zone/EZ, Warm Zone/CRZ, and Cold Zone/SZ for personnel wash stations (see Figure 15-4).
  - d. Adequate privacy for personnel cleaning stations.

- e. Placement of drainage pits, if needed, that are located away from sensitive environmental areas, such as wetlands or wellhead areas.
- f. Areas for the placement of items for off-site disposal that require further processing such as decontamination and then transport to off-site facilities.
- g. Placement of items for on-site disposal.

**Figure 15-4. Biosecurity Control Zones**



Source: Dani Ausen and Andrew Kingsbury, Iowa State University.

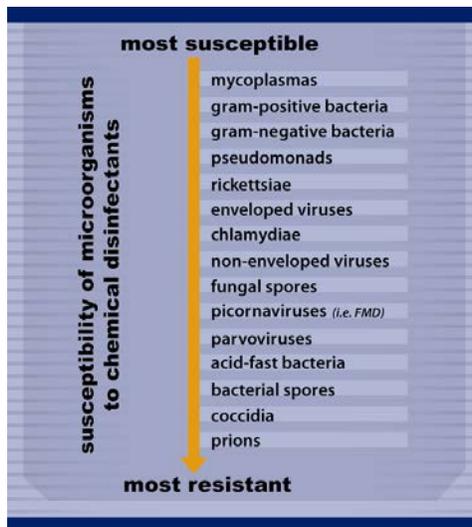
### 15.4.2.3 Selection of Proper Disinfectants and Methods in the C&D Plan

The requirements of the incident, specifically, the microorganism of concern, disinfection methods, and environmental factors all contribute to the disinfectant selection and C&D methods. USDA APHIS recommends that the selection of the disinfectant and disinfection methodology should be based on EPA-registered labels for antimicrobial pesticides (that is, disinfectants). The label will be registered by the EPA either under Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) Section 3 (regular label) or under FIFRA Section 18 (emergency use label). The disinfectant is used according to its registered label at the indicated dilution, use sites, application method, contact time, and cautionary statement against the pathogens specified on the label.

In addition, a registered disinfectant may be used according to label indication against pathogens not listed on the label (under a FIFRA Section 2(ee) exemption) provided that this use is not in conflict with State or local policy. The non-label-listed pathogens should be equally or more sensitive to inactivation by the disinfectant than the heartiest pathogen listed on the registered label. The NAHEMS Guidelines: Cleaning and Disinfection guidance includes recommendations gleaned from the literature and generally accepted disinfection practices. APHIS VS Emergency Management staff must collaborate with the APHIS Policy and Program Development (PPD) Environmental and Risk Analysis Services (ERAS) staff and EPA's Office of Pesticide Programs for the correct disinfectant selection and application.

Document, in the site-specific plan, the scientific rationale for instituting particular C&D parameters for a specific disease. (Figure 15-5 displays the susceptibility of different types of microorganisms to chemical disinfectants.)

**Figure 15-5. Susceptibility of Microorganisms to Chemical Disinfectants**



Source: Clint May and Andrew Kingsbury, Iowa State University.

The site-specific plan must document the following:

- Identify the disinfectant to be used.<sup>3</sup>
- Specify the cleanliness and effectiveness to be achieved.
- Identify the surfaces and structures to undergo C&D.

If a non-EPA-registered disinfectant is determined to be the most effective, the C&D Supervisor, Disease Management Branch Director and Operations Section Chief, or other Animal Health Official, must seek approval to use the non-EPA-registered disinfectant (see the EPA website on seeking exemptions at: <http://www.epa.gov/opprd001/section18/>. Subsection 15.4.2.11, Regulatory Permits and Approvals, describes the process for obtaining permits for using a non-EPA-registered disinfectant. Recently, the EPA approved the use of citric acid disinfection treatments for porous and nonporous food and non-food contact surfaces that are at risk of contamination by foot-and-mouth disease virus or African swine fever virus.<sup>4</sup>

The plan must also cover the various C&D methods that apply to the specific site. (See the NAHEMS Guidelines: Cleaning and Disinfection for guidance on choosing a C&D method and on using the appropriate disinfectant.) C&D methods may include

- steam cleaning, pressure washing, or scrubbing by hand;

<sup>3</sup> A list of EPA-approved pesticides can be found at: [http://www.aphis.usda.gov/animal\\_health/emergency\\_management/disinfectants.shtml](http://www.aphis.usda.gov/animal_health/emergency_management/disinfectants.shtml).

<sup>4</sup> US EPA. 2013. Citric Acid Section 18 Authorization Amendment. Available at [http://www.aphis.usda.gov/animal\\_health/emergency\\_management/downloads/exempt\\_authorization.pdf](http://www.aphis.usda.gov/animal_health/emergency_management/downloads/exempt_authorization.pdf).

- shoveling, vacuuming, or sweeping out bulk materials;
- the chemical disinfectant to be used and its application (as a gas, liquid, foam, or powder) and whether those materials will be sprayed on; and
- physical (heat, ultraviolet light, or desiccation).

#### 15.4.2.4 Personnel Requirements in the C&D Plan

Assessing the premises provides an understanding of the size and complexity of the C&D effort. The number and expertise of the personnel required to conduct C&D depends on the quantity and size of the areas and buildings, the sanitary condition of the premises, and time frame the work is to be performed. The personnel components of the C&D plan must include the following:

1. An estimate of the required number of C&D teams based on the size and scope of the job.
2. Identification of C&D Group members to fill the teams. Use 3D contractors if necessary to fill positions.
3. Identification of specific briefings required before C&D activities, including safety requirements, site conditions, and specific tasks.
4. A determination of briefing frequency.
5. Training and credentialing requirements for C&D Group members and the verification of credentials, training, and security clearances. A summary of available training can be found in [Attachment 15.A](#).
  - a. If necessary, the C&D Group Supervisor arranges to provide personnel with just-in-time training.
  - b. All personnel must be trained on basic C&D procedures, safety protocols, and briefed on the specific aspects of the incident. No one will be allowed to enter premises without verified credentials.
  - c. Include training on the safe handling of chemical compounds.
  - d. Discuss means of addressing and mitigating potentially hazardous situations noted during the pre-assessment phase.
6. The specific tasks for which a C&D Group member is responsible.

#### 15.4.2.5 C&D Equipment and Supplies in the C&D Plan

Equipment needs will vary according to the specific situation. The C&D Team Leader assesses the premises to help identify the specific equipment that is necessary. See [Attachment 15.B](#) for a list of basic C&D equipment and supplies. The C&D equipment and supplies component in the C&D plan must include the following:

1. Specify the materials, supplies, and equipment necessary to perform the C&D methods recommended in the plan.

2. Identify general equipment and supplies needed for C&D. They are as follows (see the site-specific C&D plan for specific requirements):
  - a. *Steam cleaning.* Steam-cleaning equipment, water, a generator, and fuel.
  - b. *Autoclave.* Fuel, or generator, and autoclaving bags.
  - c. *Pressure washing.* Pressure-washing equipment, water, a generator, fuel, detergent, mops, pumps, a collection system, and buckets.
  - d. *Scrubbing.* Brushes, extension handles, nonslip stepladders, detergent, water, mops, pumps, a collection system, and buckets.
  - e. *Vacuuuming.* A vacuum, bags, filters, a generator, and fuel.
  - f. *Brushing.* Brooms, brushes, dustpans and shovels, bags, and dust control.
  - g. *Demolition.* Pry bars, heavy equipment, rolloffs, liners, dust control, and trash bags.
  - h. *Chemical disinfection.* EPA-registered or exempted disinfectants, mixing apparatus, test strips to measure strength, dispensing equipment, containment system for preventing environmental release of concentrated disinfectants, safety cabinets, tarps, sandbags or booms, pumps, containers, and other equipment required for collecting and properly disposing of used disinfectant solution.
  - i. *Berming materials.* 4x4s, sand tubes, and sand bags.<sup>5</sup>
  - j. *Other equipment.* Plastic sheeting (> 2 millimeters thick), long-handled scrubbing brushes, sponges, buckets, towels, heavy-duty plastic garbage bags, framing materials, sump pump, power supply, and drums.<sup>6</sup>
3. Identify means for acquiring difficult-to-obtain equipment.
4. Determine the supplies and equipment that may require special permitting.
5. Identify means for obtaining the special permitting.

#### 15.4.2.6 Considerations

The site-specific C&D plan also should address the following:

- A protocol for disinfecting common types of structures, pens, and equipment found in typical commercial operations.
- Influences of natural processes (time, sunlight, temperature, and dehydration) in the decontamination process.
- A process to certify and record that the premises, vehicles, and heavy and small equipment have been successfully cleaned and disinfected or pose a low enough risk not to require active C&D.
- Describe how to handle damage to private property due to C&D activities.

<sup>5</sup> “Cleaning and Disinfection: Standard Operating Guide No. 004” (October 2008). Missouri Department of Agricultural Emergency Response Actions: Livestock Disease Emergency.

<sup>6</sup> “Cleaning and Disinfection: Standard Operating Guide No. 004” (October 2008). Missouri Department of Agricultural Emergency Response Actions: Livestock Disease Emergency.

- Provide details on how to dispose of material (organic and inorganic) that minimizes the further spread of microorganisms and that is compliant with Federal, State, and local requirements and policies. (See the Disposal SOP).
- Provide a process for documenting, recording, and appraising items that are difficult to clean or of limited financial value. See Title 9 Code of Federal Regulations (CFR) Section 53.3.

#### 15.4.2.7 Regulatory Permits and Approvals

The site-specific C&D plan should specify the approvals needed to perform C&D activities, for example:

- EPA exemption for emergency use of an unregistered pesticide or of a registered pesticide for a use not listed on the label, if applicable.
- Licensing of disinfectant applicators, if required.
- Testing and approval of C&D solutions before discharging them to the environment, as applicable (for example, testing the strength of a bleach solution using a Hach test kit).
- The test parameters and standards must meet.
- Other approvals, such as environmental permits.

#### 15.4.2.8 Disposal of Pesticides

The C&D site-specific plan must include processes for disposing any unused disinfectants (See the Disposal SOP). Ideally, C&D personnel will minimize mixing excess disinfectants. Consult the manufacturer's instructions, the proper methods of handling pesticide waste, and processes for determining the appropriate Federal and State-specific waste codes.

#### 15.4.2.9 Quality Assurance/Quality Control

The plan should outline all quality assurance/quality control metrics, including the post C&D evaluation and inspections necessary to comply with the plan; for example, ensure that

- all surfaces are cleaned before they are disinfected, and
- required disinfectant concentrations and contact times are achieved, and sufficient quantitative verification tests confirm disinfection, if applicable.

#### 15.4.2.10 Personnel

The C&D Group Supervisor works with the Disease Management Branch Director and Operations Section Chief to identify C&D personnel with the required expertise (as identified in the site-specific C&D plan). The C&D Group Supervisor advises the Disease Management Branch Director and the Operations Section Chief of any personnel requirements that cannot be satisfied locally so that additional personnel can be assigned. This individual also works with the appropriate officials to issue contracts and leases for equipment, supplies, or personnel for C&D operations.

If appropriate personnel are not readily available, contact the USDA APHIS VS NVS for access to 3D contractors.

#### 15.4.2.11 Regulatory Permits and Approvals

The C&D Group Supervisor obtains the following permits and approvals:

- A list of disinfectants that will be used. They must be on the approved EPA list.<sup>7</sup>
- If the chosen disinfectant is not on the approved EPA list, seek an exemption from the EPA for emergency use of an unregistered pesticide or the use of a registered pesticide which is not listed on the label, as follows:<sup>8</sup>
  - USDA APHIS VS Emergency Management staff collaborates with the APHIS Program and Policy Development Environmental and Risk Analysis Service (PPD ERAS) staff to obtain exemptions from the EPA, either in advance of or immediately after an outbreak has occurred, as needed. PPD ERAS serves as the primary liaison with the EPA on all administrative matters pertaining to exemption registrations, renewals, amendments, and reporting.
  - The EPA determines if an emergency condition exists.
  - If granted, the EPA determines the time limit (15 days in a crisis situation) that the non-EPA-registered disinfectant may be used, and the EPA provides details on the parameters of the exemption.
- Testing and approval of C&D solutions before discharging them to the environment.
- Environmental permits.

#### 15.4.2.12 Briefings

The C&D Group Supervisor briefs C&D Group members on all aspects of the C&D effort, including their duties, policies, and procedures. The C&D Group Supervisor prepares briefings and reports for the Operations Section Chief and notifies him or her immediately of any problems.

Other briefings include the following:

- The Site Safety Officer briefs all responders on safety precautions for each operation in accordance with the site-specific health and safety plan. (See the Health and Safety and PPE SOP and the NAREMS Guidelines: Health and Safety section on Safety Issues and Precautions.)
- The Biosecurity Officer briefs all responders on biosecurity protocols before entering the EZ.
- C&D Group members are briefed on the nature of the disease and any other circumstances that might affect the response.

<sup>7</sup> See <http://www.epa.gov/oppad001/chemregindex.htm>.

<sup>8</sup> Section 18 of FIFRA authorizes EPA to grant temporary exemption to APHIS or sites to use unregistered pesticide for a limited time, if EPA determines that emergency conditions exist.

#### 15.4.2.13 Site Security and Safety

All personnel entering the site must do the following:

- Meet security requirements as established by the IC.
- Present documentation of verified credentials showing they are qualified to perform their assigned tasks.
- Present documentation that they have received all required briefings as defined in the site-specific C&D plan.
- Wear required PPE as specified in the site-specific health and safety plan. (See the Biosecurity and the Health and Safety and PPE SOPs and Biosecurity, Health and Safety, and PPE NAHEMS Guidelines). All employees must follow Good Manufacturing Practices, Good Agricultural Practices, and the personnel hygiene and safety program that their company has established relating to PPE, biosecurity, and C&D protocols.
- Be familiar and appropriately prepared to prevent the various chemical and physical hazards associated with the C&D of premises. (See the NAHEMS Guidelines: Cleaning and Disinfection.)

#### 15.4.2.14 Materials, Supplies, and Equipment

The Logistics Section provides transportation, food and water, and lodging for the C&D Group as specified in the incident-specific operations plan. Logistics also provides the required equipment such as materials, detergents, and disinfectants identified by the C&D Group Leader. From the list of required C&D materials, supplies, and equipment in the site-specific C&D plan, the C&D Group Supervisor identifies what is already available on site and orders unavailable items through the Logistics Section.

#### 15.4.2.15 Cleaning and Disinfection

The material composition (for example, concrete and metal) of an item that requires C&D can impact the type of methods that should be used. (See NAHEMS Guidelines: C&D for more information on the considerations and contraindications.)

The specific processes for C&D vary by the item to be cleaned and disinfected and are described below. This SOP includes item-specific C&D processes such as:

- Respirators ([Attachment 15.C](#))
- Personal decontamination and outerwear and footwear ([Attachment 15.D](#))
- Premises ([Attachment 15.E](#))
- Slurry Pits ([Attachment 15.F](#))
- Biohazardous materials ([Attachment 15.G](#))
- Vehicles and heavy machinery ([Attachment 15.H](#))
  - Cart and pullet truck
  - Spent hen truck and trailer

- Shell egg truck exterior and interior
- Tanker exterior wash procedures
- Equipment ([Attachment 15.I](#))
- Egg handling materials ([Attachment 15.J](#))
- Tankers, lines, and silos ([Attachment 15.K](#))
- World Organization for Animal Health (OIE) standards for processing milk to destroy the Foot-and-Mouth Disease (FMD) virus ([Attachment 15.L](#))
- Animal by-products ([Attachment 15.M](#)).

For general C&D, the following steps must be taken:

1. Wear adequate PPE as described in the site-specific health and safety plan during all steps of C&D. (See the Biosecurity and Health and Safety/PPE SOPs.) Personnel operating high pressure washers should use protective rubber outfits (boots, coats, pants, hats, mask, and gloves).
2. Consult with the Vector Control Group on insect and vector control plans. Consult with the Disposal Group on the proper disposal of dead rodents and other vermin.
  - a. Remove feed from all feeders and place in the area designated in the site-specific plan for biohazardous materials requiring appropriate disposal.
  - b. After all feed has been removed, place rodenticide along established runways.
  - c. Use insecticides on the inside and outside perimeters of the building.
  - d. Remove dead insects and rodents and dispose of according to the site-specific disposal plan. (See the Disposal SOP.)
  - e. Apply insect and rodent control products as soon as the animals are removed.
  - f. Eliminate openings where wild animals and rodents can enter the building.
3. Disconnect utility supplies if described in the plan.
4. Control ventilation to maintain human comfort and prevent pathogen dispersion.
5. Seal drains.
6. Empty all watering and feeding apparatuses, disassembling if appropriate, to facilitate C&D.
7. Follow the Dry Cleaning, Washing, Rinsing and Drying, Disinfecting, and Downtime section of the document (Subsections [15.4.2.15.1](#) to [15.4.2.15.7](#)).
8. If the facility is fumigated, make the facility airtight after the cleaning and washing steps.

#### *15.4.2.15.1 Dry Cleaning*

Dry cleaning involves the removal of any gross contamination and organic material (for example, soil, manure, bedding, and feed) from production areas or equipment.

Take the following steps for cleaning:

1. Obtain appropriate equipment for dry cleaning such as shovels, manure forks, brooms, and brushes. Heavy equipment such as bobcats or tractors may be needed to move larger quantities of debris such as manure and bedding. Figure 15-6 shows a skidloader removing organic material from a barn.

**Figure 15-6. Heavy Equipment for Dry Cleaning**



Source: Danelle Bickett-Weddle, Iowa State University.

2. Move large debris (manure and bedding) to the location specified in the site-specific plan. Collect and evaluate the small debris to determine whether to dispose or to clean and disinfect. Move small debris for disposal to the location specified in the site-specific plan. (See the Disposal SOP.)
3. If dry cleaning the inside of a structure, turn off all fans, air filters, and close off ventilation systems to avoid spreading pathogens.
4. Spray all surfaces and areas to be cleaned with a light mist of water or disinfectant solution to control excessive dust and minimize aerosolization of pathogens.
5. Scrape the contaminated area manually using a shovel or brush or mechanically using a loader to remove coarse, loose material.
6. Sweep or vacuum the scraped area to remove finer particles. Do not use leaf blowers under any circumstances, because they can disperse pathogens and spread disease.
7. Containerize and dispose of all dry material and debris in accordance with the site-specific plan.

#### **15.4.2.15.2 Washing**

Following the removal of gross contamination (dry cleaning), areas or items should be washed with detergent. The washing process helps to further reduce the number of microorganisms and

to remove any oil, grease, or exudates that may inhibit the action of disinfection. Washing prior to disinfection is one of the most commonly overlooked steps in the C&D process.

Take the following steps for washing:

1. Obtain alternate power supplies if all electrical power will be shut off for washing.
2. Turn off, unplug, and remove or tightly cover any electrical equipment with plastic sheeting. Contact an electrician if necessary.
3. If necessary, use brushes to scrub all contaminated surfaces with water and detergent in accordance with the site-specific plan, ensuring that cleaned areas are free of dirt and debris. Warm water can aid in removing organic debris. Caked-on materials may require prolonged soaking time.
4. High-pressure water and detergent may be effective in removing accumulation of urine and feces. Make sure proper PPE is worn to protect against the aerosol resulting from the high-pressure wash.
5. Use warm to hot water (90–130°F [32–54°C] or higher).
6. Flush, sanitize, and drain all components of the watering and feeding systems. If possible, remove and disassemble these devices to remove organic debris and permit proper cleaning. Flush, sanitize, and drain reservoirs.
7. For ventilation components, individually clean fans, casings, motors, belts, curtains, ventilation pads, and louvers, ensuring they are free of manure, debris, dust, and dirt before disinfection. Individually wipe, clean, and sanitize equipment such as thermostats, scales, time clocks, electrical panels, switches, and light bulbs and protect them as needed from the more severe methods of cleaning (such as high-pressure sprayers) and recontamination during the cleaning process.
8. Dispose of all C&D solutions in accordance with the site-specific disposal plan.

#### *15.4.2.15.3 Rinsing and Drying*

After washing, all surfaces should be thoroughly rinsed, as residues from cleaners and detergent can inactivate certain chemical disinfectants.

Take the following steps for rinsing and drying:

1. Use clean, cold water that is under low pressure to rinse all contaminated surfaces with to remove any remaining dirt, debris, and residue. This is necessary to remove any soap or detergent residue, which if present may inactivate several chemical disinfectants.
2. Visually inspect the surface for cleanliness; there should be no “beading”. Instead, the water should spread evenly over the surface. All surfaces should be free of all foreign matter.
3. Dispose of the rinse water in accordance with the site-specific plan.
4. Allow sufficient drying time (overnight) so no free liquids remain on the washed surfaces.

#### 15.4.2.15.4 Disinfection Method Selection

This SOP specifically focuses on chemical disinfection methods. See the NAHEMS Guidelines: C&D for more detailed information on the different methods of disinfection (physical, soap and detergents, and chemical).

1. Calculate the total surface area of the floor, ceiling, and walls. Use a minimum of 0.4 liter of disinfectant for every square meter.
2. Select the appropriate chemical disinfectant (see the NAHEMS Guidelines: C&D on different types of chemical disinfectants) as specified in the site-specific plan.

#### 15.4.2.15.5 General Disinfectant Mixing Protocol<sup>9</sup>

The proper mixing of disinfectant is critical to achieving the right concentration for effective disinfection and the health and safety of C&D personnel. This section describes a general disinfectant mixing protocol. ([Attachment 15.N](#) provides a sample disinfectant mixing protocol for Virkon® S):

1. Wear appropriate PPE when opening and mixing disinfectants. At minimum, wear disposable outwear (for example, coveralls, boots, hat, and gloves).
2. Ensure that the chemical disinfectant has been stored properly (a cool location is necessary to maximize shelf life) and is within the maximum shelf life before mixing. Check the product label for the expiration date.<sup>10</sup> If there are concerns about the chemical's effectiveness, use a test kit. Test kits can help determine whether any chemical degradation of the disinfectant's active ingredients has occurred. Some chemical disinfectants come equipped with test kits (Figure 15-7).

**Figure 15-7. Test Kits**



Source: Teresa Robinson, USDA.

<sup>9</sup> See Attachment 15.Q for specific protocol on mixing the disinfectant Virkon® S.

<sup>10</sup> The shelf life of a disinfectant is not always noted on the label. In such situations, use test kits as described in the body.

3. Calculate the required amount of disinfectant. For liquid chemical disinfectant solution, calculate the total surface area of the floor, walls, ceiling, and fixed equipment requiring treatment. In general, one gallon of diluted disinfectant usually covers approximately 100–150 sq. ft. of surface area. Use test-kits to ensure that the diluted solution contains the necessary amount of active ingredient.
4. Ensure that the correct proportion of disinfectant concentrate is added to the correct volume of water.
5. Mix the required amount of disinfectant solution in accordance with label instructions or FIFRA Section 18 exemption criteria. Always add concentrate to water, not water to concentrate.
6. In cold temperatures, heat the building to 68°F (20°C) if possible.
7. Once a solution has been prepared, it must be used on the same day or it may become inactive. If there are concerns about the chemical's effectiveness, test kits can help to determine whether any chemical degradation of the disinfectant's active ingredients has occurred.

Maintaining a daily log of the prepared solution is critical in minimizing excess solution preparation and maintaining the efficacy of the disinfectant (See [Attachment 15.O](#) for a sample Virkon® S—Mix Report Daily Log).

#### *15.4.2.15.6 Disinfection*

Apply disinfectant in a pre-cleaned facility from top to bottom and from back to front. The time a disinfectant is in contact with the surface is important and varies with the type of disinfectant. Carefully follow the specific instructions on the disinfectant label. Reapplication of disinfectant may be necessary to achieve the product label-indicated contact time.

Take the following steps for general disinfection:

1. Apply the disinfectant to the contaminated surfaces in accordance with the site-specific plan and product label.
2. Ensure that the disinfectant has had adequate contact time as specified on the disinfectant label. Note that the recommended contact time will vary by the type of surface being treated, and reapplication of disinfectant may be necessary to achieve the product label-indicated contact time. (See the NAHEMS Guidelines: C&D on Material Composition for more information.)
3. Ensure that any unused disinfectant concentrate and solution are either stored in accordance with the label instructions and the site-specific health and safety plan or properly disposed.

As previously mentioned, most items found in animal production situations (for example, wood, insulation, feed, and bedding) cannot be properly cleaned and disinfected. To disinfect these materials, the literature recommends spraying with a disinfectant for the appropriate contact time, and then disposing. Consult the literature for the most practicable methods for the C&D of these items. Items identified for disposal must be disposed according to the disposal plan. (See the NAHEMS Guidelines: Disposal and Disposal SOP).

#### *15.4.2.15.7 Downtime*

In accordance with response plans and to verify that C&D is complete, the premises must have had adequate downtime and test negative before repopulation; most disinfectants may be harmful to animals.

Take the following steps for downtime:

1. As soon as the premises has been certified as clean and disinfected, downtime may begin.
2. Allow the area to completely dry. It must be free of any animals or activity for a length of time that is at least three times the longest expected incubation time of the pathogen to allow it to completely dry.
3. Cordon off the area with marking tape.

#### *15.4.2.15.8 Disposal*

C&D personnel coordinate with the Disposal Group on the proper way to dispose of disinfectant solutions and other waste items resulting from the C&D process and from C&D supplies to bedding, feed, and manure (See the NAHEMS Guidelines: Disposal and Disposal SOP):

1. Remove potentially corrosive disinfectant solutions.
2. Clean pressure sprayers and pumps.
3. Treat C&D supplies (for example, towels and mops) as small debris or properly disinfect them before removal from premises.

#### *15.4.2.15.9 Post C&D*

After C&D processes have been completed, the premises and the equipment all must be evaluated to ensure that the processes have been completed properly. In addition to the physical inspection, the premises must be evaluated to ensure complete disinfection. One option to ensure complete disinfection is to either restock with sentinel animals (see Subsection 15.4.2.15.11) or to exercise environmental testing.

#### *15.4.2.15.10 Evaluating the Premises*

Following the C&D of premises and equipment, the C&D Group Supervisor and Disease Management Branch Director review and evaluate that C&D has been completed successfully. The evaluation assesses and confirms that the following have taken place:

- All grossly contaminated areas have been identified and properly cleaned and disinfected with an appropriate disinfectant.
- All personnel are aware of C&D measures and implement them for themselves and their equipment (for example, PPE, tools, and instruments).
- Gross debris (for example, manure, unused feed, or bedding) have been removed, sprayed with disinfectant, and properly disposed.
- Any contaminated wood or items difficult to disinfect have been appraised, removed, and disposed of in a manner that minimizes spread of pathogens (for example, burned, composted, or buried).

- All fixtures and fittings have been dismantled, cleaned, and disinfected.
- All infected or suspected areas have been properly washed, rinsed, and disinfected; visual inspection should be conducted to ensure surfaces are clean and no organic material has been left behind.
- An EPA-registered or exempted disinfectant that is effective against the target microorganism was used at the appropriate concentration.
- The necessary contact time of the disinfectant was permitted.
- Effluent from the C&D procedures has been handled in a manner to minimize or avoid environmental impact.
- All fluids have been properly disinfected and allowed to dissipate before release.
- Final inspection of the premises should be conducted by an experienced officer. Ideally, this should be an individual who was not previously involved in any earlier inspections. All personnel should proceed through the C&D site before leaving the premises.
- If there is any doubt or sign of inadequate procedures, the disinfection measures must be repeated.
- Restock the area.

## 15.5 Additional Resources

The following are additional resources:

- USDA APHIS Disinfectants-[http://www.aphis.usda.gov/animal\\_health/emergency\\_management/disinfectants.shtml](http://www.aphis.usda.gov/animal_health/emergency_management/disinfectants.shtml).
- Selected EPA-registered disinfectants-<http://www.epa.gov/oppad001/chemregindex.htm>.
- Iowa State University Just-In-Time C&D Training-<http://www.cfsph.iastate.edu/Emergency-Response/Just-in-Time/05-Cleaning-and-Disinfection-Premises-JIT-PPT-6slide-HANDOUT.pdf>.
- Purdue University-<http://www.biosecuritycenter.org/>.
- Missouri Department of Agriculture Agricultural Emergency Response Actions—Livestock Disease Emergency C&D SOP-[http://mda.mo.gov/animals/pdf/animalag\\_guide4.pdf](http://mda.mo.gov/animals/pdf/animalag_guide4.pdf).

# Attachment 15.A Training

All personnel involved in C&D must be properly trained on the latest C&D techniques.

For training in pesticides usage, see the Ohio State University Extension course “[Pesticide Safety Education Program](#).” It offers an online course that focuses on pesticide labeling, pest management, pesticide formulations, pesticide hazards and first aid lessons, PPE, pesticides in the environment, pesticide transportation, storage and security, emergency response, planning the pesticide application, pesticide application and procedures, and Ohio and Federal laws and regulations. Courses can be purchased individually. See <http://pested.osu.edu/> for more information.

Purdue University’s Biosecurity Center Organization offers a Veterinary Homeland Security Graduate Certification Program. The class “[Biosecurity for Veterinary Responders](#)” discusses “Basic Principles of Cleaning and Disinfection.” See <http://www.biosecuritycenter.org/> for more information on the certificate program and course offerings.

# Attachment 15.B Basic Cleaning and Disinfection Equipment and Supplies

The following is a list of C&D equipment and supplies for a crew of 10 persons.

## Individual Equipment (Each member's personal equipment)

1 pair	Coveralls—cloth
2 pair	Coveralls—disposable
1 each	Coat—waterproof
1 each	Pants—waterproof
1 each	Hat—waterproof
1 pair	Gloves—heavy gauntlet rubber
5 pair	Gloves—surgical rubber (for fine work if needed)
3 each	Masks—surgical (if needed)
1 each	Respirator (if needed)

## Hand Tools

2 each	Claws hammer
2 each	Pliers
2 each	Screwdriver
2 each	Philips screwdriver
2 each	Crescent wrench (12 inch)
2 each	Crowbar
2 each	Hatchet
2 dozen	Wire brushes (with scraper nose) Fiber brushes (long handled)
6 each	Pails (12–14 quart)
2 dozen	Sponges
1 each	Tent (or other shelter)
2 each	Axe
2 each	Shovels (flat)
2 each	Fork (manure)
3 each	Brooms (heavy)
4 each	Hoes
2 each	Garden rakes
2 each	Scrapers (long handled) (for example ice scrapers or straighten hoes)
2 each	Post-hole digger
3 each	Hose (3/4 inch x 25 foot)
1 each	Shop vacuum
1 each	Electrical cord (12 gauge—100 ft)
	Flame gun (if needed)

## Power Tools and Equipment

1 each	Power spray unit and tank
2 each	Spray nozzle
1 each	Safety can (5 gallon—with gas)
5 each	Hose (3.4 inch x 50 foot)

## Miscellaneous

10 pair	Rubber gloves
4 each	Safety goggles
12 rolls	Marking tape
2 each	Plastic tub (10 gallon)
2 each	Metal cans (10 gallon)
2 each	Garbage can (galvanized—30 gallon)
4	Buckets (2 gal/7.5 L)
100 each	Plastic bag (8 mil—50 gallon)— for debris
50 each	Plastic bag (4 mil—30 gallon)— for clothes and miscellaneous
1 each	First Aid kit with eye wash
1 gallon per person	Bottled water (in pint or quart portions)
1 quart per person	Sports drink
1 per person	Soap (for personnel decontamination)
1 per person	Sponge or brush
	Alcohol free wipes
	Water source

## Chemicals

1 gallon	Detergent (liquid) Virkon® S Bleach
100 lbs for 300 gallons working solution	Soda Ash (Sec. 18) (anhydrous sodium carbonate [Na <sub>2</sub> CO <sub>3</sub> ]) 4% w/v= 1 lb/3gallons water
50 lbs for 300 gallons working solution	Lye (Sec. 18) (sodium hydroxide [NaOH]) 2% w/v= 1 lb/6 gallons water <sup>11</sup>
	Quaternary ammonia disinfectant
	Hypochlorite (1 oz [30ml] household bleach in 2 gal [7.5 L] water) solution
50ppm	Iodine, (0.8 ml of tincture of iodine to one liter of water at 110°F)
	Neutral detergent cleaning solution (excludes lanolin or oils)
	Test strips for disinfectant concentration
	Other suitable disinfectants

<sup>11</sup> USDA-APHIS has an exemption for use of this chemical to inactivate foreign animal disease agents.

# Attachment 15.C Cleaning and Disinfecting Respirators

Respirators, if properly cleaned and disinfected, may be used as PPE again. Procedures for cleaning and disinfecting half and full respirators are detailed below. The procedures are based on Occupational Safety and Health Administration guidelines.<sup>12</sup>

Respirators must be cleaned after each use.

## General Information

1. The process should always include these steps:
  - a. Cleaning
  - b. Sanitizing
  - c. Rinsing
  - d. Drying
  - e. Reassembly
  - f. Inspection prior to use.
2. If more than one respirator is cleaned at a time, group respirators together by manufacturer to avoid getting parts confused.
3. Respirators can be divided up into batches of 20. Water and cleaning fluids should be changed after 20 respirators are cleaned.
4. Disassembling and cleaning one respirator at a time is recommended.
5. Different respirator manufacturers market different cleaning and sanitizing solutions. Contact them for details regarding these products.

## Procedures

1. Prepare 4 buckets (2 gal/7.5 L) of fresh warm water; follow sequence of use as described below.
2. Do not use boiling or hot water. Water temperature should be less than 110°F.
3. Disassemble respirator, remove cartridges and filters and any external accessories such as communications, hoods, head harness (if possible), and eye lens outserts. Do not remove the valves because they are easy to lose.
4. *Bucket 1.* Clean respirator (excluding cartridges and filters) with alcohol free wipes, or by immersing in a warm water cleaning solution, scrubbing with a soft brush or sponge. Do not brush eye lenses. Use a neutral detergent cleaning solution that does not contain lanolin or oils.

<sup>12</sup> [http://www.osha.gov/pls/oshaweb/owadisp.show\\_document?p\\_table=STANDARDS&p\\_id=9782](http://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=STANDARDS&p_id=9782).

5. *Bucket 2.* Rinse in fresh, warm water. Running water is better than immersion if available. Thorough rinsing is important to keep detergents or disinfectants from drying on the respirator. (See Occupational Safety and Health Administration (OSHA) 29 CFR 1910.134, Appendix B-2, running water for rinsing [if available] is preferred over immersion).
6. *Bucket 3.* Disinfect respirator by immersing in a disinfectant water solution. A quaternary ammonia disinfectant (per manufacturer's recommendation), a hypochlorite (1 oz [30ml] household bleach in 2 gal [7.5 L] water) solution, or an aqueous solution of iodine (50 ppm of iodine, made by adding 0.8 ml of tincture of iodine to one liter of water at 110°F) can be used. Chosen disinfectants must be EPA approved unless EPA has approved the exemption.
7. *Bucket 4.* Rinse in fresh, warm water. Running water is better than immersion if available. Thorough rinsing is important to keep detergents or disinfectants from drying on the respirator. (See OSHA 29 CFR 1910.134, Appendix B-2, running water for rinsing (if available) is preferred over immersion).
8. Replace cleaning solution, sanitizing solution, and rinse water after approximately 20 respirators have been sanitized, or as needed.
9. Allow the respirator to air dry in a non-contaminated environment. Do not dry with heaters or in sunlight. Respirators can be reassembled before or after drying.
10. Before re-use, conduct checks as recommended by the manufacturer's manual to assure that the system is ready to be placed in operation. It is very important to check that the inhalation and exhalation valves are in place before using.

# Attachment 15.D Personal Decontamination and Cleaning and Disinfection of Outerwear and Footwear

Personnel engaged in C&D must use proper personal decontamination procedures before leaving an IP or any Quarantined Area.

## Planning

1. Instruct all C&D personnel to bring a clean change of clothes and shoes with them to the site. The clothing must be placed in plastic bags and left at the entry point (Cold Zone-SZ).
2. Prepare buckets of soap and water for personnel decontamination that can be readily available for use throughout the operation.
3. Acquire necessary equipment such as heavy gauge plastic garbage bags for placing disposable PPEs.
4. Designate a site for personal decontamination that is near the exit point of IP. The site and setup should have adequate privacy (for example, tent, metal shed, or trailer with shower).
5. Identify means to contain run-off water, and do not allow it to drain into “clean” areas.

All outerwear, including footwear and industrial hats, must be removed to be cleaned and disinfected prior to exiting the premises or area. (See the Biosecurity and the Health and Safety and PPE SOPs and the Health and Safety and PPE NAHEMS Guidelines for more information.)

## Hot Zone-EZ

1. Remove all outer garments.
2. Adhere to the following cleaning and washing procedures according to the item type:
  - a. If wearing disposable clothing (that is, overalls and gloves):
    - i. Remove all disposable clothing items.
    - ii. Place in disinfectant for the correct amount of time.
    - iii. Wring out.
    - iv. Place in plastic bags. Bags must be placed at the outer edge of the premises for disposal according to the disposal plan.
  - b. Reusable clothing:
    - i. From head to toe, use a sponge, brush, or low pressure spray to remove gross contaminants.
    - ii. Pay particular attention to creases, zippers, and collars.
    - iii. From head to toe, wash with warm water.

- iv. Remove jackets and trousers.
      - v. Place all outerwear in disinfectant for the appropriate contact time.
    - c. Shoes
      - i. Use a sponge, brush, or low-pressure spray to remove gross contaminants.
      - ii. Pay particular attention to creases, zippers, and the soles.
      - iii. Remove shoes.
      - iv. Place all outerwear in disinfectant for the appropriate contact time.
  3. Remove items from disinfectant.
  4. Adhere to the following procedures depending on whether the C&D personnel will be returning to the site.
    - a. If the individual is not returning to the site:
      - i. After removing the items from the disinfectant, place these non-disposable clothing items in plastic bags.
      - ii. Place bags in outer perimeter to be picked up.
    - b. If the individual is returning to the site:
      - i. Hang items to dry.
      - ii. Keep the items on site for use the next day.
  5. Remove underclothing.
  6. Place underclothing in disinfectant for the appropriate minimum contact time.

## **Warm Zone-CRZ**

Spray or wipe down the plastic bags with disinfectant and place at the outer limit of the area for collection for laundering where items will be washed in hot water and detergent before reuse.

1. Wash hair, body, and face with warm, soapy water.
2. Leave directly to the Cold Zone-SZ without re-exposure to contaminated areas.

## **Cold Zone-SZ**

1. Obtain clean clothing and shoes that were left in the Cold Zone-SZ.
2. Leave the area.
3. Once home, take a long hot bath or shower with soap.

# Attachment 15.E Cleaning and Disinfection for Premises

## Preparation for C&D of Premises

1. Setup footbaths at all entrances and exits to the building.
2. Select an appropriate disinfection station for small equipment and personnel. (See the NAHEMS Guidelines: Cleaning and Disinfection and the Biosecurity SOP for criteria on selecting appropriate disinfection locations).
3. Select the appropriate disinfectant (see the [EPA-approved list](#)) as outlined in the site-specific plan.
4. Turn off all fans.
5. Disconnect electricity supply to the building.
6. Remove sensitive equipment.
7. Acquire an alternative electric supply as an electrical source for cleaning.
8. Ensure good lighting.
9. Trap and remove any vermin (for example, rodents, insects, or any other animals).
10. Remove any feed remaining in the pans, feed lines, chains, augers, or hoppers and place on the floor for removal with the litter.
11. Collect and remove all organic material and gross debris (for example, loose dirt, manure, and unused feed) and appropriately dispose of the materials. (See the Disposal SOP.)
12. Use a systematic procedure for C&D:
  - a. Always start at the back of the facility and proceed to the front.
  - b. Always begin application on the ceilings and move down the walls to the floor, then across the drain.
  - c. Use marking tape to clearly indicate where disinfection has and has not taken place.
13. Avoid creating pools of solution which could enter into drains.

## C&D for the Premises Interior

1. Identify all drains and run offs.
2. Block and disinfect all drains and run offs.
3. Using a low-pressure sprayer, apply the chosen disinfectant to damp down the dust in the building and to prevent further spread of the pathogen.
4. Move any washable and removable equipment (for example, hand feeders, mangers, and grooming equipment) to the outside for C&D.
5. Other equipment that may require removal for C&D include thermostats, scales, time clocks, electrical panels, switches, and light bulbs.

6. Remove rotten wooden fittings, posts, and flooring for burial or burning.
7. Scrape windowsills and floors and other permanently attached equipment to remove any adherent organic material.
8. Clean and disinfect ceilings, rafters, light fixtures, fan blades, and louvers and other structural components. Reapply disinfectant as needed to keep the surfaces wet for the required contact time.
9. See the NAHEMS Guidelines: Cleaning and Disinfection on Materials Composition to apply the most appropriate C&D procedures depending on material composition.
10. In accordance with State response plans, and to verify that C&D is complete, the premises must have had adequate downtime and be virus negative before repopulation; most disinfectants may be harmful to animals.
11. Do not introduce animals for the length of at least 3 incubation periods after cleaning and disinfection procedures have been completed.

## **Cleaning and Disinfecting the Exterior of the Premises**

1. Determine the width of the perimeter; it can be as wide as 10 feet around the premises' perimeter.
2. Seal areas where rodents or other vermin may enter the premises. All feral animals must be trapped or destroyed. (See the NAHEMS Guidelines: Cleaning and Disinfection.)
3. Roof areas and eaves with holes or nesting areas for wild birds must be addressed. (See the NAHEMS Guidelines: Wildlife Management and Vector Control for more information.)
4. If using a flame gun, ensure that there is no combustible material in the area. The flame gun can be used on outdoor concrete, brick, metal surfaces, or wet surface.
5. Use a low-pressure sprayer on ventilation and fan inlets.
6. Gather the cleaning and disinfecting equipment (for example, rakes, shovels, scrapers, brushes, trucks, spray/disinfection devices) and clean and disinfect these items (see [Attachment 15.B](#) for Cleaning and Disinfecting Equipment and Supplies). Reapply disinfectant as needed to keep the surfaces wet for the required contact time.

# Attachment 15.F Disinfecting Slurry Pits

Slurry pits contain liquid manure (or slurry), a combination of feces, urine, fresh rainwater and runoff, cleaning materials, and bedding materials. Different methods of rendering pathogens inactive within a slurry pit exist; however, the most practicable in the event of an outbreak is the use of chemical processes.

## Planning

1. Assess the capacity of the slurry pit.
2. Acquire mobile high-performance stirring equipment.

## Guidelines

1. Exercise appropriate safety precautions. Consider the following:
  - a. Noxious fumes such as carbon monoxide, carbon dioxide, hydrogen sulphide, ammonia, and methane may be released with mixing.
  - b. Always have a minimum of two personnel engaged in mixing or preparing the tanks, never one person working alone.
  - c. The area must be well ventilated.
  - d. Personnel should wear respirators, safety harnesses, and a lifeline.
  - e. Slurry must not be less than 30 cm from the top of the tank.
  - f. Never trust the “crust” on top of a tank to take weight.
2. No fresh slurry must be added to slurry pits undergoing disinfection.
3. Store slurry for at least 60 days in the summer and 90 days in the winter before application on pasture.
4. Do not allow animals to graze for a minimum of 30 days after slurry application.

## Procedures for Disinfecting Slurry Pits<sup>13</sup>

1. Examine the slurry pit and determine the amount of remaining space.
  - a. The slurry pit should not be at maximum capacity to allow for the addition of chemical products for disinfection.
  - b. If the slurry pit is at maximum capacity, dig an alternative pit and line with plastic sheeting. Pump the slurry into the new pit for treatment.
2. Vigorously stir the pit.
3. Add the chemical disinfectant.
  - a. The chemicals should alter the pH to less than 2.0 or to greater than 11.0.

<sup>13</sup> Haas, B., Ahl, R., Bohm, R., & Strauch, D. (1995). Inactivation of viruses in liquid manure. *Rev. sci. tech. Off. int. Epiz.*, 14(2), 435–445.

- b. Ensure that the chemical disinfectant is properly distributed throughout the slurry pit.
- c. Vigorously stir the chemicals in the pit for a minimum of 6 hours after application and on a daily basis for a minimum of 2 hours per day until the manure is considered safe.
- d. Maintain at the required pH for a minimum of 7 days.

# Attachment 15.G Disinfecting Biohazardous Material Prior to Disposal

Some biohazardous materials, such as sharps and unused vaccines, must be appropriately disinfected prior to disposal. This process is necessary to render an article safe for either reuse or disposal. The majority of biohazardous material is disinfected for the purposes of safe disposal and not reuse. Some biohazardous materials cannot achieve disinfection but only sanitization.

Treating these types of biohazardous materials can occur under these scenarios:

1. Professional biohazardous materials collection and processing is not available.
2. To limit the crossing of biosecurity lines under vaccination to kill scenarios, biohazardous materials must be disinfected on premises.
3. The site-specific disposal plan does not recommend or permit the thermal method for these biohazardous materials.

## Planning

1. Determine whether the biohazardous materials, or which biohazardous materials, will be disposed on the premises or off site.
2. Obtain the required equipment to disinfect biohazardous materials such as
  - a. autoclaves and autoclave bags, and
  - b. PPE for operators.
3. Identify adequately trained personnel to operate the autoclave.
4. Check the equipment to ensure that it is properly operating.

## Operations for Autoclaving

Autoclaving biohazardous materials is an adequate means of physical decontamination to render an article safe for disposal.<sup>14</sup> The autoclaving process involves pressurized steam sterilization at 15 pounds per square inch (PSI) (1.05 kg/cm<sup>2</sup>), to achieve a chamber temperature of at least 121°C (250°F), which is effective at inactivating microorganisms. Procedures for autoclaving biohazardous materials are described below; however, an autoclave may not be readily available. **If autoclaving is not an option, the sharps container must be treated as a fomite and handled accordingly.**

<sup>14</sup> Autoclaving also is appropriate for disinfecting materials for reuse. However, following a FAD outbreak, autoclaving will be used for decontaminating items prior to disposal.

## Procedures

1. Retrieve the contaminated biohazardous materials at the autoclaving site. These items should have already been set aside in their proper locations by the Vaccination and the C&D Groups.
2. Carry the contaminated materials to the autoclave in closed, leak-proof containers (autoclave bags).
3. Place the autoclave bags in polypropylene or stainless steel pans.
4. Ensure that the autoclave bags are loosely closed. This is necessary to allow steam to penetrate into the bag to maximize the decontamination.
5. Add water to the material (250–500 ml) to facilitate heat transfer of the material being decontaminated only if doing so does not facilitate the release of potentially infectious material from the bag.
6. Load and start the process.
7. The process begins when the autoclave has reached 121°C (250°F) and 15 PSI.
  - a. 90 minutes are recommended for the decontamination of waste in low-sided polypropylene containers with bags half-filled and loosely gathered.
  - b. 120 minutes are recommended for tightly packed bags.
  - c. See Table 15.G-1 for EPA recommended processing times.
8. After the cycle is complete, allow the pressure in the autoclave chamber to return to zero.
9. Ensure the pressure in the autoclave chamber has returned to zero.
10. Slowly open the autoclave door (remain behind the door) and allow the steam to gradually escape.
11. Allow materials inside the autoclave to cool for 15–30 minutes.
12. Operator must don appropriate PPE.
13. Remove the item from the autoclave.
14. Place the now decontaminated bagged items in the Cold Zone-SZ for off-site disposal at a landfill. (See the Disposal SOP.)

**Table 15.G-1. EPA Recommended Decontamination Processing Times<sup>15</sup>**

Item	Time
Trash	60 minutes
Glassware (vaccine vials)	60 minutes
Liquids	60 minutes/gallon
Animal carcasses	8 hours
Animal bedding	8 hours

<sup>15</sup> According to USDA Policies and Procedures on Biohazardous Waste Decontamination, Management, and Quality Controls at Laboratories and Technical Facilities, number 9630-00, June 2009.

# Attachment 15.H Cleaning and Disinfecting Vehicles and Heavy Machinery

All vehicles (for example, cars, livestock carriers, feed trucks, milk trucks, and carcass transporters) and heavy machinery (for example, excavators, backhoes, and bulldozers) that have been used on IP must undergo proper C&D processes before departing the premises because of the potential to transport pathogens across premises. Aircraft and ships also may require proper C&D.

Poultry-specific vehicles include cart and pullet trucks, spent hen truck and trailer, shell egg trucks, and tankers.

## Planning

1. Establish a large-scale disinfection station. (See the NAHEMS Guidelines: Cleaning and Disinfection on Site Selection for guidance on choosing the appropriate location.) The area should be two times as big as the largest vehicle to allow adequate workroom for C&D personnel.
2. Establish a holding area where disinfected vehicles can remain during the necessary disinfectant contact time.
3. Prepare berming materials (sandbags and straw bales) to contain spent fluids and debris from the vehicles that is large enough to withstand the weight of the vehicles and heavy equipment:
  - a. The area should be made at least twice as big as the largest vehicle to allow adequate working room for the C&D personnel.
  - b. Place plywood sheeting on top of the material or the construction of ramps to protect the berms at the entrances and exits.
  - c. Construct a framing wall around the containment base to contain the spray drift and splash.
4. Identify an area for a sump pit to collect spent fluids and debris:
  - a. Excavate a sump pit in the corner of the area.
  - b. The pit should be large enough to hold at least 10 to 20 gallons of liquid.
  - c. Line the pit with plastic sheeting to make it impermeable.
  - d. Use a layer of sand to aid the drainage of materials into the sump pit if it does not do so naturally.
  - e. Use a sump pump to direct spent fluids and debris into a holding tank.

## General Procedures

1. Don appropriate PPE such as rubber gloves and eye protection.

2. Remove the following items and set these items aside for C&D (See [Attachment 15.I](#) for cleaning and disinfecting equipment.):
  - a. Equipment in the truck bed or trailer, or in the vehicle's trunk.
  - b. Fixtures and fittings.

## **Cleaning Procedures**

1. Dispose of soiled bedding and refuse.
2. Use shovels, manure forks, brushes, low-pressure sprayers, or mechanical scrapers to remove all visible organic material from the exterior of the vehicle. Remove any deposits of mud and straw from the wheels, wheel wells, tires, mudguards, and exposed chassis of the vehicle. It is essential that appropriate PPE be worn, especially when zoonotic disease agents are involved.

## **Washing Procedures**

1. Use detergent and warm water (90°F–130°F) to wash the vehicle and removed items. Any deposits of mud and straw should be removed from the wheels, wheel wells, tires, mudguards, and exposed chassis of the vehicle.
2. Pre-soak items with debris that is difficult to remove with simple washing in detergent and warm water.
3. Rinse the vehicle in hot water. If that is not possible, allow the vehicle to sit for 5–10 minutes and allow the residual rinse water to drip off.

## **Exterior Disinfection**

1. Select the appropriate disinfectant (See the U.S. [EPA-approved list](#)).
2. For vehicles and trailers, apply the disinfectant to the exterior of the vehicle, including the bodywork and wheels.
3. For trailers, apply the disinfectant to the outside of the trailer and the underside of the vehicle. Figure 15.H-1 depicts responders disinfecting farm equipment.
4. Spray all areas, including the wheels, wheel wells, tires, mudguards, and exposed chassis of the vehicle with a non-corrosive disinfectant.
5. Allow ample wet disinfectant contact time according to label directions with the vehicle or trailer, rinse, and allow to dry thoroughly.

**Figure 15.H-1. Washing Heavy Machinery**



Source: Tegwin Taylor, Iowa State University.

## **Interior Cleaning and Disinfection**

Interior disinfection of the vehicle is necessary if the driver leaves the cab. If so, all surfaces on the interior of the cab will need to be disinfected.

1. Remove all non-fixed items from the vehicle to be cleaned and disinfected.
2. Sweep and brush away any debris or mud from the cab's interior.
3. Wash the floor mats and vehicle pedals and all other vehicle components that have had contact with passengers and/or the driver (for example, dashboard, steering wheel, handbrake, gear shift, and seats) with a detergent cleaner.
4. Rinse the floor mats and vehicle pedals with a clean rag and then wipe with a disinfectant-soaked cloth.
5. Wipe down the dashboard, steering wheel, handbrake, gear shifter, and seats with a registered antimicrobial product and allow ample wet contact time according to label directions before personnel re-enter the vehicle.
6. Remove the vehicle from the disinfection area to the holding area.
7. Wash the concrete surface with detergent.
8. Gather the C&D equipment (for example rakes, shovels, scrapers, brushes, trucks, manure spreaders, bucket loaders, and spray and disinfection devices) and clean and disinfect these items. Store in a secure location.
9. Allow the interior of the trailer to dry before returning cleaned and disinfected carts.

## **Vehicle Tracks**

1. All vehicle tracks must be sprayed with a disinfectant. However, no environmentally safe procedures exist for “disinfecting” soil surfaces (for example, dirt, sand, and packed clay).
2. Spray along any of the tracks that may have been made.

## **Documentation**

Document all actions taken on the sanitation report.

1. Driver must review the sanitation report for accuracy and completeness and inspect the sanitary conditions of all truck components before returning to pullet farm.
2. Driver must take a copy of the completed sanitation report with the truck when returning to the pullet farm.
3. When the truck arrives at the pullet/layer farm, the supervisor or designee must review the sanitation report and inspect the truck, writing any details on the form.
4. If any areas are found unacceptable, identify corrective actions that need to be taken to make areas acceptable. Note any corrective action taken on form.
5. The farm supervisor or designee at the next location that uses the equipment or vehicle signs the form verifying that everything was acceptable before the equipment or vehicle is allowed to be used at the farm.
6. Completed and signed forms are held at the premises.

# Attachment 15.I Cleaning and Disinfecting Equipment

Some items may be difficult to clean and disinfect. Have these items appraised and then discard them.

## Setup

1. Prepare the disinfectant. The disinfectant should be on the [EPA-approved list](#) of disinfectants.
2. Identify a disinfectant station for small equipment. The site should be near the entrance or exit points. The ideal site will be in proximity to a water supply and drainage.
3. Setup the C&D station on an impermeable surface (for example, plastic sheeting).

## Procedures

### Small Electronic Equipment

1. Dismantle if it is easily disassembled and reassembled.
2. Ensure that the selected disinfectant does not damage or corrode the equipment.
3. If the electrical equipment is airtight, it may be safely cleaned and disinfected by wiping it down with disinfectant or gently spraying with an appropriate disinfectant solution. The most practical method involves placing the equipment inside an airtight enclosure (for example, plastic sheeting) for fumigation.
4. If the small handheld equipment has been used inside a Quarantine Zone and has been protected inside a plastic bag
  - a. wipe down the protective plastic bags with disinfectant and discard,
  - b. wipe the body of the equipment with disinfectant, and
  - c. place equipment in a clean plastic bag for removal.

### Other Small Equipment

1. Prepare tubs for submerging small equipment.
2. Use a scrub brush to dislodge encrusted material.
3. Apply disinfectant.
4. Allow appropriate contact time.
5. Move items to the next staging area.
6. Apply disinfectant a second time if necessary. The disinfectant must not dry during the specified contact period but rather must remain “wet” on the item to be efficacious.
7. Allow appropriate contact time before air drying.

## Equipment Used to Euthanize Livestock

Equipment such as captive-bolt guns and firearms are considered to be grossly contaminated. They need to be appropriately and regularly cleaned for the equipment to be in proper working order. Consult the euthanizing equipment manufacturer's guidelines and disinfect according to the product label. In general, conduct the following:

1. Dry clean the equipment to remove the gross contaminants.
2. Clean and scrub<sup>16</sup> the devices with disinfectant at the location where they were used.
3. Clean and disinfect the equipment again at the access corridor.
4. Equipment requiring servicing should be placed in a disinfected plastic bag.

<sup>16</sup> Follow manufacturer's guidelines.

# Attachment 15.J Cleaning and Disinfecting Egg Handling Materials

Egg handling materials covered in this attachment include

- packing materials
- plastic flats, pallets
- dividers, and
- materials constructed of wood (pallets, divider board, and tic-tacs).

These procedures recommend minimum steps for cleaning and disinfecting plastic, washable egg handling materials. Alternative procedures to achieve C&D objectives may be used as required by specific circumstances.

## Disinfectants

Follow manufacturer's directions for concentration and for contact time when using EPA-approved disinfectants. Disinfectants should be applied to clean surfaces. Each operator should evaluate drying time post disinfectant application to ensure prescribed contact time is achieved.

## Mechanical Washing and Sanitation of Plastic (Impervious Surfaces) Egg Handling Materials

### Pre-Operation

1. Confirm that C&D equipment is clean and ready for operation.
2. Ensure that water levels are correct, temperature of wash water is at target temperature (90°F minimum), chemical supply lines for detergents and sanitizers are connected, concentrations are at suppliers (equipment) recommendations, and that fresh water supply line is open.
3. Record and sign Operation Log noting date and time, temperature of wash and rinse, detergent concentration, and chlorine concentration in rinse.

### Operation

1. Introduce washable flats, pallets, and dividers (tic-tacs) into washing system after all pre-operation checks are successfully completed.
2. Maintain operating log noting the
  - a. temperature of wash and rinse waters,
  - b. detergent and chlorine concentrations, and
  - c. condition of wash water from excessive foaming and build-up of egg.

**Note:** Systems using manual addition of detergents will require frequent monitoring for detergent and chemical strength compared to systems using online monitoring of detergent concentration. Chlorine in rinse must be at or above 50 ppm and less than 100 ppm.

3. Visually inspect after C&D to confirm that the egg handling materials are free of egg or other organic soil. If not clean, use a brush on observed areas and repeat the cleaning and sanitation cycle to completely remove any observed organic matter.
4. Make corrective changes as required to operate system within established ranges for temperature and chemical concentrations. Note and record corrective actions in the operating log.
5. At mid-shift, drain wash-water tank and perform mid-shift cleaning.
6. Repeat pre-operational checks before starting operations.

## **Manual Cleaning and Disinfection of Plastic (Impervious Surfaces) Egg Handling Materials**

### **Pre-Operation**

1. Review the [EPA-approved list](#) of registered disinfectants for suitable disinfectants.
2. Assemble equipment (brushes, high-pressure washer, low-pressure spray, or foaming equipment for sanitizer application) and don appropriate PPE.
3. Prepare detergent and sanitizer solutions following manufacturer's directions.
4. Maintain operating log noting temperature of wash and rinse waters, detergent, and sanitizer concentrations.

### **Operation**

[Attachment 15.I](#), Cleaning and Disinfecting Equipment, provides more details on manually cleaning and disinfecting equipment.

1. Dry clean by brushing or scraping to remove accumulated organic matter and soil.
2. Wash with detergent solution using brushes or high-pressure washer and rinse with clean water.
3. Inspect for cleanliness and repeat wash procedure if not clean.
4. Apply sanitizing solution and allow sanitizing surfaces to dry.

## **Manual Cleaning and Disinfection of Wood Based (Porous Surfaces) Egg Handling Materials**

### **Pre-Operation**

1. Review the [EPA-approved list](#) of registered disinfectants for suitable disinfectants. Note that Lombardi et al. (2008) reported that citric acid (1 percent), calcium hypochlorite

(750 ppm), acetic acid (5 percent), and iodine/acid based disinfectants were effective disinfectants on wood surfaces.<sup>17</sup>

2. Assemble appropriate equipment (PPE, brushes, high-pressure washer, low-pressure spray, or foaming equipment for sanitizer application) and prepare detergent and sanitizer solutions following manufacturer's directions.
3. Maintain operating log noting temperature of wash and rinse waters, detergent, and sanitizer concentrations.

## Operation

1. Dry clean by brushing or scraping to remove accumulated organic matter and soil.
2. Wash with detergent solution using brushes or a high-pressure washer and rinse with clean water.
3. Inspect for cleanliness and repeat wash procedure if not clean.
4. Apply sanitizing solution and allow sanitizing surfaces to dry.

## Post Operation Handling of Cleaned and Disinfected Egg Handling Materials

1. Clearly label cleaned and disinfected plastic egg handling materials palletized on clean pallet as "Cleaned and Disinfected."
  - a. Include date and time.
  - b. Additional labeling may be required when the cleaned and disinfected materials are to be returned to the farm of origin.
2. Store cleaned and disinfected materials in a dry area separate from those used for incoming shell eggs and unwashed egg handling materials.

## Operations within Control Areas or Receiving Eggs from Flocks in a Control Area

Additional procedures and documentation are required when operating in a Control Area (CA) or receiving eggs from flocks in a CA, as defined by either the State Veterinarian's Office or an APHIS Veterinary Representative.

### Operations include

1. procedures for maintaining materials by flock of origin,
2. documentation confirming segregation of materials and return to origin if used,
3. every location or company providing C&D procedures in cases where they have and handle non-washable types of materials in the event of an FAD outbreak, and

<sup>17</sup> M. E. Lombardi, B. S. Ladman, R. L. Alphin, and E. R. Benson. 2008. Inactivation of Avian Influenza Virus Using Common Detergents and Chemicals. *Avian Diseases* 52:118–123.

4. each company developing its own C&D report form; these forms should be available to be copied by others. Forms should include some type of checklist.

### **Paper Flats and Corrugated Cases**

All paper flats and corrugated egg handling materials moving from CAs under permit will be segregated at receiving plant and disposed by incineration or other approved methods determined suitable for local circumstances. (See the Disposal SOP.)

# Attachment 15.K Cleaning and Disinfecting Tankers, Lines, and Silos for Liquid Egg Products

Tankers, lines, and silos will undergo cleaning in place (CIP). Procedures require appropriate system design to ensure wetting of all surfaces and maintenance of design velocity, temperature, and chemical strengths.

## Procedures

1. Prepare CIP system as defined for the plant.
2. Execute CIP ensuring the minimal time, temperature, concentration, and flow requirements outlined in the following tables are met.

### Tankers

Process	Time	Temperature	Concentration	Flow
Pre-rinse	5.0 minutes	Ambient		
Caustic Wash	7.0 minutes	150°F	1.5–2.5%	70 gal/min
Rinse	3.0 minutes	Ambient		
Sanitizer	2.0 minutes	Ambient	1500–2500 ppm	

### Lines

Process	Time	Temperature	Concentration	Flow
Pre-rinse	5.0 minutes	Ambient		
Caustic Wash	10.0 minutes	150°F	1.5–2.5%	≥ 5 ft/sec
Rinse	5.0 minutes	Ambient		
Sanitizer	2.0 minutes	Ambient	1500–2500 ppm	

Note: Apply an acid rinse as needed to remove mineral build-up (minimum 5,000 ppm).

### Silos

Process	Time	Temperature	Concentration	Flow
Pre-rinse	5.0 minutes	Ambient		
Caustic Wash	15.0 minutes	150°F	1.5–2.5%	70 gal/min
Rinse	5.0 minutes	Ambient		
Sanitizer	2.0 minutes	Ambient	1500–2500 ppm	

Note: Apply an acid rinse as needed to remove mineral build-up (minimum 5,000 ppm).

1. Perform a visual inspection on the vessel at the completion of CIP.
2. Document the steps of CIP on the Egg Products CIP Log ([Attachment 15.P](#)).

Please see “Supplement 2 Cleaning and Disinfection Guidelines” from the Secure Egg Supply Plan at [www.secureeggsupply.com](http://www.secureeggsupply.com).

# Attachment 15.L OIE Standards for Processing Milk to Destroy the FMD Virus<sup>18</sup>

The FMD virus may be present in milk as early as four days prior to clinical signs of the disease becoming evident and may be a means of spreading the disease from farm to farm if proper precautions are not implemented. The World Organization for Animal Health sets the international sanitary standards for trade in animal products. Standards for the treatment of milk for inactivation of the FMD virus are below.

## **Recommendations for importation from FMD infected countries or zones where an official control program exists (Article 8.6.28)**

For milk, cream, milk powder and milk products

Veterinary Authorities should require the presentation of an international veterinary certificate attesting that:

1. these products:
  - a. originate from herds or flocks which were not infected or suspected of being infected with FMD at the time of milk collection;
  - b. have been processed to ensure the destruction of the FMD virus in conformity with one of the procedures referred to in Article 8.6.38. and in Article 8.6.39.;
2. the necessary precautions were taken after processing to avoid contact of the products with any potential source of FMD virus.

## **Procedures for the inactivation of the FMD virus in milk and cream for human consumption (Article 8.6.38)**

For the inactivation of viruses present in milk and cream for human consumption, one of the following procedures should be used:

1. a sterilisation process applying a minimum temperature of 132°C for at least one second (ultra-high temperature [UHT] pasteurization), or
2. if the milk has a pH less than 7.0, a sterilisation process applying a minimum temperature of 72°C for at least 15 seconds (high temperature—short time [HTST] pasteurization), or
3. if the milk has a pH of 7.0 or over, the HTST process applied twice.

<sup>18</sup> World Organization for Animal Health (OIE). Terrestrial Animal Health Code. Chapter 8.6: Foot and Mouth Disease. 2013. <http://www.oie.int>.

## **Procedures for the inactivation of the FMD virus in milk for animal consumption (Article 8.6.39)**

For the inactivation of viruses present in milk for animal consumption, one of the following procedures should be used:

1. the HTST process applied twice;
2. HTST combined with another physical treatment, e.g., maintaining a pH 6 for at least one hour or additional heating to at least 72°C combined with desiccation;
3. UHT combined with another physical treatment referred to in point 2 above.

Please see the Secure Milk Supply website at <http://www.securemilksupply.org/> for additional C&D guidelines for the milk industry products.

# Attachment 15.M Animal By-Products

## Hay, Feed, and Grains

Some of the most contagious livestock diseases, such as FMD, can survive for extended periods of time under the right climatic and environmental conditions<sup>19</sup> and are transmissible on fomites. Items such as hay, animal feed, and grains will likely be disposed after they have been treated with a disinfectant. (See the Disposal SOP.)

1. Treat the hay, feed, and grains with an [EPA-approved](#) disinfectant for treating the FMD virus.
2. Allow appropriate contact time.
3. Prepare the items for disposal. (See the Disposal SOP.)

## Wool<sup>20</sup>

Because the FMD virus is transmissible via fomites, wool must be properly treated to prevent disease spread. Wool harvested from animals infected with FMD can harbor the virus for weeks depending on temperature and humidity levels. Viruses present in wool can be inactivated through industrial washing, fumigation, industrial scouring, or storage.

### Industrial Washing

Immerse the wool in a series of baths of water, soap, and sodium hydroxide (soda) or potassium hydroxide (potash).

### Fumigation

1. Place potassium permanganate in containers (which must NOT be made of plastic or polyethylene).
2. Add commercial formalin.
3. Ensure the correct amounts of each (53 ml of formalin and 35 g per cubic meter of potassium permanganate).
4. Hermetically seal the chamber for at least 24 hours.

### Industrial Scouring

Immerse the wool in a water-soluble detergent held at 60–70°C.

### Storage

Store the wool at 18°C for 4 weeks, or 4°C for 4 months, or 37°C for 8 days.

<sup>19</sup> The FMD virus survives at 4°C for two months on wool, 2-3 months on feces or slurry, and reportedly can survive for more than 6 months on soil surface under snow (Bartley, Donnelly, & Anderson, 2002).

<sup>20</sup> World Organization for Animal Health (OIE). Terrestrial Animal Health Code. Chapter 8.6: Foot and Mouth Disease. 2013. Article 8.6.35. <http://www.oie.int>.

## Manure

1. Identify an appropriate location for stacking manure. The location should satisfy the following:
  - a. Have an impermeable base.
  - b. Be further than 10 meters from a watercourse.
  - c. Be more than 50 meters from a spring, well, or borehole for human consumption or farm usage.
  - d. Does not pose odor problems.
2. Stack manure on site.
3. Add 100 kg of granulated quick lime to each cubic meter of material. The stack should be heated to a temperature of at least 70°C throughout.
4. Spray with a 4% washing soda solution or a FMD-approved disinfectant.
5. Allow treatment to last at least 42 days.
6. See [Attachment 15.N](#) Sample Disinfectant Mixing Protocol for Virkon® S.

Training and certification is required for personnel assigned to mix Virkon® S. Safety and protective gear are required when mixing Virkon® S. Those assigned must wear a face shield or safety goggles, a dust mask, and rubber gloves.

Mix the solution in a separate, well-ventilated room (if possible), or outside. Restrict the number of people in the mixing area. Follow the requirements for handling and storage of disinfectant.

## Equipment and Supplies

Equipment and supplies needed for Virkon® S include the following:

- Safety equipment
  - Face shield or safety goggles
  - Rubber gloves
  - Coveralls
  - Dust mask.
- Supplies
  - 1-, 2½-, or 5-gallon plastic container with locking lid
  - Funnel
  - Plastic measuring spoon or scoop (a scoop is included with the Virkon® S).

## Mixing Procedure

Prepare a 1 percent solution (1.3 ounces of Virkon® S concentrate to 1 gallon of water—see Table 15.M-1) as follows:

1. Fill the tank halfway with water (some solution or plain water must be in the tank before adding Virkon® S powder).
2. To avoid the drift of the chemical dust, open the plastic bag of Virkon® S inside the tank.
3. Add Virkon® S powder to water and stir gently. **DO NOT STIR VIGOROUSLY.** The solution should be yellow in color and have a slight citrus odor.
4. Reseal the container holding Virkon® S powder.
5. Using a funnel, pour the Virkon® S solution into the 1-, 2½-, or 5-gallon plastic container. Close the container tightly.
6. Dispose of the solution after 7 days or when it begins to change from yellow to clear.
7. Wash hands and any other areas where the solution or powder may have come in contact with the skin. Clean the mixing area.

**Table 15.M-1. Mixing Guidelines for Virkon® S**

Tank Size (gal)	Mixing Guidelines (1.3 oz Virkon® S/gal of water)							
	Remaining solution in the tank (gal)	20	40	60	80	100	120	140
220	Virkon® S added (lb)	16.3	14.6	13	11.4	9.8	8	6.5
	Add water to 220 gal	200	180	160	140	120	100	80
	Remaining Solution in the tank (gal)	20	40	60	80	100	120	140
195	Virkon® S added (lb)	14.2	12.6	11	9.3	7.7	6	4.5
	Add water to 220 gal	175	155	135	115	95	75	55
	Remaining Solution in the tank (gal)	20	40	60	80	100	120	140
119	Virkon® S added (lb)	8	6.4	4.8	3.2	1.5	NA	NA
	Add water to 220 gal	99	79	59	39	19	NA	NA
	Remaining Solution in the tank (gal)	20	40	60	80	100	120	140

## Handling

Store the powder in a tightly closed plastic container in a cool, dry place. Ensure that the area where Virkon® S is stored is secured and cannot be accessed by unauthorized people. Follow the instructions on the label for disposal.

## Calculation Formula

The calculation formula is as follows (for 1.3 oz Virkon® S/gal of water):

$$\begin{array}{l} 220 \text{ gal} \\ \text{Tank:} \end{array} \quad 220 \text{ gal of water} \times 1.3 \text{ oz Virkon}^{\circledR} S = \frac{286\text{oz}}{16\text{oz/lb}} = 17.9\text{lb Virkon}^{\circledR} S$$

$$\begin{array}{l} 195 \text{ gal} \\ \text{Tank:} \end{array} \quad 195 \text{ gal of water} \times 1.3 \text{ oz Virkon}^{\circledR} S = \frac{253.5\text{oz}}{16\text{oz/lb}} = 15.8\text{lb Virkon}^{\circledR} S$$

$$\begin{array}{l} 119 \text{ gal} \\ \text{Tank:} \end{array} \quad 119 \text{ gal of water} \times 1.3 \text{ oz Virkon}^{\circledR} S = \frac{154.7\text{oz}}{16\text{oz/lb}} = 9.6\text{lb Virkon}^{\circledR} S$$

# Attachment 15.N Sample Disinfectant Mixing Protocol for Virkon® S

Training and certification are required for personnel assigned to mix Virkon® S. Those assigned must wear a face shield or safety goggles, a dust mask, and rubber gloves, and safety and protective gear are required when mixing Virkon® S.

Mix the solution in a separate, well-ventilated room (if possible) or outside. Restrict the number of people in the mixing area. Follow the requirements for handling and storage of disinfectant.

## Equipment and Supplies

Equipment and supplies needed for Virkon® S include the following:

- Safety equipment
  - Face shield or safety goggles
  - Rubber gloves
  - Coveralls
  - Dust mask.
- Supplies
  - 1-, 2½-, or 5-gallon plastic container with locking lid
  - Funnel
  - Plastic measuring spoon or scoop (a scoop is included with the Virkon® S).

## Mixing Procedure

Prepare a 1 percent solution (1.3 ounces of Virkon® S concentrate to 1 gallon of water—see Table 15.N-1) as follows:

1. Fill the tank halfway with water (some solution or plain water must be in the tank before adding Virkon® S powder).
2. To avoid the drift of the chemical dust, open the plastic bag of Virkon® S inside the tank.
3. Add Virkon® S powder to water and stir gently. **DO NOT STIR VIGOROUSLY.** The solution should be yellow in color and have a slight citrus odor.
4. Reseal the container holding Virkon® S powder.
5. Using a funnel, pour the Virkon® S solution into the 1-, 2½-, or 5-gallon plastic container. Close the container tightly.
6. Dispose of the solution after 7 days or when it begins to change from yellow to clear.
7. Wash hands and any other areas where the solution or powder may have come in contact with the skin. Clean the mixing area.

**Table 15.N-1. Mixing Guidelines**

Tank Size (gal)	Mixing Guidelines (1.3 oz Virkon® S/gal of water)							
	Remaining solution in the tank (gal)	20	40	60	80	100	120	140
3220	Remaining solution in the tank (gal)	20	40	60	80	100	120	140
	Virkon® S added (lb)	16.3	14.6	13	11.4	9.8	8	6.5
	Add water to 220 gal	200	180	160	140	120	100	80
195	Remaining Solution in the tank (gal)	20	40	60	80	100	120	140
	Virkon® S added (lb)	14.2	12.6	11	9.3	7.7	6	4.5
	Add water to 220 gal	175	155	135	115	95	75	55
119	Remaining Solution in the tank (gal)	20	40	60	80	100	120	140
	Virkon® S added (lb)	8	6.4	4.8	3.2	1.5		
	Add water to 220 gal	99	79	59	39	19		

## Handling

Store the powder in a tightly closed plastic container in a cool, dry place. Ensure that the area where Virkon® S is stored is secured and cannot be accessed by unauthorized people. Follow the instructions on the label for disposal.

## Calculation Formula

The calculation formula is as follows (for 1.3 oz Virkon® S/gal of water):

$$\begin{array}{l} 220 \text{ gal} \\ \text{Tank:} \end{array} \quad 220 \text{ gal of water} \times 1.3 \text{ oz Virkon}^{\circledR} \text{ S} = \frac{286\text{oz}}{16\text{oz/lb}} = 17.9\text{lb Virkon}^{\circledR} \text{ S}$$

$$\begin{array}{l} 195 \text{ gal} \\ \text{Tank:} \end{array} \quad 195 \text{ gal of water} \times 1.3 \text{ oz Virkon}^{\circledR} \text{ S} = \frac{253.5\text{oz}}{16\text{oz/lb}} = 15.8\text{lb Virkon}^{\circledR} \text{ S}$$

$$\begin{array}{l} 119 \text{ gal} \\ \text{Tank:} \end{array} \quad 119 \text{ gal of water} \times 1.3 \text{ oz Virkon}^{\circledR} \text{ S} = \frac{154.7\text{oz}}{16\text{oz/lb}} = 9.6\text{lb Virkon}^{\circledR} \text{ S}$$

# Attachment 15.O Sample Virkon® S—Mix Report Daily Log

The following is a sample Virkon® S Mix Report.

Tank #	Date	Name of person mixing the chemical	Chemical amount (gal)		Remarks (please also indicate if you fill in an incident report)
			Remaining (gal)		
			Added Powder (lb)		
			Total (gal)		
			Remaining (gal)		
			Added Powder (lb)		
			Total (gal)		
			Remaining (gal)		
			Added Powder (lb)		
			Total (gal)		
			Remaining (gal)		
			Added Powder (lb)		
			Total (gal)		
			Remaining (gal)		
			Added Powder (lb)		
			Total (gal)		
			Remaining (gal)		
			Added Powder (lb)		
			Total (gal)		
			Remaining (gal)		
			Added Powder (lb)		
			Total (gal)		
			Remaining (gal)		
			Added Powder (lb)		
			Total (gal)		
			Remaining (gal)		
			Added Powder (lb)		
			Total (gal)		
			Remaining (gal)		
			Added Powder (lb)		
			Total (gal)		

General rules for using the log sheet:

- Record all information in ink.
- Sign and date the bottom of the entry page.
- Strike through an error with only a single line and add your initials and the date.
- Never remove pages from a logbook.



**Shift 3**

<b>Vessel</b>	<b>Caustic Concentration</b>	<b>Sanitizer Concentration</b>	<b>Initial</b>
Tanker			
Line			
Silo			

Supervisor Review: \_\_\_\_\_

## Attachment 15.Q Abbreviations

3D	depopulation, disposal, and decontamination
APHIS	Animal and Plant Health Inspection Service
C&D	cleaning and disinfection
CA	Control Area
CFR	Code of Federal Regulations
CIP	cleaning in place
CRZ	Contamination Reduction Zone
EPA	Environmental Protection Agency
ERAS	Environmental and Risk Analysis Services
EZ	Exclusion Zone
FAD	foreign animal disease
FAD PReP	Foreign Animal Disease Preparedness and Response Plan
FIFRA	Federal Insecticide, Fungicide, and Rodenticide Act
FMD	foot-and-mouth disease
GIS	geographical information systems
HTST	high temperature—short time
IC	Incident Commander
ICS	Incident Command System
IP	Infected Premises
IT	information technology
NAHEMS	National Animal Health Emergency Management System
NVS	National Veterinary Stockpile
OIE	World Organization for Animal Health

OSHA	Occupational Safety and Health Administration
PPD	Policy and Program Development
PPE	personal protective equipment
PSI	pounds per square inch
SOP	standard operating procedure
SZ	Support Zone
UHT	ultra-high temperature
USDA	United States Department of Agriculture
VS	Veterinary Services

Premise Name:

Premise ID:

Inspection Report:

Completed by:

Date:

Type of Cleaning:

Cleaning completed by:

Date of completion:

Disinfection used:

Disinfection completed by:

Date of completion:

Summary:





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

## GENERAL GUIDANCE

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

Restocking previously infected premises includes two assessments:

1. An assessment of the previously Infected Premises being restocked. The procedures and requirements for this assessment are in the [Timeline to Restocking & Environmental Sampling Procedures](#).
2. An assessment of the surrounding area or Control Area in which the Infected Premises is located. Assessment information includes epidemiological curve (rate of new infected premises), geospatial risk factors, and other epidemiological risk factors for the previously infected premises.

APHIS **will not** indemnify previously Infected Premises that are restocked without written APHIS and State approval and subsequently become an Infected Premises a second time. For premises that meet the following criteria, including written approval by APHIS and State officials that restocking can occur, full indemnification will be provided by APHIS as funds are available. In the event emergency vaccination is implemented in response to the current HPAI outbreak, this document will be updated.

## CRITERIA

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

1. The owner and/or grower has met, for the original Infected Premises, the requirements of the
  - a. State Quarantine Notice or Hold Order(s);
  - b. USDA Flock Plan; AND
  - c. USDA Cooperative Compliance Agreement.
2. The premises has met the minimum conditions in the [Timeline to Restocking & Environmental Sampling Procedures](#) for
  - a. time, for the method of disposal chosen; AND
  - b. environmental sampling, with no evidence of HPAI infection.
3. The owner and/or grower will complete any additional surveillance, biosecurity procedures, and requirements for movement as may be required by the State and APHIS upon and following restocking. These biosecurity requirements may include, but are not limited to the following general areas:

- a. Cleaning and disinfection procedures for all movement onto the farm, and all movement into and between barns,
  - b. Personnel-specific biosecurity measures, including barn specific clothing not to be worn outside,
  - c. Exclusion of wild birds and rodents from the barn structure,
  - d. Measures to ensure feed and water are not contaminated by wild birds or their feces,
  - e. Immediate mitigation of standing water, feed spills, and other environmental factors that may attract wild birds, and
  - f. Elimination of visits by non-essential personnel.
4. In consultation with State animal health officials, the owner will evaluate risk factors at the start of the 21 day fallow period that begins upon completion of the final cleaning and disinfection.
  5. State and APHIS officials agree in writing that the premises can be restocked from flocks that test negative for AI prior to movement. Minimum standards are 2 negative rRT-PCR tests at least 24 hours apart, and one within 24 hours of movement.



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

2015 Timeline to Restocking & Environmental Sampling Procedures for Commercial Poultry Premises

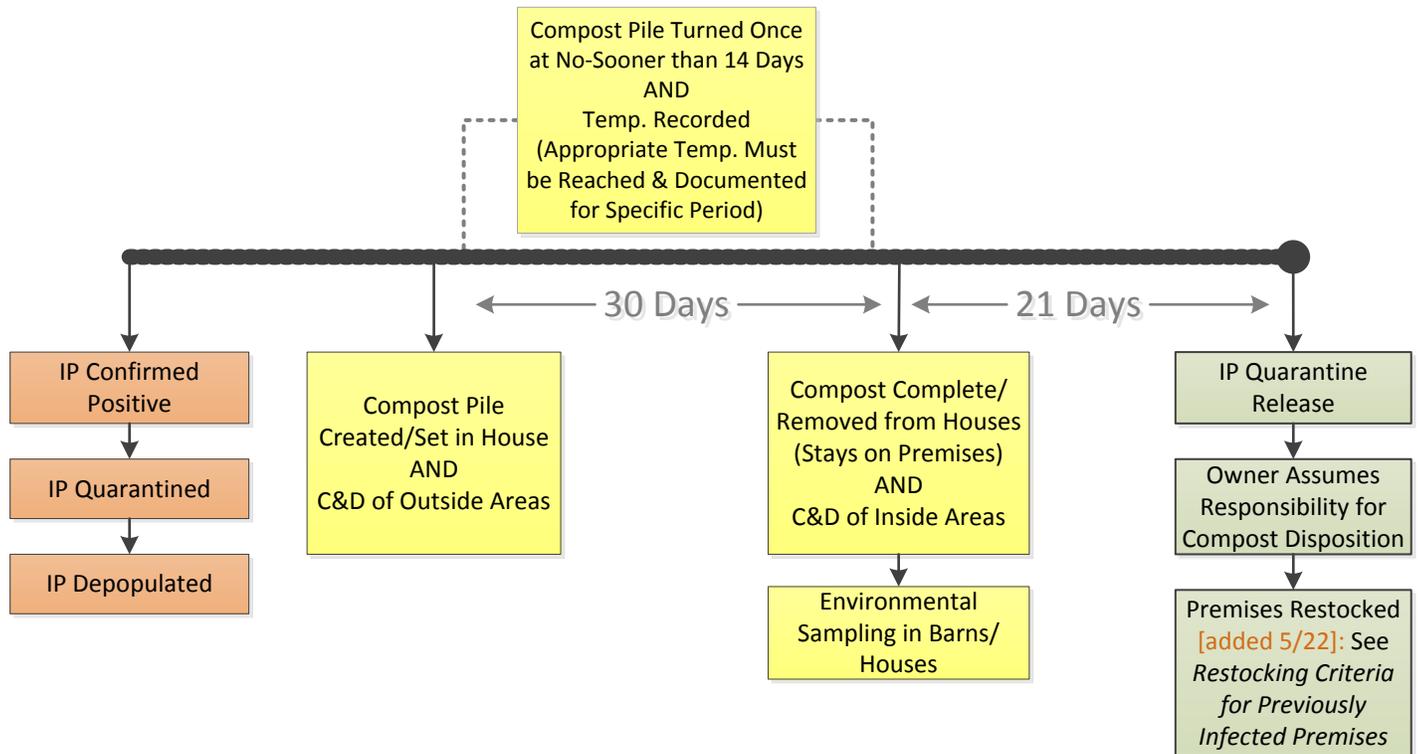
\*\*\* All biosecurity practices currently in place on-site (including use of PPE) will be followed for temperature taking, sample collection and final inspection for quarantine release. \*\*\*

Intended Use: This protocol provides guidance to State Animal Health Officials, APHIS officials, and Incident Management Teams for infected HPAI commercial poultry premises that have used composting or burial as their method of disposal.

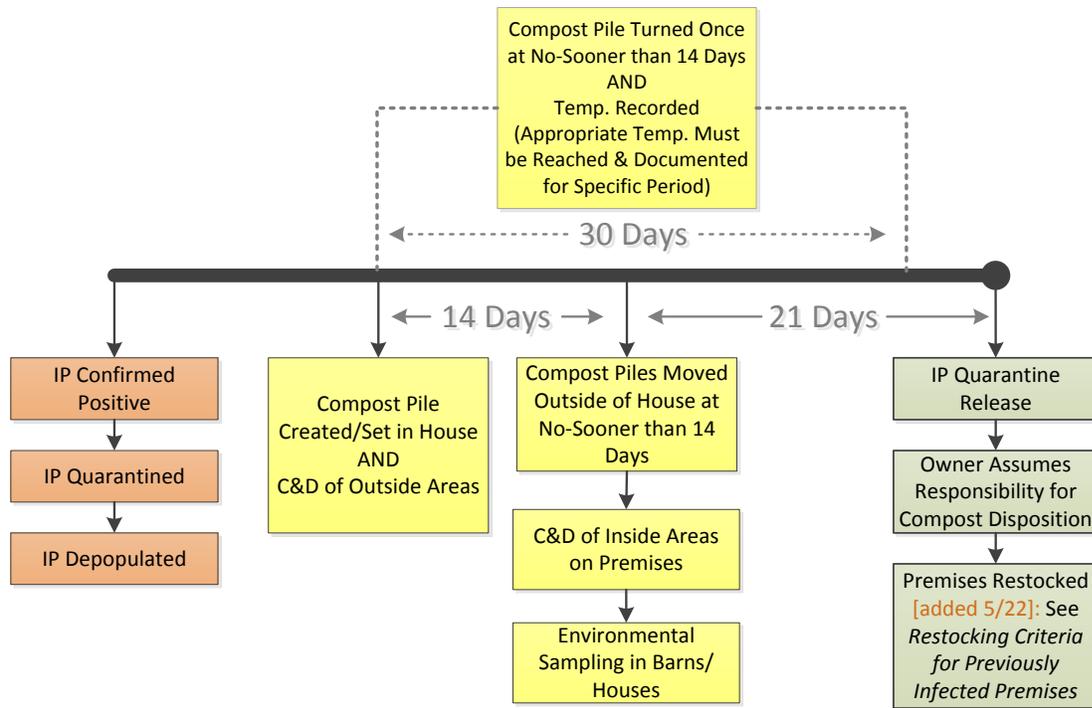
[updated 5/22:] Also, please see Restocking Criteria for Previously Infected Premises for information on how a previously infected premises becomes eligible for restocking.

TIMELINE FOR DISPOSAL & PREMISES RESTOCKING

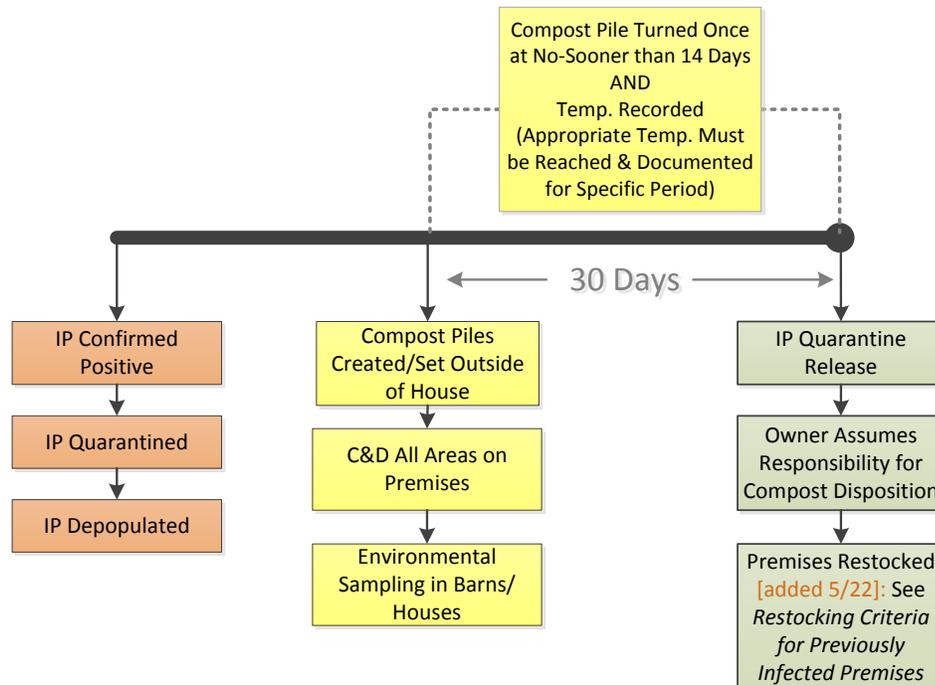
Timeline for Disposal & Premises Restocking: IN-HOUSE COMPOSTING



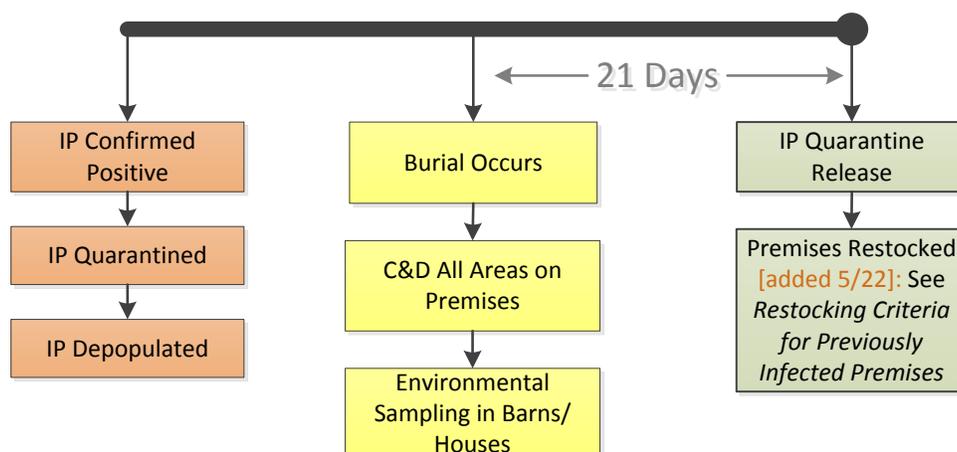
## Timeline for Disposal & Premises Restocking: IN-HOUSE/OUTDOOR COMPOSTING



## Timeline for Disposal & Premises Restocking: OUTDOOR COMPOSTING



## Timeline for Disposal & Premises Restocking: BURIAL



## PROTOCOL FOR SAMPLING THE ENVIRONMENT FOR AI VIRUS

### Timing:

- ◆ *For premises using composting:* Environmental sampling inside the houses/barns occurs *after* the compost pile is complete and removed from inside the barns. For outdoor composting, environmental sampling inside the houses/barns can occur *after* the houses/barns are cleaned and disinfected.
  - [updated 5/21:] Please note, there is no requirement OR option to release compost based upon compost sample testing.
- ◆ *For premises using burial:* Environmental sampling inside the houses/barns occurs *after* the premises is cleaned and disinfected following disposal.

**Applicability:** Surfaces, waterers, feeders inside barn

**Supplies needed:** PPE (Tyvek coveralls, shoe covers, hairnet, gloves, respirator), sterile dacron swabs with plastic handles (100), sample -tubes with ~3ml BHI broth (20), empty tube holder, accession forms with house numbers written onto the accession forms, cooler, gel ice packs, permanent markers, pens, disinfectant, paper towels, and hazardous waste trash bag.

### Collection and Handling Procedure

- 1) **Schedule sample collection** for Monday, Tuesday or Wednesday to ensure samples arrive at lab in time to be processed without delay. If samples arrive on Friday, they may sit at the lab over the weekend, thereby compromising analytical results.
- 2) **Keep BHI cool at all times.**
- 3) **Saturate swabs with BHI prior to sampling and immediately following sampling** (do not collect sample with dry swabs).
- 4) **Collect swab samples** from at least 10 selected locations in each house. Good areas to sample include fans, sill, door, floors, walls, frame, and curtains, feeders and waterers.
- 5) **Samples may be pooled to combine 5 swabs from each sampling area into one BHI broth sample tube**
- 6) **Label each tube with the date, house and sample number.**
- 7) **Disinfect the exterior of tubes.**

- 8) Once all samples are collected and prior to leaving premises, **label tubes with taskforce provided bar code labels** as follows:



- 9) **Place one label on tube** (as pictured above).
- 10) **Place matching label on laboratory submission form, attached.**
- 11) **Place the farm name and premise ID on the lab accession form**
- 12) **Place the sample tubes in a pre-chilled cooler with lab accession form.**
- 13) **Repeat for each house.**
- 14) **Return cooler to the NAHLN lab** as soon as possible for sample processing.
- 15) **[Updated 5/21]:** PCR may be a useful adjunct to virus isolation (VI) for post-cleaning environmental testing. Samples can be tested at the NALHN laboratory using the VetMax Gold AIV kit which includes an internal control which is required (NALHN deviation needed)
- Samples with failure of internal control will be processed for virus isolation
  - Any samples yielding a positive Ct value will be processed for virus isolation
- 16) **Report results to the State Veterinarian.**

**HPAI Outbreak  
Minnesota Restocking Criteria**

Version 1: 06-04-2015

APHIS will not indemnify previously infected premises that are restocked without written APHIS and State approval which subsequently become re-infected.

Site address: \_\_\_\_\_ MN 56381

Premises ID: 00XXXXXX

**Criteria (all must be met):**

The owner and/or grower has met the requirements of the State Quarantine Notice or Hold Order

Yes  No \_\_\_\_\_

The owner and/or grower has met the requirements of the USDA Flock Plan

Yes  No \_\_\_\_\_

The owner and/or grower has met the requirements of the USDA Cooperative Compliance Agreement

Yes  No \_\_\_\_\_

The premises has met the minimum required time period outlined for the method of disposal chosen in the *Timeline to Restock and Environmental Sampling Procedures*

Yes  No \_\_\_\_\_ Required time period end date: 00-00-15

The premises has met the minimum required environmental sampling, with no evidence of HPAI infection, as outlined in the *Timeline to Restock and Environmental Sampling Procedures*

Yes  No \_\_\_\_\_

In the last 21 days, there has not been any detection of HPAI in commercial poultry in a 10 km radius of the premises wanting to restock

Yes  No \_\_\_\_\_

In the last 21 days, there has not been any detection of HPAI in backyard poultry in a 3 km radius of the premises wanting to restock

Yes  No \_\_\_\_\_

The premises will complete any additional surveillance, biosecurity procedures and requirements for movement as may be required by the State or APHIS upon and following restocking

\_\_\_\_\_  
Owner/grower

\_\_\_\_\_  
Date

\_\_\_\_\_  
State representative (BAH)

\_\_\_\_\_  
Date

**State and APHIS officials agree in writing that the premises can be restocked from flocks that test negative for AI**

\_\_\_\_\_  
APHIS representative

\_\_\_\_\_  
Date

\_\_\_\_\_  
State representative

\_\_\_\_\_  
Date

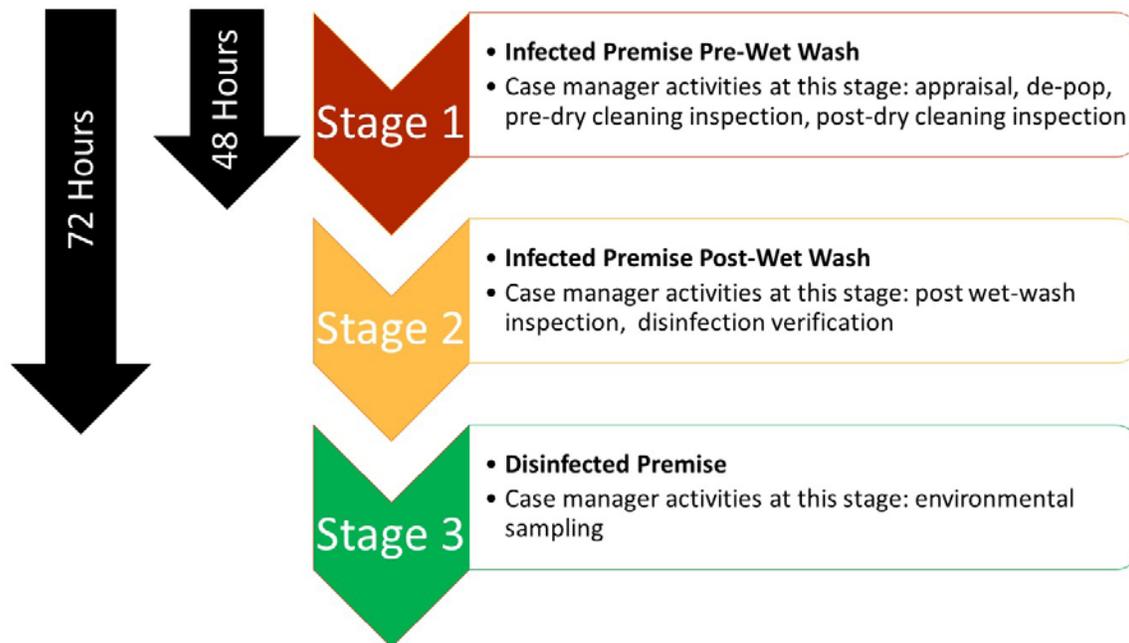
Copies to Owner, State, USDA



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## Biosecurity for Case Managers

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- Case managers can move between multiple premises at the same stage on the same day
  - If premises are geographically connected and have the same owner, no carwash/shower/change of clothes required between farms
  - If premises have different owners and are not associated, carwash/shower/change of clothes required between farms
- Case managers can move from a later stage premise to an earlier stage premise in the same day (i.e. from stage 3 to stage 1)
- 48 hours required to move from stage 1 to stage 2
- 72 hours required to move from stage 1 or stage 2 to stage 3
- 48 hours required to move from a premise with infected birds to a corporate office



[APHIS Avian Influenza Disease Information](#)

[APHIS Publications & Fact Sheets](#)

[USDA Avian Influenza Publications, Fact Sheets & Brochures](#)

**Biosecurity for Birds** <http://healthybirds.aphis.usda.gov/>

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

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

- ◆ **Highly Pathogenic Avian Influenza Response Plan – The Red Book**
  - Full document:  
[http://www.aphis.usda.gov/animal\\_health/emergency\\_management/downloads/hpai\\_response\\_plan.pdf](http://www.aphis.usda.gov/animal_health/emergency_management/downloads/hpai_response_plan.pdf)
  - Ready reference guide: [Overview of the HPAI Response Plan \(Ready Reference Guide\)](#)
- ◆ **NAHEMS Guidelines Personal Protective Equipment\***
  - Full document:  
[http://www.aphis.usda.gov/animal\\_health/emergency\\_management/downloads/nahems\\_guidelines/fadprep\\_nahems\\_guidelines\\_ppe\\_final\\_april2011.pdf](http://www.aphis.usda.gov/animal_health/emergency_management/downloads/nahems_guidelines/fadprep_nahems_guidelines_ppe_final_april2011.pdf)
  - Training and educational materials: [NAHEMS PPE Educational & Training Materials](#)
  - Quick summary: [NAHEMS PPE Tactical Topic](#)
- ◆ **NAHEMS Guidelines Health and Safety\***
  - Full document:  
[http://www.aphis.usda.gov/animal\\_health/emergency\\_management/downloads/nahems\\_guidelines/fadprep\\_nahems\\_guidelines\\_health\\_safety\\_final\\_16may2011.pdf](http://www.aphis.usda.gov/animal_health/emergency_management/downloads/nahems_guidelines/fadprep_nahems_guidelines_health_safety_final_16may2011.pdf)
  - [NAHEMS PPE Educational & Training Materials](#)
  - [NAHEMS PPE Tactical Topic \(Quick Summary of Guidelines\)](#)
- ◆ **NAHEMS Guidelines Educational & Training Materials – Other\***
  - [Biosecurity: 3 presentations/handouts](#)
  - [Cleaning and Disinfection: 5 presentations/handouts](#)
  - [Surveillance, Epidemiology, and Tracing: 7 presentations/handouts](#)
- ◆ **Highly Pathogenic Avian Influenza Standard Operating Procedures**
  - [Health and Safety and Personal Protective Equipment](#)
  - [Surveillance](#)
  - [Epidemiological Investigation and Tracing](#)
  - [Communications](#)
  - [Biosecurity](#)
  - [Disposal](#)
  - [Cleaning and Disinfection](#)
- ◆ [Foreign Animal Disease \(FAD\) Investigation Manual \(Manual 4-0\)](#)

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

## Ammonia Safety in Enclosed Structures

**Objective:** Ensure the safety of all Incident personnel.

**Background:**

- Ammonia is produced naturally from decomposition of organic matter, including plants, animals and animal wastes and can become concentrated in enclosed structures.
- This guidance is for ammonia produced from these natural sources, NOT from compressed gas cylinders or other sources which may produce very high air concentrations.

**Signs of Exposure to ammonia:**

- Gas and vapor inhalation
  - Causes immediate burning of the nose, throat and respiratory tract.
  - Low concentrations can cause coughing and nose and throat irritation.
  - High concentration can cause airway destruction resulting in respiratory distress or failure.
- Strong odor provides adequate early warning of its presence, but prolonged exposure can be hard to detect due to olfactory fatigue and adaptation
- Skin and eye irritation

**Exposure guidelines (NIOSH):**

Long term exposure (8 hours)	25 ppm
Short term exposure (15 minutes)	35 ppm
Short term exposure (5 minutes)	50 ppm

**How to reduce ammonia exposure:**

- Increase ventilation when possible
- Reduce the amount of time spent in area where levels of ammonia are high
- Wear proper PPE (personal protective equipment)
  - Gloves
  - Half face with goggles or full face respirator
  - Half or full face respirator with at least a particulate/ ammonia cartridge (green) or a multigas cartridge
  - Cloth coveralls or disposable coveralls (Tyvek)
- If possible, measure levels of ammonia in work area before entering, or
- If in doubt, wear full-face respirator with particulate/ ammonia cartridges or a multigas cartridge (cartridges must be replaced at least daily)
- Know recommended exposure times based on the ammonia levels in work area

**If exposed:**

- Seek fresh air
- Flush irritated skin or eyes with water
- If needed, seek immediate medical attention
- Contact your supervisor or the Safety Officer if irritation of skin, nose, throat or respiratory tract is persistent

## Guard Post Orders/Case Worker Talking Points

Ensure the quarantine zone is not violated and that access to the work location is granted only to personnel designated and provided by the Contract Officer's Representative (COR - Christian Lee). Notify the COR, or designated government personnel of unusual conditions or personnel trying to gain access who are not on this list. Guards shall not enter buildings or the quarantine zone unless authorized by the COR. Every farm will have a quarantine zone. Identify it and stay on the CLEAN side of the line.

Each facility is laid out differently. General guidance; position close to the clean dirty line entry point with the best view of traffic entering property. Allow entry for known participants (USDA, IDALS, Clean Harbor, CTEH, and Farm traffic). Work with farm owner/manager to establish a way to contact them to clarify anyone not known requesting access. Observe vehicles leaving quarantine. Ensure that all are decontaminated. NO PHOTOS.

I can be reached anytime via cell. Don't hesitate to call for any questions. Christian Lee 301-252-9075

The farm owner/manager can order anyone off the property. If anyone resists call 911 and let me know as soon as possible.

### **Contractors working;**

Clean Harbor  
Center for Toxicology and Environmental Health (CTEH)  
USDA and Iowa Department of Agriculture

### **Media Inquiries;**

Iowa Department of Agriculture and Land Stewardship  
515-281-3375  
United States Department of Agriculture  
301-851-4100

All USDA employees should have IDs. All CHES and CTEH should also have IDs. Farm owner provides list of authorized entrants. Farm owner supply POC and phone number to be called when anyone arrives that's NOT on the access list or any other incident that needs owners response.

If possible conduct random patrols of the perimeter to maintain surveillance of the site conditions. Patrols shall be conducted if site conditions allow. The patrols shall include visual checking of areas specified, and other areas on the premises if conditions do not appear normal. The patrol routes, frequency of coverage of the routes, and specific check-in locations will be provided to the Contractor by the COR at the time of award.

During periods of darkness Guard may use his POV as an observation point but must not fall asleep and may not run his vehicle so it disturbs any residence on-site. Guard may run his vehicle in order to provide heat on cold nights but must ensure that the driver side window is open at least 3 inches when the vehicle is running.

Promptly report medical emergencies, hazardous conditions, traffic accidents, security breaches, and any other unusual occurrences observed while performing services under this contract.





# Producer Information Sheet

## Questions and Answers: Highly Pathogenic Avian Influenza

### Q. What is USDA's response process?

A. As part of the existing **USDA avian influenza response plans**, Federal and State partners as well as industry are responding quickly and decisively to these outbreaks by following these five basic steps:

1. **Quarantine**—restricting movement of poultry and poultry-moving equipment into and out of the control area;
2. **Eradicate**—humanely euthanizing the affected flock(s);
3. **Monitor region**—testing wild and domestic birds in a broad area around the quarantine area;
4. **Disinfect**—killing the virus in the affected flock locations; and
5. **Test**—confirming that the poultry farm is AI virus-free.

Once a flock tests positive for avian influenza (AI), USDA or a State animal health official will complete a flock inventory to use for appraisal purposes. The flock will be depopulated as soon as possible using the most efficient method available. The carcasses will be disposed of using one of several methods. These include:

- in-house composting,
- outdoor on-site composting,
- burial,
- off-site composting,
- landfill, or
- incineration.

APHIS and State officials evaluate disposal options based on the size of the flock, local conditions, and applicable local, State, and Federal laws/regulations. There are different timelines associated with each disposal option. It is extremely important to follow all steps as outlined by disposal experts in order to minimize the risk of disease spread during the disposal process.

After all carcasses are removed from the barn, the cleaning and disinfection process begins. First, all organic material is removed. Then all areas and items are washed thoroughly with detergent, rinsed, and allowed to dry. Next, a disinfectant is applied and allowed to remain wet on the surfaces for the label-specified contact time. After the contact time, surfaces are rinsed again and allowed to air dry. These processes help eliminate any remaining virus.

After cleaning and disinfection, environmental samples are collected and tested to confirm that the virus is no longer present.

Premises must remain empty for a minimum of 21 days following these steps before being released from quarantine. After being released, the premises can be restocked.

**Q. What do producers need to do?**

**A.** APHIS seeks to engage producers and their employees wherever appropriate during the disease response process. We recognize this can be a difficult time for all involved, and producers are not expected to complete the process without expert assistance.

The first point of contact for reporting sick birds is the producer's veterinarian or the State animal health official. Producers can also report sick or unusual dead birds by calling USDA's toll-free number at **1-866-536-7593**. If AI is suspected, samples should be taken and sent to a local or nearby National Animal Health Laboratory Network laboratory. If the results are positive, the producer will be contacted by either a State or Federal veterinary medical officer (VMO), and USDA will start the process of inventory for indemnity, the epidemiological investigation, depopulation, and so forth—all with caseworker assistance.

Producers should talk to involved animal health officials about their level of involvement and how the responders and producers can work together. Anyone who works on the farm during these processes will need to wear appropriate personal protective equipment and follow strict biosecurity procedures, as outlined by the response team.

If producers have any questions about the depopulation and disposal processes, they should talk to the State or Federal animal health officials responding to the disease event in their area.

Following confirmation of AI in their operation, a producer will need to develop a **flock plan** for all premises with confirmed H5/H7 AI infection or exposure. The flock plan sets out the steps to eradicate the virus and prevent its spread to other flocks. It also specifies the procedures required to get the facility back into production, including requirements for quarantine release. The flock plan will include cleaning and disinfection requirements, but does not require cost estimates. The flock plan must be signed by the owners, a State animal health official, and the APHIS District Director or Assistant Director. This is required before the indemnity payment can be processed. An APHIS Veterinary Services case manager will work with the producer to walk them through the process and the information required to complete all steps.

An **appraisal document** for indemnification will then be prepared by APHIS and be presented to the producer as quickly as possible (see next question for details about the appraisal process). Affected producers need to sign the appraisal document before depopulation can occur.

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 State, and indemnity will be requested for those activities. 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.

**Q. What is the appraisal process for payment of indemnity?**

A. Once a herd or flock is confirmed by a designated laboratory to have tested positive for H5/H7 AI, animal health officials will complete an inventory to use for appraisal purposes. The inventory will list out the number of birds in the flock, along with their age at the time and their intended use.

APHIS will use this inventory as the basis for the flock appraisal. APHIS economists developed a series of species-specific appraisal calculators that use publicly available prices, costs, and productivity data to develop a value per animal. The calculators are updated monthly to account for changing feed costs and values.

The value per animal type multiplied by the number of each animal type is used to calculate total indemnity. In most cases, APHIS provides 100 percent of the indemnity amount; however, there are certain situations where APHIS may provide a lesser percentage to producers. For example, indemnity percentage may be less than 100 percent for large-scale producers who do not participate in the National Poultry Improvement Plan (NPIP; [www.poultryimprovement.org](http://www.poultryimprovement.org)).

**Q. When can producers restock their facilities?**

A. After cleaning and disinfection, environmental samples are collected and tested to confirm that the virus is no longer present. Animal health officials will determine the number and frequency of samples needed and will collect them accordingly. The samples will be tested at a designated laboratory, usually the National Veterinary Services Laboratories in Ames, IA.

In general, premises must remain empty for a minimum number of days after the completion of cleaning and disinfection to ensure that any residual virus has been eliminated. For HPAI, that period must be at least 21 days, as this is a single incubation period for avian influenza. (Note that this is not an OIE requirement, but a basic disease control measure and part of USDA's response plan.) The actual number of days will depend upon the specific disease agent and method of disposal used. Please discuss the exact timeline with the animal health officials responding on your farm.

Surveillance testing must also be complete in the area around the affected premises before APHIS can release it from quarantine and restocking can occur. However, in most cases, this surveillance will be completed before the 21-day waiting period begins.

**Q. Can producers compost outside of barns?**

A. Composting out of doors is an option in facilities (such as egg layer barns) where indoor space is restricted. However, outdoor composting requires a great deal of space and additional mitigations to discourage scavengers and keep viable pathogens from being blown around. Mitigations include a compost fleece or a thick layer of clean woodchips or other clean carbon source covering the compost pile. This cover keeps particles from blowing around and keeps scavengers out. In addition, in most instances, the State would have to permit the outdoor compost pile. APHIS is working with each facility to determine the best course of action given the size, scope, and needs of the individual operation, as well as the goal of ensuring that necessary disease control measures are taken.

**Q. What can producers do with compost? Can it be sold?**

A. APHIS does not regulate sale of the compost. The State agency that regulates fertilizers in any given State (could be Dept. of Ag, DNR, or Dept. of Environment) would have regulations pertaining to what the producer can or cannot do with the compost. This varies from State to State.

However, APHIS does regulate when anything can be done with the compost (sell, store, use, etc), as it can lead to the further spread of AI. Once the compost pile is assembled, it goes through two 14-day heat cycles. This is just letting the compost sit around to naturally compost. After 14 days, a composting consultant checks the temperature and turns the compost over (the turning over could take a day or so). We then wait another 14 days and check the temperature again. If the composting consultant determines that the appropriate temperature has been reached for an acceptable amount of time, APHIS releases the compost to the owner to use as allowed by State law.

**Q. What can APHIS do to reduce wait times for depopulation?**

A. To reduce wait times for depopulation, APHIS has increased its number of foaming units. APHIS started with one but as the number of infected premises expanded, APHIS' National Veterinary Stockpile (NVS) increased its capability to five foaming depopulation teams and contracted for six additional teams. For depopulating the layer houses, incident command teams and the NVS acquire CO<sub>2</sub> carts through various means and are having some fabricated locally. These additional assets allow us to begin depopulation within 72 hours of a presumptive positive result.

**Q. Has APHIS discussed coordinating with National Guard forces?**

A. The National Guard is invited to participate in a response by that State once the Governor has declared a state of emergency. APHIS works with the National Guard, but does not activate them.

**Q. How is APHIS working to manage all of these steps in the larger and more complicated scenario of an egg-laying hen operation?**

A. APHIS is bringing in personnel that can manage large disposal jobs, such as companies like Clean Harbors that manage massive HAZ-Mat, tornado, and other disaster-type cleanup. We're contracting with incinerator companies, setting up mass incineration sites that could be used in a region, and working with landfills to ease their concerns about the suitability of this sort of waste in their landfills.

**Q. What do OIE guidelines state about lifting trade restrictions on infected regions?**

A. There are additional international trade considerations in play. The OIE guidelines include a 90-day waiting period after the last infected premises has been cleaned and disinfected before a zone or region can regain its freedom from HPAI. Most countries that have accepted our definitions of regions or zones follow this guideline and may reinstate trade after this 90-day period.

USDA is an equal opportunity provider and employer.

# Guidance for the distribution of compost or dry unmanipulated manure from a quarantined Avian Influenza site:

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## Release of compost material from quarantined Highly Pathogenic Avian Influenza (HPAI) site:

Compost or dry unmanipulated manure may be removed from a site quarantined for HPAI once it has met the criteria for release established by USDA/APHIS. If the product is compost, a *Barn Release Form* (example attached) must be completed. A permit for movement of the product must also be issued from the State Veterinarian of Iowa.

## Iowa Code Chapter 200A (Sale of Dry Manure):

Only unmanipulated animal manure sold in bulk qualifies for distribution under Iowa Code Chapter 200A, Bulk Dry Animal Nutrient. As established by Iowa Law, manure that has been composted is determined to be manipulated and therefore does not qualify.

## Offering Compost for Sale:

Under Chapter 200, The Iowa Fertilizer Code, compost qualifies as a fertilizer if the sum of the guaranteed analysis of total nitrogen (N), available phosphoric acid (P<sub>2</sub>O<sub>5</sub>), and soluble potash (K<sub>2</sub>O) totals greater than twenty percent. Manure may also be sold as a fertilizer if the analysis total meets the 20 % requirement.

Under Chapter 200, compost can also be sold as a soil conditioner. A soil conditioner is defined as a substance which when added to the soil or applied to plants will produce a favorable growth, yield or quality of crop or soil flora or fauna or other soil characteristics, other than a fertilizer, recognized pesticide, unmanipulated animal and vegetable manures. As a soil conditioner no nutrient claims can be made. The analysis would have to be stated 0-0-0 with claims that it improves the quality of the soil.

In order for a product to be sold as a fertilizer, soil conditioner, or specialty fertilizer the distributor must have a commercial fertilizer license and have a label showing the distributor as the guarantor. If it is sold as a fertilizer or specialty fertilizer the product must be registered. Compost is already registered in Iowa as a soil conditioner with an analysis of 0-0-0 and would not require re-registration. Tonnage for all products would be reported every 6 months along with the appropriate tonnage fees.

Producers should check with their insurance carriers concerning whether their existing liability coverage will provide coverage for the commercial activity of selling compost or other products outside the scope of their normal farm operation

## For More Information:

Neal Vaughn – Fertilizer Administrator, Iowa Department of Agriculture and Land Stewardship  
Tel. (515) 249-2938 / [Neal.Vaughn@iowaagriculture.gov](mailto:Neal.Vaughn@iowaagriculture.gov)

## **QUESTIONS ON HAY STORED ON-FARM** – Information from HPAI Ops dated June 5, 2015:

From what we understand, judgment at the field level should be used to determine the likelihood that the hay is contaminated based on an evaluation of the factors listed below (among other factors that you may identify).

EXAMPLES: Hay bales stored next to a chicken house with visible chicken manure would be considered likely to be contaminated, whereas hay that is in a field **not** adjacent to a poultry house intended to be mowed, dried, and eventually baled, would not be considered “likely contaminated”. Everything in between would be a judgment call. How close is too close? Unfortunately, we can’t provide a specific distance. If there is concern you might want to ask the producer to leave a buffer of a few rows.

### **FACTORS CONTRIBUTING TO CONTAMINATION LIKELIHOOD AND JUDGMENT CALL**

- Distance from virus sets status: contaminated, potentially contaminated, not contaminated.
- Time to move if potentially contaminated: One incubation cycle, a.k.a. 21 days.
- Heat: mitigation to reduce risk of potentially contaminated. If can sit in summer heat for time, this is considered mitigation
- Dry: if hay dry (more normal hay dry is mitigation than soggy hay)
- If grossly contaminated, recommend disposing. Unless huge volume or huge dollar amount that requires another plan.
- Conveyance: can the hay be moved safely without fomite contamination of trucks, equipment, people, etc. This is the same factor for compost, time waited to move compost of IP (even if compost is “sterile”).
- Judgment call on “contaminated”: Hay that is directly associated with infected poultry houses, or otherwise grossly contaminated by HPAI virus material, dead birds, manure, etc.
- For growing hay, by the time most of the hay is cut and moved, the 21 day incubation cycle hold will have elapsed. And since it is summer, it *should* be warm enough to inactivate any virus.

# Glossary of terms (work in progress)

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## B

**Breaker** – see [Egg Breaker](#)

**Broilers or Broiler Chickens** – chickens farmed for meat. Also called meat birds. These birds generally reach slaughter size in 6 – 14 weeks, depending on breed and management strategy.

**Brooder** – a building or area for raising young fowl. Hens “brood” over their chicks, keeping them warm and dry; this is the machine/enclosure equivalent of that.

## C

**Capon** – a castrated male chicken.

**Cock or Cockerel** – an adult male chicken. Also called a [rooster](#).

## D

**Dry Cleaning** – The process of cleaning the organic material out of the hen house (e.g. removal of litter, food, feathers, carcasses, and any other material) in preparation for wet cleaning and disinfection.

## E

**Egg Breaker (Breaker)** – Any person or facility subject to the Egg Products Inspection Act (21 U.S.C. 1031 *et seq.*) engaged in the breaking of shell eggs or otherwise involved in preparing shell eggs for use as egg products (from [7 C.F.R § 1250.500](#))

## H

**Hen** – a female chicken.

## L

**Layer or Layer Hen** – A hen whose purpose is to lay eggs for food production. Chickens farmed for eggs. Some breeds of hens can produce more than 300 eggs per year. Egg production begins to decrease after 12 months of laying, at which point the “spent hens” are generally slaughtered and used in processed foods or sold as “soup hens”.

## M

**Manure belts** – are conveyor belts underneath the cage floor in poultry houses and convey the fecal material and litter from under the cages to a collection area, where the feces is automatically scraped from the belt.

**Manure curtains** – are one of two mechanisms to keep stacked poultry cages free of feces. A sheet of polymer (plastic) is installed under the cage, at an angle, to deflect the feces and help it to “run” down to the house floor, where it can be removed more easily. These curtains are difficult to disinfect and it has been determined that it is both more economical and more scientifically sound for the USDA to pay for new manure curtains and for their installation than to attempt to clean these items.

**Molting (or moulting)** – When chickens and other birds lose their feathers. Some egg producers force molting by stressing the hens with complete food withdrawal for 7 – 14 days; the hen loses her feathers but will generally have an increased egg production following the molt.

**Mortgaged** – Refers to when the birds are owned by a third party (someone NOT the property owner/manager). E.g. when the birds are leased to the barn owner by large organizations such as Tyson, Jenny-O, etc.

## P

**Parentstock** – the immediate parents of the current generation of fowl. Desirable qualities (such as quick weight gain and maturation in meat birds or prolific egg laying) are augmented through selective breeding. Parentstock, grandparent stock, and great grandparent stock are valuable parts of the poultry production system; they breed the birds with desired qualities and comprise an entire sub-industry in poultry producers.

**Pullet** – A young female chicken. A pullet becomes a hen when she begins to lay eggs at 16 – 20 weeks of age.

## R

**Rooster** – an adult male chicken. Also called a **cock** or **cockerel**.

## S

**Spent Hen** – a hen who has reached the end of her egg laying abilities and is sent to slaughter.