The 2014–2015 Highly Pathogenic Avian Influenza (HPAI) Outbreak

Permits and Movements
Overview

➢ Introduction
➢ Using EMRS 2.0
➢ Outbreak Permitting Info
➢ Outbreak Movement Info
INTRODUCTION

PERMITTING and MOVEMENTS
EMRS 2.0

- The Emergency Management Response System (EMRS) 2.0 is the system of record for disease incidents, including HPAI in the United States.

- Data should be entered into EMRS in a timely and accurate manner.
Using EMRS for Permitting and Movement

- Initial qualification for movement (e.g., biosecurity requirements for the Secure Food Supply Plans) may be tracked/kept in any IT system.
- When a Control Area (aka Control Zone) is established, the outbreak should be managed in EMRS.
- The request for permit and approval process can be tracked in EMRS.
- Permits may be issued using mail merge templates within EMRS.
- If alternate means of tracking permits for premises in the Control Area is used (not ideal), these are recorded in EMRS via a process for express import.
Secure Food Supply Plans for Poultry Implemented

- Secure Food Supply Plan recommendations helped animals and products keep moving during the outbreak.
- Typically, depending on the movement, 2 negative rRT-PCR tests were required; one within 24 hours of movement.
- These items and their movements were permitted, issued, and recorded successfully in EMRS.
- Successful collaboration between States (both sending and receiving product), the Unified Incident Command, and APHIS.
Permits can be created for a single movement or can be created and approved for multiple movements between the same two premises.

– Each movement requires an update.
– Check requirements, report # of items, record date.

If testing or additional visits are required for movement these can be monitored and viewed in EMRS.

If daily mortality reports are required for movement they can be uploaded into EMRS as attachments.
What are Permits?

Origin
Premises

→

Destination
Premises

Intrastate

Interstate

Introduction
Examples of Permitted Movement

- **Out of Control Area:**
  - Hatching eggs to hatchery or processor.
  - Movement of Control Area birds.
  - Movement of day old poults.
  - Nest run eggs.
  - Product moving out of Control Area.

- **Into Control Area:**
  - Birds into Control Area for slaughter.
  - Birds moved into Control Area.
  - Feed into Control Area.
  - Wood shavings into Control Area.

- Some movements require diagnostic testing prior to movement.
National Permitting Unit

- During the HPAI outbreak, a National Permitting Unit was established.
- This unit could complete the entire permitting process.
- Based in Ft. Collins.
- Point of contact for all permitting data entry and questions.
- Reviewer role required to review and approve permits in EMRS.
National Permitting Unit for Intrastate Movements

- Created rapid (express) permit approval process.
- Produced permitted movement forms and sent to States for addition of tests if needed and distribution to producer.
- Completed entire process on behalf of State including adding test results and distributing to producers.
- Back-entered permit information into EMRS for permits produced outside of EMRS.
National Permitting Unit for Interstate Movements

- Received reviewed permit from Origin State.
- Approved on behalf of Destination State, returned to Origin State who then produced permitted forms, attached tests if needed, and distributed to producer.
- Created and express approved permits (reviewed on behalf of Origin State, approved on behalf of Destination State); produced permitted movement form and sent to Origin State for addition of tests if needed and distributed to producer.
- Completed entire process on behalf of origin and destination States; added test results and distributed to producers.
- Back-entered permit information into EMRS for permits produced outside of EMRS.
PERMITTING and MOVEMENTS

EMRS 2.0
Permitting Workflow

Origin State Receives Request for Permitted Movement from Producer → Origin State Enters Permit into EMRS → Origin State Reviews Permit

Origin State Notifies Destination State → Destination State Approves (or Rejects) Permit → Destination State Notifies Origin State of Decision

Origin State 1) Produces Permitted Movement Forms, 2) Attaches Testing Information if Needed, and 3) Distributes to Producers
Prerequisites for Permits in EMRS

**Intrastate:**
- Origin and Destination Premises must be in EMRS.
- Both premises must have an Animal Business.
- Both premises must have an Investigation.

**Interstate:**
- **Origin premises** must be in EMRS, with an Animal Business and Investigation.
- Basic destination information is entered into EMRS by the Origin State.
- **Destination Premises**, Animal Business, and Investigation must be entered by Destination State if not already in EMRS when they approve the permit.
Permitted Movements

- Out of Control Area
- Into Control Area
Four Simple Elements of Permitting

1. Request
2. Review
3. Approval (Regular or Express)
4. Movement (Single or Multiple)
Overview of Steps for a Permit Request

- Go to the **Investigation** in EMRS.
- Add an **Investigation Follow-Up: “Create a Permit”**
- Enter a **Reason** (e.g., Out of Control Area).
- Enter **Items Permitted**.
- Enter **Estimated Shipments**.
- Enter **Permit Destination Information**.
EMRS 2.0

Go to Investigation
Add Follow-Up
Common reasons for permit during outbreak:
- Out of Control Area/Zone
- Into Commerce
- Direct to Farm
Items To Permit

EMRS 2.0
Estimated Shipments

Add Follow-ups - IV
Estimated Shipments

Estimated Start Date of Shipments - required!
9/15/2015

Estimated End Date of Shipments - required!
9/18/2015

Estimated # Shipments - required!
10

Click to add comments

Add Follow-ups - IV
Requested Destination location name - required
Mama's Fresh Scrambled Egg Depot

Physical Address or requested destination.
168

Requested destination city
Hi

Requested destination state - required
CT

Requested destination zip
06106

Phone number for destination contact.

Destination Zone Status?
Free
Permit Destination Information

EMRS 2.0
You have successfully created the permit request (PM:1196:15) by LECH SZKUDLAREK on 9/15/2015 for 10 estimated shipments of 3,000 Gal. of Eggs starting and ending.

Dest location: Mama's Fresh Scrambled Egg Depot
Dest Address: 16
Dest City: ( ) State: (CT) Zip: (06106)

Tip
Permits are added to the origin access group (Connecticut) default queue where they can be reviewed by a responsible person at the origin who has the "Permit Reviewer" role. Permits must be reviewed and receive a favorable recommendation to be routed to the Destination access group default queue where they can be approved or denied. Only

What do you want to do next?
- [ ] Quit this dialog
- [ ] Return to Investigation Follow-ups dialog.
Overview of Steps to Review Permit

- Review permit; **recommend approval or denial**.
- Send **email link to permit** to Destination State.
- The following must be completed by Destination State:
  - **Destination Premises** is in EMRS.
  - **Animal Business** is in EMRS for **Destination Premises**.
  - **Investigation** is in EMRS for **Animal Business**.
Review Permit
(Requires Reviewer Role in EMRS)

EMRS 2.0
Email Link to Destination State
Below is an EMRS link for a Permit requiring Approval by your state.

Details: Provide details of the requested permit.

PM:1052:15

<https://emrs2t.aphis.usda.gov/main.aspx?etc=10175&extraq=formid%3d975610d-2bad-495b-99a7-67d40da6ba06&i=7b0A5F4D0E-03E9-C411-9283-00505682395E%7d&pageType=entityrecord>
Verify Premises is in EMRS & has an Animal Business and Investigation.
Overview of Steps to Approve Permit

- After permit is reviewed,
- And the Destination Premises, Animal Business, and Investigation is in EMRS,
- The permit can be approved by Destination State.
- Link to approved permit sent to Origin State.
- Or, the permit can be rejected by the Destination State.
- Link regarding permit rejection sent to Origin State.
In order to approve this permit PMI196:15 you must have already created a premises in EMRS for the destination listed on the permit.

Destination: Mama’s Fresh Scrambled Egg Depot, 1000 Some Street, 06106

If you have created this premises you will be able to complete the process which requires the permit to be associated to the destination premises in EMRS. If not you should stop now verify the location is actually where the permitted items will move and create a new premises with this information before attempting to approve the permit.

Click next to continue if you know the premises already exists in EMRS.
Approve Permit

This dialog should only be used if you have permissions to approve permits at the permit destination and have access to the destination premises.

What action would you like to take?

- Approve this permit request
- Deny this permit request

Select destination business

Select destination investigation

Approve Permit

Approve the following Permit

Approval Date - required
9/16/2015

Expiration Date - required
10/16/2015

Permit Approval

NONE

Approving Officer

FRED BOUR...
Email Link to Origin State
Email Link to Approved Permit

Below is an EMRS link for a Permit Approved by Our State.

Details: Provide details of the approved permit.

PM:1052:15

APPROVED
Or, Reject Permit

Approve Permit
Approve or Deny Permit: Permit: Which action?

What action would you like to take on this permit? PM:1054:15, with status Active Reviewed under Incident HPAI 2015 Test?

- [ ] Approve this permit request.
- [x] Deny this permit Request.
Email Link to Origin State
Email Link to Rejected Permit

Below is an EMRS link for a Permit Rejected by Our State

Details: Provide details of the rejected permit.

PM#105215

[Link to EMRS page]

PM#105215

https://emrs2t.aphis.usda.gov/main.aspx?etc=10175&extras=formid%3d97561f0d-2bad-49b6-9a7-67d0da6a066&id=%7b0A5F4D0E-D3E9-E411-9283-065056B2395E%3d&pagetype=entitytype&record=

EMRS 2.0
Movements: Enter Permitted Movement

- Simply involves adding a movement to an existing permit.
- Each movement inherits the parameters of the approved permit and is very light data entry.
- This requires only that the producer reports an intended movement and the issuance of permitted movement document by the origin state.

EMRS 2.0
Issue a Permit for Movement

- There are mail merge templates for various permit types. Can be distributed multiple ways to the origin and destination states and/or directly to producer.
- The approval may cover a one time movement or multiple movements over a time span.
# Iowa Permit Example

**IOWA DEPARTMENT OF AGRICULTURE AND LAND STEWARDSHIP**

Bill Northey, Secretary of Agriculture

**PERMIT**

NEST RUN EGGS TO A LOCATION WITHOUT POULTRY FOR WASHING AND SANITIZING, BREAKING OR PROCESSING

<table>
<thead>
<tr>
<th>Permit Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Permit number:</td>
</tr>
<tr>
<td>Issued:</td>
</tr>
<tr>
<td>From:</td>
</tr>
<tr>
<td>To:</td>
</tr>
<tr>
<td>Date of movement:</td>
</tr>
<tr>
<td>Email permit to:</td>
</tr>
</tbody>
</table>

### Negative PCR test results (pooled samples)

| Date          | 5/6/2015 Acc# R109161 | 5/6/2015 Acc# 1108912 |

### Conditions

| 1 | Track drivers must wear disposable plastic, boots or rubber boots that can be disinfected if they get out of the vehicle. Plastic boots may be disposed of on the premises. |
| 2 | Hands and rubber footwear must be thoroughly cleaned and disinfected prior to leaving the premises. |
| 3 | Tires must be sprayed with disinfectant before leaving the premises. |
| 4 | Eggs must be moved directly to the designated facility for washing and sanitizing, breaking or processing. |
| 5 | Egg-handling materials must be destroyed at the destination plant or cleaned and sanitized. Egg-handling materials can be returned to the premises of origin after at least 24 hours have elapsed since these materials were moved from the farm and without contacting materials going to other premises. New paper or fiber flats must be used for hand-gathered eggs. |
| 6 | Two negative real time PCR tests for avian influenza must be conducted on pooled samples of embryonating eggs from 5 dead birds or 11 dead birds each from hours on the premises. The second test must be on samples taken on the second day of holding or later. |

Authorized by:

Dr. Helen, DVM

Date: 6/6/2015
# Minnesota Permit Example

## Permit

**Safeguarding Animal Health**

**MINNESOTA BOARD OF ANIMAL HEALTH**

**PERMIT**

**BIRDS MOVED INTO THE CONTROL ZONE FOR SLAUGHTER**

<table>
<thead>
<tr>
<th>Permit Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Permit number:</td>
</tr>
<tr>
<td>Issued:</td>
</tr>
<tr>
<td>Type:</td>
</tr>
<tr>
<td>From:</td>
</tr>
<tr>
<td>To:</td>
</tr>
<tr>
<td>Date of movement:</td>
</tr>
<tr>
<td>Email permit to:</td>
</tr>
</tbody>
</table>

## Conditions

1. Trucks must be thoroughly cleaned and disinfected prior to leaving the slaughter facility.

<table>
<thead>
<tr>
<th>Authorized by</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jimmy Dean, DVM</td>
<td>6/25/2015</td>
</tr>
<tr>
<td>Board of Animal Health</td>
<td></td>
</tr>
</tbody>
</table>
# Permitted Movement Form

**Permit**

**HATCHING EGGS TO HATCHERY OR PROCESSING PLANT**

## Permit Information

<table>
<thead>
<tr>
<th>Permit number:</th>
<th>PM__ __ __ MV__ __ __</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date of issue:</td>
<td>5/13/2015</td>
</tr>
<tr>
<td>From:</td>
<td></td>
</tr>
<tr>
<td>To:</td>
<td></td>
</tr>
<tr>
<td>Date of movment:</td>
<td>5/13/2015 12:00 PM</td>
</tr>
<tr>
<td>Email permit to:</td>
<td></td>
</tr>
</tbody>
</table>

## Negative PCR test results (pooled samples)

<table>
<thead>
<tr>
<th>Date</th>
<th>None</th>
</tr>
</thead>
</table>

## Conditions

1. Truck drivers must wear disposable plastic or rubber boots that can be disinfected if they exit out of the vehicle. Plastic boots may be disposed of on the premises.

2. Hands and rubber footwear must be thoroughly cleaned and disinfected prior to entering or leaving the premises. Farm personnel should place hatchling egg bottles on the loading dock but not enter the trailer. The hatchling egg delivery truck driver should load the eggs from the dock and not enter the farm egg storage room. The hatchling egg delivery truck driver should wear appropriate PPE and the hatchery and the breeder farm. The hatchling egg delivery truck driver should not enter the hatchery loading dock and the hatchery personnel should unload the eggs from the trailer.

3. Transport vehicles must be cleaned and disinfected. They must be sprayed with disinfectant before leaving the premises. The exterior of the transport vehicle should be cleaned and disinfected before entering the hatchery.

4. Hatchling eggs must be placed in either new disposable materials or plastic materials that were previously cleaned and disinfected at the hatchery.

5. Egg-handling materials must be destroyed at the destination plant or cleaned and sanitized. Egg-handling materials can be returned to the premises of origin after at least 24 hours have elapsed since these materials were moved from the farm and without contacting materials going to other premises. New paper or fiber mats must be used for hand sanitized eggs.

6. Two negative real time PCR tests for avian influenza must be conducted on pooled samples of oropharyngeal swabs from 1 dead bird or 1 dead birds out of every 50 dead birds from each house on the premises. The second test must be on samples taken on the second day of holding or later.

## Authorized by

| Authorized by: | Date: 5/13/2015 |
Complete Permitted Movement

- Allows for confirming actual movement occurred and animals or product received if needed. A workflow is available to automatically enter movements as complete 24 hours after scheduled.
Review

- Introduction to Permitting
- National Permitting Unit
- Permitting in EMRS
  - Creating a Permit Request
    - Adding Origin and Destination Premises to EMRS
  - Approving/Rejecting a Permit Request
  - Creating a Permitted Movement
  - Producing a Permitted Movement Form
OUTBREAK PERMITTING

HPAI 2014–2015
Permitting Summary of Outbreak

- During this HPAI outbreak, permits were issued from EMRS for movement into/within/out of Control Areas.
  - Any permit may have one or more independent movements of the same item associated with it, depending on the type and scope of the permit issued. As such, there will be more “movements” in an outbreak than “permits” issued.
  - Each movement has to meet specific requirements.
  - As such, there will be more “movements” in an outbreak than “permits” issued.
  - Both permits and movements are entered into EMRS.
  - Data entered through 9/7/2015.

- Earliest permit approved 2/14/2015.
- Most recent permit approved for movement on 9/4/2015.
- *All data is from 9/8/2015, the last published Permitting & Movement Information Report*
By Reason for Permit

- About 7,000 permits for movement were authorized, most from Minnesota (~2,740) and Iowa (~3,400).
- Successful National Permitting Unit established for rapid and accurate data entry in Ft. Collins.
By Item Permitted

(6,938 Permits)

<table>
<thead>
<tr>
<th>Item</th>
<th>Permits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Groups of animals</td>
<td>2329</td>
</tr>
<tr>
<td>Product</td>
<td>1739</td>
</tr>
<tr>
<td>Feed</td>
<td>941</td>
</tr>
<tr>
<td>Eggs</td>
<td>875</td>
</tr>
<tr>
<td>Other</td>
<td>598</td>
</tr>
<tr>
<td>Manure/Litter</td>
<td>418</td>
</tr>
<tr>
<td>Semen/Embryos</td>
<td>19</td>
</tr>
<tr>
<td>Truck/Conveyance</td>
<td>16</td>
</tr>
<tr>
<td>Animals without ID</td>
<td>1</td>
</tr>
<tr>
<td>Hay/Forage</td>
<td>1</td>
</tr>
<tr>
<td>Milk</td>
<td>1</td>
</tr>
</tbody>
</table>
By Reason for Permit and Item Permitted

(6,937 Permits)

- Groups of animals
- Feed
- Eggs
- Other
- Manure/Litter
- Semen/Embryos
- Truck/Conveyance
- Animals without ID
- Milk
- Hay/Forage
By State of Origin

(6,932 Permits)
By State of Destination

(6,938 Permits)

- Only States with 30 permits or more (State of Destination) are illustrated.
- 49 States & the U.S. Virgin Islands are represented (NJ, NH, LA, MD, MA, SC, AL, CT, NV, WY, AK, ND, KY, V.I., MS, VT, RI, and DE are not illustrated).

Permitting
HPAI 2014–2015

OUTBREAK MOVEMENTS
Movement Summary of Outbreak

- Earliest movement on 12/22/2014.
- Last movement currently entered was anticipating transfer on 9/10/2015.
- Each movement is included in only one category.
- However, these categories may not be mutually exclusive.
  - For example, “Out of Control Zone” may also be a product moving “In Commerce.”

- *All data is from 9/8/2015, the last published Permitting & Movement Information Report*
By Movement Reason

(20,992 Movements)
By Item Moved

(20,997 Movements)

Movements

- Feed: 6638
- Product: 6636
- Groups of animals: 3496
- Eggs: 2814
- Other: 938
- Manure/ Litter: 258
- Semen/Embryos: 201
- Truck/Conveyance: 15
- Hay/Forage: 1

United States Department of Agriculture
By State of Origin

(20,997 Movements)

 Movements

<table>
<thead>
<tr>
<th>State</th>
<th>Movements</th>
</tr>
</thead>
<tbody>
<tr>
<td>MN</td>
<td>13615</td>
</tr>
<tr>
<td>IA</td>
<td>3976</td>
</tr>
<tr>
<td>WI</td>
<td>2236</td>
</tr>
<tr>
<td>NE</td>
<td>497</td>
</tr>
<tr>
<td>MO</td>
<td>370</td>
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<td>CA</td>
<td>110</td>
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<td>70</td>
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<td>SD</td>
<td>54</td>
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<td>TN</td>
<td>2</td>
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<td>IN</td>
<td>1</td>
</tr>
<tr>
<td>OR</td>
<td>1</td>
</tr>
<tr>
<td>WV</td>
<td>1</td>
</tr>
</tbody>
</table>
By State of Destination

(20,997 Movements)

Only States with 35 movements or more (State of destination) are illustrated.

48 States and the U.S. Virgin Islands are represented (CT, NH, SC, WY, AL, KY, AK, MS, V.I., DE, VT, and RI are not illustrated).
Items Moved Out of Control Areas

- Continuity of business helps to facilitate agriculture and food industries maintain typical business, or return to business during a disease response, while the risk of disease spread and threat to public health is effectively managed.

(8,036 Movements)

- **Product**
- **Feed**
- **Groups of animals**
- **Eggs**
- **Other**
- **Manure/Litter**
- **Semen/Embryos**
- **Hay/Forage**
Facilities with High-Volume of Movements, by Movement Reason per Facility

(10,793 Movements)

- Only businesses with more than 600 movements are illustrated.
- Five of these facilities are in MN, one is in WI, and one in IA.
- These movements make up 51% of all movements.

Facility 1: 899
Facility 2: 1181
Facility 3: 1599
Facility 4: 1689
Facility 5: 1152
Facility 6: 3595
Facility 7: 678

Out of Control Zone
Direct to Farm
Feed Out of Control Zone
Direct to Slaughter
In Commerce
Feed Into Control Zone
Quarantine
Within Control Zone
Into Control Zone
Direct to Landfill
Direct to Hatchery
Direct to Incineration

Facilities with High-Volume Movements, by Items Moved per Facility Out of Control Area

(6,360 Movements)

- Only businesses with more than 600 movements are illustrated.
- Five of these facilities are in MN, one is in WI, and one in IA.
- These movements make up approximately 80% of all movements out of Control Areas during the outbreak.
Further Details on Movements

- A large percentage of movements were movements out of the Control Area:
  - May 29, 2015: 61%
  - June 25, 2015: 52%
  - July 22, 2015: 39%
  - September 8, 2015: 38%

- Overall, in terms of total number of movement, seven facilities (five in MN, one in WI, and one in IA) made up
  - 51% of all movements
  - 80% of all movements out of Control Areas during the outbreak.
Thanks to all who helped control HPAI in the United States.

EMRS slides courtesy of the EMRS Staff.