

# Big Red Biosecurity Program

## MODULE 3

### Biosecurity Principles and Practices



# Description of Module 3

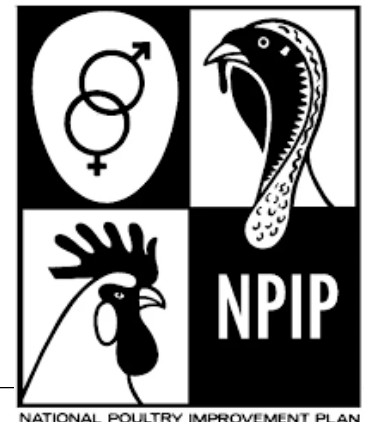
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- Module 3 reviews the first five of the 14 National Poultry Improvement Plan (NPIP) Biosecurity Principles and provides examples of management practices and strategies to comply with these principles.
- Resources:
  - View the Official OSA Training on the NPIP Program Standards Biosecurity Principles Audit at:  
<https://www.poultryimprovement.org/documents/BiosecurityPrinciplesAuditGuidelines.pdf>

# 14 Biosecurity Principles (NPIP)

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1. Biosecurity Responsibility
2. Training
3. Line of Separation
4. Perimeter Buffer Area
5. Personnel
6. Wild Birds, Rodents, Insects
7. Equipment & Vehicles
8. Mortality Disposal
9. Manure & Litter Management
10. Replacement Poultry
11. Water Supply
12. Feed & Replacement Litter
13. Reporting Morbidity & Mortality
- 14. Auditing**



# Biosecurity Principle 1—Biosecurity Responsibility

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The **Biosecurity Coordinator** is responsible for the development, implementation, maintenance and ongoing effectiveness of the biosecurity program. Depending on the type and size of poultry operation, the Biosecurity Coordinator's responsibility could be at the farm, production site, production complex, or company level. The Biosecurity Coordinator should be knowledgeable in the principles of biosecurity. The Biosecurity Coordinator, along with the personnel and caretakers on the farms and production sites are responsible for the implementation of the biosecurity program. The Biosecurity Coordinator should review the biosecurity program at least once during each calendar year and make revisions as necessary.

# Audit Guidelines—Biosecurity Responsibility

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**1.1. Is there a Biosecurity Coordinator?** If so, please provide their name.

**1.2. Is there a site-specific biosecurity plan?**

1.2.1. Site-specific biosecurity plans can be defined as either farm-specific or complex-wide specific. Supporting documentation that is requested should reflect farm-specific or complex-wide specific as appropriate.

**1.3. Is the Biosecurity Coordinator knowledgeable in the principles of biosecurity?**

1.3.1. The Biosecurity Coordinator must be able to describe and interpret their company's biosecurity program and how it meets the requirements of the NPIP biosecurity principles.

**1.4. Does the Biosecurity Coordinator review the biosecurity plan at least once during each calendar year and make revisions as necessary?**

1.4.1. The Biosecurity Coordinator must be able to provide recorded dates in which annual reviews were made and evidence of revisions to the biosecurity plan if any were necessary.

# Audit Guidelines—Biosecurity Responsibility, cont.

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## **1.5. Does the biosecurity plan indicate there will be a review by the Biosecurity Coordinator in periods of heightened risk of disease transmission?**

1.5.1. Documentation of compliance, including evidence of a discussion during periods of heightened risk can take any form (e.g., emails, letters, memos, phone logs, text messages, etc.). It is the responsibility of the Biosecurity Coordinator to clearly define and communicate the “period of heightened risk” in the biosecurity plan.

# Audit Guidelines—Biosecurity Responsibility

*Each site should have a coordinator and a plan*

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- If an entity has a coordinator and a plan, it can be audited.
- If an entity doesn't have either one, who's responsible for biosecurity? Whoever is responsible should be audited.
- Recommend working with big entities first—they should be responsible, especially if their supply depends on contractors or purchased product. They need to protect that supply.
- A memorandum of understanding (MOU) between state OSA's may be needed for multistate entities, similar to those used for hatchery and laboratory inspections.

# Key Points to Remember About Biosecurity Responsibility

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## **Documentation is key**

- If it is not written down (i.e., documented) then it didn't happen.
  - Traditional log books are acceptable (e.g., sign-in, sign-out logs).
  - Other forms such as electronic access, video, etc., are also acceptable.

## **Everyone on the premise should know the identity and role of the biosecurity coordinator**

## **Annual biosecurity programs/plans need to be reviewed**

- At least once annually
- When circumstances (e.g., threat level) change
- Documentation may include
  - Minutes of meetings/discussions
  - Notes and addendums to biosecurity program/plan (date and initial)
  - Email/text message correspondence
  - Memorandums/letters
  - Phone records



# Biosecurity Principle 2 – Training

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The biosecurity program should include training materials that cover both farm site-specific procedures as well as premises-wide and/or company-wide procedures as appropriate. All poultry owners and caretakers that regularly enter the perimeter buffer area (PBA) must complete this training. The training must be done at least once per calendar year and documented. New poultry caretakers should be trained at hire. Training records should be retained as stated in Title 9-CFR §145.12(b) and 146.11(e).

# Audit Guidelines—Training

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**2.1. Does the biosecurity program include training materials that cover both farm site-specific procedures as well as company and/or complex-wide site-specific procedures, as applicable?**

**2.2. Do all poultry owners and caretakers that regularly enter the perimeter buffer area (PBA) complete this training?**

2.2.1. Supporting documentation (e.g., training logs, training completion sheets, sign-in sheets, certificates of completion, etc.) should be provided.

**2.3. Has the training been completed at least once per calendar year and documented?**

2.3.1. Supporting documentation (e.g., training logs, training completion sheets, sign-in sheets, certificates of completion, etc.) should be provided.

**2.4. Are new poultry caretakers trained at hire?**

2.4.1. Supporting documentation (e.g., training logs, training completion sheets, sign-in sheets, certificates of completion, etc.) should be provided.

**2.5. Are training records retained as stated in Title 9-CFR §145.12(b) and 146.11(e)?**

2.5.1. Records must be maintained for at least three years.

# Key Points to Remember About Training

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## **Documentation is key**

- A written biosecurity program/plan (i.e. manual) specific for the site is recommended.
  - All personnel should be familiar with biosecurity manual and its contents.
  - All personnel should know where to find biosecurity manual and a copy kept on site.

## **All personnel that enter the site perimeter buffer area should have biosecurity training**

- Training should be immediate upon hire.
- Training should be completed annually.

## **Initial and annual training should be documented**

- Who was trained
- Who provided the training
- What was covered (should be site specific)
- Training logs, certificates of completion, etc.
- Training records must be retained for at least three years

# Biosecurity Principle 3 — Line of Separation (LOS)

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The Line of Separation (LOS) is a functional line separating the poultry house(s) and the poultry inside from exposure to potential disease sources. Generally, it is defined by the walls of the poultry building with practical deviations to account for entry points, structural aspects, or outside access areas. The site-specific biosecurity plan should describe or illustrate the boundaries of the LOS and clearly outline the procedures to be followed when caretakers, visitors, or suppliers cross it.

For poultry enclosed in outdoor pens, similar principles for the LOS can be applied for defining and controlling the LOS for each pen. In this circumstance, the walls of the outdoor pens would provide template for defining the LOS to be used when entering or exiting the pens.

For poultry with non-enclosed outdoor access, the LOS is recommended but not required. Further, in an emergency disease state where the transmissible disease risk is heightened, it is highly recommended to enclose all poultry and enforce a LOS.

# Audit Guidelines—Line of Separation

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**3.1. Does the site-specific biosecurity plan describe or illustrate the boundaries of the LOS? If not, please explain.**

3.1.1. Provide a diagram, map, and/or a detailed description of the LOS. The LOS is recommended but not required for poultry with unenclosed outdoor access, but is highly recommended during periods of heightened risk.

**3.2. Does the site-specific biosecurity plan clearly outline procedures to be followed when caretakers, visitors, or suppliers cross the LOS?**

3.2.1. Provide the procedures (e.g., written instructions, signage, training videos, etc.) to be followed by caretakers, visitors or suppliers to cross the LOS.

# Broiler / Turkey Farm LOS

- LOS is a functional line separating the poultry house(s) and the poultry inside from exposure to potential disease sources.
- Generally, it is defined by the walls of the poultry building

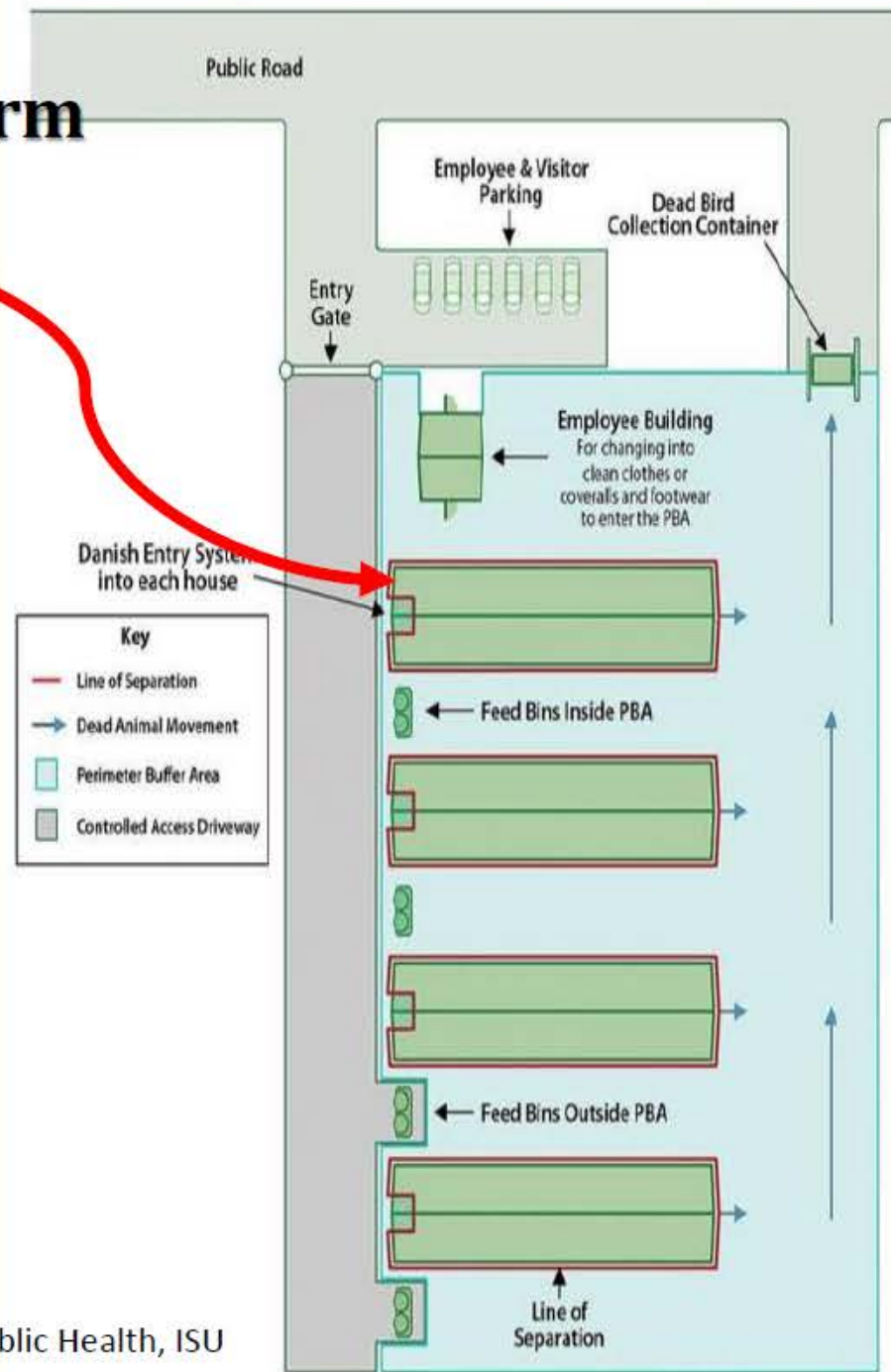
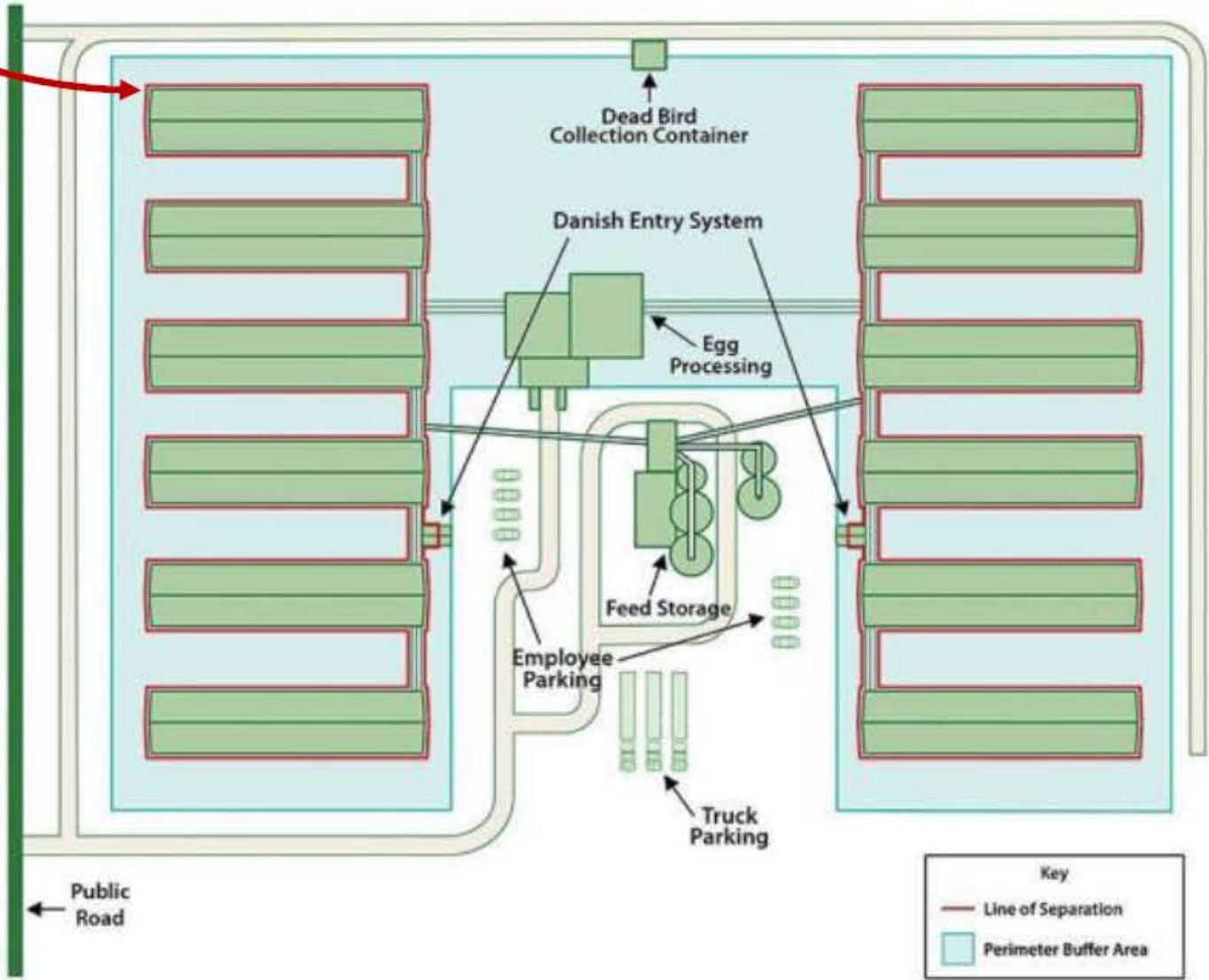


Diagram from Center for Food Security & Public Health, ISU

# LOS - In-Line Table-Egg Complex



# Line of Separation—Enclosed Outdoor Pens

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- For poultry enclosed in outdoor pens, similar principles for the LOS can be applied for defining and controlling the LOS for each pen.
- In this circumstance, the walls of the outdoor pens would provide template for defining the LOS to be used when entering or exiting the pens.



# Line of Separation—Non-enclosed Outdoor Access

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- For poultry with non-enclosed outdoor access, LOS is recommended, but not required.
- Further, in an emergency disease state where the transmissible disease risk is heightened, it is highly recommended to enclose all poultry and enforce a LOS.

# Audit Guidelines—Line of Separation

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- **3.1. Does the site-specific biosecurity plan describe or illustrate the boundaries of the LOS?**
  - Yes or No
    - If no, please explain.
      - Provide a diagram, map, and/or a detailed description of the LOS.
      - LOS is recommended, but not required for poultry with unenclosed outdoor access, but is highly recommended during periods of heightened risk.
- **3.2. Does the site-specific biosecurity plan clearly outline procedures to be followed when caretakers, visitors, or suppliers cross the LOS?**
  - Yes or No
    - Provide the procedures (e.g., written instructions, signage, training videos, etc.) to be followed by caretakers, visitors or suppliers to cross the LOS.

# Key Points to Remember About Line of Separation

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## Define/Identify the line of separation (LOS)

- A map or diagram is recommended
  - This should be included in the biosecurity manual
  - Where/how to obtain a map or diagram
    - Building / construction plans if available
    - Google Earth
    - Commercial photography/video producers
      - Aerial photographers (i.e., airplanes)
      - Drone technology

## Procedures for crossing LOS

- Included in site-specific training
- Include both entry and exit
- Include site personnel, suppliers and visitors
- Written in biosecurity manual
- Signage is very helpful

# Key Points to Remember About Line of Separation, cont.

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## Outdoor Poultry

- Pens – walls or side of pens can define LOS
- Nonenclosed poultry
  - LOS not required
  - In an emergency situation
    - Biosecurity plan should include way to enclose birds and enforce LOS

# Biosecurity Principle 4–Perimeter Buffer Area (PBA)

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The perimeter buffer area is a functional zone surrounding the poultry houses or poultry raising area that separates them from areas unrelated to poultry production on that site and/or adjoining properties. It is comprised of the poultry houses and poultry raising areas as well as nearby structures and high traffic areas involved in the daily function of the poultry farm. This would usually include but not be limited to such things as feed bins, manure sheds, composting areas, egg rooms, generators, pump rooms, etc. The site-specific biosecurity plan should describe or illustrate the boundaries of the PBA and clearly outline the procedures that caretakers, visitors, or suppliers must follow when entering and leaving the PBA.

# Audit Guidelines—Perimeter Buffer Area

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## **4.1. Does the site-specific biosecurity plan describe or illustrate the boundaries of the PBA?**

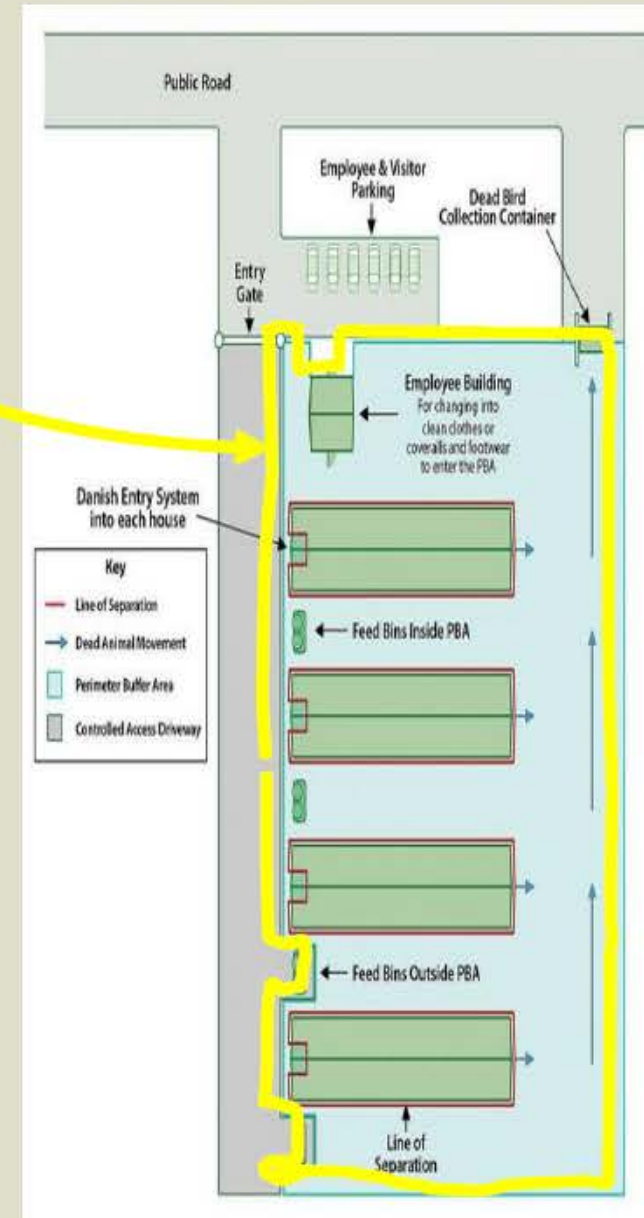
4.1.1. Provide a diagram, map, and/or a detailed description of the PBA.

## **4.2. Does the site-specific biosecurity plan clearly outline the procedures to be followed by caretakers, visitors, or suppliers when entering and leaving the PBA?**

4.2.1. Provide the procedures (e.g., written instructions, signage, training videos, etc.) to be followed by caretakers, visitors or suppliers when entering and leaving the PBA.

# Perimeter Buffer Area (PBA)

(PBA is outlined in yellow)



# Perimeter Buffer Area (PBA)

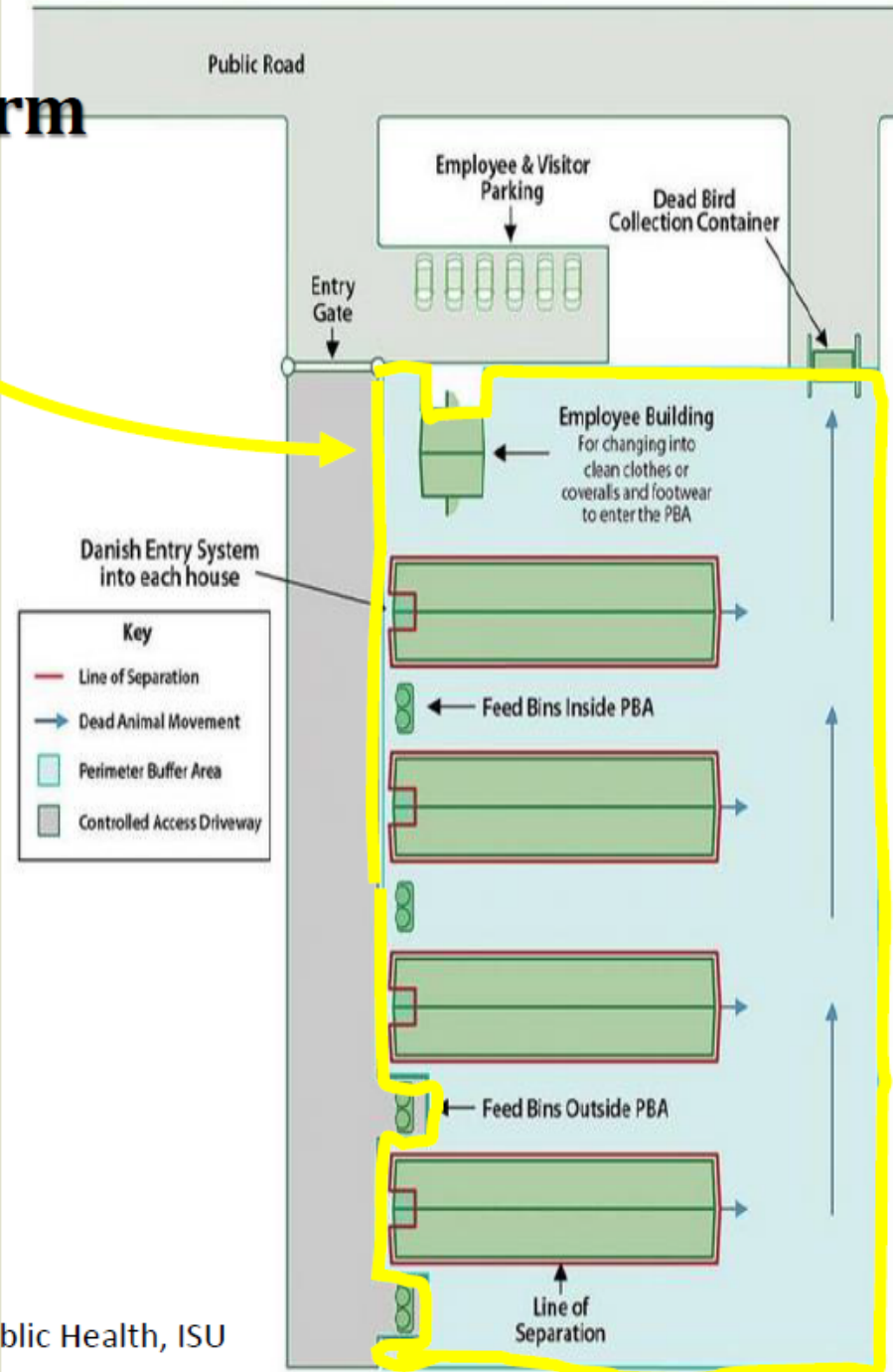
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- PBA is a functional zone surrounding the poultry houses or poultry raising area that separates them from areas unrelated to poultry production on that site and/or adjoining properties.
- It is comprised of the poultry houses and poultry raising areas as well as nearby structures and high traffic areas involved in the daily function of the poultry farm.
- This would usually include but not be limited to such things as feed bins, manure sheds, composting areas, egg rooms, generators, pump rooms, etc.
- The site-specific biosecurity plan should describe or illustrate the boundaries of the PBA and clearly outline the procedures that caretakers, visitors, or suppliers must follow when entering and leaving the PBA.



# Broiler / Turkey Farm PBA

- Functional zone surrounding the poultry houses or poultry raising area
- High traffic areas involved in the daily function of the poultry farm



# PBA - In-Line Table-Egg Complex

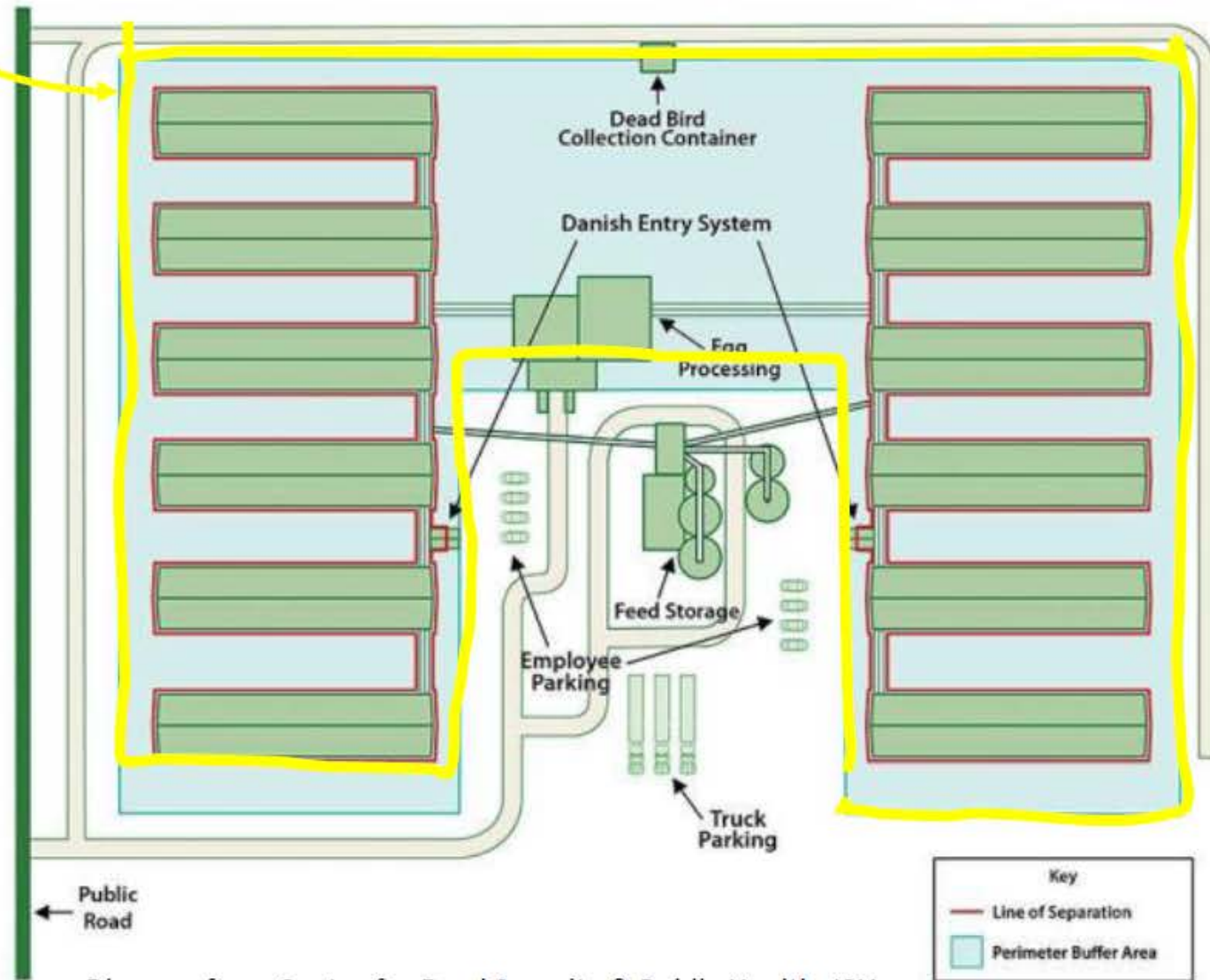


Diagram from Center for Food Security & Public Health, ISU

# Audit Guidelines—Perimeter Buffer Area

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- **4.1. Does the site-specific biosecurity plan describe or illustrate the boundaries of the PBA?**
  - Yes or No
  - Provide a diagram, map and/or a detailed description of the PBA
- **4.2. Does the site-specific biosecurity plan clearly outline the procedures to be followed by caretakers, visitors, or suppliers when entering and leaving the PBA?**
  - Yes or no
  - Provide the procedures (e.g., written instructions, signage, training videos, etc.) to be followed by caretakers, visitors or suppliers when entering and leaving the PBA.



# Key Points to Remember About Perimeter Buffer Area

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## **Define/Identify the perimeter buffer area (PBA)**

- A map or diagram is recommended
  - This should be included in the biosecurity manual
  - Where/how to obtain a map or diagram
    - Building / construction plans if available
    - Google Earth
    - Commercial photography/video producers
      - Aerial photographers (i.e., airplanes)
      - Drone technology

## **Procedures for entering and exiting the PBA**

- Included in site-specific training
- Include both entry and exit procedures
- Include site personnel, suppliers and visitors
- Written in biosecurity manual
- Signage is very helpful

# Biosecurity Principle 5 –Personnel

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The biosecurity program and/or the site-specific biosecurity plan should include provisions specifically addressing procedures and biosecurity PPE for site-dedicated personnel. The plan should likewise address the procedures and biosecurity PPE for non-farm personnel. The plan should also specify procedures which all personnel having had recent contact with other poultry or avian species should follow before re-entering the PBA.

# Audit Guidelines—Personnel

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**5.1. Does the biosecurity program and/or site-specific biosecurity plan include provisions specifically addressing procedures and biosecurity personal protective equipment (PPE) for site-dedicated personnel?**

5.1.1. PPE should be described in the biosecurity plan for each type of production facility.

**5.2. Does the biosecurity program and/or site-specific biosecurity plan address the procedures and biosecurity PPE for non-farm personnel?**

5.2.1. PPE should be described in the biosecurity plan for each type of production facility for non-farm personnel.

**5.3. Does the biosecurity program and/or site-specific biosecurity plan specify procedures which all personnel having had recent contact with other poultry or avian species should follow before re-entering the PBA?**

5.3.1. Supporting documentation (e.g., signed statements, acknowledgement forms, visitor log-in, signed policy documents, etc.) should be provided.

# Key Points to Remember About Personnel

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## **Define/Identify those points of entry and exit for all personnel**

- A map or diagram is recommended
  - This should be included in the biosecurity manual

## **Procedures for entering and exiting site**

- Personal Protective Equipment (PPE)
  - Should be specified for each entry and exit point
    - Type of PPE specified (e.g., disposable boots, washable boots, etc.)
    - Location where provided
      - Donning (putting on PPE)
      - Doffing (taking off PPE). It is important to properly dispose/recycle used PPE
- To include all site personnel, suppliers and visitors
- Written in biosecurity manual
- Signage is very helpful

# Key Points to Remember About Personnel

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## **Previous / recent contact with other poultry**

- Written procedure on the time requirements
- Written procedure on site personnel owning birds
- Supporting documentation (e.g. sign-in logs) for all site personnel, service personnel and visitors



**End of Module 3**