

**NPIP Program Standards:  
Minnesota Audit Guidelines for the Biosecurity Plan Audit Form**

**Standard E – Biosecurity Principles**

Based on the flock size as stated in the 9 CFR 53.10, the following minimum management practices and principles are designed to prevent the introduction and spread of infectious diseases.

**(1) Biosecurity responsibility**

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:**

- Audit Form 1a: Is the Biosecurity Coordinator name and contact information provided?
  - *Determine who the Biosecurity Coordinator (BC) is, their contact information should be supplied.*
- Audit Form 1b: Is there a farm site-specific biosecurity plan or does the company-wide biosecurity plan address all site-specific procedures?
  - *There may be two documents/plans that may need to be reviewed and included as part of the audit.*
  - *If the company-wide plan covers multiple sites, and there are differences between the sites, those differences must be described somewhere in the plan or there should be a site-specific plan for each site that describes what happens on that farm.*
- Audit Form 1c: Does the Biosecurity Coordinator review the biosecurity program at least once during each calendar year and make revisions as necessary?
  - *There must be documentation that the BC evaluated the written plan at least once per year and made revisions as necessary. The date reviewed should be documented either in the plan or on a separate log.*
  - *This does not include training employees which is covered under section 2.*

**(2) Training**

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 9CFR §145.12(b) and 146.11(e).

**Audit Guidelines:**

- Audit Form 2a: Do the biosecurity program training and resources cover both farm site-specific procedures and company-wide procedures, as applicable?
  - *Are the training sessions documented? Training sessions can focus on individual topics/procedures or it can be on the entire plan.*
  - *If training on individual topics or procedures, all trainings combined must encompass or represent the entire biosecurity program.*
  - *Animal welfare training is not a substitute for training on the biosecurity program.*

- Audit Form 2b: Do all poultry owners and caretakers that regularly enter the perimeter buffer area (PBA) complete this training?
  - *A list of current staff employed at the specific farm being audited should be provided. This should include the part-time and weekend help too.*
  - *Is there a corresponding training record for each of these individuals?*
- Audit Form 2c: Has the training been completed at least once per calendar year and documented?
  - *Documentation of annual training for owners and caretakers is required.*
- Audit Form 2d: Are new poultry caretakers trained at hire?
  - *It should be noted in the plan that new employees are trained at hire.*
  - *If any of the current staff are new within the past year, is their new employee training documented?*
- Audit Form 2e: Are training records retained for at least 3 years as stated in Title 9-CFR §145.12(b) and 146.11(e)?
  - *Training records going back 3 years should be provided.*

### **(3) Line of Separation (LOS)**

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:**

- Audit Form 3a: Does the biosecurity plan describe the LOS boundaries, entry points or other outside access areas with a diagram, map or detailed description?
  - *The LOS can be defined with a diagram, map and/or detailed description for all premises covered under the biosecurity plan.*
  - *Entry points and other access areas should be identified.*
- Audit Form 3b: Does the biosecurity plan clearly outline the procedures to be followed when caretakers, visitors, or suppliers cross the LOS?
  - *The plan should explain the procedures (e.g., written instructions, signage, training videos, etc.) that are followed by caretakers, visitors or suppliers when crossing the LOS.*
  - *Are there differences between someone who is there working every day vs. the person who occasionally shows up (visitors)? The procedures may be the same; if not, the plan should clearly state who the procedures apply to.*
  - *The PPE that is required should be listed or described (barn boots, coveralls, hairnets, gloves, etc.). If the PPE is different for visitors, that should also be explained.*
  - *If a Danish Entry System is listed or pictured, the steps to cross it should be clearly described. The biosecurity plan must describe the steps to cross the LOS. The plan can not only state “we have a Danish Entry System”.*

- [\*A Danish Entry System for crossing the LOS is not required.\*](#)
- [\*If a Danish Entry System is not used, the plan should clearly describe the steps to complete before entering the bird enclosure.\*](#)

#### **(4) Perimeter Buffer Area (PBA)**

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:**

- [Audit Form 4a: Does the biosecurity plan describe the PBA boundaries and entry points with a diagram, map or detailed description?](#)
  - [\*The PBA should be described or illustrated with a diagram, map or detailed description for all premises covered under the biosecurity plan.\*](#)
- [Audit Form 4b: Does the biosecurity plan clearly outline the procedures to be followed by caretakers, visitors, or suppliers when entering and leaving the PBA?](#)
  - [\*The plan should explain the procedures \(e.g., written instructions, signage, training videos, etc.\) that are followed by caretakers, visitors or suppliers when entering or leaving the PBA.\*](#)
  - [\*General traffic patterns should be addressed in some manner. It may be specifically described in the plan or marked on their maps. Or they may reference signage that traffic would follow on-site.\*](#)
  - [\*If a designated parking area is mentioned or discussed, this should be identified on the map or clearly described in the plan.\*](#)
  - [\*It should not be requirement that every time the PBA is crossed, every person or vehicle has to do something. Some places may only require specific actions like spraying of vehicles, wearing disposable or farm-site specific boots during high risk periods.\*](#)

#### **(5) Personnel**

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:**

- [Audit Form 5a. Does the biosecurity program and/or site-specific biosecurity plan address the procedures and biosecurity personal protective equipment \(PPE\) for site dedicated personnel?](#)
  - [\*The types of PPE and PPE procedures to be followed should be explained.\*](#)
  - [\*These may be stated in the LOS or PBA section\(s\).\*](#)
- [Audit Form 5b. Does the biosecurity program and/or site-specific biosecurity plan address the procedures and biosecurity PPE for non-farm personnel?](#)
  - [\*5b: See 5a. If there are different PPE requirements for site dedicated and non-farm personnel, these differences should be explained.\*](#)
  - [\*Again, this may be stated in the LOS or PBA section\(s\).\*](#)

- Audit Form 5c. Does the biosecurity program specify procedures to be followed for anyone entering the PBA after recent contact with other poultry or other avian species?
  - *Poultry includes domestic turkeys, chickens, upland gamebird and waterfowl. Other avian species would include pet or wild birds.*
  - *Potential sources of contact with poultry include: working on or visiting other poultry farms, contact with individuals who work at processing plant, visiting live bird markets, going to a County or State Fair, etc.*
  - *Potential sources of contact with other avian species include: owning a pet bird, bird hunting, etc.*
  - *Other potential wild bird contact (song birds, etc.) should be addressed in 6a and 6b.*

### **(6) Wild Birds, Rodents and Insects**

Poultry operations should have control measures to prevent contact with and protect poultry from wild birds, their feces and their feathers as appropriate to the production system. These procedures should be reviewed further during periods of heightened risks of disease transmission. Control programs for rodents, insects, and other animals should be in place and documented.

#### **Audit Guidelines:**

- Audit Form 6a: Are there control measures in the biosecurity program and/or site-specific biosecurity plan to prevent contact with and protect poultry from wild birds, their feces and their feathers as appropriate to the production system?
  - *Examples may include screens, scheduled removal of nests from the barn's exterior, removal of standing water with proper drainage away from buildings, proper building inspections and repair as necessary.*
- Audit Form 6b: Are the control measures referenced in 6a reviewed during periods of heightened risk of disease transmission?
  - *Examples may include communications with employees via text messages, emails, memos or staff meetings.*
  - *Additional disease/testing surveillance during high risk times may be used to evaluate control measures.*
  - *Examples may also include a review of the biosecurity plan including log documentation by the Biosecurity Coordinator.*
- Audit Form 6c. Is the period of heightened risk defined?
  - *Examples of heightened risk periods include seasonal migration of wild birds, if an infectious disease is located within the country/state/county/township, etc.*
- Audit Form 6d: Does the biosecurity program and/or site-specific biosecurity plan describe control programs for rodents, insects, and other animals?
  - *Explanation of these control programs should be provided and may include rodent bait stations, re-baiting frequency, bait station placement, fencing, mowing lawn; fly strips, biological control, chemical control, manure pile moisture levels, proper barn ventilation.*
- Audit Form 6e: Are maintenance and monitoring programs for wild birds and rodents, insects and other animals documented?
  - *Documentation of these activities is required. Examples can include log sheets, rodent control company contracts, calendars, maintenance records, etc.*
  - *A photo of a bait box or farm store receipt of purchasing bait without any supporting documentation on how it is used is not acceptable.*
  - *Template examples at UM Extension: <http://z.umn.edu/NPIP>*

## **(7) Equipment and Vehicles**

The biosecurity plan should include provisions for procedures for cleaning, disinfection, or restriction of sharing of equipment where applicable. Vehicle access and traffic patterns should be defined in the site-specific biosecurity plan.

### **Audit Guidelines:**

- **Audit Form 7a: Does the biosecurity program and/or site-specific biosecurity plan describe the procedures for cleaning and disinfecting equipment?**
  - *Equipment may include large farm equipment (trucks, tractors, tillers, loaders, trailers etc.) and small equipment (hand tools).*
  - *Minimally, they should state equipment will be C&D'ed before crossing the LOS. Preferably, equipment should also be C&D'ed before moving between farms.*
  - *Additional detail may be provided on specific steps, type of disinfectant used, contact time, etc., but this will not be expected.*
  - *Other forms of virus elimination such as down-time, heating, etc. may be used in place of actual cleaning and disinfection procedures.*
- **Audit Form 7b: Does the biosecurity program and/or site-specific biosecurity plan describe restrictions or procedures for sharing equipment?**
  - *The plan should state whether or not any sharing of equipment is allowed.*
  - *If sharing is allowed, the plan should explain what procedures are required before bringing the equipment on-site (into the PBA) or into the barn (across the LOS). Examples of these procedures may include: equipment is C&D'ed, be visually clean, or has a required down-time.*
- **Audit Form 7c: Are vehicle access points and traffic patterns defined?**
  - *The plan should at a minimum include a description or map of vehicle entry/access points.*
  - *The procedures or restrictions of vehicles and traffic may be covered under the PBA requirements.*
  - *If a designated parking location is discussed, that location should be described or marked on the map.*
  - *If I came to your farm for the first time would I know what to do, would there be any restrictions, what clothing should I wear, where should I park?*

## **(8) Mortality Disposal**

Mortality should be collected daily, stored and disposed in a manner that does not attract wild birds, rodents, insects, and other animals and minimizes the potential for cross-contamination from other facilities or between premises. It is recommended that dead bird disposal be onsite, if possible. Mortality disposal should be described in the site-specific biosecurity plan.

### **Audit Guidelines:**

- **Audit Form 8a: Is there a mortality disposal plan?**
  - *BAH approved carcass disposal methods include Composting, Rendering, Incineration, Burial, and Landfill, or another manner approved by the Board as being equally effective for the control of animal diseases.*
- **Audit Form 8b: Does the biosecurity program and/or site-specific plan describe the frequency of mortality removal and mortality storage with appropriate pest control measures around mortality storage and disposal areas?**
  - *Frequency of mortality removal from the barn should be at least daily.*

- *How carcasses are transported and stored before disposal should be explained.*
- *The plan should address if any pest control measures are needed and in place around the storage and/or disposal sites.*
- Audit Form 8c: Is mortality handled in a manner that minimizes cross-contamination and limits the spread of disease from other facilities or between premises?
  - *Explanation of visits to mortality disposal sites should be outlined. If the mortality disposal site is located outside the PBA or off-site, does the biosecurity program and/or site-specific plan describe how mortality is handled in a way that minimizes potential cross-contamination from other facilities or between premises?*

### **(9) Manure and Litter Management**

Manure and spent litter should be removed, stored and disposed of in a manner to prevent exposure of susceptible poultry to disease agents. Onsite litter and manure storage should limit attraction of wild birds, rodents, insects, and other animals.

#### **Audit Guidelines:**

- Audit Form 9a: Is manure and spent litter handled in a manner that minimizes exposure to susceptible poultry and limits the attraction of pests such as wild birds, rodents, insects and other animals who may spread disease between premises or other facilities?
  - *The plan should explain the usual frequency of removal and on-site storage if needed.*
  - *The plan should explain the transportation of manure and spent litter off-site.*

### **(10) Replacement Poultry**

Replacement poultry should be sourced from health-monitored flocks which are in compliance with NPIP guidelines. They should be transported in equipment and vehicles that are regularly cleaned, disinfected and inspected. Biosecurity protocols should be in place for equipment and personnel involved in the transport of replacement poultry.

#### **Audit Guidelines:**

- Audit Form 10a: Is poultry directly sourced from NPIP flocks or hatcheries?
  - *For meat-type birds and breeders, the source should be an NPIP hatchery. For commercial table-egg layers, the source will probably be a pullet grower; if the pullet grower itself is not NPIP, the original hatchery the chicks came from should be.*
  - *Some growers may have supporting documentation (e.g. VS 9-3 Form and/or NPIP hatchery receipt) that shows source operations are NPIP participants. If a commercial grower is getting chicks/poults from a MN hatchery, the birds may not come with a VS 9-3. Other acceptable documentation would be reference to the source hatchery on flock health or mortality records.*
  - *Because NPIP provisions and program standards include cleaning, disinfection, inspection standards, no additional requirements should be necessary for this question*
- Audit Form 10b: Does the biosecurity program and/or site-specific biosecurity plan describe on-site biosecurity protocols for vehicles, equipment and personnel involved in the movement of poultry?
  - *Protocols could involve on-site requirements for poultry delivery vehicles, delivery personnel, or equipment used.*
  - *This information may be found in other sections of the plan (equipment/vehicles, PBA, etc.).*

### **(11) Water Supplies**

It is recommended that drinking water or water used for evaporative cooling be sourced from a contained supply such as a well or municipal system. If drinking water comes from a surface water source, water treatment must be used to reduce the level of disease agents. If surfaces have been cleaned or flushed with surface water, subsequent disinfection should be employed to prevent disease transmission. If water treatment is not possible, a risk analysis should be performed to determine actions needed to mitigate risks.

#### **Audit Guidelines:**

- Audit Form 11a: Is drinking water or water used for evaporative cooling sourced from a contained supply such as a well or municipal system? If yes, go to Section 12. If water comes from a surface water source, answer 11b-d.
  - *The plan should specifically state from where the water is sourced; or may state that surface water is not allowed to be used.*
- Audit Form 11b: If water comes from a surface water source, is water treatment used to reduce the level of disease agents?
- Audit Form 11c: If surfaces have been cleaned or flushed with surface water, is subsequent disinfection employed to prevent disease transmission?
- Audit Form 11d: If water treatment is not possible, is a risk analysis performed to determine actions needed to mitigate risks?

#### **(12) Feed and Replacement Litter**

Feed, feed ingredients, bedding, and litter should be delivered, stored and maintained in a manner that limits exposure to and contamination by wild birds, rodents, insects, and other animals. Feed spills within the PBA (outside of the LOS) should be cleaned up and disposed in a timely fashion.

#### **Audit Guidelines:**

- Audit Form 12a: Are feed ingredients, feed and bedding/replacement litter (shavings) stored and maintained in a manner that limits exposure to and contamination by wild birds, rodents, insects and other animals?
  - *The plan should include a description how feed, feed ingredients, and replacement litter is stored, how litter is brought into the barn, and pest control used at storage site, if applicable.*
- Audit Form 12b: Does the biosecurity plan address cleanup and disposal of feed spills within the PBA (outside of the LOS)?
  - *The plan should state what action is taken when feed is spilled.*
  - *For example: Feed spills are cleaned up immediately.*

#### **(13) Reporting of Elevated Morbidity and Mortality**

Elevation in morbidity and/or mortality above expected levels, as defined by the biosecurity plan, should be reported as required in the site-specific biosecurity plan and appropriate actions should be taken to rule out reportable disease agents.

#### **Audit Guidelines:**

- Audit Form 13a: Does the biosecurity program track or monitor morbidity and mortality?
  - *The plan should explain or demonstrate how mortality is tracked. Any form of documentation is allowable including paper, spreadsheet, calendar, web-based monitoring systems, etc...*
- Audit Form 13b: Does the biosecurity program define what constitutes elevated morbidity and/or mortality?
  - *Examples include: %/day; # birds/1,000; above average "expected daily" mortality.*

- *The elevated morbidity and mortality threshold may be different for poults/chicks (1<sup>st</sup> 10-day mortality) vs. the rest of grow-out phase.*
- Audit Form 13c: Is there a plan to report and take appropriate action should unexplained, elevated morbidity and/or mortality occur?
  - *Provide the written procedure to report and take appropriate actions when disease agents or elevations in morbidity and/or mortality are suspected.*
  - *Examples may include one (or all) of the following: Who is contacted. Who can collect samples, if needed. Which laboratory is routinely used. Others?*
  - *The provided mortality records should be checked to see if there were increased mortality levels that met the plan threshold, and if so, what actions were taken. Examples of actions could include: a note on the mortality sheet of an act of nature; a text message to the company veterinarian; a test report for a negative AI test; a written log of an investigation.*

#### **(14) Auditing**

Auditing of the biosecurity principles is based on flock size as outlined in 9 CFR 53.10. Audits shall be conducted at least once every two years or a sufficient number of times during that period by the Official State Agency to ensure the participant is in compliance. Each audit shall require the biosecurity plan's training materials, documentation of implementation of the NPIP Biosecurity Principles, corrective actions taken, and the Biosecurity Coordinator's annual review to be audited for completeness and compliance with the NPIP Biosecurity Principles. An audit summary report containing satisfactory and unsatisfactory audits will be provided to the NPIP National Office by the OSAs.

Those participants who failed the initial document audit conducted by the NPIP OSA may elect to have a check audit performed by a team appointed by National NPIP Office including: an APHIS poultry subject matter expert, the OSA, and a licensed, accredited poultry veterinarian familiar with that type of operation. If these participants seek to be reinstated as being in compliance with the Biosecurity Principles by the NPIP OSA, they must demonstrate that corrective actions were taken following the audit by the team appointed by NPIP.