Guidelines for Landfilling Poultry Mortality in Response to an Outbreak of Avian Influenza

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Figure 1.
Trench excavated into municipal solid waste

SUMMARY OF THE METHOD

Poultry carcasses are transported to existing industrial solid waste or municipal solid waste landfills for disposal. Strict biosecurity procedures are followed during transportation and disposal.

ADVANTAGES

- Limited environmental impact.
- Leachate collection systems allow for the management of liquids generated from the breakdown of poultry carcasses.
- Quickly removes carcasses from the farm.

DISADVANTAGES

- Biosecurity concerns related to the transportation of carcasses from the farm to the landfill.
- Construction of trenches in the existing solid waste may generate blowing trash and odor.
- Significant cost.
- Landfills do not have to accept the carcasses. Public perception/response may effect a landfill's decision to accept carcasses.

PLANNING PRIOR TO AN OUTBREAK

- Obtain approval/contracts for the disposal of AI infected carcasses from one or more landfill.
- Identify sources of gasketed tailgate dump trailers, excavation equipment, portable lighting, stabilizing material, plastic sheeting, PPE etc.
- Establish and train Rapid Response Teams, with team leaders and alternates, within each poultry complex to oversee sanitation, depopulation, and disposal.
- Provide Rapid Response Teams with respirator fit testing, antivirals, flu shots, etc.
- Prepare worker protection/decontamination plans and purchase necessary equipment.
- Develop a communication plan between the farm and the landfill with a single point of contact to coordinate arrival times and landfill resources.

METHODOLOGY

Figure 2.
Truck dumping carcasses into excavated trench

Figure 3.
Carcasses successfully unloaded with plastic lining intact

Figure 4.
Cleaning and Disinfection

At the Farm

- Follow industry guidelines for humane euthanasia.
- Upon arrival at the farm, the truck driver should remain in the vehicle with the windows closed. The driver should remain in the truck until the load has been emptied at the landfill and the vehicle cleaned and disinfected. If the driver must leave the truck before that time, proper biosecurity procedures should be followed.
- Double line the trailer with polyethylene plastic sheeting (minimum 6-mil thickness) large enough to completely cover the carcasses and be sealed at the top. As an alternative to double lining, a single smaller sheet of plastic is placed in the bottom of the trailer to provide a slip surface for a single liner. This option is only acceptable when trailer gaskets have been inspected and determined to be sound.
- Secure plastic sheeting to the sides of the trailer using double-sided tape.
- Place at least 1 foot of absorbent material (litter, straw or sawdust) in the bottom of the trailer to absorb fluids.
- Carefully load carcasses into the trailer to avoid tearing the plastic liner—avoid overloading.
- Allow a minimum of 1 foot of headspace at the top of the trailer to allow for expansion of the material.
- Once the trailer has been filled, fold the plastic liner over the carcasses, seal with tape and spray with disinfectant.
- Cover the trailer to prevent tears in the plastic liner and blowing of the contents during highway transport.
- Clean all organic material from the truck and trailer and spray tires, wheel wells and undercarriage with disinfectant prior to allowing it to leave the farm.
- Contact staff at the landfill with the time the trucks left the farm and an estimated time of arrival at the landfill.
- Trucks travel to the landfill on a route approved by the State Veterinarian or other designated official.

At the Landfill

- Excavate a trench into the existing solid waste in an area away from the active working face. The trench is best located in intermediate cover scheduled to receive trash within several months. Preferably, access to the disposal area should be distinct from ongoing landfill operations.
- Establish a cleaning and disinfection station, supplemental lighting (if necessary) and initiate bird control operations.
- Once they arrive at the landfill, direct trucks to the disposal area to dump their loads into the excavated trench.
- Immediately cover the carcasses with at least 2 feet of excavated trash.
- Move the trucks to the cleaning and disinfection station for through sanitation.

ADDITIONAL CONTACT INFORMATION

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