



## Special Waste Acceptance Criteria for Landfill Disposal of Mortality in Response to Avian Influenza Outbreaks

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Bird flu, also known as avian influenza (AI), is an infectious disease caused by influenza A viruses that are found naturally among birds. Usually the infected wild birds only infect each other, but sometimes, domesticated birds such as chickens and turkeys can become infected. The USDA is the lead federal agency in responding to foreign animal diseases. The intent of this special waste authorization criteria (SWAC) is to provide safe and proper management for disposal of AI infected carcasses to eliminate in a timely, biosecure, aesthetically acceptable, and environmentally responsible manner, all animal carcasses that result from the response to an AI outbreak. Municipal landfills are properly sited and have the necessary environmental controls to manage the carcasses. Strict biosecurity procedures must be followed during transportation and disposal.

### **At the Farm:**

1. Develop a communication plan between the farm and the landfill with a single point of contact to coordinate arrival times and landfill resources.
2. 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.
3. Line the trailer/roll-off container with PVC or polyethylene plastic sheeting (minimum 20-mil thickness) large enough to completely cover the bottom of the trailer and drape up and over the sides and tail gate. Then place a Bio-Zip™ Sealable Liner or similar inside the trailer/roll-off container in accordance with package instructions.

**Note:** Bio-Zip™ Sealable Liners are bio-containment bags which are constructed of a thermally-bonded layering of polypropylene and featuring an industrial zippering system. The Bio-Zip Sealable Liners fit securely inside industrial roll-off containers, trailers or truck racks from 10 to 40 cubic yards in total volume. They are used to manage large volume biological and organic waste streams and the associated odor, leakage, disease and environmental contamination issues. **Disclaimer: The document is not endorsing the product of a specific vendor, but merely used the data on this product as an example.**

4. Load materials into the trailer/roll-off container carefully to avoid tearing the plastic liner. Each load should consist of 50% manure/compost and 50% carcasses to aid in ease of burial and minimize free liquids.
5. Allow a minimum of 1 foot of headspace at the top of the trailer to allow for expansion of the material.
6. When the container is properly filled, the bag should be zipped closed then sprayed with disinfectant.
7. Tarp the trailer/roll-off container to prevent damage during highway transport. The tarp must be capable of being cleaned and disinfected.
8. Trailers/roll-off containers containing the Bio-Zip Sealable Liners must remain on site for three or more days until tests verify that the virus is no longer present in the carcasses.
9. After loading on the farm is complete, vehicles - including tires, wheel wells and undercarriages - and equipment must be first cleaned to remove organic material and then thoroughly sprayed with a disinfectant approved by the USDA.
10. Contact staff at the landfill with the time the trucks left the farm and an estimated time of arrival at the landfill.
11. Trucks must travel to the landfill under permit by USDA on a route approved by the State Veterinarian, USDA or other designated official.
12. Any problems or deviations in these biosecurity procedures are to be reported immediately to the DNR, State Veterinarian and USDA.

**At the Landfill:**

1. Access to the disposal area must be segregated from ongoing landfill operations. Identify a disposal area that is strategically sited high in the landfill over existing buried waste, such that any liquids will have to pass through many feet of waste material before reaching the leachate collection system. Also, establish a cleaning and disinfection station and initiate wild bird control operations, and prevent scavenging animals from gaining access to the carcass waste. For landfill staff that will remain in enclosed equipment/machinery during disposal and are not included in decontamination operations, appropriate PPE would include safety glasses, hard hats and gloves. Any staff that will not remain in enclosed equipment/machinery shall be equipped with proper PPE equipment in accordance with CDC guidelines.
2. Excavate a trench (or multiple trenches) into the existing solid waste situated such that trucks can dump the waste into the trench. Mounded solid waste will be staged adjacent to the area designated for depositing bags.

3. Once arriving at the landfill, direct trucks to the disposal area to dump their loads onto the designated area. Multiple trucks may off-load in the same area, provided off-loading is performed immediately upon arrival at the landfill.
4. Gently tip the trailer to allow the Bio-Zip™ Sealable Liner or similar to slide out onto the landfill surface.
5. Immediately (within 30 minutes of deposition or sooner) cover the bags with at least 2 feet of excavated trash.
6. Once emptied, trucks will pull forward for cleaning and disinfection. All vehicles will be pressure washed with a detergent solution, then will have disinfectant applied that has been approved by the USDA. The entire vehicle (excluding the interior of the vehicle cab) will be cleaned and disinfected, including tires, wheel wells, undercarriages, and both the internal and external surfaces of truck/trailer beds, sidewalls, tailgates, and tarps.
7. All cleaning and disinfection spray and overspray will be collected for off-site disposal. No runoff from the cleaning and disinfection will occur to the landfill.
8. Any equipment or personal protective equipment used to manage the carcasses or related material that comes into direct contact with waste must be cleaned and disinfected or disposed of at the end of the day or as appropriate. No material used to manage carcasses shall leave the premises or the disposal area without cleaning and disinfection.

**Note: any deviations from this protocol require the approval of the USDA, IDALS, and DNR or their representative.**

**Additional Contact Information:**

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