

Zoonotic Aerosol Transmissible Diseases

Employees involved in operations dealing with animals, animal remains or other high risk environments are at an increased risk of exposures to diseases that are transmitted from animals to humans by aerosolized particles. These employees face new and emerging infectious disease threats as well as long standing or re-emerging threats. Measures can be taken to prevent disease in employees who work in these operations.

Zoonotic diseases are transmitted from animals to humans by viruses, bacteria, or other pathogens. Those diseases that are transmitted to humans by infectious aerosols, such as dust and respiratory secretions, are called Zoonotic Aerosol Transmissible Diseases (Zoonotic ATDs or ZATDs).

Affected Operations

Facilities or operations that may be affected by Zoonotic ATDs include:

- Farms producing animals or animal products, including the transport of animals and untreated animal products, byproducts, or wastes to or from farms
- Slaughterhouses and initial processing facilities for untreated animal products, byproducts, or wastes
- Veterinary, animal inspection and other animal health operations
- Importers of live animals and untreated animal products
- Zoos, animal parks, pet stores and other operations in which animals are displayed, transported, or housed
- Operations involving the management, capture, sampling, transportation or disposal of wild birds or other wildlife
- Laboratory operations involving samples, cultures, or other materials potentially containing zoonotic aerosol transmissible pathogens (zoonotic ATDs)
- Zoonotic ATD incident response operations

These operations fall into several categories. Each has a set of safety practices and precautions tailored to the type of work and level of potential exposure. These range from day-to-day operations involving work with and around animals, to handling, culling, transporting or disposing of infected animals, or the cleaning and disinfection of areas that contained the infected animals and their wastes.

Working With or Around Animals

For most operations involving work with and around animals (e.g., as dairies, feedlots, swine farms and other livestock facilities), the following safety practices and precautions should be established, implemented and maintained. The following should be integrated into your written safety program:

- Effective procedures to prevent employee exposures to Zoonotic ATDs
- Sanitation practices
- Procedures to investigate occupational injuries and illnesses (and biosecurity measures when applicable)
- Proper use and selection of personal protective equipment if necessary
- Training on basic animal disease recognition and veterinary referral (consideration should be given to the educational level, literacy and language of the employees)

Capture, Collection and Disposal of Wildlife

When a federal or state agency issues an alert regarding the presence of a Zoonotic ATD in a wild animal species, additional safety practices and procedures should be implemented.

Operations involving capture, collection and disposal of wildlife should establish, implement, and maintain effective written procedures. The procedures should be kept on-site and should include:

- Practices to minimize exposure, including work procedures that minimize the production of aerosols
- Use of personal protective equipment to minimize contact
- Cleaning and decontamination procedures including hand washing and other sanitation measures for use after contact with animals
- Medical surveillance as recommended by the Centers for Disease Control (CDC) or state or local public health departments
- Training

Quarantine or Infection Control Orders

Additional written zoonotic disease control procedures are required when the US Department of Agriculture (USDA) or a state agency issues one of the following:

- Quarantine order
- Movement restriction
- Other infection control order due to an increased risk of Zoonotic ATD infection

These employers are required to implement the following measures:

- Identification of restricted areas and posting warning signs at all entrances.
- Personal protective clothing and equipment
- Approved respiratory protection for entry into enclosed areas
- Sanitary facilities, change rooms, shower rooms and drinking water
- Medical surveillance, vaccinations, or prophylaxis for exposed employees, as recommended by the CDC, or state or local public health departments

- Appropriate training
- Procedures for recording the entry of persons into the restricted area.
- Maintenance of records

Employees required to enter those areas must be supervised by a person who is knowledgeable in the employer's zoonotic disease control procedures.

Cull, Transport, Eradication and Cleaning

Operations involving animals infected with Zoonotic ATDs in the following processes have additional measures employers must follow to protect employees:

- Handling
- Culling
- Transporting
- Killing
- Eradicating
- Disposing of animals infected with zoonotic ATDs
- Cleaning and disinfection of areas used, or previously used, to contain infected animals or their wastes

These employers should have written procedures that include extensive measures, safety controls, decontamination protocols, training, record keeping, medical surveillance, monitoring and other procedures specific to their operation.

Information on Aerosol Transmissible Diseases in general can be found in RMB#156 Aerosol Transmissible Diseases.

For additional information or assistance, contact your Zenith Safety and Health Consultant.