ANIMAL EYE CONSULTANTS OF IOWA

Animal Eye Consultants of Iowa	
Instituti mittee	
Policy #33	**"Animal Transportation"**
Approval Date: 11/27/2023 (Replacing Version 11/5/2020)	

A. Purpose

To describe the requirements for transportation of animals to and from AEC, within or between campus buildings and between campuses for research and teaching purposes. Transporting animals requires heightened attention to ensure both animal and human safety. In addition to welfare concerns there are a number of regulatory requirements when transporting animals across state lines or whenever transporting USDA covered species.

B. Background

The Guide for the Care and Use of Laboratory Animals states that animal transportation "should provide an appropriate level of animal biosecurity while minimizing zoonotic risks, protecting against environmental extremes, avoiding overcrowding, providing for the animals' physical, physiologic, or behavioral needs and comfort, and protecting the animals and personnel from physical trauma." This document will expand upon these principles for the investigators and laboratory and technical staff at Iowa University.

The AEC Institutional Animal Care and Use Committee (IACUC), Institutional Biosafety Committee (IBC), and Radiation Safety Office (RSO) are responsible for reviewing and approving transportation plans and standard operating procedures (SOP) for animals/projects that fall under their respective jurisdictions.

The AEC Veterinary Staff (AEC) is responsible for oversight of animal health & welfare during transit and for biosecurity. AEC veterinarians are available to provide veterinary inspections for international and interstate transport of both livestock and small animals. They can also provide brand inspections and serve as a resource for local, state and federal laws and regulations regarding animal transport.

C. Policy

1. The Principal Investigator and all personnel involved in transport are responsible for following the procedures described in the Animal Transportation Policy and complying with any additional local, state, or federal laws. Animal transport that requires crossing state lines typically requires a veterinary health certificate and other requirements depending on species (brand inspection, disease testing, etc.). Interstate transfers should be coordinate through AEC to ensure all requirements are met before animals are moved. All transportation of species covered by the Animal Welfare Act (AWA) shall follow the AWA Regulations (AWARs).

2. Documentation:
    a. An Animal Transport Inventory or equivalent form must be completed for all animal transportation on public roads not located on a AEC campus. Forms may be found here. An accompanying state Certificate of Veterinary Inspection or state Certificate of Permit (cattle haul slip) may be used as an equivalent to the Animal Transport Inventory for animals shipped with no infectious, chemical or radiation hazards.
    b. Any method of transportation of animals for research or teaching purposes conducted by protocol personnel must be described in an ANIMAL SUBJECTS APPROVAL FORM (ASAF) and approved by the AEC IACUC before the transport takes place. Medical transport is exempt and management-related transport may be addressed in a standard operating procedure.
    c. Transport of livestock, wildlife, USDA-covered species, hazardous materials, and interstate and international transfers typically require additional documentation, vaccination, testing and/or inspection before transport.
    d. Animals inoculated, infected or treated with project-specific hazardous infectious agent, chemical or radiation hazards require an agent/hazard-specific transportation SOP approved by the AEC IACUC, AEC Institutional Biosafety Committee and/or AEC Radiation Safety Office.
    e. Transfers of specific-pathogen-free rodents or aquatic species must have prior approval from the AEC Veterinary Staff and the facility manager to maintain proper biosecurity.

f. Any exception to this Policy must be described and justified in the ASAF, reviewed and approved by the IACUC, and must still comply with local, state and federal laws and regulations or have a regulatory exemption.
g. Please refer to the Animal Welfare Act regulations for additional requirements for USDA-covered species.
h. Emergency exceptions may by granted by the IACUC chair or Attending Veterinarian on a case-by-case basis and will be reported to the committee at the next convened meeting.

3. General Procedures:
    a. All methods of transporting animals must provide for the health and welfare of animals.
    b. Animals are to be transported while mentally alert and fully mobile but if they need be sedated or anesthetized, then regular monitoring during transportation should be provided.
    c. Never use plastic bags to transport live animals other than aquatic species.
    d. Transportation must be done in a direct and timely manner, avoiding public and/or congested areas as much as possible, and should be planned so that animals arrive during regular business hours or special arrangements are made for after-hours receiving.
    e. Under no circumstances should research or teaching animals be transported by public transportation such as campus or city buses or shuttles.

4. Small Animal Transportation (rodents, rabbits, dogs, cats, and other small mammals):
    a. Cages/crates/kennels must be sanitized between animals.
    b. Primary enclosures must be safe, secure, escape proof, easy to sanitize or dispose of, properly labeled, and must allow for proper ventilation.
    c. The enclosures must be carefully handled to prevent them from falling and to minimize any physical trauma or distress to the animals. Do not overcrowd transport enclosures.
    d. If transporting rodents/rabbits through public corridors or between facilities:
        i. Use a cart when handling more than two cages/person & avoid stacking, except where shipping containers are designed for stacking (maximum up to two 2 cages).
        ii. There must be a means to prevent unintended opening such as a latch or locking mechanism, tape, rubber band or a box-within-a-box.

iii. Use covered or opaque cages/carriers. Use a clean, breathable drape or another suitable material; alternatively, cages/carriers could be placed in a secondary opaque, but vented container (e.g., plastic tub with air holes).
iv. Rodents should be transported in filter-topped enclosures to reduce the transfer of allergens.
v. Never leave animals unattended outside of an animal housing or use area

e. For longer trips:
i. For rodents and other small mammals (excluding dogs and cats), provide food and a source of water (such as a gel pack) for trips longer than two hours. It is recommended to include extra food and water beyond the regular amount for the duration of the trip in the event of delays occurring during transportation.
ii. For dogs and cats, water should be offered at least every 6 hours of transit.
iii. Independently of species, animals should be observed as often as possible but not less than once every four hours during transport to ensure they have sufficient air for normal breathing, and that the environment temperature is within the recommended range. These observations should be documented.

5. Aquatic Species Transportation:
a. The transportation container should be well insulated.
b. In some cases, heat or refrigeration may be required to ensure temperature is maintained within the appropriate range for the species.
c. All containers should have opaque lids to minimize slop and loss of fishes, and to reduce light levels within.
d. On arrival, particular care should be taken to check water temperature to ensure that fishes are not exposed to temperature shock during transfer.
e. For longer duration trips, it is recommended to check the behavior of the fishes and the transport tank temperature and oxygen levels at regular intervals during transport to ensure there are no problems.
f. It is recommended to have auxiliary aeration or oxygenation systems installed to ensure oxygen saturation and serve as backup should a failure occur with the water circulation system. For information on compressed gas regulation, please visit the AEC EHS website .
g. Small quantities of fishes can be transported in plastic or polyethylene bags under an atmosphere of pure oxygen. These bags should be transported in a cooler to maintain water temperature as close as possible to the fishes' initial/starting temperature. Small bags of fishes are likely to heat up quickly, and fishes could become thermally stressed.

h. All tanks and pipes in the transportation systems should be disinfected between shipments, followed by thorough soaking and rinsing to remove all traces of potentially lethal disinfectants.
i. For additional information, please visit the AAALAC website *(Guidelines on: the care and use of fish in research, teaching and testing. Canadian Council on Animal Care, 2005, pages 39-40.)*

6. Vehicular Transportation (Including transport between or across state boundaries):
   a. The optimal transport vehicle is a AEC animal facility-owned or AEC vehicle or trailer designated for animal transport. If AEC motor pool or other AEC common-use vehicles are utilized than the vehicle administrator must be informed of the intended use for animal transport and procedures must be followed to minimize contamination of the vehicle. The use of personal vehicles is strongly discouraged. AEC will not be responsible for any damage that may occur during transportation in private vehicles.
   b. All AEC-owned vehicles and trailers used for the regular transportation of animals at AEC must be inspected and approved by the IACUC prior to use. The IACUC will review regularly used animal transport equipment at a minimum of twice per year. Vehicles and trailers must be maintained in good repair and have regular safety inspections. Surfaces where the animals are held must be made of material that is easy to sanitize. The animal holding compartment must be, clean, decontaminated, and clutter-free as well as free of any sharp edges, protrusions, entrapment hazards, slippery surfaces, or other areas that could cause injuries or animal welfare concerns.
   c. Clean and disinfect cargo areas of trucks or trailers used in the transportation of animals as needed to prevent contamination of future animal transports. Sanitation of the vehicle includes the interior floor and lower walls or any surface that could be in contact with the animals or equipment using an appropriate disinfectant.
   d. Avoid animal transport when temperatures fall below 45°F (7.2°C) or above 85°F (29.4°C). If movement must happen, special precautions (in addition to the climate-controlled vehicles) are required (e.g., extra insulation in cold weather; larger boxes/enclosures with fewer animals in hot weather). A climate-controlled vehicle may require pre-heating or pre-cooling to achieve proper temperatures. Transport of temperature-acclimated livestock or large wildlife species may be exempted as appropriate.
   e. For non-livestock animals, the animal holding compartment should be temperature-controlled. Animals should be covered to protect from direct

sunlight. Any exceptions must be described in detail in the ASAF and approved by the IACUC.

a. Ungulates: may be transported in a suitable trailer, truck or van with adequate ventilation. It is recommended to have a minimum of two people during loading and unloading.
f. Personnel should remain with or in the vehicle when animals are on board and drivers should take the most direct route of transit.
g. Do not smoke or make loud noises in the vehicle. Music volume is to be kept at a low volume.

D. Emergencies During Transport

1. To avoid delays, the vehicle should be in good working order and transport should be undertaken during travel-favorable weather conditions.
2. At minimum, the driver must carry an Animal Transport Inventory or equivalent state or international Certificate of Veterinary Inspection, wildlife permit or state Certificate of Permit. If applicable, the driver should also have any hazard-specific SOPs, relevant USDA forms, certificate of veterinary inspection or other documents as required by local, state and federal laws.
3. The driver should carry a cellular phone and emergency contact numbers to call for assistance in the event of a delay, accident or disabled vehicle. Veterinary staff can be reached at all hours using the AEC emergency phone at 1-319-640-4578.
4. In cold or warm weather situations, transport containers may have to be moved out of a disabled vehicle into another vehicle, building or sheltered area to avoid extreme temperatures while waiting for assistance.
5. Any accidents, escapes or other events that impact animal health or well-being during transport must be promptly reported to AEC and the IACUC using the Adverse Event form found here.

E. Transport of animals inoculated with infectious agents or treated with chemical or radiation hazards

1. Animals inoculated, infected or treated with project-specific hazardous infectious agents, chemical or radiation hazards require an agent/hazard-specific transportation SOP approved by the AEC IACUC, AEC Institutional Biosafety

Committee and/or AEC Radiation Safety Office. Proper labelling of transport boxes/enclosures indicating biohazards and/or radiation may be required.

2. The agent/hazard-specific transportation SOP approval must be obtained prior to transport and must comply with local, federal, and state regulations for the transportation of hazardous materials.
3. If transporting wild rodents that are suspected or known to be infected with Hantavirus, please refer the zoonosis section on the IACUC website for specific safety precautions.
4. Appendix 1: Animal Transportation Form

F. References

1. *Guide for the Care and Use of Laboratory Animals*, 8th Edition. 2011. https://grants.nih.gov/grants/olaw/Guide-for-the-Care-and-use-of-laboratory-animals.pdf
2. *NIH Guidelines for Rodent Transport.* https://oacu.oir.nih.gov/sites/default/files/uploads/arac-guidelines/b1a_rodent_transport.pdf
3. *NIH Guidelines for Non-Rodent Transport.* https://oacu.oir.nih.gov/sites/default/files/uploads/arac-guidelines/b1b_nonrodent_transport.pdf
4. *The National Academies of Sciences - Transportation of Laboratory Animals: Proceedings of a Workshop (2017)* (http://nap.edu/21734).
5. *AAALAC* https://www.aaalac.org/accreditation-program/faqs/#Transport
6. *The University of Iowa – Transportation of Animals (Policy).* https://animal.research.uiowa.edu/transportation-policy
7. *The University of California, Davis – Transporting Rodents/Rabbits and Cats to and from Research Laboratories. https://research.ucdavis.edu/wp-content/uploads/IACUC-13.pdf*

ANIMAL EYE CONSULTANTS OF IOWA

Animal Eye Consultants of Iowa

INSTITUTIO COMMITTEE

Animal Transport Form

If this is an interstate or international transport, a certificate of veterinary inspection is likely required. Contact AEC.

To be used under Policy #33. Complete this form for AEC animal transportation on public roads between campuses or other destinations.

AEC IACUC Policy #33 Animal Transportation

transportation documents must accompany the shipment. Return a copy to AEC office by email to animaleyeiowa@gmail.com or Fax to 1-509-335-

Please write legibly

Personnel Information

Driver name: Cell phone #:

Investigator name: AEC IACUC ASAF #:

Animal Information

Species of animal to be transported (list all):

Number of Animals in Shipment:

Transfers of specific-pathogen-free rodents must have prior approval from the AEC Veterinary Staff and the

Transport of USDA-covered species requires inspection of the vehicle. Contact AEC or the AEC IACUC to arrange

Hazard Information: IF ANY ITEMS ARE CHECKED, LIST THE HAZARD AND CARRY APPROVED HAZARD TRANSPORT SOP

Animals inoculated, infected or treated with project-specific hazardous infectious agent, chemical or radiation hazards require an agent/hazard-specific transportation SOP approved by the AEC IACUC, AEC Institutional Biosafety Committee and/or AEC Radiation Safety Office. SOP approval must be obtained prior to transport and must comply with local, federal and state regulations for the transportation of hazardous materials.

- ☐ The animals have **NO** known infectious agent, chemical or radiation hazard
- ☐ The animals have been treated with a chemical or pharmacological hazard
- ☐ The animals have been infected with a hazardous microorganism (bacteria, virus, or parasite)
- ☐ The animals have been treated with a radioactive substance
- ☐ Other hazard(s), please explain_____

Shipping From:

Campus/Institution:

Vivarium/Building:

Principal Investigator/Laboratory Contact:

Phone number: Date of shipment:

Shipping to:

Campus/Institution:

Vivarium/Building:

Principal Investigator/Laboratory Contact:

Phone Number:

EMERGENCY CONTACT: OFFICE OF THE CAMPUS VETERINARIAN 1-319-640-4578 OR 1-319-826-6217