

Guidelines for NIH Non-Rodent Transportation

Overview: Transportation of laboratory animals is necessary for research and must conform to high standards to ensure animal health and welfare during transit. (1, 2) This guideline applies to vertebrate animals within an NIH Institute program and includes mammals, reptiles, and aquatic species (fish/amphibians) (excluding rodents; see [Guideline for NIH Rodent Transportation](#)).

General:

- 1) The Institute Center (IC) Animal Program Director (APD), or their designee, is responsible for the oversight of non-rodent transportation within their program and assurance that all transportation is handled in accordance with all applicable laws, policies, and guidelines. (1, 2) This includes obtaining transportation approval before animals are moved and requesting confirmation of their arrival.
 - a) The IC APD or their designee serves as the primary source of information relating to the approval of transport enclosures, means of transport, receipt, and shipment of animals within their IC and can grant exceptions to these guidelines when it is considered in the best interest of the animal(s).
 - b) The IC Animal Care and Use Committee (ACUC), with the Office of Animal Care and Use (OACU) as a resource, will resolve conflicts regarding animal transportation.
- 2) All methods of transporting NIH animals must provide for the health and welfare of the animals.
- 3) Transportation of animals shall be done in a direct and timely manner, that avoids public areas and areas primarily used by NIH employees and patients.
- 4) Animals shall not be transported with any other animal, substance, or device that may be expected to be injurious to their health or welfare.
- 5) Care shall be exercised in handling enclosures used to transport live animals. They shall not be tossed, dropped, or stacked in a manner that may reasonably be expected to result in their falling. During transport, enclosures should not be carried in any way that may cause physical trauma or stress to the animal(s).
- 6) Temperature extremes are to be avoided when animals are transported, and special precautions or postponements are required when ambient temperatures are below 45 degrees Fahrenheit or above 85 degrees Fahrenheit and may jeopardize the welfare of the animals. Veterinarian certification of acclimation to lower temperatures is required for shipment outside minimum temperature range and should specify the minimal temperature to which animals are acclimated. (1, 2)
- 7) The Animal Welfare Act Regulations (AWARs) shall be followed in transporting regulated laboratory animals in intra- or interstate commerce. (3)
- 8) Transportation of animals must comply with applicable state and local laws and regulations.
- 9) It is essential that primary enclosures be used in the transportation of animals. Enclosures must be escape-proof, properly labeled, provide adequate ventilation, sanitized, or disposed of after use, and prevent the spread of pathogenic microorganisms, chemicals, or radioactive materials where indicated. The enclosures should be opaque or shielded in such a way as to be non-stressful to the animals. Additional secondary containment is necessary for some species.
- 10) Cargo areas of vehicles used in the transportation of animals shall be temperature-controlled, clean, and decontaminated as necessary to prevent contamination of future animal deliveries.
- 11) Appropriate labeling for infectious substances, chemicals, and/or radiation may also be required. Infectious agents are defined as substances which are known or are reasonably expected to contain pathogens. (4)

- 12) The Division of Veterinary Resources (DVR) provides a central [Animal Transportation Service](#) for NIH with environmentally controlled trucks and trained drivers. Individual ICs may also have their own approved transport vehicles and each IC's ACUCs are required to inspect their vehicle during the semi-annual review. Live animals should not be transported in personal vehicles or on the NIH campus shuttles.
 - a) DVR is available as needed for the delivery of all species of animals on NIH campuses and locally. Call or submit a request to DVR to determine the shipment locality. DVR is required for transporting all local non-rodent species off the NIH Bethesda campus unless another acceptable method is justified and approved by the IC Veterinarian(s). Longer processing times may be required to meet special permit stipulations.
 - b) It is DVR policy that animals are mentally alert and fully mobile during transportation. If animals need to be sedated or anesthetized during transportation, they will require continuous monitoring during transportation in DVR vehicles.
- 13) ICs may develop specific procedures for the transportation, receipt, and shipment of animals if they have requirements that differ from these guidelines. The responsibility for development and approval of these specific IC procedures lies with the IC Scientific Director (SD), following recommendations of the IC ACUC and APD. A dated copy of the IC specific guidelines shall be forwarded to the NIH OACU.
- 14) It is recommended that standard operating procedures (SOPs) be developed and approved for the transportation of Nonhuman Primates (NHPs) and other non-rodent species. SOPs should address the transport enclosure, means of transport, receipt, and shipment of animals, as well as the monitoring of animals during transport. Appropriate records must be maintained for the sanitation and decontamination of transport vehicles.
- 15) Transportation of live animals containing or contaminated with an infectious substance on public roads may require a Department of Transportation (DOT) special permit that states special packaging conditions (5) or transport by a federal, full-time equivalent employee operating a government transport vehicle. (6) Consult with Division of Safety Quarantine Permit Service Office for further information.

Movement of Animals within an NIH Building:

- 1) Building personnel should be protected against animal-borne hazards which may include allergens of animal origin, infectious substances, chemicals, radioactive materials, and escaped animals.
- 2) Movement of animals inside the animal facility is usually accomplished with the use of a transport cage for non-rodent species. The appropriate conveyance should be verified with the Facility Manager or Facility Veterinarian and follow the animal facility's SOP.
- 3) Movement of non-aquatic animals from the animal facility to a laboratory within the same building usually requires the use of a primary container as described above in General section, bullet 9. The appropriate conveyance should be verified with the Facility Manager or Facility Veterinarian.
- 4) For movement of animals within the NIH Clinical Center (Building 10) and the Clinical Research Center (CRC) see [Research Animal Transport for the NIH Clinical Center](#). This policy addresses the correct method of movement within the Clinical Center, including the use of the appropriate elevators.

Delivery of Animals to Locations Outside NIH:

- 1) Health Certificate – For non-rodent animals being shipped from Maryland to another state or country, a Maryland Department of Agriculture Animal Health Program, Interstate Certificate

of Veterinary Inspection (ICVI) is required as USDA form 7001 is no longer accepted. The appropriate form (i.e. interstate vs. international, Health Certificate vs. CVI, species appropriate, Convention on International Trade in Endangered Species of Wild Fauna and Flora [CITES]/United States Fish and Wildlife Service [USFWS] permits, etc.) must be signed by a USDA accredited veterinarian within 30 days of shipment and accompany the animals.

- 2) Other – Transfers of NHP to/from NIH are coordinated by a designated person at each IC. Any other arrangements that are made for transporting animals outside of NIH must meet requirements of the AWARs (3) and be approved by the IC Veterinarian(s). An [Animal Transfer Agreement](#) or [Material Transfer Agreement for the Transfer of Organisms](#) may be needed when transferring government-owned animals to a non-government research facility. Contact the [IC Technology Development Coordinator](#) for guidance.
- 3) The receiving state or country may have its own requirements for importing animals, especially endangered (e.g. CITES), invasive, or exotic animals or animals containing infectious agents or other hazards. Check with the destination state or country to confirm their requirements, forms, and testing required for entry and beware of the lead time required for tests and permits. See: [USDA Live Animal Export website](#) or [Interstate Livestock website](#) for more information.

Transporting Live or Dead Animals Containing Radioactive Isotopes:

- 1) Investigators planning to transport live animals containing radioactive materials from one location to another must contact the [Radiation Safety Operations Branch](#) (301-496-5774) for specific guidance, unless the two locations are within the same building.
- 2) A radiation safety protocol is required for the use of any amount of radioactive material in large animals (dogs, sheep, NHP, etc.) and for the use of large amounts of radioactive material in small animals. Special transportation requirements must be addressed in such protocols.
- 3) Warning labels are required on enclosures used to transport live or dead animals that contain radioactive materials. Minimum label requirements include a label stating, “Caution—Radioactive Material”, and identification of the specific hazard.

Transporting Animals Treated with Hazardous Agents:

- 1) NIH Policy Manual [3040-2 Animal Care and Use in the Intramural Program](#) requires that an IC ACUC review animal study proposals for research with animals, including work with biological or chemical hazards. The transportation of animals that are to be dosed at one location and moved to another requires proper containment to minimize occupational exposure to people involved with the move, and to minimize environmental contamination.
- 2) Laboratory animals that have been exposed to human pathogens or toxic/carcinogenic substances and are actively shedding hazardous material must be transported in closed systems. The IC Veterinarian, in consultation with the [Occupational Safety and Health Specialist](#), should evaluate on a case-by-case basis transportation needs for larger animals so exposed. Moving animals that are actively shedding hazardous materials is not advisable and should be avoided to the fullest extent possible.
- 3) Warning labels are required on enclosures used to transport live or dead animals that have been exposed to chemical or biological hazards. The specific hazard must be identified.
- 4) Carcasses of contaminated animals must be handled according to the guidelines of the [Division of Environmental Protection, Office of Research Facilities](#) (301-496-3537) for handling as Medical Pathological Waste or for disposal as chemical waste. Contaminated animal carcasses that are being transported for pathological examination need to be placed in double plastic bags (primary barrier) and then into a cardboard box (secondary barrier) and must be

accompanied by a detailed history of the type and amount of hazardous material. (6-8)

Transport of Aquatic Species Between Buildings on the NIH Bethesda Campus or to Locations Outside NIH:

- 1) Both primary and secondary containment are required when primary housing contains aquarium water.
- 2) Secondary containment must be impermeable in the event that the primary transport leaks.
- 3) The APD, Facility Veterinarian, or designee must be notified for movement of aquatic species between holding facilities on campus. Movement of the animals from a holding facility to a laboratory space should be described in the ASP and approved by the ACUC.
- 4) Imports/Exports between ICs or to locations outside NIH does require APD approval and may need to follow the above guidelines for Delivery of Animals to Locations Outside NIH described above.
- 5) If the sealed, fully enclosed transport container can be carried by hand and would not result in any possible animal/human exposure (even visually) if dropped, it may be carried through public areas as described in the [Clinical Center Policy on Research Animal Transport](#).

References:

1. Swallow J, Anderson D, Buckwell AC, Harris T, Hawkins P, Kirkwood J, et al. Guidance on the transport of laboratory animals. Lab Anim. 2005;39(1):1-39. 10.1258/0023677052886493
2. National Research Council (US) Committee on Guidelines for the Humane Transportation of Laboratory Animals. Guidelines for the Humane Transportation of Research Animals. Washington DC: The National Academies Press; 2006.
3. United States Department of Agriculture. USDA Blue Book: Animal Welfare Act and Animal Welfare Regulations USDA2022 [Available from: <https://www.aphis.usda.gov/media/document/17164/file>.
4. U.S. Department of Transportation. 49 CFR 173.199 General Requirements for Shipments and Packagings, Class 6, Division 6.2, Category B infectious substances: Office of the Federal Register; 2026 [Available from: <https://www.ecfr.gov/current/title-49/subtitle-B/chapter-I/subchapter-C/part-173/subpart-E/section-173.199>.
5. National Research Council. Guide for the Care and Use of Laboratory Animals: Eighth Edition Washington, DC: The National Academies Press; 2011 [246]. Available from: <https://nap.nationalacademies.org/catalog/12910/guide-for-the-care-and-use-of-laboratory-animals-eighth>.
6. U.S. Department of Transportation. 49 CFR 171.1(d)(5) – Functions not subject to the requirements of the HMR (Hazardous Materials Regulations): Office of the Federal Register; 2026 [Available from: <https://www.ecfr.gov/current/title-49/subtitle-B/chapter-I/subchapter-C/part-171/subpart-A/section-171.1>.
7. NIH Department of Safety. 3035 - Working Safely with Potentially Hazardous Biological Materials: NIH Policy Manual; 2017 [Available from: <https://policymanual.nih.gov/3035>.
8. NIH Department of Safety. 1340-1 - Permits for the Import, Transfer, or Export of Biological Materials: NIH Policy Manual; 2023 [Available from: <https://policymanual.nih.gov/1340-1>.

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