Permits for Shipping Biological Materials

Why might I need a permit?

Biological materials such as cells, tissues, plants, pathogens, and pests that are imported from outside the United States can pose risks to researchers, the local community, animals, native plants, the economy, and the environment. Many of these risks are present when transporting such materials domestically within the U.S. As a result, federal and state government agencies may require permits for the import and transport of biological materials.

I am planning to work with biological materials from outside of the U.S. or Illinois, what should I do?

- Start by contacting Research Safety (researchsafety@northwestern.edu) and the Institutional Biosafety Committee (ibc@northwestern.edu).
  - Research Safety can help identify if additional safety measures are necessary to work with the biological material.
  - Working with most all biological materials requires review and approval by the Intuitional Biosafety Committee (IBC) before work begins. IBC staff can help update the lab's biological registration in eIBC to include the new material and planned work.
  - Research Safety and/or IBC staff may be able to assist in obtaining an import permit.
- Work with the appropriate federal and/or state agencies to obtain necessary permits. A permit from more than one agency for the same material may be necessary.
- Provide the import permit(s) to the sender *before* the material is shipped. An import permit is necessary to sure the material clears U.S. Customs. A shipment may be rejected without the appropriate permits.
- When sending temperature sensitive material, it is recommended that the sender makes arrangements with the commercial carrier to provide additional dry ice/cold packs, as needed.

Which agency oversees my permitted biological materials? [1,2]

Regulated Materials	Program	Agency
• Infectious agents affecting humans • Some animal material containing human pathogens	Import Permit Program (IPP)	Centers for Disease Control and Prevention (CDC)
• Animals and animal products • Animal pathogens and zoonotic agents • Animal vectors of disease	Veterinary Services (VS)	U.S. Department of Agriculture - Animal and Plant Health Inspection Services (USDA-APHIS)
• Soil • Plants and plant products • Plant pests (insects, fungi, viruses, etc.)	Plant Protection and Quarantine (PPQ)	USDA-APHIS
• Genetically engineered organisms (transport, import, and environmental release)	Biotechnology Regulatory Services (BRS)	USDA-APHIS
• Chemicals of environmental consequence • Regulated animals and animal tissue • Endangered species • Other materials not detailed here	Various programs: • EPA Toxic Substances Control Act (TSCA) • FWS Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) • FWS Endangered Species Act (ESA)	Various agencies: • Environmental Protection Agency (EPA) • Fish and Wildlife Services (FWS) • Food and Drug Administration (FDA)

[1] The absence of a material from this table does not mean it is exempt from import permit requirements.

[2] Materials may require permits from multiple federal agencies and may also be subject to state or local regulations, which are not included in this table.

Centers for Disease Control and Prevention (CDC) Etiologic Agent Import or Transport Permits

CDC Import Permit regulations govern the importation of infectious biological agents, infectious substances, and vectors of human disease into the United States. A CDC Import permit is required prior to importing the following materials into the United States:

- Infectious biological agent (e.g., bacteria, viruses, fungi, prion, etc.)
- Infectious substance or any material that may potentially contain an infectious biological agent
- Vector – Any arthropod or other animal host or vector of human diseases, or any non-infectious self-replicating system capable of transferring an infectious biological agent to a human
- Animals, Arthropods, Snails, Bats
- Non-human primate material (all non-human primate material, unless it has been specifically treated and rendered non-infectious, in which case documentation of the treatment method may need to be provided)

A CDC import permit may not be required in certain cases (e.g. a diagnostic specimen that does not contain an infectious biological agent, a biological agent that has been rendered non-infectious, nucleic acids that cannot produce infectious forms of any infectious biological agent). To facilitate clearance of materials that do not require a CDC import permit, a certification statement on university letterhead, from the sender or the recipient of this material must accompany the shipment. The certification statement must include:

- Statement affirming:
  - A detailed description of the material
  - The material is not known or suspected to contain an infectious biological agent, and
  - One of the following:
    - How the person knows that the material does not contain an infectious biological agent *, or
    - Why there is no reason to suspect that the material contains an infectious biological agent, or
    - A detailed description of how the material was rendered noninfectious

* Note: if the material is infectious, an Import Permit **is** required.

CDC Certification Letter Template-Exempt Human Specimen (Word document). Additional information on what to include in the certification statement can be found at the CDC IPP website.

CDC Import Permit Application Process

There is no fee associated with obtaining a CDC import permit.

Before importing an infectious biological agent, infectious substance, or vector into the US, the recipient must:

- Determine if the shipment requires a permit. The CDC's e-Tool is a helpful in determining whether an import permit is required. For general questions related to the CDC Import Permit Program (IPP) contact their office at 404-718-2077 or importpermit@cdc.gov.
- If the shipment requires a permit, visit the CDC IPP website to complete the permit application. **Make sure to indicate Dr. Rob Foreman** (robert.foreman@northwestern.edu) **as the Biosafety Officer for Northwestern University in the application**.
- After the permit is issued, ensure that a copy of the permit is retained by the shipper and receiver, and that the shipment is accompanied by the applicable permit.
- Ensure that the shipper and recipient are in compliance with all legal requirements including all packaging and labeling requirements by a certified IATA shipper.
- Ensure that adequate biosafety measures are in place for storage and use of the regulated agent.
- Ensure compliance with all permit requirements and conditions as long as you are in possession of the imported material.
- It is advisable to maintain all shipping records as long as you are in possession of the imported material.

In some cases, a site inspection may be required prior approving an import permit. If a site inspection is required, CDC will provide an initial notice of inspection and coordinate the visit with the permittee. The purpose of these inspections is to verify the implementation of adequate biosafety measures and may include (but not limited to) evaluation of documentation, safety equipment, practices and procedures that are in place, and the structure and features of the facility. If no further information is required after the inspection, an inspection report will be provided, and the permit will be processed and approved. Federal agencies reserve the right to conduct an import permit inspection at any time, even after the permit is issued. A representative of Research Safety must be present at such inspection. Accordingly, please contact researchsafety@northwestern.edu to assist with the inspection process.

Permit holders must be aware of all permit conditions in the issued document. A separate CDC authorization or permit may be required for the subsequent transfer or distribution of agents within the US, if noted as a condition of the issued permit. A copy of the permit must be included with the shipment.

The CDC has additional transfer obligations and requirements for permit holders of certain agents. A separate CDC authorization, which includes listing the named permit holder at Northwestern University as a sender on the receiving institutions permit, is required for the subsequent transfer or distribution of these agents.

USDA-APHIS Import Permits

USDA-APHIS import permits regulate the importation and transport of materials that may affect agricultural crops and animals, but do not directly affect humans. USDA import permits do not solely cover the importation of regulated materials from overseas, but also govern the transport of materials within the United States.

USDA-APHIS permits fall under three (3) broad categories: Veterinary Services (VS), Plant Protection and Quarantine (PPQ), and Biotechnology Regulatory Services (BRS), detailed below:

- Veterinary Services – VS regulates any animals and animal products that do not fall under the CDC Import program, meaning those that are not known or common reservoirs of agents of zoonotic concern. VS permits also apply to arthropods, bacteria, fungi, and/or viruses.
- Plant Protection and Quarantine – PPQ regulates both live and dead plants and plant materials, plant pests (arthropods and plant pathogens), soil, and agricultural products.
- Biotechnology Regulatory Services – BRS regulates the import, transport, and environmental release of genetically-modified organisms. Generally, you should apply for a BRS permit for Genetically Modified Organisms and Microorganisms (GMOs) of agricultural and environmental relevance, while other USDA-APHIS permits cover wild-type, unmodified materials.

A USDA permit may not be needed in certain circumstances. For example, if materials have been treated or processed in such a way as to render regulated materials non-viable or if imported materials can be confirmed to be entirely free of materials that fall under import permit requirements, then a permit may not be needed.

Samples that do not require a permit must be accompanied by a certification letter. This certification must detail the precise reason the permit is not required, for example, the exact process(es) used to render the sample non-infectious/non-viable, or the screening conducted to confirm that no regulated agent is present.

USDA Import Permit Application Process

Material detailing the USDA-APHIS import permit program is available at https://efile.aphis.usda.gov/s/.

In some cases, a site inspection may be required prior approving an import permit. If a site inspection is required, USDA will provide an initial notice of inspection and coordinate the visit with the permittee. The purpose of these inspections is to verify the implementation of adequate biosafety measures and may include (but not limited to) evaluation of documentation, safety equipment, practices and procedures that are in place, and the structure and features of the facility. If no further information is required after the inspection, an inspection report will be provided, and the permit will be processed and approved. Federal agencies reserve the right to conduct an import permit inspection at any time, even after the permit is issued. A representative of

Research Safety must be present at such inspection. Please contact researchsafety@northwestern.edu to assist with the inspection process.

General Permit Considerations and Amendments

Once a permit is granted, proper use, possession and disposal of the regulated material is the responsibility of the permittee.

It is recommended that a separate Standard Operating Protocol (SOP), detailing handling and work practices, is maintained for each regulated material. This SOP may be required by the regulatory agency during a site inspection. The SOP must list the physical containment and specific operational standards for the regulated material, include information on handling regulated waste, decontamination techniques including autoclaving (how and when the autoclave is tested to ensure adequate sterilization, how and where an autoclave activity log is maintained, how the material is transferred from one room to another if the autoclave is located in a different room), etc.

Permits are valid only through the time period indicated on the permit. Although certain permits may not need to be renewed for continued storage, permit conditions will remain in effect for all regulated material as long as the permittee is in possession of the material. Permit conditions will not expire until the regulated material is used up, appropriately disposed of, or destroyed.

If permit conditions state that a valid permit must be maintained so long as the regulated material is possessed, the permittee must renew the permit, even though the material may no longer require transport. It is recommended that the permittee start the renewal process at least 3 months in advance to allow adequate time for processing. If the material is no longer required, the lab should close out the permit.

Unless specifically mentioned under permit conditions, CDC and USDA Veterinary Services does not regulate the intrastate movement of most regulated material, though it may fall under state/local regulations. However, if regulated material is transferred to another researcher within the state or the institution, the permittee is still legally responsible for the material's use, possession, and disposal. Hence, EHS recommends that each recipient obtain his or her own permit before any material is transferred.

If a permit indicates USDA/APHIS inspected the facility/rooms, it is required that all work be conducted in only those approved rooms.

An amendment to the existing permit is required if the permit details change (including name, address, laboratory information or the regulated material description).

USDA and CDC transport permits are issued to a specific individual and not to the laboratory or the institution. Hence, if the permittee leaves the University, it is important to close out the existing permit, and reapply for a new permit if the lab intends to continue working with the regulated material. For this reason, it is recommended that the Principal Investigator (PI) serve as the responsible party, even though the permit may be issued to any eligible lab personnel.

A new permit application must be submitted if the permittee leaves the University and wishes to transport the material to another institution.

Please note that permit close out is not the same as expiration of a permit. The permittee is still legally responsible for the use, possession and disposal of the regulated material as indicated in the permit conditions, even after a permit expires.

If a permit is closed out, the regulatory agency may conduct an inspection to ensure the lab adhered to all permitting conditions of the regulated material. It is advisable to maintain a copy of the permit and document the method of destruction even after the regulated material has been disposed.

Other Relevant Regulatory Agencies

In addition to the applicable USDA APHIS VS permits, US Fish and wildlife CITES (Convention on International Trade in Endangered Species of Wild Fauna and Flora) permits may also be required for certain live animals, including bats. Materials from certain endangered species that is CITES listed, such as Vero cells (established from Adult African Green Monkey kidney cells) also requires a CITES permit before it is imported into the US.

For example, a USDA APHIS VS permit is not required for the importation of Zika virus into the US (unless it has been exposed to animal products). However, if the virus is cultured in VERO cells, a CITES permit is required.

Federal export control regulations prohibit the export of certain biomaterials to foreign countries without an export license issued by the government. The Export Administration Regulations are administered by the US Department of Commerce. For more information, contact the Export Controls and International Compliance (ECIC) office.

Involvement of Northwestern Research Safety

If the permitting agency requests a site inspection prior to approving the permit. Please contact researchsafety@northwestern.edu to assist with the inspection process.

Additional Resources

- Import permit tools and information
  - CDC
    - Do I Need an Import Permit?
    - Phone: 404-718-2077
    - Email: importpermit@cdc.gov
  - USDA-APHIS
    - eFile
    - Veterinary Services: apie@usda.gov
    - Plant Protection and Quarantine (PPQ): plantproducts.permits@usda.gov
    - Biotechnology Regulatory Services (BRS): brs.efile@usda.gov
- US Customs and Border Protection (CBP): Importing Biological Materials into the United States