Overview of Research Compliance
Committees and Safety Offices

Animals (Research and Instruction)

Virginia Tech is committed to providing humane care for and ensuring the well-being of animals used in research and instruction by our faculty, staff, and students. This commitment is guided by the ethical principles described in the "U.S. Government Principles for the Utilization and Care of Vertebrate Animals Used in Testing, Research, and Training" and in applicable federal regulations, guidelines, and policies, including, but not limited to the federal Animal Welfare Act, the "Public Health Service (PHS) Policy on Humane Care and Use of Laboratory Animals", and the ILAR/NRC "Guide for the Care and Use of Laboratory Animals". For operational purposes, as required by federal law, this commitment is vested in the Institutional Animal Care and Use Committee (IACUC), which operates under an Animal Welfare Assurance on file with the Office for Laboratory Animal Welfare (OLAW) within the U. S. Department of Health and Human Services (DHHS).

All research and instruction involving vertebrate animal species (excluding human subjects), regardless of funding source, is under the purview of the Virginia Tech IACUC. Animals cannot be obtained or used without prior protocol review and approval by the IACUC.

Biohazards and “Select Biological Agents”

The Institutional Biosafety Committee is charged with regulating and approving protocols that involve biohazards and Select Biological Agents.

Biohazardous materials used in research and teaching, include:

- Biological agents known to, or suspected to, cause disease in humans
- Toxins of biological origin that may cause death or severe incapacitation at relatively low exposure level
- Human, non-human primate, and mammalian blood, blood products, and unfixed tissue
- Animal/plant pathogens and products, and/or specific genetically engineered organisms requiring a USDA APHIS permit for transportation or use and veterinary biologics requiring a permit for research, evaluation, or transportation
- Select agents and toxins which includes specific agents, toxins, and related genetic material determined by HHS and USDA to pose a severe threat to human health, animal health/products, or to plant health/products
**Bloodborne Pathogens Program**

The Bloodborne Pathogens Program (BBP) outlines safety policies for the protection of Virginia Tech employees who have a potential for occupational exposure to bloodborne pathogens, such as Hepatitis B Virus (HBV), Human Immunodeficiency Virus (HIV), and Hepatitis C Virus (HCV), among others. Departments must develop work practices and procedures, assure 'at risk' employees are provided access to training and vaccinations prior to hazard exposure, provide necessary personal protective equipment, and provide on-going oversight to assure compliance is being maintained. Researchers using human cell lines or other human material would need to comply with OSHA’s BBP standard.

**Electrical Safety Program**

The use of extension cords is permitted for temporary use only, and shall not be used in place of permanent building wiring. Research involving electrical systems operating at 50 volts or more to ground must comply with Virginia Tech's Electrical Safety Program.

**Environmental Regulatory Compliance**

Compliance with environmental regulations is central to university operations. EHSS maintains oversight responsibility for all university compliance activities. The university's environmental engineer is primarily responsible for compliance with all air, water, and groundwater pollution control regulations. This program applies to all individuals in the university community.

**Export Controlled/Restricted Research**

The Office of Export and Secure Research Compliance (OESRC) supports Virginia Tech’s commitment to complying with U.S. laws and regulations applicable to export and trade sanctions. OESRC works with the Office of Sponsored Programs (OSP) and other University departments to ensure compliance with regulations promulgated by the regulatory agencies, including but not limited to the Department of State, Department of Commerce, and the Department of the Treasury.

If an export assessment determines that an activity is subject to these regulations, OESRC will assist the affected party in setting up security measures and protocols needed to ensure compliance with export and sanction regulations through the establishment of a Technology Control Plan (TCP) or other certification document. The Technology Control Plan details the export control classification, restriction on release of information, physical and information security protocols, project personnel requirements, annual certification, and closeout procedure. OESRC will monitor project related activity throughout the life of the TCP and the Principal Investigator or TCP Custodian will be required to disposition all controlled items.
before close out of the TCP. For more information, visit the OESRC website: https://oesrc.researchcompliance.vt.edu/technology-control-plan.

Fire and Life Safety

The Fire and Life Safety Program applies to all Virginia Tech properties and to all work performed by Virginia Tech employees, regardless of jobsite location. The health and safety of university employees, students, and visitors to our campus is of paramount importance to everyone working and learning at the university. It directly impacts both the quality and value of the university. The concern the university displays for its employees, students and visitors mirrors the character and strength of Virginia Tech’s commitment to its academic mission.

Hazardous Chemicals

The Hazardous Chemical Management Program provides information and guidelines to manage and reduce personnel exposure to hazardous chemicals and materials. If your work involves the use of chemicals in a laboratory, you must develop Laboratory Specific Documentation as specified in the Hazardous Chemical Management Program. If your work involves the use of chemicals outside of a laboratory environment, you must develop a site specific Hazard Communication Plan.

Good Laboratory Practice (GLP)

The mission of the Quality Assurance Program at VMRCVM is to assure and ensure compliance with Good Laboratory Practice (GLP) regulations, and thus demonstrate to federal inspectors/regulatory agencies and commercial clients that the quality and reliability of research data generated through animal research at Virginia Tech is of paramount importance to Research Management at this institution. For more information please contact Sandy Hancock at 231-4817.

Humans

The Institutional Review Board (IRB) is committed to protecting the rights and ensuring the safety of human subjects participating in research conducted by anyone (faculty, staff, students) associated with Virginia Tech. IRB approval is required if the research involves obtaining information about a living individual(s). Research is an activity (i.e. thesis, dissertation, pilot studies, publications) that is designed to develop or contribute to generalizable knowledge. Quality assurance (QA) and class projects only require IRB approval if there are plans to disseminate the results outside of the entity that the QA is being performed or outside of the classroom. Common types of research that require IRB approval include but are not limited to: online surveys (anonymous or identifiable), observations, interviews,
and analyzing existing data sets that require some type of membership to access. If you are unsure if IRB approval is required, please visit: http://www.irb.vt.edu/pages/researchers.htm or contact the office. An overview of the process and additional study design requirements may be found at the above link.

**Laser**

The Laser Safety Program applies to all Virginia Tech employees whose job duties require them to: operate, maintain, or service class 3b or class 4 laser systems; service embedded class 3b or class 4 laser systems; or, align class 2 or higher laser systems. Authorized users who routinely use Class 3b or Class 4 lasers will be enrolled in the university’s Occupational Health Assurance Program and provide access to necessary medical surveillance services. The Laser Safety Officer from Environmental, Health and Safety Services will train Laser System Supervisors in Laser Classification, Beam and Non-Beam Hazards, and Control Measures. The Laser System Supervisors, must, in turn, train their authorized users.

**Radioactive Materials and Nuclear Medicine**

The Radiation Safety Program applies to all individuals who plan on using radioisotopes in their research or during diagnostic and therapeutic nuclear medicine procedures. It also covers the procurement and use of related analytical instruments such as moisture and density gauges, using radioactive sealed sources in their operation. The Radiation Safety Committee (RSC) must authorize all use of radioactive materials as detailed in the program. Anyone using these materials must develop protocols (standard operating procedures) and obtain authorization before beginning work. In addition, specific training requirements must be met and approvals given by the RSC and/or the Radiation Safety Officer (RSO). Principles for working safely, general procedure requirements, and details for area set-up are included in the written program. Failure to follow or meet expectations may lead to a loss of approval for radioisotope use at the university.

**Recombinant DNA/RNA and/or Synthetic Nucleic Acids**

All research and teaching activities that involve the use of recombinant and/or synthetic nucleic acid molecules (including the use, generation, or purchase of transgenic animals, plants and/or invertebrates) must register with the Virginia Tech Institutional Biosafety Committee (IBC) prior to starting work.

The IBC is charged with:

- Reviewing recombinant DNA and/or synthetic nucleic acid research proposals conducted at, or sponsored by, Virginia Tech for compliance with the NIH Guidelines;
• Approving those research projects that conform with the NIH Guidelines;
• Periodically reviewing recombinant DNA and/or synthetic nucleic acid research for continued compliance;
• Adopting emergency plans covering accidental spills and personnel contamination.

Chemical, Hazardous, Infectious or Regulated Waste

Chemical and Radiological Waste

Virginia Tech’s Environmental, Health and Safety Services (EHSS) is responsible for the pick up and disposal of all chemical and radiological waste generated on campus, and manages the disposal of both from university off-site locations. The EHSS website provides guidance on chemical waste disposal procedures, radiological waste disposal procedures, and access to an on-line pickup request form for radiological waste materials.

Electronic Waste (Dead Batteries, Computer Monitors)

Computer monitors contain toxic elements (including lead and cadmium) that may be harmful to the environment when improperly disposed of. Batteries may also contain mercury, lead and cadmium. As a result, EPA regulations prohibit the disposal of nonworking computers monitors in a landfill for institutions such as Virginia Tech. Virginia Tech’s Environmental, Health and Safety Services will pick up and properly recycle your nonworking computer monitors and spent batteries. There is no cost to your department for this service. Just complete the form linked below. The expected pick-up date of the monitors or batteries should be within one to two weeks of submitting the form.

Disposal of Other Regulated Wastes

The Hazardous Waste Disposal Program oversees the collection, handling, and disposal of chemicals and hazardous materials from over 1,300 laboratories located on Virginia Tech’s main campus, Virginia Tech’s Physical Plant, and all agricultural research and extension centers. This program ensures compliance with all federal, state, and local regulations, which govern the handling, storing, and disposing of hazardous waste. The program also manages the recycling of batteries, mercury, oil, photo fixer and the disposal of light ballasts, and fluorescent tubes. If you have any questions about how to dispose of hazardous waste, please call our office at (540) 231-2982.

Regulated Medical Waste

The regulated medical waste provisions apply to anyone who is working with human tissues, blood or items contaminated with human blood. It also applies to
any lab working with potentially infections substances, including cultures and plates, pipettes, needles, intentionally infected lab animals and their bedding.

Any area that is generating regulated medical waste is required to properly package this waste per federal and state regulations. EHSS must be contacted for disposal immediately upon packaging the waste to ensure timely disposal. All disposal and packaging materials are supplied to the university community free of charge.

**Respiratory Protection**

Employees who are exposed to hazardous air contaminants (e.g., certain gases, fumes, mists, vapors or dusts), where exposures are not adequately controlled by either engineering or administrative controls, must be provided, and use, appropriate respiratory protection.

If you suspect that there are exposures of concern in your work area, or that are associated with tasks you or your employees perform, please contact EHSS for an evaluation. EHSS will review the potential for exposure and perform monitoring as needed or required. If exposures are above legal limits, EHSS will assist the department with evaluating and implementing either engineering and/or administrative controls. If these controls are not effective, respiratory protection must be used. You must be enrolled in EHSS’s program if you will use a respirator of any type and for any purpose.

**X-Ray Producing Systems**

This program applies to all individuals and/or departments planning on purchasing and/or using analytical or diagnostic instrumentation that produces x-ray radiation either directly or indirectly. This includes bone densitometers, electron microscopes, diffractometers, XPS systems, CT-scanners in addition to traditional x-ray imaging equipment. The Radiation Safety Committee (RSC) and Radiation Safety Officer (RSO) must authorize the purchase and set-up of all x-ray equipment prior to beginning use.

Please refer to the X-Ray Safety Program for information on obtaining an authorization, training, and equipment certification requirements.