# Guidelines for Occupational Health and Safety in the Care and Use of Animals

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#### **PREFACE**

The NDSU Institutional Animal Care and Use Committee (IACUC), in cooperation with NDSU's University Police and Safety Office, has developed these *Guidelines for Occupational Health and Safety in the Care and Use of Animals* aimed at making certain that the health and safety of faculty, staff, and students whose activities involve the use of animals is maintained and addressed appropriately. The *Guidelines* detail the program for occupational health and safety in regards to animal use on our campus. They are modeled after the guidelines set forth in the *Guide for the Care and Use of Laboratory Animals* (Institute of Laboratory Animal Resources, National Research Council, 1996) and the *Occupational Health and Safety in the Care and Use of Research Animals* guidebook (Institute of Laboratory Animal Resources, National Research Council, 2003).

The program is administrated under NDSU's Safety and Risk Management Program (both Workers Compensation and University Police and Safety Office) with assistance from the IACUC Office (Office of Sponsored Programs Administration and the Office of the Vice President for Research, Creative Activities and Technology Transfer).

Questions about the Occupational Health and Safety Program can be directed to the University Police and Safety Office (231-7759, Animal Nutrition and Physiology Center South Building), Workers Compensation (231-9587,), the IACUC Attending Veterinarian (231-7830,) or the IACUC Office (231-8114, 1735 NDSU Research Park Drive).

Additional copies of the NDSU *Guidelines for Occupational Health and Safety in the Care and Use of Animals* are available from the University Police and Safety Office and IACUC Office.



# Occupational Health and Safety in the Care and Use of Animals

#### POLICY STATEMENT

As stated by the President of North Dakota State University, the University is committed to providing a safe and healthy work environment for all of its students and employees.

Exposure to or working with vertebrate animals, in particular, is not risk free. Therefore, people who come into contact with vertebrate animals must be made aware of the potential hazards associated with such contact. Principal investigators and supervisors are responsible for the safety and education of the personnel they supervise regarding working with animals, whether those individuals are paid employees, volunteers, or students. Personnel being properly informed, presented with good examples, and working safely greatly reduces the potential risks involved in working with animals. Safety must not be sacrificed for any reason, be it production, time limitations, or financial costs.

The success of the occupational health and safety program as related to animals is dependent upon active participation from and cooperation of administrators, faculty, staff, and students. Participation in the program is required for all people who are at potential risk-to include those who have substantial contact with animals. This includes animal researchers, caretakers, technicians, students, volunteers, and veterinarians; and also facility maintenance engineers, custodians, secretaries, housekeepers, security, and other staff working in animal areas.

By working together within this program for occupational health and safety, we will help to make certain a safe, professional, and productive environment of animal care and use for personnel and animals alike.

Sincerely,

Kelly A. Rusch, Ph.D., P.E.

Vice President for Research & Creativity Activity

Bruce Bollinger

Vice President for Finance & Administration

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# SECTION I: OUTLINE OF THE NDSU ANIMAL CARE & USE OCCUPATIONAL HEALTH AND SAFETY PROGRAM

# Part A: Program Goals & Responsibilities

The overall goal of an occupational health and safety program is to prevent occupational injury, illness and exposure.

North Dakota State University Police and Safety Office, the IACUC and individual investigators and supervisors will:

- 1.) Provide those individuals who have substantial contact with animals appropriate guidelines for occupational health and safety in the care and use of animals that outline general health and safety issues associated with working with animals
- 2.) Provide those individuals who have substantial contact with animals the required occupational health and safety training program
- 3.) Provide those individuals who have substantial contact with animals a hazard and risk assessment; and
- 4.) Make available to those individuals who have substantial contact with animals any necessary medical evaluations, vaccinations, or immunizations (e.g., tetanus, rabies, etc.) at a cost to the department

# Part B: Occupational Health and Safety Program at NDSU

**Administration:** The animal occupational health and safety program is administrated under NDSU's Safety and Risk Management Program and the IACUC Office (Office of Sponsored Programs Administration and the Office of the Vice President for Research and Creative Activity).

NDSU's employee safety policy (<u>Policy 166</u>) and program is part of the required North Dakota Workforce Safety and Insurance (WSI) and Office of Management of Budget (OMB) Risk Management Program.

Many different campus offices and entities work together to create an encompassing and effective program of occupational health and safety in the care and use of animals at NDSU.

#### Offices, committees, personnel, and their functions, include:

#### The IACUC Office

- Processes IACUC protocols and records
- Helps to coordinate the OHS program and communication between different offices and individuals
- Serves as a contact place and information center for Principal Investigators (PIs), personnel, and various collaborating offices about the IACUC and the animal OHS program
- Maintains a copy of emergency contact list for animal facilities
- Maintains documentation of personnel training for proper use and care of animals in paper and database files

#### The IACUC

- Helps to identify potential medical risks, animal housing facility designs, physical hazards, etc., during protocol review
- Refers investigators to other committees (Institutional Biosafety Committee, Radiation Safety, etc.)
- Suggests appropriate training sessions for investigators and their personnel
- Involves the University Police and Safety Office or a representative of the UP&SO as an executive member of the IACUC
- Assists in the implementation of the OHS Program

#### The Attending Veterinarian

- Aids PIs in the formulation of their research projects, helping to identify potential risks and hazards
- Suggests alternatives to dangerous procedures, where possible
- Refers PIs to other committees for protocol review
- Alerts PIs to training requirements
- Maintains a copy of emergency contact list for animal facilities

# The Office of Sponsored Programs Administration/Office of the Vice President for Research, and Creative Activity:

- Sponsors and administers the IACUC, the IRB, the IBC,
- Supports the IACUC Office & programs (financially, administratively, and organizationally)

#### The University Police and Safety Office

- Administer training programs in Baseline and Supervisor Safety Training, Lab Safety, Chemical Safety, and Radiation Safety
- Assists in coordinating plans and procedures for safety emergencies and concerns
- Assists in identifying potential work place hazards during protocol review (e.g., working with chemicals or radiation, fire exits and extinguishers, etc.)
- Assists in providing information to personnel in obtaining appropriate personal protective equipment (PPE) (e.g., respirators)
- Perform ergonomic assessments as requested for operations and tasks that involve repetitive lifting and movement
- Evaluate performance of fume hoods, safety showers, eye wash stations, chemical storage; fire alarms and drills; and other equipment
- Coordinate incident reporting and investigation of all events and near misses
- Coordinate workers compensation claims and act as a liaison between medical providers, injured employees, and their supervisors
- Update the written OHS Program for the Care and Use of Animals per IACUC requirements
- Request procedure and price updates from the designated medical provider
- Assists in the implementation of the OHS Program and maintain data base of participants

#### Campus Police

- Respond to emergency situations and work with IACUC Office on emergency procedures
- Maintain a copy of emergency contact list for animal facilities

# **Designated Health Care Providers**

- Provides evaluation of health assessments at the department's expense
- Provide medical exams and immunizations to high-risk and other designated personnel

 Help to identify further risks for personnel based on medical history or conditions (e.g., pregnant women, pre-existing allergies)

The designated medical providers (DMP) for NDSU's occupational health and safety concerns are Sanford Clinic Occupational Medicine and Essentia Health West Fargo Clinic. It is recommended that any required post-offer/pre-hire exams or testing be conducted only at a provider currently on the DMP list provided by UP&SO.

- □ *For employees:* 
  - Sanford Clinic Occupational Medicine, 3828 12<sup>th</sup> Ave North, Fargo; 234-4700
  - Essentia Health West Fargo Clinic, 1401 13<sup>th</sup> Ave East, West Fargo; 364-5757
- □ For students who are **not** employees: NDSU Student Health Service; 231-7331

#### **UP&SO** and Facilities Management

- Disposes of hazardous waste for researchers
- Repairs and maintains facility equipment and machinery (Facilities)

#### **Individual Campus Departments**

- Review and update the functional and environmental demands/requirements associated with the work to be performed for each position, class or project
- Identify and require personnel who have substantial contact with animals to participate in the Occupational Health & Safety in the Use of Animals Program
- Complete the Hazard and Risk Assessment for high risk positions/substantial animal contact
- Cover the cost of certain medical/evaluation exams, immunizations, and vaccinations
- Pay for equipment purchases and/or repairs
- Purchase personal protective equipment (PPE) and enforce its use
- Implement any and all precautions or preventive measures outlined by the medical provider

#### **Principal Investigators**

- Design protocols involving animals
- Work with the Attending Vet, IACUC, IRB, IBC, and UP&SO to identify potential problems and risks to personnel
- After the risks have been identified, complete the Hazard and Risk Assessment for all personnel he/she supervises, based on the type of work they will be doing (e.g., allergies; kicks, bites, scratches; zoonosis; infectious agents)
- Provide each individual who has substantial contact with animals a completed Hazard and Risk Assessment Form and explain the process of the medical evaluation
- Pay for certain medical costs like exams and immunizations that are associated with particular procedures, projects, or persons

#### Staff, Students

- Responsible for personal hygiene and safety
- Comply with recommended and required rules and guidelines for occupational health and safety in animal care and use
- Attend and participate in training programs (Occupational Health and Safety, Baseline, etc.)
- Complete the Class Participation Waiver.

# Part C: Principal Elements of an Animal Care & Use OHS Program

The following elements and examples are essential components of an effective animal-use occupational health and safety program:

#### **Personnel Training**

- Training for specific protocol and department Safe Operating Procedures is the sole responsibility of the Department, PI and Supervisor
- Training will provide personnel with clear definitions and descriptions of their duties and the
  hazards associated with those duties (such as zoonosis, chemical hazards, physical hazards like
  radiation and allergies, handling waste materials)
- Training will provide personnel with information about levels of risk associated with working
  with animals and personal health conditions (e.g., special precautions to avoid hazards for
  pregnant women or persons with chronic diseases, etc.)
- Make certain that personnel are proficient in implementing safety precautions
- Departments are responsible for maintaining their department specific training records

#### Hazard and Risk Assessment (Appendix C)

- Identifies hazardous biological, chemical, or physical agents
- Identifies potential hazards that are inherent to animal work, such as animal bites, chemical cleaning agents, allergens, or zoonosis
- Assesses extent and level of participation in occupational health and safety training program on the hazards posed by the animals and materials used; the exposure intensity, duration, or frequency; the susceptibility of the personnel; and the history of occupational illness or injury in the particular workplace
- PI or supervisor completes the Hazard and Risk Assessment for those who have substantial contact with animals, provides a copy to the individuals and sends copy to the Safety Office

#### Personal Hygiene

- Set high standards for personnel cleanliness and hygiene
- Require suitable clothing, gloves, masks, head covers, coats, coveralls, shoe covers, etc.
- Require hand-washing and changing clothes where necessary
- Make certain that all laboratory personnel, including service and custodial staff and visitors, understand the chemical and biological dangers associated with the lab or facility
- Affix biohazard signs on doors outside laboratories where biohazardous material is handled or stored (available from the University Police and Safety Office). The protocol to be followed in case of a spill of the biohazardous materials should be posted in a visible location in the laboratory or facility
- Restrict laboratory or facility access and keep doors locked when unattended
- Keep the facility clean and free of clutter. Make certain that emergency safety devices (fire extinguishers, eye washes, etc.) are easily accessible and in working order
- Make certain that all personnel, students and visitors wear protective clothing such as lab coats, gloves and safety glasses. Remove lab coats or gowns before leaving the laboratory or facility
- Do not eat, drink, smoke, store food and food utensils, apply cosmetics or lip balm, or insert or remove contact lenses while in the facility or laboratory
- Restrain long hair. Avoid wearing loose clothing or jewelry, shorts, open-toed shoes or sandals.
- Carry out procedures so as to minimize risks of splashes, spills, and generation of aerosols
- Pipetting by mouth is not allowed

- Use hypodermic needles only when absolutely necessary. Do not bend, break, shear or recap used needles. Use the appropriate sharps containers
- Use a two-person team to inoculate animals when appropriate
- Wash hands after handling infectious material and before leaving the laboratory
- Decontaminate all contaminated materials before disposal or reuse
- Decontaminate laboratory surfaces following any spill of biohazardous materials and at the end of each workday.
- Report all spills, accidents, and incidents immediately (as required by the NDSU Safety and Risk Management Program 24 hour reporting requirement)

# Facilities, Procedures, and Monitoring

- Maintain cleanliness of facilities and supplies
- Consider ergonomics and request for assessments
- Inspect, maintain, and repair equipment
- Dispose of contaminated bedding properly

# Animal Experimentation involving Hazards

- PI's, departments and supervisors must maintain up-to-date written policies governing experimentation with hazardous biological, chemical, physical agents
- Individuals must use recommended practices and procedures, and facility requirements for working with hazardous biological agents and materials
- Individuals must use special facilities and safety equipment as recommended
- Individuals must dispose of hazardous or contaminated waste properly

#### **Personal Protection**

 Obtain required clothing, shoes, shoe covers, gloves, arm protectors, masks, face shields, hearing protection, respirators, etc. from your supervisors

#### Medical Evaluation and Preventive Medicine for Personnel:

- Comply with required medical evaluations for high risk positions and those with substantial contact with animals
- Comply with required immunizations, and vaccinations for particular individuals
- Inform personnel how to report accidents, injuries, illnesses, exposures and property damage

#### **SECTION II: HAZARDS AND RISKS**

# Part A: Defining Hazard and Risk

#### What is a hazard?

A hazard is the inherent danger involved in working with a particular animal, material, equipment, process, procedure or system.

#### What is risk?

Risk is a measure of the likelihood of a consequence from working with a certain hazard.

What are the hazards involved in working with animals and animal projects?

There are many hazards involved in working with animals. These hazards range from minor to very serious, and can include things like allergies, bites, zoonotic diseases, working with hazardous chemicals or radiation, and handling contaminated waste. Information follows in this document that describes many of the potential hazards individually.

What are the risks involved in working with animals?

The risks involved range from a low to high potential of injury or illness from the identified hazards.

What can be done to avoid hazards and reduce risk?

The primary way to avoid problems in work with animals is to know what the hazards are and what precautions to take in order to avoid them.

# Part B: Animal Workplace Hazards & Risks

#### 1. Types of Hazards

The following chart outlines some, but not all categories and types of potential hazards that may be present in work with animals.

Example: Types of Hazards that May be Present during Work on Animal Protocols.

Types	Examples	
Physical Hazards	Bites, sprains, scratches, sharps, lasers, machinery, slips, falls	
Chemical Hazards	Burns, skin irritations, inhalation, ingestion	
Zoonosis	Human diseases acquired from animals	
Allergens	Allergies to rodents, cats, dogs (urine, contaminated litter,	
	dander, hair)	
Ergonomics	Heavy lifting, repetitive motion, body mechanics, posture	
Infectious Agents	Bacteria, fungi, parasites, protozoa, rickettsia, viruses, blood-	
	borne pathogens	

#### 2. Animal-related Hazards & Risks

This model animal risk assessment summary is for risk ranks of animal-related activities for immunocompetent adult humans. Risk ranks are based on both the likelihood of an incident and the seriousness of the possible abnormal condition. Risk levels for experimental agents are not included in the chart, and use of experimental hazardous agents requires review and approval of the

appropriate safety committee.

Risk of	Bite wound (a)	Scratch wound (a)	Microbial flora exposure (b)	Allergy development
Chick embryo	1	1	2	1
Fish	1	1	2	1
Reptiles	3	1	2	1
Amphibians	1	2	2	1
Mouse	2	2	1	3
Rat	3	2	1	3
Hamster	3	2	1	2
Guinea Pig	2	2	1	3
Rabbit	2	3	1	3
Cat	3	3	3	3
Dog	3	2	2	2
Sheep, Goat	1	2	3	2
Pig	2	1	3	2
Wild mammals &	4 (if handled)	4 (if handled)	3	2
birds				
Cattle	1	1	3	2
Bison	1	1	3	2
Horse	1	1	1	1

Key: 1 = No known risk

2 = Minor risk

3 = Moderate risk

4 = Significant risk

5 = High risk

**Zoonosis.** Diseases communicable from animals to humans are called zoonosis. In many cases the animals show little, if any, sign of illness. A bacterium in the normal flora of a healthy animal may cause a serious disorder in a person exposed to it. While the animals have developed "resistance" to these microorganisms, humans with no previous exposure to the agent lack this protective immunity. Therefore, one should always be aware of possible consequences when working with each type of animal and then take precautions to minimize the risk of infection. Information can be found in the Animal Welfare and IACUC Blackboard Course Documents.

Zoonosis can be acquired through various routes of infection, including contact with animal products, the animal itself, or a byproduct of the animal. The routes of infection include ingestion, inhalation, and penetration of broken or unbroken skin, wound penetration, and contact with the mucous membranes of the eyes, nose, and mouth via the following:

<sup>&</sup>lt;sup>a</sup> = Potential microbial contamination and physical trauma are both included. Tetanus prophylaxis is required for all staff members.

<sup>&</sup>lt;sup>b</sup> = Risk of inhalant, ocular, or oral exposure to microbial or parasitic agents from animals acquired through institutionally approved vendors.

- Animal bites and scratches;
- Contact with animal tissues and cultures, body fluids, and excreta;
- Inanimate objects that are contaminated by the animal or animal contact; and
- Exposure to aerosols produced as a result of activities such as cleaning cages.

Individuals whose work involves substantial exposure to or handling of animals and animal tissues, body fluids, and cell cultures should be aware of the possibility of the illnesses that may be transmitted by contact with animals. In the zoonosis training module, at-risk individuals are informed of laboratory-acquired zoonosis, causative microorganisms, animals most commonly in contact with humans, appropriate animal handling procedures, personal hygiene, and protective equipment specific to the animal type and use. Information can be found in the Animal Welfare and IACUC Blackboard Course Documents.

All known human exposure to a zoonotic disease is considered an incident and must be immediately reported by the individual to their supervisor or principal investigator for appropriate medical treatment and investigation. An NDSU Report of Occupational Incident/Injury/Illness/Exposure Report must also be filed immediately or within 24 hours to the UP&SO.

If a zoonotic disease is suspected in an animal, the principal investigator or supervisor and the NDSU Attending Veterinarian shall be notified immediately for appropriate action.

**Allergens.** Approximately 20% of people who work with animals have animal allergies. Animal allergies may be present before an individual begins formal work with animals, or the allergy may develop during the course of the individual's work with animals. Animal hair, fur, skin, dander, urine, saliva, scratches, etc., can cause or aggravate allergies to animals.

**Physical Hazards.** Physical hazards associated with animal contact can include animal bites, scratches, and kicks; noise; waste; and physical methods of euthanasia. Further information follows regarding physical hazards and ways to minimize the risk of injury from physical hazards.

**Infectious Agents.** Animal contact can bring personnel into contact with infectious agents, either from the animal itself or from agents introduced for the research project.

#### 3. Non-Animal Risks

Possible Risks and Hazards Present During Work on Animal Protocols.

Item	Examples	Potential Risk
Latex	Gloves, masks	Allergies
Freund's complete adjuvant		Can cause sensitization to TB
Steam/hot water	Used extensively for sanitation and sterilization	Can cause severe thermal burns
Chemicals	Detergents, acidic de-scaling agents, alcohol, cleaning products, flammables	Can cause chemical burns or toxicity
Pharmaceuticals  Anesthetics, antibiotics, analgesics, tranquilizing agents, test drugs		Can be toxic
Heavy items	Lifting feed bags, caging,	Can cause lifting injuries

	animals	
Wet floors Mopping floors and cleaning labs or animal housing facilities		Slipping and falling
Carcinogens, mutagens, teratogens, and other hazardous test substances  Cancer-causing agents, spills		Agents can cause genetic mutation; disruption of normal cellular development in an embryo or fetus
Biological toxins	Poisons and venoms	Agents capable of causing illness and/or death
Ultraviolet (UV) light	Germicidal lamps, outdoor work	Can damage eyes and skin
Sharps	Needles, scalpels, broken glass	May produce physical damage
Infectious agents	E. coli, Salmonella, parasites, Hanta virus, rabies	Risk of infection and illness
Husbandry	Cleaning bedding, cages	Exposure to contaminated bedding, waste
Flammable materials  Chemicals, bedding, paper towels and gowns		Burns, property damage
Pressure vessels Compressed-gas cylinders, high- pressure washing equipment		Risk of explosion and personal injury
Lasers Lasers		Eye damage due to viewing; burns
Electricity  Electrical hazards are present wherever electric current is present; absence of plate on wall socket; frayed or exposed wires		Electric shocks, burns
Ionizing radiation  Using radioisotopes in research animals, X rays, gamma rays		Exposure to radiation
Noise Working in a loud environment with machinery and animal noise		Hearing damage, loss of concentration, distraction
Machinery	Excessive noise; dangerous equipment	Hearing damage; injury
Ergonomic hazards  Heavy and repeated lifting (of cages, large animals), pinch points		Risk of injury

# 4. Risk Factors to Individual Personnel

Examples of Risk Factors to Individual Personnel.

Personnel type	Risk(s)	Caused by
Women of childbearing	Threat to fetus	Exposure to cat feces (toxoplasmosis),
age		sheep and goats (Q fever)
Individuals with chronic or	Worsening of pre-existing	Exposure to animal skin, dander, fur,
pre-existing conditions	condition; further illness or	urine, etc.; exposure to Q fever or other
(e.g., asthma, allergies,	complications	zoonotic agents
serious disease of liver,		
kidney, or spleen; immune		
system deficiencies;		
steroid, radiation, or		
chemotherapy patients;		
heart valve disease)		

#### Part C: Levels of Risk and Participation in the OHS Program

#### 1. Risk Self-Assessment Questions

PI's, departments, supervisors and employees must consider the hazards and risks involved with each task or project conducted in their lab or facility.

PI's, departments and supervisors must discuss the potential hazards and risks associated with the animal work tasks that will be performed. **Supervisors** *must* **complete a Hazard and Risk Assessment** for each position they supervise (the Hazard and Risk Assessment form is attached as Appendix B of this document). This Hazard and Risk Assessment addresses broad issues and questions like:

- 1) What are the potential work-related animal, non-animal, and individual hazards and risks involved with the work you will be performing or supervising?
- 2) What preventive measures or actions are available (e.g., training courses, medical examinations, immunizations or vaccinations, personal protective equipment, avoiding contact with certain species) that could reduce, avoid, or eliminate identified hazards and risks?

Upon completion of the form, a copy must be given to the individual for review. They will use this form to aid in the completion of their Health Assessment Form (Appendix D). A copy will also be provided to the Medical Provider as they proceed with the occupational health evaluation. The Hazard & Risk Assessment Form (Appendix B) will be sent to the provider along with Appendix D. All NDSU sites in North Dakota will submit the evaluation to Sanford Clinic Occupational Medicine in Fargo for review. If a medical consultation is recommended for those not living in the Fargo area, that exam may take place at the individual's Designated Medical Provider location.

#### 2. Health Assessments/Examinations:

As part of the hazard and risk assessment, individuals should carefully consider the information provided in these *Guidelines* as they complete the **Health Assessment for Persons Involved in Animal Projects Form** (Appendix D). The answers to these questions are intended to provide the Medical Provider with information on the health hazards, demands and risks involved with the work that will be performed. A Designated Medical Provider will complete an evaluation of the Health Assessment Form as a medical reference baseline. Once the Medical Provider has completed the evaluation of the Health Assessment (Appendix D), the Safety Office will be notified as to whether or not a physical exam/vaccination is recommended. The Safety Office will then notify the individual. Cost of the evaluation, exams, vaccinations, immunizations, or other recommended medical procedures will be paid on a case-by-case basis, but is the responsibility of the department/facility/student.

Vaccinations may be recommended based on the Health Evaluation. Individuals must participate unless they can provide supporting documentation for not completing them.

1.) **Tetanus immunization:** Boosters are suggested every 10 years. The history of immunization will be determined at the time of the initial assessment. Additional immunizations will be administered as needed.

- 2.) **Rabies immunization:** Pre-exposure immunizations with follow-up antibody titers every two years; repeat immunizations are required as follows if personnel:
  - A. Work directly with the rabies virus
  - B. Have direct contact with animals quarantined for rabies surveillance
  - C. Are exposed to animals or animal parts with potential of containing the rabies virus
  - D. Are responsible for the control of wild animals on campus
- 3.) Other: Based on the health and hazard assessment, the consulting physician will collaborate with the UP&SO to advise of or determine the need for other or additional immunizations (such as tuberculosis or hepatitis).
- 4.) **Serum Banking:** Serum banking serves as a reference sample if zoonosis transmission is suspected. Post-offer/pre-hire serum collection is advisable only in **specific circumstances** as determined by the consulting physician.
- 5.) **Allergies:** Allergies should be identified and documented post-offer/pre-hire (Appendix E). Individuals with *pre-existing* allergic tendencies will be encouraged to seek help from their private physician.
- 6.) **Special Precautions for Women of Childbearing Age:** Serological samples may be taken on all women handling *high-risk species* prior to beginning work to avoid confusion about the significance of various positive antibody tests in case of subsequent pregnancy. Female caretakers, especially those known to be pregnant, should not be exposed to pregnant sheep, cattle, goats, and cat feces (possibility of toxoplasmosis infection). Working with hazardous drugs, agents or toxic chemicals during pregnancy is also strongly discouraged. Personal protective equipment (PPE) should be worn at all times and additional precautions observed for pregnant women, as outlined by the principal investigator, supervisor or physician prior to the start of work with animals. Communicate your work conditions to your medical provider.

#### 3. Medical Provider Reports

Following the medical exam, the health care provider will provide a copy of the Medical Provider Health Assessment Report to NDSU (Appendix E) to the Safety Office to indicate:

- 1.) No existing health condition has been identified that could alter the employee's exposure-risk profile. *OR*
- 2.) A health condition exists that affects the employee's exposure-risk profile, but the risk can be minimized (and will provide example precautions or preventive measures e.g., vaccinations; wearing gloves, masks, etc.; avoiding contact with certain species that would minimize or eliminate the hazards and risks). *OR*
- 3.) A health condition exists that affects the employee's exposure-risk profile that cannot be eliminated or minimized.

Upon completion of the Hepatitis B Vaccination Series, the DMP will provide a copy of the form (Appendix C) to the individual and the Safety Office. The Safety Office will record into a database and forward to Human Resources for retention in the individual's medical file.

All medical records are confidential. They will be maintained by the Designated Medical Provider and Human Resources and will be shared only with the patient/individual. As noted previously, the individual may be asked to authorize the release of limited information from the healthcare provider to the University Police and Safety Office regarding any necessary precautions or restrictions necessitated by any physical limitations or conditions which could affect personal health or the health of the animals. These could include current conditions and possible future conditions.

If a health condition exists, or there is a change in one's health that could alter the individual's exposure-risk profile, the individual will inform their supervisor of the medical provider's recommendations for eliminating the risk.

# 4. Levels of Risk & Participation

Occupational Health Program Participation Based on Risk/Rank of Animal-Related Activity.

	Basic IACUC OHS Training Module	Review of information packet with supervisor	Training in animal handling & protective measures	Medical evaluation & surveillance recommended	Immunizations or Vaccinations Recommended
Level 1 (no known risk)	Yes	Yes	Yes	No	No
Level 2 (minor risk)	Yes	Yes	Yes	No	TBD*
Level 3 (moderate risk)	Yes	Yes	Yes	TBD*	Yes
<b>Level 4</b> (significant risk)	Yes	Yes	Yes	Yes	Yes
Level 5 (high risk)	Yes	Yes	Yes	Yes	Yes

<sup>\*</sup> TBD = to be determined by the individual, and/or a healthcare provider.

The cost of health assessments, medical exams and vaccinations/immunizations are to be paid by principal investigators, departments, or individual personnel. Students may be accountable for certain medical costs (e.g., the cost of a tetanus shot) if such treatment is required for a course involving animals (i.e., students pay for a shot just as they would for a textbook).

# Part D: Avoiding Hazards & Risks: Prevention & Control Strategies

#### 1. Exposure Control & Prevention

**Exposure Control Methods:** (Includes some, but not all, strategies for avoiding, reducing, or eliminating exposure to hazards and risks).

Hazard or Risk Types	Prevention Strategy Examples
<b>Engineering Controls</b>	Practice product substitution; use barriers; allow for adequate filtration and ventilation; maintain proper temperature and humidity controls; regularly check fire extinguishers, alarms, sprinklers
Work Practice Controls	Alter animal handling and transport to reduce exposure; pay attention to personal hygiene, housekeeping, and waste management practices; be informed of and practice Safe (or Standard) Operating Procedures (SOPs)

Personal Protective Equipment (PPE)	Wear gloves, uniforms, gowns, aprons, hard hats,	
	safety glasses, steel-toed boots, respirators, etc.	
Training & Education (also see below)	Participate in university and departmental specific	
	training program; follow SOPs (Mandatory Baseline	
	Safety Training and Supervisor Safety Training).	
<b>Equipment Maintenance &amp; Operation</b>	Follow SOPs; be trained in the proper use of equipment	
	and machinery; regularly check machine performance	
	(report any problems or needed repairs to supervisor	
	immediately)	
Animal Source	Purchase animals from reputable vendors; avoid	
	contact with wild animals or animals of unknown	
	origin; take necessary precautions (PPE, proper animal	
	handling instruction) when it's necessary to work with	
	high-risk species	
Animal Housing, Caging, Bedding	Follow SOPs; wear gloves, protective clothing, use	
Timmur Troubing, Enging, Doubing	proper posture and body mechanics (lifting, pushing,	
	pulling, etc.).	
Hazardous Material Use	Follow SOPs; attend university training in lab and	
Hazardous Material Osc	chemical safety	
Waste Disposal	Follow university policies and procedures for	
waste Disposai	hazardous waste removal (allow UP&SO to dispose of	
A 1 Thurs a	the waste properly)	
Animal Transportation	Do not transport animals through common, non-animal	
	corridors or facilities (may expose non-animal	
T D 1	personnel); use proper techniques and transport devices	
<b>Emergency Procedures</b>	Know the contact people for each facility; be sure	
	emergency phone numbers are posted in animal	
	facilities; be familiar with standard emergency	
	procedures like evacuation routes and emergency exits,	
	what to do in the event of a chemical spill, which	
	medical providers to go to in medical emergencies, and	
	how to report injuries to the University Police and	
	Safety Office, Claims Management Specialist.	
Zoonosis	Obtain appropriate immunizations or vaccinations;	
	wear gloves and protective clothing when handling	
	species with zoonotic disease potential; participate in	
	medical consultations and surveillance; avoid high-risk	
	animals and situations	
Animal Handling	Learn proper handling techniques; wear protective	
	gloves, clothing, respirators, etc.	
Good Housekeeping	Maintain a clean and organized work area that is free	
	from clutter	
Personal Hygiene & Safety (also see below)	Wash hands; wear PPE, as necessary	
Women of Childbearing Age	Avoid all exposure to possible toxoplasmosis infection	
	and/or do not have contact with cat feces; Avoid	
	contact with hazardous chemicals – especially during	
	the first trimester; wear PPE	
Medical Assessments &	Receive the recommended immunizations to prevent	
Immunizations/Vaccinations	disease transmission; Learn strategies (such as wearing	
	a mask) that would reduce or eliminate exposure to	
	health-altering situations (like allergies)	
	neurin-anormg situations (fixe anorgies)	

# 2. Information on Education & Training

The extent of an individual's personal involvement in the program will be determined by the assessment of the potential risks to the individual's position at the University.

Departments, supervisors and principal investigators will be responsible to provide training for the students and employees working under their supervision. The training will be specific to the species and procedures to be used.

Departments will be responsible for maintaining the documentation of the Departmental Specific Training. Training requirements use a fiscal year calendar and documentation must consist of the following information: date of training, topics covered, name of the person providing the training, and the participants acknowledgement of attendance. Records should be maintained for *five years*, unless otherwise specified. The University Police and Safety Office will manage the documentation of the mandatory University safety training.

NDSU's Police and Safety Office will provide training and/or training resources that outline general health and safety issues at NDSU. The IACUC serves as a primary resource, and assists principal investigators and supervisors in assuring proper animal care and use training of those they supervise.

The IACUC has developed and organized a collection of training modules to cover the spectrum of animal activities undertaken by NDSU faculty, staff, and students in regard to animal use. Some of these modules are developed and in-place, while others are continually being developed and added to the program. The training and education programs utilize the programs and resources of the University Police and Safety Office, and the IACUC Office/Office of Sponsored Programs Administration/Office of the Vice President for Research and Creative Activity.

# 3. NDSU Training Program

The key element to a successful accident prevention program and in any occupational safety and health program is effective job orientation and safety and health training. NDSU's Risk Management Program will address the basic safety training and continuing education of the job elements, on-the-job safety, general health, and the prevention of injury and illness (Baseline Safety Training). The program includes an employee orientation process in which all employees learn the general safety rules, safe operating procedures, ergonomic hazards, and claims management procedures.

The program will, at a minimum, require departments to complete orientation and initial training for new, transferred and reassigned employees to different positions, along with periodic regular training on at least an **annual** basis for all employees. Required training will consist of documentation on the following:

- Mandatory Annual Baseline Safety Training
- Mandatory Annual Supervisor Safety Training
- Department Specific Safe Operating Procedures Mandatory Upon Hire (examples of specific department training)
  - Lab and Chemical Safety Training (refresher recommended every 3 yrs.)
  - Radiation Safety Training (refresher every 5 yrs.)
  - Hazardous Waste & Biohazard
  - Exposure Control/Bloodborne Pathogens
  - X-ray (initial) & Laser

- Pesticide Application
- Forklift/Heavy Equipment
- Lockout-Tagout
- Confined Space
- Occupation Health and Safety with Animals
- Animal Species/Common Name, Animal Welfare and the NDSU IACUC
- CPR/First Aid/AED
- Asbestos (initial)
- Other

Additional training will be conducted as follows:

- Whenever employees change positions or begin a new position for which training has not been previously received
- Whenever new species, substances, processes, procedures or equipment are added or changed that may present a new or previously unrecognized hazard
- Whenever an incident/accident investigation recognizes a training need

# **List of Current NDSU IACUC Training Modules**

Required training programs:

- CITI Online Training Program Working With The IACUC (www.citiprogram.org)
- "Occupational Health & Safety in the Care & Use of Vertebrate Animals"
- Species specific training
- Other training programs that may be required by supervisors for particular work with animals

All courses listed are available online as a self-enrolled blackboard session. You may contact the director of the IACUC for further information. Future access through the IACUC website will be made available.

# 4. Emergency Procedures & Reporting Incidents, Injuries, or Illnesses Emergencies

Dial 911 in the event of fires, medical emergencies, or other serious threats. University police may also be contacted at 231-8998 for non-emergencies. Follow the procedures outlined by your department in the event of emergencies.

If the emergency or problem involves the animals, refer to the emergency contact placards posted in the animal facility for the names and phone numbers of the appropriate contact person(s) for that facility. The NDSU Attending Veterinarian can also be contacted in the event of animal emergencies (231-7830).

#### Reporting Work Place Incidents, Injuries, Illnesses, or Near Misses

To promote a safe work environment, all work related near misses, incidents, injuries, illnesses and exposures will be reported immediately or within 24 hours by the employee to their immediate supervisor or next person in charge at the time of injury, and the Safety Office.

When a work related incident/injury/illness/exposure occurs, whether medical attention is needed or not, the following steps must be followed:

- 1. Assess the injury. Is medical treatment needed, or is first aid adequate? If it is an emergency, call 911.
- 2. If non-emergency medical care during regular business hours is required, seek treatment at NDSU's Designated Medical Provider. If it is after hours or if you are out of town, seek medical attention at the nearest medical facility.
- 3. Immediately after you have received medical treatment, or within 24 hours, you must bring the Workers' Compensation First Report of Injury form (which you would have completed at the Designated Medical Provider's office) to the Claims Specialist at the Safety Office. All other Workers' Compensation forms required for your injury will also need to be completed at this time.
- 4. Complete the NDSU **incident report** for every incident and fax this report to the Safety Office (231-6739) **within 24 hours**. Per <u>NDSU Policy 166</u>, it is a requirement that incident reports be completed and submitted to the Safety Office immediately, **no matter if the incident requires medical attention or not**.
- 5. The Supervisor is required to assess the event/incident for immediate hazards and conduct an investigation. The Supervisor must identify and document corrective actions to prevent similar incidents from occurring again.
- 6. The injured individual is required to follow all medical restrictions, 24 hours a day, 7 days a week.
- 7. It is the responsibility of the injured worker to communicate with the Claims Specialist (231-6740) and his or her Supervisor, so as to keep them informed of any referrals, restrictions and medical visits.

When there is a potential for an incident to occur, or when a hazard is identified, the employee will file a **Near Miss Report** with their immediate supervisor. The supervisor will assess the near miss and make certain that corrective action is complete to prevent recurrence. The completed **Near Miss Report** should then be sent or faxed to the Safety Office (231-6739). North Dakota State University <u>incident report forms</u> and <u>near miss forms</u> can be found on the <u>Downloadable Forms webpage</u>.

# 5. Animal Care after Human Injury

Special procedures may be required to identify the risk of human exposure to diseases for a particular animal. All samples, animals, or equipment involved in a human injury shall be preserved and have special identification to aid in further testing and/or procedures. The principal investigator or supervisor and the NDSU Attending Veterinarian should be notified immediately for appropriate care of the animal, investigation of the incident, and corrective action. If the animal is used for teaching or research, medical information and care required shall be relayed to all participants.

# Part E: Students in Classes, Volunteers and Ancillary Personnel

#### 1. Students in Classes

As part of the Animal Care and Use Protocol for teaching, the instructor will complete the Hazard and Risk Assessment Form; train students on the risks associated with the class and discuss prevention techniques.

1. The Hazard and Risk Assessment form will include a brief description of the class, the species of animals involved, and a description of student contact with the animals.

- 2. If a course is determined to be High Risk, the instructor will discuss with the class the potential hazards, zoonosis and the student's options for individual medical assessment.
  - a) High Risk High probability of an adverse health effect, for example, students working with wild-caught mammals, or involved with lambing.
  - b) Low Risk Low to moderate probability of adverse health effects.
  - c) Following the training, the instructor will have each student complete and sign the "Participation Waiver".
- 3. Each principal investigator or instructor will provide students with substantial contact to animals with the following information:
  - a) The availability of, and the option to request medical evaluation and treatment from Student Health Service
  - b) Educational material regarding general information, potential hazards, universal precautions and personal hygiene
  - c) Other potential health and safety hazards

# 2. Volunteers, Guests, Visiting Researchers/Scholars

- This includes individuals **NOT** listed on an Animal Care and Use Protocol and who are not NDSU employees or students, but do have substantial contact with animals used in research or teaching.
- 2. The Principal investigator or Facility Manager will provide each individual with information pertinent to the species/protocol on which they are working and document that the information has been provided.
- 3. Each principal investigator or instructor will provide those with substantial contact to animals with the following information:
  - a) The availability of, and the option to request medical evaluation and treatment from their personal provider at their expense
  - b) Educational material regarding general information, potential hazards, universal precautions and personal hygiene
  - c) Other potential health and safety hazards
  - d) Provide, and have the volunteers, guests, visiting researchers/scholars complete and sign the "Participation Waiver"

# 3. Ancillary Personnel

- 1. Ancillary personnel are those employees who **do not** have direct/substantial animal contact in their daily job functions, but who may need to enter an animal area in the course of performing their duties.
- 2. Ancillary personnel will be provided, by their supervisor or designee, information based on their need for entry into animal care facilities.
  - a) The availability of, and the option to request medical evaluation and treatment of a medical condition
  - b) Educational material regarding general information, potential hazards, universal precautions and personal hygiene
  - c) Other potential health and safety hazards

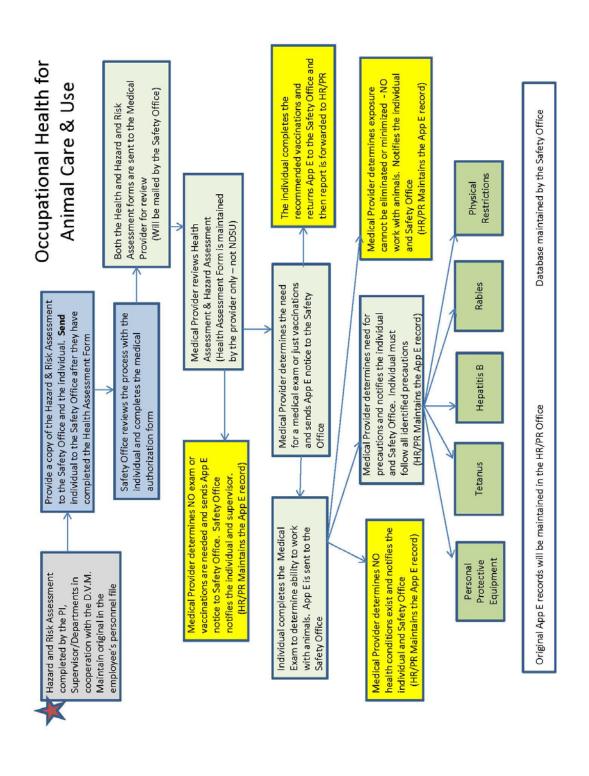
#### SECTION III: PROGRAM PROCESS

- *Step 1:* Faculty, staff, principal investigators and students involved in the use of animals must review the Guidelines for Occupational Health and Safety in the Care and Use of Vertebrate Animals and complete the quiz
- Step 2: Departments, supervisors, and principal investigators identify and require personnel who have substantial contact with animals to participate in the Occupational Health and Safety in the Use of Vertebrate Animal Program. This is done primarily through review of the functional demands and environmental factors associated with the work to be performed (position description, class or project).
- Step 3: The supervisor/department/PI, in coordination with the NDSU Attending Veterinarian completes a Hazard and Risk Assessment (Appendix B) for the project/class/protocol and gives a copy to each person working with animals in his or her lab, class or facility. This form needs to be completed only one time for each individual under their supervision unless one or more of the following has changed: duration of animal exposure, type of activity, equipment, chemical, type of animal and/or change in the individual's health status, Maintain a copy of this assessment in the employee's file and forward a copy to the Safety Office or have the individual deliver to the Safety Office at the time of their meeting.
- Step 4: After the supervisor reviews the Hazard and Risk Assessment with the individual, he/she will be sent to the Safety Office with their completed Health Assessment (Appendix D) and Hazard and Risk Assessment (Appendix B) Forms. The Safety Office will explain the process and complete the medical authorization form.

The individual must have completed the <b>Health Assessment for Persons Involved in Animal</b>
<b>Projects</b> (Appendix D). Please enter requested vaccinations records.
After reviewing the process, the Safety Office will mail the forms (B & D) to the Designated
Medical Provider (Sanford Clinic Occupational Medicine or Essentia Health West Fargo Clinic) for
review.
The Medical Provider will review the assessment forms and make recommendations.
If an exam is recommended, the Medical Provider will notify the Safety Office and the Safety
Office will notify the individual. Individuals needing the exam must participate in the medical
examination/vaccinations.
If the Medical Provider recommends vaccinations only, individual must participate unless supporting
documentation can be provided for not completing the recommended vaccinations.
The Medical Provider will return the "Medical Provider Health Assessment Report to NDSU" (APP
E) to the NDSU Safety Office.
The NDSU Safety Office will maintain information in a database and send the final medical reports
to HR/PR for recordkeeping.
The NDSU Safety Office will forward any precautions or preventive measures to the
supervisor/department/PI.
Supervisor/department/PI will implement any and all precautions or preventive measure outlined by
the Medical Provider.
Employee is required to comply with precautions or preventive measures outlined by the Medical
Provider.
Only when indicated by the Medical Provider, the individual is to return the Hepatitis B Form (App
C) to the Safety Office when the series of shots have been completed. This will be maintained in the
individual's HR/PR medical file.

- Step 5: The Safety Office will maintain a database for all individuals and send out a report annually to all supervisors/departments/PI. Re-evaluation is based on the nature of the hazards (respirators, substantial risk areas, etc.) and when there are changes in work assignments (change in species, contact level, etc.). These hazards and risks will be determined by the supervisor, principal investigator, faculty, etc.
- Step 6: Complete all University required training prior to beginning work and annually thereafter.

#### PROGRAM PROCESS FLOWCHART



#### SECTION IV: PROGRAM EVALUATION

The program for occupational health and safety in the care and use of vertebrate animals is evaluated annually through the mechanism of the IACUC Semiannual Program Review. Documentation of this self-evaluated Semiannual Program Review (which becomes part of the Semiannual Report to the Institutional Official) is maintained in the IACUC Office. The IACUC Director and IACUC members conduct the Semiannual Program Review.

This review, based on the <u>Sample Semiannual Program and Facility Review Checklist</u> from the PHS-Office of Laboratory Animal Welfare (OLAW), asks the IACUC and NDSU to consider, evaluate, and make certain that the following elements are part of an institutional animal care and use occupational health and safety program.

The evaluation asks whether the program:

- Is established and implemented
- Covers all personnel who have substantial contact with animals
- Is based on hazard identification & risk assessment
- Includes personnel training with information on topics like zoonosis, hazards, health precautions, etc.
- Includes personal hygiene procedures (e.g., work clothing, eating/drinking/smoking policies)
- Has procedures for use, storage, and disposal of hazardous biological, chemical, and physical agents
- Includes specific procedures for personnel protection (e.g., shower/change facilities, injury protection)
- Involves evaluation including health history for personnel with substantial contact with animals
- Offers immunizations as appropriate (e.g. rabies, tetanus) and tests zoonosis surveillance as appropriate
- Includes procedures for reporting and treating injuries, including bites, etc.

After the evaluation has been conducted, any deficiencies, problems, or suggestions for improvement regarding the animal care and use occupational health and safety program are brought to the attention of the IACUC and the Institutional Official for discussion and action.

#### APPENDIX A – INCIDENT REPORT

NDSU

UNIVERSITY POLICE AND SAFETY OFFICE

Report of Occupational Incident/Injury/Illness/Exposure

Questions about this form? Please call 701-231-9587

# **Incident Reporting Responsibilities**

#### **EMPLOYEE**

- 1. Report incident/event immediately to your supervisor
- 2. Assess for first aid or medical treatment
- 3. Complete the incident report immediately and fax to the Safety Office (24 hour reporting requirement)
- If you need medical care report to NDSU's Designated
   Medical Provider
- 5. Bring First Report of Injury Form from the Medical Provider to the Claims Specialist immediately
- Complete additional required Workers Comp forms with the Claims Specialist
- 7. You are required to follow medical restriction 24/7
- 8. You are required to accept modified work
- Keep the Claims Specialist informed of referrals, restrictions and medical visits
- 10. Sign and date all documents

#### **SUPERVISOR**

- Assess the injury for first aid or medical treatment if medical treatment is needed, send or take to the Designated Medical Provider
- Provide a copy of the Incident Report Form to the employee
- Assess the event/incident for immediate hazards and conduct an investigation
- Complete the Supervisor's portion of the Incident Report from and fax to the Claims Specialist immediately
- Identify Corrective Actions to prevent similar incident from occurring again
- 6. Repair, Replace, Remove or Retrain/Train
- Monitor the Return to Work and provide temporary accommodations for restrictions
- 8. Work with the injured worker and Claims Specialist throughout the claims process
- 9. Sign and date all documents

CONTACT INFORMATION

NDSU Claims Specialist

701-231-9587

NDSU Safety Office Fax

701-231-6739

NDSU Safety Office

701-231-7759

Page 1 of 2

#### Report of Occupational Incident/Injury/Illness/Exposure

NDSU

UNIVERSITY POLICE AND SAFETY OFFICE

Questions about this form? Please call 701-231-9587

UNIVERSITY POLICY REQUIRES THAT AN OCCUPATIONAL INCIDENT/INJURY/ILLNESS/EXPOSURE BE REPORTED TO ND RISK MANAGEMENT WITHIN 24 HOURS OF OCCURRENCE AND STATE REGULATIONS REQUIRE THAT ALL EVENTS BE INVESTIGATED. Omission of information could result in a delay of benefits. This form must be FAXED to the Safety Office IMMEDIATELY or within 24 hours at 701-231-9587. EMPLOYEE MUST COMPLETE THESE SECTIONS Incident/Injury/Illness/Exposure C AM C PM Employee Name: Date: Time: Employee ID #: Address: Sex: C Female Date of Birth: City: State: Department/Location: Employee's Work Phone: Job Title: Annual Gross Salary: Date Supervisor Notified: Supervisor's Name: Supervisor's Work Phone: 1. Bodily Injury  $\overset{O}{C}$  Yes 2. Specific Injury/Illness/Exposure: 3. Body Part(s) Affected: Have you had prior injury to that body part? Location where incident/injury/illness/exposure occurred (street, building, room, etc.): What equipment, materials or chemicals caused the incident/injury/illness/exposure: Witness Phone: Explain in detail how the incident/event occurred. Include specific activities/tasks performed at the time: Date of First Medical Treatment: Medical Treatment provided by: O Sanford Clinic Occ Medicine O Essentia Occ Health O First Ald, no medical care needed O Other: Property Damage C Yes Owner's First Name: Owner's Last Name: Owner's Street Address: City: What was damaged? Was state property damaged? C \*Employee Signature (FAX this portion of this report IMMEDIATELY to 701-231-6739) Today's Date SUPERVISOR'S INVESTIGATION AND STATEMENT (SUPERVISOR COMPLETES): after completing fax immediately to 231-6739 After the investigation, explain in detail how the incident/injury/illness/exposure occurred and the specific activity being performed: What was the specific injury, illness, or exposure? Date employee completed Baseline Safety Training: 1. INITAL CAUSE 3. PREVENTIVE ACTIONS 2. CONTRIBUTING FACTORS AND ACTIVITIES Supervisor: (must be completed) Struck by or against an object Equipment Employee Develop/revise safety policies/procedures; and/or update plan Request ergonomic evaluation Require personal protective equipment Employee fatigue
Unbalanced or poor position or motion Equipment failure Caught in/under/between Improper equipment or material used for job Fall/Slip/Trip Not paying attention Personal Protective Equipment Material handling or lifting Remove equipment from use and repair or replace Improper footwear for conditions Repetitive motion ☐ Not worn Schedule preventive maintenance Going too fast Not readily available Taking short cuts ☐ Not adequate for the task Body Fluid Exposure Not aware of surroundings Inform employee to slow down Address behavior and attitude Personal protective equipment failure Not reporting in a timely manner Cut/Puncture Address behavior and stittude
Address employee work procitions
Maintain housekeeping and sanitary conditions
Report adverse event to IBC
Work Order completed
Contact Facilities Management (ice, etc.) Lack of policy/procedure
Poor housekeeping practices Training/Experience ☐ Fire Lack of training Animal bite Improper behavior and attitude Safety training provided, not followed Other - Explain: Disregard for safety rules New task for employee or lack of experience Other-Explain: Other unsafe practice - Explain Work Area Work area set up improperly Ergonomic factors Environmental factors:
O Clear O Rain O Snow
Hall O Sleet O Other: Sanitary and housekeeping issues Lack of cord management Complete 1, 2, and 3 Use Additional Pages as Needed. Date Received: Date of Investigation: Supervisor or Manager Signature NDSU Claims Management Specialist Page 2 of 2 UPSO-IncidentReport - REV 02/2016

# APPENDIX B EMPLOYEE

**University Police & Safety Office, 231-7759** 

NDSU Occupational Health and Safety Program for Animal Care & Use

# **HAZARD & RISK ASSESSMENT**

This form is completed for the purpose of conducting an occupational health risk assessment for the participant. This form will be used in conjunction with the Health Assessment Questionnaire to evaluate for appropriate medical surveillance.

Completion of this form for each individual involved in our animal care and use program is required by the principal investigator, supervisor, or department chair in order to aid in determining appropriate training courses and necessary health precautions to minimize the potential for animal-related health risks to NDSU employees and students assigned to animal facilities and projects. This form needs to be completed only one time for each individual under their supervision unless one or more of the following has changed: the duration of animal exposure, the type of activity, the type of animal and/or a change in the individuals, health status. A faculty principal investigator may complete their own risk assessment.

Faculty/Staff/Stude	ent Name:	E-	mail Address:
	b Title:		
	Potential Work-Related He		
All Animals to	be encountered according to	the following designations	:
<ul> <li>Level 0 No animal contact</li> <li>Level 1 No direct contact, but enters animal facility</li> <li>Level 2 Does not conduct procedures on live animals but handles "unfixed" animal tissues and fluids</li> <li>Level 3 Handles, restrains, collection of specimens or administers substances to live animals.</li> <li>Level 4 Performs invasive procedures such as surgery, necropsy</li> </ul>			
	- Amphibian	— Goat	Primate
	- Birds	— Guinea Pig	—— Rabbit
	- Cat	— Hamster	—— Rat
	Camelid	— Horse	Reptile/Fish
	Cattle	Marine Mammal	Sheep
	. Dog	— Mice	— Wild Rabbit/Mice/Rat
	- Ferret	—— Swine	—— Other – list
	- Gerbil	—— Poultry	

Will work i	nvolve direct contact with any of the followin	g?		
1.	Biological Agents			
	a. Recombinant DNA	Yes	No	
	b. Infectious Agents	Yes	No	
2.	Human Blood, Tissues, or Cells	Yes	No	
3.	Physical Agents			
	a. Caustic, Flammables or cryoagents	Yes	No	
	b. Noise	Yes	No	
	c. Radiation	Yes	No	
	d. Radioisotopes	Yes	No	
	e. Extreme environmental conditions	Yes	No	
	f. Lasers	Yes	No	
4.	Chemical Agents			
	a. Anesthetic gases	Yes	No	
	b. Drugs/Chemotherapeutic agents	Yes	No	
	c. Heavy metals	Yes	No	
animal-rela	ning coursesBaseline Safety Training			
	IACUC Training			
	Occupational Health & Safety Program			
	Chemical/Lab Safety Training			
	Radiation Safety Training			
	Laser Safety Training			
	Exposure Control Plan			
	Chemical Hygiene			
2 Haal	Other Protocol Specific Procedures			
	th Assessment, immunizations/vaccinations	racnirata	ra ata	
	onal protective equipment like gloves, clothing, iding contact with certain species, etc.	respiratoi	rs, etc.	
4. Avo.	iding contact with certain species, etc.			
List other:				
with the ND	e, I certify that the information provided is accur SU plan on the Animal Care and Use Occupation the items detailed in that program and as specified	nal Healt	h Program,	
PI, Supervis	or, or Dept. Chair Name (please print)		_	
Signature o	f PI, Supervisor, or Dept. Chair		-	Date

After completing Appendix B, please make an appointment with the Safety Office (231-7759) to finalize your application. Both Appendix B and Appendix D must be complete prior to this appointment. Do not fax these forms or put them in campus mail as they contain your protected health information.

Copy to the Employee and retain a copy within your departmental employee files

#### APPENDIX C EMPLOYEE

#### **University Police and Safety Office, 231-7759**

NDSU Occupational Health and Safety Program for Animal Care & Use

# EMPLOYEE HEPATITIS B VACCINATION SERIES CONSENT/DECLINATION FORM

I, an employee of this facility, understand that due to my occupational exposure to blood or other potentially infectious materials, I may be at risk of acquiring Hepatitis B virus (HBV) infection. Hepatitis B virus is a viral infection with a major effect on the liver. Due to this potential, I have been offered the Hepatitis B vaccination series, which is 98% effective in preventing Hepatitis B.

I understand that the vaccination series will include an initial dose followed by a 2<sup>nd</sup> dose one month later, 3<sup>rd</sup> dose taken six months after the first. Antibody testing is performed 1-2 months after the third dose to assure antibody production.

An evaluation by a Healthcare Professional as to the indication for the Hepatitis B vaccination, potential side effects, contraindications, and answers to any questions I may have will be provided prior to the series. I have been informed that this vaccine and vaccination series will be:

- At no cost to me, the employee, and assumed by my department and offered at a reasonable time and place.
- Provided under the supervision of a licensed physician, or by or under the supervision of another licensed healthcare professional.
- Provided in accordance with recommendations of the U.S. Public Health Service.
- Provided all laboratory tests conducted by an accredited laboratory at no cost to me, the employee, but assumed by my department.
- My responsibility to complete the series and follow medical recommendations.

Please Sign Choice 1), 2), or 3) Below						
	ntitis B vaccination r, and as stated abo		(Na llow-up as red	me of Employ commended b	yee), on y the U.S. Pu	(Date), <u>CONSENT</u> to blic Health Service, offered by my
Hepatitis Hepatitis potential	s B vaccination at t s B, a serious disea	rtunity to be vehis time. I ur see. If in the f	vaccinated winderstand that future should	th Hepatitis B by declining I continue to b	vaccine, at n this vaccine, have occupation	o charge to myself. However, I decline I continue to be at risk of acquiring onal exposure to blood or other cine, I can receive the vaccination series
2) I,(Name of Employee), on(Date), <u>DECLINE</u> the HBV vaccination series and follow-up.						
3) I, (Name of Employee), on (Date),  DECLINE the HBV vaccination series and follow-up based on the fact that I have previously had the vaccination series.  (Employee's Signature) (Date)						
(Employee's Job Classification) (Supervisor's Signature) (Date)						
Date of Hire	Date of Consent or Decline	Date of Dose 1	Date of Dose 2	Date of Dose 3	Date of Titer	HCP Written Opinion and Vaccine Data on File?

This report will be maintained in HR/PR confidential Employee Medical Record File

# **APPENDIX D Employee**

After completing Appendix D, please make an appointment with the Safety Office (231-7759) to finalize your application. Both Appendix D and Appendix B must be complete prior to this appointment. Do not fax these forms or put them in campus mail as they contain your protected health information.

# **HEALTH ASSESSMENT FOR PERSONS INVOLVED IN ANIMAL PROJECTS**

	· ·	occupational health program for ind	
		th animals. All individuals engaged i	n the
	ioned activities must complete the		M
Last Name_		First Name	MI
☐ Male	☐ Female Date of Birth		
Local Addre	ess		
Permanent A	Address		
Local Phone	2	Permanent Phone	
NDSU Depa	artment:	Supervisor:	
		Species of Animal to be handled:	
Please conti	inue with this questionnaire.		
A.		part of your duties (provide food/water, of the reason the duty/responsibility of	
		on live animals, but handles "unfixed" to of specimens or administers substances	
C.		imity of) pregnant mammals (rodents exc imity of) wild-caught mammals and/or w imity of) venomous animals?	
E.	Does your work with animals requ	uire you to be in contact with agents that om animals infected or contaminated wit	
F.	Do you have known or suspected a	allergies to animals?	
		ems (diabetes, asthma, high blood pressi	ure, etc.)?
	Do you have renal or liver disease		, ,
I.	Do you have heart disease?		
J.	<u> </u>	ciencies (or other medical conditions that	nt may limit your
	ability to carry out your duties)? _		
K.		tendencies (hay fever, eczema, choliner	
L.	Do you have a history of spleen pr	roblems or have you had a splenectomy	(spleen removal)?

M. Are you pregnant?N. Are you under current therapy usingO. Do you work directly with the rabies						
rabies surveillance?	•					
P. Are you exposed to animals or anim virus and/or are you responsible for			_			
Will the work involve any of the following?						
1. Biological Agents		* 7				
a. Recombinant DNA		Yes	No			
b. Infectious Agents		Yes	No			
<ul><li>2. Human Blood, Tissues, or Cells</li><li>3. Physical Agents</li></ul>		Yes	No			
a. Caustic, flammables or	cryoagents	Yes	No			
b. Noise		Yes	No			
c. Radiation		Yes	No			
d. Radioisotopes		Yes	No			
e. Extreme environmental	l conditions	Yes	No			
f. Lasers		Yes	No			
4. Chemical Agents						
a. Anesthetic gases		Yes	No			
b. Drugs/Chemotherapeut	ic agents	Yes	No			
c. Heavy Metals		Yes	No			
<ol> <li>Asthma</li> <li>Serious Allergies</li> </ol>	22. Heart Disea 23. Chest pain/p					
<ul><li>3. Bronchitis</li></ul>	24. Shortness of		mnhyeama			
4. Chicken pox	25. Rapid/Irregi					
5. Tuberculosis (or exposure)	26. High blood					
6. Diabetes	27. Low blood					
7. Thyroid disorder	28. Back proble					
8. Kidney disorder	29. Benign tum	ors				
9. Urinary problems	30. Cancer					
10. Recurrent headaches 31. Jaundice			1			
11. Head injury 32. Epilepsy/s			rders			
<ul><li>12. Loss of consciousness</li><li>13. Recent weight gain</li></ul>	33. Toxoplasmo					
14. Recent weight loss	35. Insomnia	oblems				
15. Prolonged anxiety	36. Gall bladder	r disorder				
16. Vision problems	(Women)					
17. Hearing problems	37. Pregnant					
18. Carpal Tunnel Syndrome 38. Planning a			7			
<ul><li>19. Musculo-skeletal problems</li><li>20. Neurological problems</li><li>21. Hepatitis A, B, or C</li></ul>	39. Miscarriage					
Comments: (regarding "yes" answers above)						
Has your physical activity been restricted during the	past five years?_		Describe:			
Have you had any surgery during the past five years?	,		Describe:			

, <b>,</b>	n seriously ill or	injured during t	the last five years	s?	Des	cribe:	
Are you currer	ntly receiving me	edical treatment	c/counseling?		Desc	ribe:	
Do you take an	ny medications r	outinely?		Descri	ribe:		
DO YOU HA'	VE ALLERGIES	S TO CHEMIC	ALS?	Name:			
DO YOU HAY	VE ENVIRONM	MENTAL ALLE	ERGIES?	Name:	D	O YOU HAVE	L
MEDICATIO	N ALLERGIES	?		Name	of drug(s):		
DO YOU SMO	OKE OR USE T	OBACCO PRO	DUCTS?		_		
DO YOU HAY	VE PETS AT HO	OME?		_Describe:			
RECORD OF	VACCINATIO	ONS RECEIV	ED:				
Vaccine	Date Rec'd	Vaccine	Date Rec'd	Vaccine	Date Rec'd	Vaccine	Date Rec'd
Tetanus/ TDap		Hep A Series - 1		Hep B Series - 1		Rabies Series – 1	
1246		Hep A Series - 2		Нер В		Rabies	
		Series - 2		Series - 2 Hep B Series - 3		Series – 2 Rabies Series - 3	
evaluation, treat other support ser Occupation Hea Fargo Clinic to Health Program	ment and surveilla rvices aimed to pr lth Program, I am release my medica at NDSU. My rec	ance program. I we revent occupation also giving authoral records related cords will be kept	vill have access to al injuries and exp orization to Sanfor to the work I am p	educational mate posures. By enrol d Clinic Occupate performing to des medical file and r	occupational Health crials, personal pro ling in the medical cional Medicine or ignated individuals may be released, was	tective equipmen portion of the Essentia Health Vs within the Occu	t, and West ipational
<b>Print Name:</b>							
Time i vanie.					Date		
Signature:							
Signature: The medical pyou in mailing Sen	orovider will de g the Health As d to: Sanford Cl Essentia He	etermine if an essessment and linic Occupation ealth West Farg	Hazard and Ris nal Medicine 382 o Clinic, 1401 1	k Assessment to 28 12 <sup>th</sup> Ave. N.	nended. The Saf to the medical p Fargo ND 58102 Vest Fargo, ND 5	rovider. (234-4700)	assist
Signature: The medical pyou in mailing Sen	provider will de g the Health As d to: Sanford Cl	etermine if an essessment and linic Occupation ealth West Farg	Hazard and Ris nal Medicine 382 o Clinic, 1401 1	k Assessment to 28 12 <sup>th</sup> Ave. N.	t <b>o the medical p</b> Fargo ND 58102	rovider. (234-4700)	assist

# **APPENDIX E EMPLOYEE**

# University Police & Safety Office, 231-7759

NDSU Occupational Health and Safety Program for Animal Care & Use

	MEDICAL PROVIDER HEALTH ASSESSMENT REPORT TO NDSU			
Name: -	Department:			
Supervis	sor Name (Please print)			
	rtify that I have evaluated the above individual's health assessment and have uded the following:			
No medical exam/vaccine is recommended based on the submitted information.				
	Recommend Vaccine only: Tetanus Hep B Hep A Rabies Recommend medical exam/vaccine based on the submitted information.			
Medical	Provider: (Return copy to NDSU Safety Office and patient)			
Provide	r Signature: Date:			
conclu	rtify that I have completed the medical exam on the above individual and have uded the following:  No existing health condition has been identified that could alter this person's exposure-risk profile.  A health condition exists that affects this person's exposure-risk profile, but the risk can be minimized or eliminated. The person must take the following precautions or preventive measures (e.g., vaccinations, wearing gloves, masks, avoiding contact with certain species, etc.) to minimize or avoid the risks:			
	A health condition exists that affects this person's exposure-risk profile that cannot be eliminated or minimized.			
Health C	Care Facility (DMP):			
Provide	r Signature: Date:			
	d a copy to the NDSU Safety Office ( <b>fax</b> 701-231-6739) or mail to Safety Office, Dept. 3300, P O. 50, Fargo, ND 58108			
	ride a copy to the above individual after completing the medical exam and a copy to the NDSU Safety (fax 701-231-6739) or mail to Safety Office, Dept. 3300, P O. Box 6050, Fargo, ND 58108			

(Report to be forwarded by the Safety Office and maintained in HR/PR Office)

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