**PROCEDURES FOR ND ENERGY LABORATORY USE**

**116-120 Stinson-Remick Hall**

**Safety Coordinators:** Dr. Ian Lightcap (574-631-1493), Dr. Ginger Sigmon (574-631-6247),

Jennifer Szymanowski (574-631-4380)

**WEATHER RELATED \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

* In case of a tornado or other hazardous weather conditions requiring need for shelter, please leave the laboratory immediately and take the closest stairwell to the basement of Stinson-Remick Hall. When danger has passed, you will be notified via the building announcement system. This is mandatory – not optional!

**BUILDING EVACUATION \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

* Everyone must exit the laboratory and building immediately when the alarm sounds and go to sidewalk between Stinson-Remick Hall and Mendoza.
  + Stop what you are doing. If you are working with an open flame or hazardous chemical, extinguish the flame and/or store the chemical properly. If you cannot do this, notify the ND Fire Department (NDFD) responders immediately when you exit the building.
  + Gather your home and work keys, purse, and coat as you leave the area.
  + Ensure the laboratory doors are shut and locked behind you.
  + Take the nearest exit and go to the sidewalk between Stinson-Remick Hall and Mendoza.
* In the event of a true emergency, persons with information about the cause and special needs should proceed to a NDFD vehicle and wait for the emergency responders.
* All others must exit to the designated evacuation assembly area to allow for the safe arrival of emergency response vehicles.
* You may not re-enter the building until you have been given the “all clear” from the emergency responders.

**TRAINING \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

* All laboratory personnel are required to fulfill specific University enforced training classes and then laboratory specific training. To work in this laboratory, you are required to complete initial training through Risk Management and Safety via complyND for: (1) general lab safety (three sections) and (2) fire extinguisher training. After your initial training, you will receive a certificate stating that you have completed this training. A copy of the certificates should be provided to the safety coordinator, along with a signed copy of this agreement. Once these documents are received, you will be given card access into the laboratory.
* In addition to the initial training requirements, you are required to do yearly refresher training for the classes above, and copies of the certificates of completion are to be provided to the safety coordinator. Failure to update these will result in loss of laboratory access.
* Professors, associated researchers, and project managers are responsible for providing their students and research staff with the proper training in safe laboratory practices, including handling, transporting, and disposal of all materials.

**THERE IS ABSOLUTELY NO FOOD OR DRINK ALLOWED IN ANY OF THE LABS!**

**PERSONNEL \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

* Graduate students and postdoctoral associates are allowed to work on their own in the laboratory.
* Undergraduate students and high school students must be supervised at all times by an authorized research mentor. A research mentor can be a graduate student, postdoc, or the faculty advisor.

**PERSONAL PROTECTIVE EQUIPMENT (PPE) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

* Based on general University guidelines, you are required to wear the following PPE, which you will supply for yourself while working in this lab:
  + **Eye protection** – regular lab safety glasses or goggles are required at all times.
  + **Lab coats** – coats should be supplied by your faculty advisor and made available to you in the laboratory.
  + **Gloves** – nitrile, latex, or neoprene gloves are acceptable, although some chemical applications may be specific and not all glove materials will perform in the same manner. Gloves are required when handling samples.
  + **Clothing –** all researchers are required to wear long pants and enclosed footwear, as per the UND Chemical Hygiene Plan. Legs must be covered to the ankle and NO open toed or sling-back shoes are allowed. You must wear shoes that cover your entire foot and have a sturdy sole (e.g. tennis shoes, boots). You will not be permitted to work if you have inappropriate clothing or footwear.
* **Application specific PPE** –
  + Cryogenic use (liquid nitrogen) or furnace use requires using approved insulated gloves.
  + Disposable respirators – this laboratory is not required to maintain or provide fitted respirators for personnel. If you would feel more comfortable wearing a disposable respirator within the laboratory, you may do so voluntarily. If you choose to wear a disposable respirator, you will need to sign a waiver, which the safety coordinator will provide for you.
* **MSDS**
  + It is the responsibility of every researcher to consult MSDS forms before beginning work. Any concerns over hazard or compatibility should be addressed before work begins. MSDS forms are NOT kept in the laboratory; they are available on-line at various locations.

**RESEARCH MATERIAL ­­­­** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

* All containers must be labeled with “contents, last name, PIs name, and date”. This is a shared laboratory facility and you must keep all of your materials in your designated area within the laboratory.
* All waste must be labeled properly and in proper waste containers. The laboratory user is responsible for disposing of all waste generated in the laboratory.
* No hazardous chemicals, equipment, or radioactive materials are allowed in the laboratory.
* Assigned work areas must be kept in an orderly manner at all times, as the ND Energy laboratory is visited frequently.

**IN CASE OF EMERGENCY \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

* “In case of emergency” forms are located near the phone in the laboratory with instructions of what to do. In all cases, if there is a question of what to do first - CALL 911.
* Make sure that people are cared for first and emergency personnel are on their way before notifying laboratory staff, office staff, and safety coordinators.

**SPILL OR CONTAMINATION CHECKS AND CLEAN-UP \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

* In your University training, you were informed of the proper protocol for spill and/or contamination clean-up. If you are unable or uncomfortable to deal with the situation ASK SOMEONE FOR HELP.
  + **Eye washes and safety showers** – you have been made aware of the locations of stationary eye washes, portable eye washes, and safety showers in the laboratory.
  + **Spill Kit** – you have been made aware of the location of a chemical spill kit in the laboratory.

**WASTE PROTOCOL \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

* **Glass disposal** – place all or used disposable glass in the glass disposal box. If the container becomes full, see the safety coordinator on the proper way to dispose of the box and to set up a new one.
* **Glove disposal –** place all used gloves in a trash can. There are several located throughout the laboratory. Do not leave them on a desk or computer.
* **Chemical disposal –** all chemical waste must be collected in a clean waste bottle and labeled with contents for pick up by Risk Management and Safety.
* **Sharps disposal –** all sharps should be placed in sharps containers after use.

*I CERTIFY THAT I HAVE READ AND UNDERSTAND ALL INFORMATION PRESENTED TO ME IN THIS PROTOCOL AND THAT THIS IS BINDING FOR MY TENURE AT NOTRE DAME. FAILURE TO ADHERE TO PRACTICES AND PROTOCOLS ADDRESSED IN THIS DOCUMENT WILL RESULT IN DISCIPLINARY ACTION AND/OR DISMISSAL FROM THIS LABORATORY.*

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| **NAME (Signed):** | **( ) Graduate Student ( ) Undergraduate Student ( ) Postdoc ( ) Faculty ( ) Other \_\_\_\_\_\_\_\_\_\_\_\_\_\_** | |
| **NAME (Printed):** | **NDID #:** | |
| **ADVISOR (Printed):** | **EMAIL:** | |
| **SAFETY COORDINATOR (Signed):** | | **DATE:** |