

# Central Instrument Facility, CSU

## MR Safety Program

### Emergency Procedures

- M.R. Instruments are always “On”.
- Avoid using the emergency shut-off (where available, generally not available on these analytical spectroscopy instruments), for the MR Instrument unless there is a life threatening emergency. This is called a “quench”.
- Do not approach the MR Instrument with ferromagnetic metals, such as steel.
  - Do not approach a high-field magnet if you have a pacemaker or internal metallic objects.
  - Do not attempt to remove any item that is or has become attached to the magnet. If this should happen then immediately inform the magnet operators.
    - If the MR Instrument is quenching (violently venting helium gas or “steaming” helium vapor), go to the floor, crawl away quickly and leave the area immediately due to oxygen displacement. Self Contained Breathing Apparatus may be required to enter.
- Contact an individual on the “Emergency Contact” list posted on the front door.

*I have had these instructions explained to me, the hazards that involve working around high, static magnetic fields that may include but aren't limited to cryogenic burns, asphyxiation and death.*

Printed Name, Date:

Signed by:

Printed Name:

Magnet Operator:

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### MR SAFETY

Read this notice carefully before entering

All general safety regulations (e.g., the use of safety glasses) also apply to this laboratory.

Read and heed all safety signs displayed in this laboratory.

Only authorized personnel may enter.

Restricted areas are indicated by tape or paint on lab floors.

Magnets are energized, even during power outages.

Potential hazards:

- Medical/magnetism: No pacemakers or metal implants inside the restricted area (5 gauss line)
- Mechanical/magnetic: To avoid potential injuries due to ferromagnetic objects, do not bring them inside the restricted area (5 gauss line).
- Cryogenics: In the event of a magnetic quench (abrupt termination of superconductivity), a large volume of Helium (gas) will be introduced into the room, displacing breathable air.
- Get low to the floor (helium gas will hug the ceiling). Leave (crawl out of) the laboratory immediately!

Restricted Access:

- Only authorized individuals are allowed into restricted areas.
- The Principal User (PU), who supervises the operation of this laboratory and the associated safety training is:

Name: Chris Rithner Office: Chem C2B Tel.: 491-6475

Accidents:

In the event of an injury, the injured person should:

- Seek medical care without delay.
- Inform the PU (who will submit the required University forms) as soon as possible