Hazardous Gas Alarm System

- Monitors Nitric Oxide (NO) and Carbon Monoxide (CO) gases and Sulfur Dioxide (SO$_2$).
- Alarm boxes in every area of the lab.
- Controller is in the control room console.
- The controller has a manual activate switch on the front panel.
- If you hear this alarm, evacuate the lab and call 911.
CONTROLLER
ALARMS
LAB CHILLERS

• Located in the equipment room.
• Cool turbo pumps and other expensive equipment in the lab.
• Two chillers. One as backup.
• If you hear this alarm during the day, come and get me or one of the technical staff.
• If you hear this alarm after 5pm, follow the steps on the chiller to restart it.
EXHAUST MANIFOLD FAILURE

- Exhauets gases from roughing pumps to the outside air.
- There are four monitors in the lab; control room, ECR area, HITS pump closet, and the equipment room.
- The green arrow indicates normal vacuum levels.
- The red arrow indicates the trip point.
- If you hear this alarm, contact one of the technical staff members.
MONITOR AND ALARM
OXYGEN DEPLETION MONITOR

• Monitors the percent of oxygen in the lab.
• The controller and alarm is located in the control room.
• There are seven sensors located throughout the lab, mostly around the accelerator.
• If you hear this alarm, evacuate the lab immediately.
WARNING
LOW LEVELS OF OXYGEN HAVE BEEN DETECTED WHEN AMBER LIGHT IS FLASHING AND ALARM IS SOUNDING. OCCUPANTS SHALL IMMEDIATELY EXIT MACDONALD LABORATORY.