

MTA Facility Guidelines for Shifters

The MTA facility is a Fermilab Accelerator Division Facility used for multiple, often consecutive, RF and beam experiments. The facility has access to Linac RF systems, Cryogenic Systems, Power Supplies, and the Accelerator Division controls infrastructure to operate these systems. This document will give basic facility guidelines that users should follow while managing experimental shifts.

Contact Information

Emergency (630) 840-3131 or just dial 3131 from Fermi Phones

Yagmur Torun Cell Phone (312) 420-5519 Pager (630) 255-1403

Michael Backfish Cell Phone (630) 345-0330

Main Control Room (630) 840-3721 or just 3721 from Fermi Phones

Fire

In the event of a fire alarm in the Linac gallery, the shifter should evacuate the area via the nearest exit. If a fire pull station is close by please pull to establish an alarm. Once in a safe location call (630) 840-3131 (just dial 3131 from Fermilab telephones) to report the emergency and notify the emergency operator. Stay on the phone until the emergency operator indicates that she/he has all the necessary information. People should congregate in the horse shoe parking lot so the Incident Commander can account for the safety of building occupants. If you have information regarding the cause of the fire alarm please contact the Main Control Room at (630) 840-3721. A representative from the Main Control Room will be in direct contact with the Incident Commander from the Fire Department in order to establish the best and safest plan for the fire department. If you have pertinent information find them!

In the event of a fire alarm in the MTA enclosure, the main control room will receive an alarm from FIRUS which is the system that monitors environmental alarms on site. As the MTA shifter you should assist the main control room in turning off systems and understanding of local hazards relating to individual test equipment.

If you are not trained in the proper use of fire extinguishers, or if you do not have knowledge of the system in question, then please do not use a fire extinguisher. Let the experts!

Both Yagmur Torun and Michael Backfish should be contacted as soon as safely possible in the event of such an emergency.

Acnet

Users may use local Acnet consoles or remote Java consoles to monitor facility and experimental parameters. The Acnet java console can be found at:

<https://www-ad.fnal.gov/controls/public/linux-console.html>

The Acnet console at the MTA control room has accelerator settings privileges. If you are not comfortable with Acnet, then you should disable the “settings” on the console. This will remove your ability to damage the accelerators. An introductory guide to Acnet is available. For Acnet questions please contact the Main Control Room at 3721 or Michael Backfish.

Detailed acnet console information is available at:

<http://beamdocs.fnal.gov/AD-public/DocDB/ShowDocument?docid=4128>

RF Systems

If the RF system used by your experiment starts misbehaving in any way, please first lower the gradient to your system. If the system is still misbehaving (for example making terrible noises), immediately contact the Main Control Room at 3721. The Main Control Room will contact the Head of Linac for guidance. For ANY out of the ordinary circumstances contact Yagmur for further experimental guidance.

Cryo Systems

The MTA facility uses cryogenics for the super conducting solenoid. The hall is an ODH Class 0 Oxygen Deficiency Hazard (ODH) area if the ventilation fans are working properly. The refrigerator room is a Class 1 ODH area. If you notice any cryogenics problems via Acnet or while in and or around the MTA hall or refrigerator room, immediately notify the Main Control Room.

High Magnetic Field

The MTA solenoid can operate at magnetic fields up to 5 Tesla. Special restrictions for access to the enclosure must be in place when working in or around a high magnetic field as dangerous forces can be imparted on any ferrous objects. As an MTA shifter you should be aware of the state of the solenoid magnet in order to properly pass this information on to the Main Control Room in the event of an emergency. The Acnet parameter E:MCSOLI is the MuCool solenoid current. A 5 Tesla field requires 230 Amps.

MTA Hazard Analysis Training

To work within the MTA enclosure workers must complete MTA hazard analysis training once every two years. The material is available at:

<http://esh-docdb.fnal.gov/cgi-bin/ShowDocument?docid=915>

As a shifter working on systems at MTA you should have a strong understanding of your systems and the hazards they present and be prepared to assist the main control room in devising a plan for proper emergency response which will often require you turning off your portion of the system.