

STANDARD OPERATING PROCEDURE FOR EMERGENCY FIRE

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210.01	19 May 2006	Initial Version
210.02	02 Oct 2007	Addition of UWO Numbers
210.03	01 Feb 2009	Review

Director Signature: _____ / / _____

1. SCOPE

This SOP describes the procedure to be followed in the event of a fire in the 3T MRI Facility.

2. PROCEDURES

A. Smoke Detection

- There are signs of a potential fire present before a fire occurs. Operators need to be aware of the signs to prevent injury to the volunteer/patient and other experimental support personnel in the magnet room and the control room during a scan session. The three basic cases are outlined below.
- The first sign of a potential fire is often a subtle detection of an odour.
- Another sign of potential fire is small amounts of smoke. There may not be enough smoke to set off the detector, so it is important to always be aware of the possibility of the presence of smoke. If anyone in the control room or the magnet room notices smoke, even if the smoke detector is not sounding, the procedures below must be followed.
- The final case is one in which the smoke detector has gone off and an alarm is sounding in the magnet room and/or control room.
- In each of the above circumstances the operator must:
 - Abort the current acquisition.
 - Evacuate the area.
 - Press the Red Emergency Shutdown button next to the Quench box. This will turn off all cabinets in equipment room.
 - Investigate the source of the odour or smoke.
 - Terminate the scan session.
 - Close the magnet room door.
 - Immediately notify the 3T MRI Facility Director.
- It is important to keep in mind that any smoke or odour caused by heat can contain chemicals that are harmful if inhaled. Limit your exposure and close the magnet room door to prevent noxious fumes from permeating the rest of the building.

B. Emergency fire procedure for controllable fires

- Remember to use common sense! There are three basic steps to follow:
 - Ensure your own safety.
 - Ensure the safety of the volunteer/patient in the magnet.
 - Contain the fire if possible. If it is not possible to contain the fire, follow the procedures in Section C below.
- Shut off the electrical power to the magnet room, by hitting the red system electrical shutdown button, which is located on the far left wall to the left of the quench control box when you enter the magnet room.
- Remove the volunteer/patient from the magnet.

- If it is safe to do so, unplug the coil cables from the Coil Port Carriage.
- Either use the keypad to advance the bed out of the scanner, or
- Use the cradle release handle at the foot end of the table by rotating it toward you and then pulling the cradle all the way out until it clicks into place.
- Put both sides up on the table.
- Undock the table using the pedals at the foot end of the table.
- Wheel the table out of the scan room and close the door to the scan room.
- If the volunteer/patient is not responding, not breathing and does not have a pulse, follow the procedures set out in 3T MRI SOP #205.03 *Emergency Code Blue Procedure*.
- Contain the fire.
 - The non-magnetic fire extinguisher is located on the wall to your right before you enter the magnet room door.
 - If possible, use the non-magnetic fire extinguisher to put the fire out.
 - If it is not possible to contain the fire using the non-magnetic fire extinguisher, follow the procedures in Section C below.
 - Close the magnet room door.
- Notify the 3T MRI Facility Manager/Technologist or 3T MRI Facility Director, and Robarts security (x24041) immediately following the incident. The facility staff must then file an appropriate Robarts incident report of the situation.

C. Emergency fire procedure for uncontrollable fires

- Always remember to:
 - Ensure your own safety.
 - Ensure the safety of the volunteer/patient in the magnet.
- Shut off the electrical power to the magnet room by hitting the red system electrical shutdown button, which is located on the far left wall to the left of the quench control box when you enter the magnet room.
- Remove the volunteer/patient from the scanner.
 - If it is safe to do so, unplug the coil cables from the Coil Port Carriage.
 - Either use the keypad to advance the bed out of the scanner, or
 - Use the cradle release handle at the foot end of the table by rotating it toward you and then pulling the cradle all the way out until it clicks into place.
 - Put both sides up on the table.
 - Undock the table using the pedals at the foot end of the table.
 - Wheel the table out of the scan room and close the door to the scan room.

- If the volunteer/patient is not responding, not breathing and does not have a pulse, follow the procedures set out in 3T MRI SOP #205.03 *Emergency Code Blue Procedure*.
- The operator must pull the fire alarm, and then proceed to follow 3T MRI SOP #215.03 *Emergency Quench Procedure*. The fire department must not enter the magnet room if the magnet is at field. The magnet must be quenched before the fire fighting crew is allowed to enter the magnet room. If the magnet is not quenched, the fire fighters' equipment, which is ferromagnetic, could cause serious injury to themselves or anyone near the magnet at the time of their entry.
- Evacuate the building.
- Notify the 3T MRI Facility Director and Robarts security (x24041) immediately following the incident. The facility staff must then file an appropriate Robarts incident report of the situation.

D. Robarts Research Institute Accident/Incident Investigation Report

This form can be accessed from any Robarts computer at <http://intranet.robarts.ca/docs/aiirApprovedApril0705.pdf>

Paper copies are available at the back of section 8 of the 3T MRI SOP Binder.

Fire Alarm: If unable to easily remove patient from scanner and no known fire in area, call security at 24041 to let them know how many people and where they are located.

