1. **Introduction**

During a fire there is a danger of injury to people and property and the fire may spread until it is not possible to control it, which requires us to take steps to handle the incident in its early stages.

1. **Goal**

To characterize and detail the ways to handle a fire incident in the MRI room in order to avoid and/or reduce injury to people and property.

1. **Definitions**
   1. **Fire incident** – an incident in which flames or smoke are detected from a location and/or the fire and smoke detection system was activated.
   2. **MRI room –** The room where the MRI device is located, which operates on the principle of magnetic resonance, inside of which is helium for cooling the device.
   3. **Firefighting team** – security team (security officer, shift manager and security guards), and a technician who has been trained to handle fire incidents.

**Shift manager** – authorized to receive the keys for the MRI institute in order to handle fire incidents during non-routine hours with the emergency team.

Metal objects belonging to the team will be set aside prior to entry to the MRI room.

* 1. **CO2 extinguisher** – a special extinguisher made of non-magnetic material and contains **CO2 –** carbon dioxide suitable for extinguishing fires in the MRI room.
  2. **Open-circuit breathing apparatus** – an open breathing system that includes a carrier, oxygen cylinder and mask intended for entering a smoke-filled room for rescue and fire extinguishing. Use of the system is solely for the security and firefighting team.
  3. **Primary electricity switch** – This switch cuts off the electricity to the MRI device but not the magnet in the MRI room, and is located in the control room.
  4. **Quench button** – a large, protected button that stops the device’s magnetic field operation and releases outward the helium that is inside of the device. The gas is released through a pipe in the direction of the waiting patio.
  5. **Incident manager** – The senior entity on site who is managing the incident.
  6. Activity hours: On days when there is activity – between 08:00 – 20:00.

On days when there is no activity – between 20:00 – 08:00

1. **The procedure applies to:**
   1. MRI room staff
   2. Emergency team from the Security Unit
2. **General**
   1. There is no fire and smoke detection or extinguishing equipment in the MRI room, except for special extinguishers for the MRI room. There are detectors in the control room, hallways, dressing rooms and the institute’s secretarial office.
   2. The room is staffed during the day by students and researchers. Therefore, fire incidents can be detected by a staff person during activity hours and/or visitors who identify smoke coming from the area (not during operating hours).
   3. The MRI device operates on the principle of magnetic resonance, and therefore the exam room is a magnetic environment. Do not bring any magnetic elements into this room.
   4. There are four special CO2 extinguishers in the MRI room that are made of non-magnetic material, and are used solely for extinguishing fires in the MRI room.
3. **Location of emergency equipment**

**Extinguishers** – Two extinguishers in the MRI room.

Two extinguishers in the recovery room inside a closet.

1. **Positions**

**Technician/researcher/student operating the institute and detecting a fire**

* 1. Activity must be stopped immediately.
  2. Every person on the research premises must be evacuated.
  3. Report to command and control center at telephone 5555 about the start of the incident, emphasizing that it is a fire in the MRI room in order that the emergency team will organize themselves in accordance with the procedure for entering the MRI room.
  4. If the fire is localized and it is possible to put it out using a CO2 extinguisher, take steps to control the fire.

**Please note!!**

Saving a life takes precedence over any other consideration, so do not put yourself in danger in order to save equipment.

* 1. **Do not use water (danger of electrocution)** until the firefighting team has arrived and you receive explicit instructions.

1. **Emergency team summoned to the MRI room for a fire incident**
   1. The shift manager who receives a report about a fire during evening and night hours must come to the command and control center and take the key to the MRI room.
   2. Come as quickly as possible to the site.
   3. Unlike every other fire incident, **do not come with extinguishers from the security vehicle or intervention cupboards and/or firefighting stations located in the area of the MRI room.**
   4. From the control room window, check if this is a fire incident in the MRI room or a false alarm.
   5. **In the event this is an actual fire, act as follows:**

The emergency team led by the shift manager will act only after it has been verified that there is no danger to those entering the room and will use the appropriate fire extinguishing equipment for the MRI room.

* 1. Check that there are no people on the premises.
  2. Remove all metal items from the body, clothing, gun, jewelry, watches, glasses, coins, communications devices, flashlights, etc. and leave them with the shift manager.
  3. Electricity will be cut off by the person on call in the electricity unit. There is a button to cut off the electricity feed to the MRI device at the entrance to the MRI room.
  4. Use the fire extinguishers in the MRI room to try and control the fire.
  5. If it is not possible to control the fire, the incident manager will report to the command and control center to summon the fire and rescue services. When they arrive the incident manager will link up with the fire and rescue service representatives and will act according to their instructions.

**Clarifications**

The procedure relates both to hours during which there is activity in the MRI room and when there is no activity. Relate to the morning hours of activity when reporting a fire incident to the safety and security officer and the deputy CEO of engineering and maintenance and the laboratory manager. For activity during evening and night hours, report to the shift manager and engineering and maintenance division on-call person and act according to their instructions.

1. **Security command and control**

**When receiving a report of a fire incident in the MRI room, perform the following actions:**

* Verify the message with the researcher in the MRI room, if there is no answer, call the emergency team to come to the room and verify that there is an incident, and emphasize that this is taking place in the MRI room.
* Verify the message regarding a fire incident with the emergency team.
* Report the incident to the relevant entities according to the procedure.
* In accordance with instructions, the senior entity will carry out the fire incident procedure in the MRI room.
* Be in touch with the incident manager about the developments, only with the approval of the laboratory manager/incident manager, call the fire and rescue services at telephone 102 and note that this is a fire incident in the MRI room.
* Update the guard at the entrance gate regarding the location of the incident and that the fire and rescue services will be arriving; instruct him to direct them to the site of the incident.
* Be in touch with the incident manager about the end of the incident and report to the relevant entities.