

University Occupational Health and Safety Guidance Notes

AREA REQUIREMENTS FOR THE USE OF ELECTROMAGNETIC FIELD GENERATING EQUIPMENT

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1. PURPOSE

The purpose of this document is to assist departments in ensuring that they appropriately designate areas where Electromagnetic Fields requiring an EMF Action Plan are in use.

2. SELECTION OF AN AREA FOR EMF USE

When considering an area for the use of EMFs, the department should ensure that, as far as is reasonably practicable, all persons are not be exposed to the EMF as part of their daily routine.

The URPO must be contacted for advice where a department plans to start work with equipment where the exposure assessment shows the potential for exposure to an EMF in excess of the Action Levels (ALs) and/or ELV.

The area chosen must be suitable to house a piece of EMF generating equipment as identified by the general risk assessment and the EMF Action Plan.

3. CONTROL MEASURES FOR AREAS DESIGNATED FOR EMF USE

3.1 Signage

Any area where work involving EMFs is carried out must display appropriate hazard symbols. Signage must be displayed at entry points to the area at all times as well as being in a prominent position on the exterior of the EMF generating device.

Where the risk assessment process has identified that the area contains strong magnetic fields, Image 1 must be used to identify the presence of the EMF hazard.



Where the risk assessment process has identified that the area contains any form of wireless communication equipment requiring an EMF action plan, Image 2 must be used to identify the presence of the RF hazard.



In addition to the above signage, due to the potential for interference with active or passive implanted medical devices by EMFs (See Table 1 of the EMF Standard), appropriate signage should be placed external to the area and well away from the boundaries of any magnetic fields. An example of this signage is included in Image 3.



Image 3. Example warning sign for wearers of pacemakers

This signage may only be removed when there is no possible risk of exposure. This would normally only be when equipment in the area has been removed.

The URPO must be contacted before any hazard warning signage in relation to the use of EMFs is removed.

3.2 Administrative Information

In addition to the required hazard signage, the Line Manager / Research Supervisor / Principal Investigator for areas or equipment that may cause exposures to EMFs are required to provide suitable information to ensure that any persons entering the area are made aware of all possible risks prior to entering the designated area. At a minimum, this information should include:

- The expected potential hazards in the area;
- Who is authorised to access the area;
- Rules governing access to the area as well as conduct within the area;
- Details of any required Personal Protective Equipment; and
- Actions to be taken in an emergency.

Anyone entering the area must familiarise themselves with this information before entering the designated area.

Additionally, where the EMF Exposure Assessment for the equipment concludes that the generated EMF is in excess of the AL and that the field extends away from the device, suitable demarcation around the equipment must be implemented. This will normally take the form of hazard markings on the floor. The extent of the markings will be determined by the risk assessment and in conjunction with the URPO.

3.3 Warning and Access Control Methods

Specific access controls for areas containing EMF generating equipment will be determined by the risk assessment, and may include some or all of the below.

3.3.1 Beacons

A beacon or other indicator may be required that gives indication of current status of the EMF generating equipment. This will normally take the form of a beacon which is interfaced into the electrical supply of the EMF generating equipment and will illuminate when the equipment is active. Where the equipment is mobile a beacon may not be practicable, and a suitable replacement should be considered in the risk assessment.

3.3.2 Locks

All access routes to areas where EMF generating equipment is housed to which this guidance applies (i.e. EMFs which are subject to an appropriate EMF Action Plan) must be secured by a physical lock. The choice of locking mechanism should be determined by risk assessment and in conjunction with the URPO.

The preferred method of securing a lab containing an EMF is via the use of a combination pin coded mechanical lock. When choosing a mechanical lock, it must meet the following requirements:

1. Secure from the outside: Any mechanically operated lock will need to ensure that only those with specific access to the area can enter.
2. Easy to operate from inside: Any mechanically operated lock must be able to be operated using one hand to release the lock and open the door.

Where a department wishes to use an alternative lock, departments must request this via the use of the S34 form ('Request to install a new or replacement fire door hold open or locking device'). Estates services will not install an alternative locking device without prior authorisation from the University Fire Safety Advisor.

Alternative locks are included in a buildings fire risk assessment. Where alternative locks have been installed, departments must ensure that a program of maintenance and testing is carried out to satisfy the requirements of this assessment

3.3.3 Authorised Users List

The department should maintain an authorised user list for each EMF within their area of responsibility. These lists will identify those who are authorised to access a particular area, and have received relevant training.

No unauthorised personnel are allowed access to an EMF area (i.e. those who are not on the authorised user list), unless they are accompanied by a competent member of the department with authority to be in the area. This extends to members of Estates Services and Security Services staff.

Should Estates Services personnel require access to any area designated as an EMF area as part of a works request, they must contact the person responsible for the area at least 1 week in advance of the work being carried out. This will provide sufficient time to plan the work and to provide the personnel from Estates Services with suitable information and training where needed.

In the event of an emergency, Security Services personnel may enter an EMF area, but ONLY after consulting with a competent member of staff, either from the department or from the URPO.