

Staff roles: The MRRP, MRSE, & Staff Categories

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MRI Physics
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Staff roles: Guidelines



Safety Guidelines for Magnetic Resonance Imaging Equipment in Clinical Use

March 2015

Staff roles: Guidelines

- The MHRA safety guidelines set out staff roles for MR Responsible Person, MR Safety Expert, MR Authorised Person
- And categories of staff who access the MR controlled access area (CAA).
- Our local rules follow these guidelines.

“Safety Guidelines for Magnetic Resonance Imaging Equipment in Clinical Use”, MHRA 2015, v 4.2

MR Responsible Person



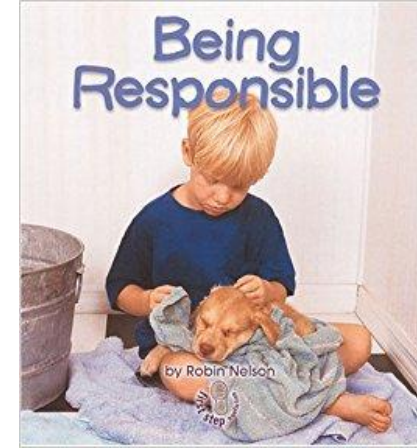
Purpose and role

- Delegated by Chief Executive or General Manager
- Day-to-day responsibility for safety
- Provides continuity and consistency for the ongoing safe working practices of the department.
- Provides continuity when dealing with non-trivial MRI safety queries which can be protracted.
- is **NOT** the MR Safety Expert

Expertise required

- Enough MR clinical expertise and safety knowledge to ensure that appropriate MR safety and training are delivered and updated to relevant staff
- Usually a senior radiographer.

MR Responsible Person



Duties include:

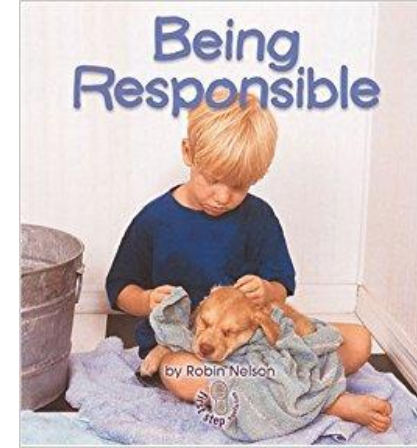
Education and training

- Keep up to date with developments in MR safety
- Remain aware of local service developments and changes which may have an impact on the MRI service and/or MRI safety
- Ensuring medical, technical, nursing and all other relevant staff groups are educated and trained appropriately, are familiar with all policies and are kept up to date.

Policies and Procedures

- ensuring adequate written safety procedures, ethical approvals, work instructions, emergency procedures (local rules) are issued to all concerned in consultation with the MRI safety expert
- approving certification of authorized persons
- produce written safety documents, version controlled and regularly updated.
- Ensuring Safety and Good working practice policies are in place

MR Responsible Person



Duties include:

Records

- Ensure records of staff training are kept and maintained
- Ensuring the list of authorised MR staff is kept up-to-date and is displayed within the MRI Unit
- Ensuring Magnet static magnetic field plots are displayed within the department
- Ensuring objects within the Controlled access Area are labelled with MRI safety status

Patients

- Liaise with other local staff groups to ensure the safe scanning of patient with active implanted medical devices

MRP-GUID-002 MR Responsible Person - Duties and Responsibilities

MRP-GUID-003 MR Responsible Person – Competency Requirements

MR Safety Expert

- provides scientific advice to MR units
- requires expert knowledge of the physical principles of MRI and detailed knowledge of MRI techniques

Duties include:

- MR site planning
- Advising on procurement
- Development of a safety framework
- Advising on MRI safety governance
- Advising and monitoring of local safety procedures
- Conducting risk assessments pertaining to MRI safety issues
- Investigation of adverse incidents
- Advising on specific patient examinations
- Advising on MRI safety information on implants and active implanted medical devices
- Advising on safety aspects in respect of risk/benefit considerations for MR scanning
- Usually a medical physicist who is a HCPC registered Clinical Scientist.

MRI “Designated Person” only GGC

The MRI ‘Designated Person’ role will be identified on the rota (comment red tag).

This role is assigned to ensure that there is clear and unambiguous leadership at all times within the MRI unit.

This role will normally fall to a ‘Core MRI’ Radiographer or to the member of staff who is deemed to have sufficient experience working in MRI.

MRI “Designated Person”

The main duties of the role are:

- Ensure any matters that arise regarding MRI safety and departmental operations are communicated to Radiographic colleagues within and across shifts.
- Act as a point of contact for MRI safety queries from medical staff/referrers. (This doesn't mean you have to know the answers to all safety queries- but that you are able to direct the questions to someone who can assist e.g. MR Safety expert or MRI Modality Lead Radiographer.

MRI “Designated Person”

- Will take the lead in the department in emergency situations e.g. evacuation in the event of fire or quench,
- If there is a **fire in an area adjacent to MRI** and the department has to be evacuated, the ‘designated person’ will ensure that the scan room door (s) is/are locked and the security of the MRI department is not compromised.
- **Fire in the MRI department-** after evacuation, the designated person would meet the fire officer and brief him/her on the risks of the magnetic field.
- Take responsibility to pass on any outstanding safety queries/issues that have arisen during the shift to the Modality Lead Radiographer or MR Responsible Person.

MRI “Designated Person”

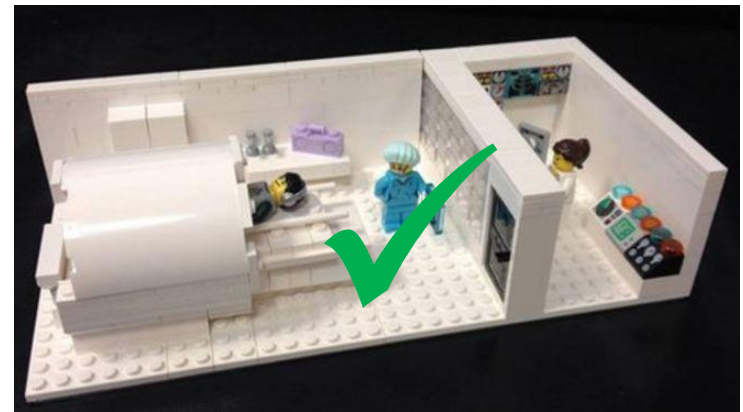
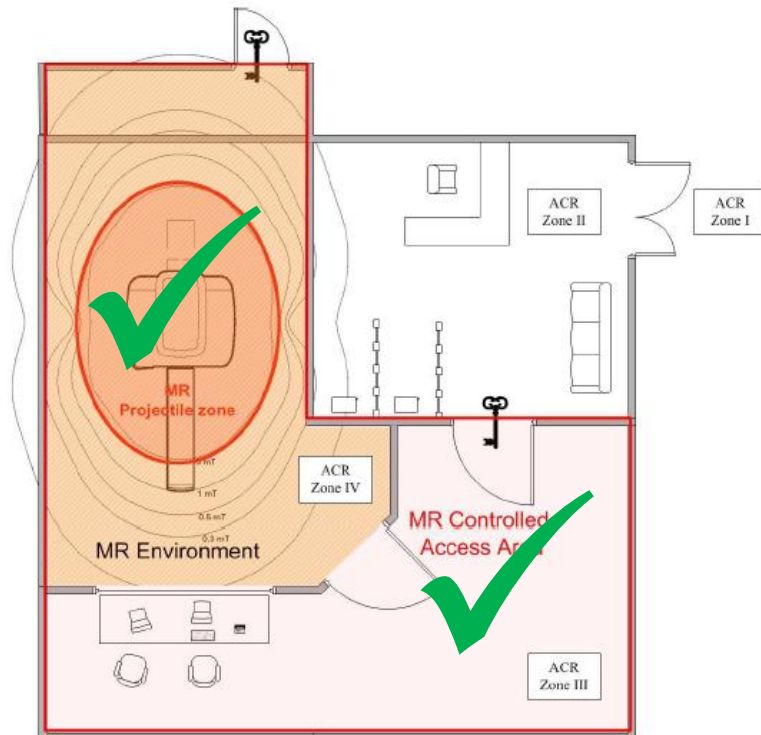
- Ensure the security of the **Controlled Access Area** and **MRI Magnet Room** is maintained throughout the shift and on completion of the shift.
- If leaving the department (lunchtime) handover the role to another experienced Radiographic member of the team. This role must not be handed over to a trainee member of staff
- Be the primary point of contact with the scanner vendors, service engineers or application training staff. For example, be responsible for reporting scanner faults or managing scanner hand over between NHS staff and service engineers
- Complaints being made ‘at the time’ to the department shall be directed to the ‘Designated person’. If the complainant wishes to address their complaint to someone else, they should be directed to the next most senior Radiographer available.
- The ‘Designated Person’ role does not mean that you are responsible for safety checklists completed and signed off by your Band 5 or Band 6 colleagues.

MR Authorised Person

- Certified by the MR responsible person when they have completed satisfactory training
- Listed on a certified list
- Must keep an appropriate record of their MR training. An annual screening of all authorised persons is to be kept by the responsible person
- Must complete and pass a screening questionnaire annually
- Must satisfy themselves at all times that they conform to the requirements of the screening process.

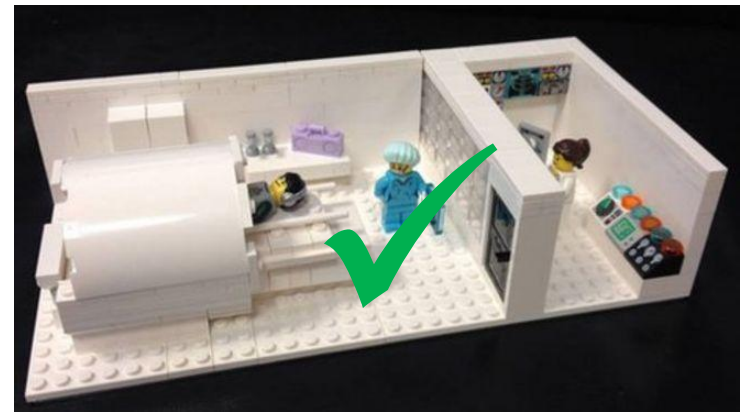
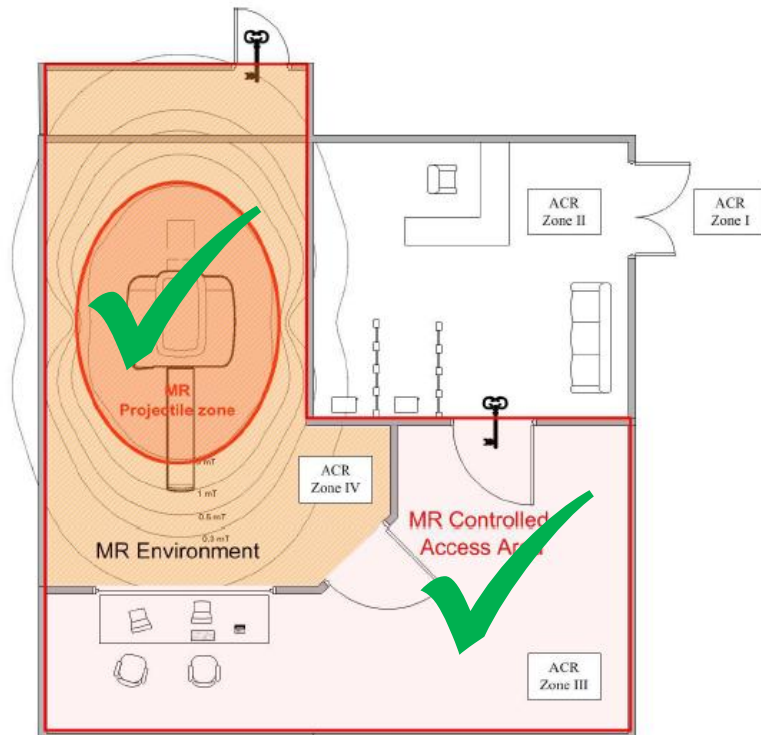
Staff categories: A

- **Category (A): MR OPERATOR** - operate, maintain or modify the MRI equipment
- e.g. radiographers, physicists, service engineers, radiologists.



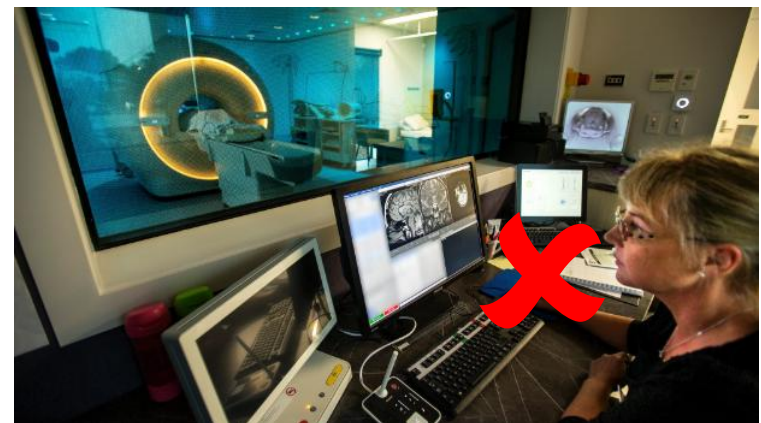
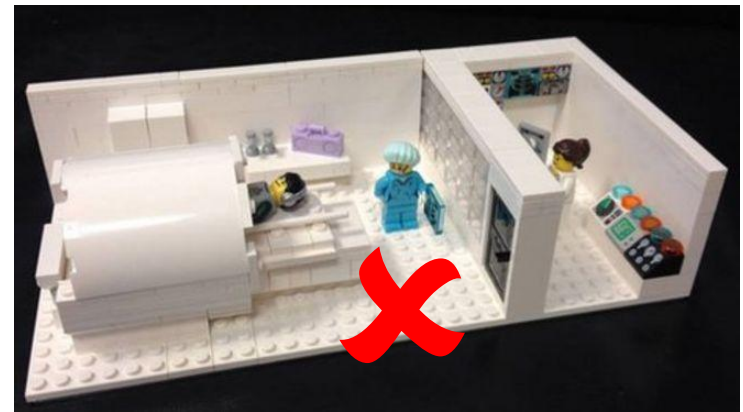
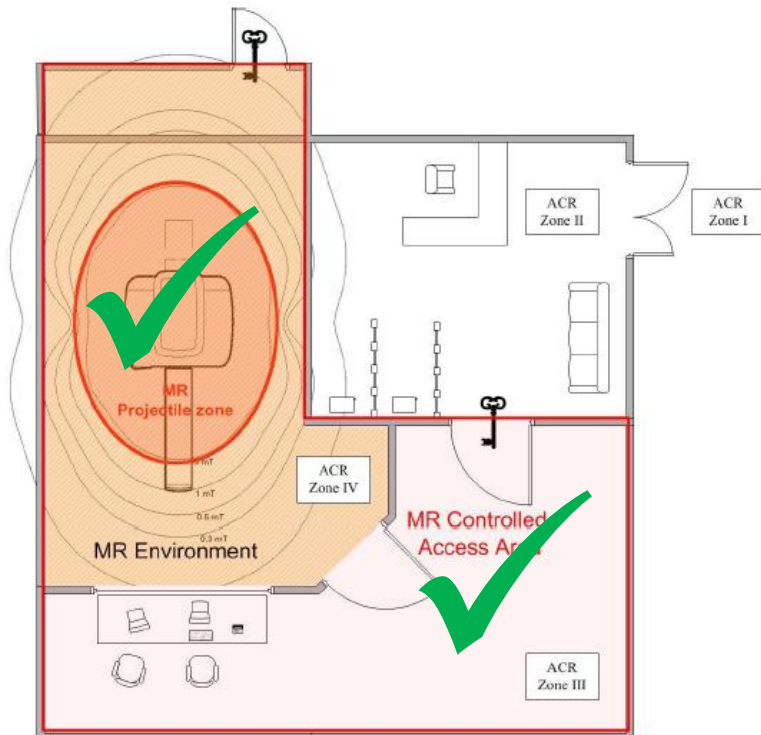
Staff categories: B

- **Category (B):** Personnel who do not fall into category (A) but are present with a volunteer or patient during scanning
- e.g. radiologists, anaesthetists, nurses, HCSWs



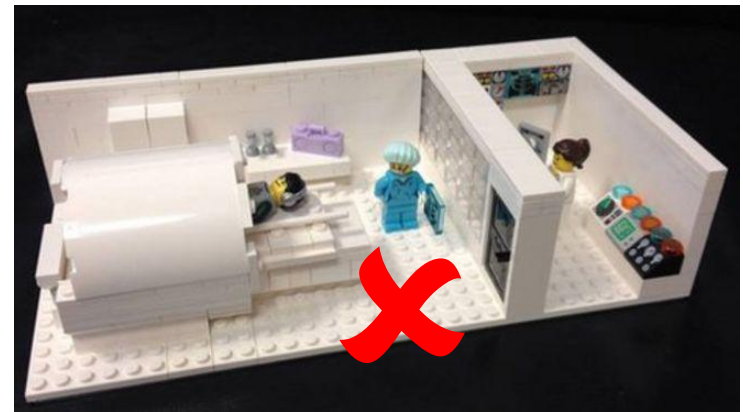
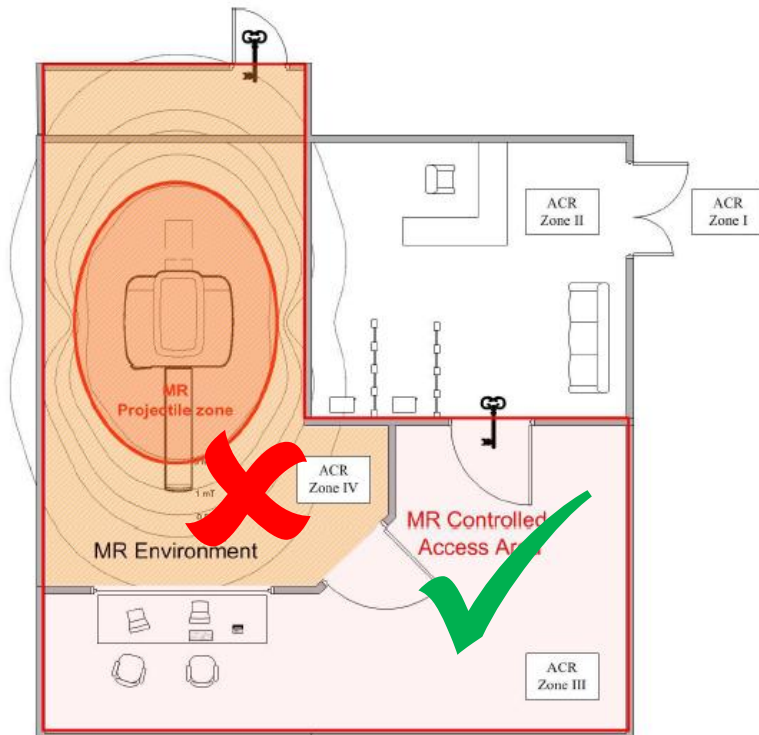
Staff categories: C

- **Category (C):** All staff who are required to enter the MR ENVIRONMENT when scanning is not taking place. Supervised whilst in MR environment
- e.g. dedicated cleaning staff, estate maintenance staff



Staff categories: D

- **Category (D):** All other staff who are required to enter the MR CONTROLLED ACCESS AREA but will not enter the MR ENVIRONMENT
- e.g. clerical staff.



Training requirements for each category

	A	B	C	D
Full training and instructions from the supplier or manufacturer in the use of the equipment, its hazards and what action to take in the case of an emergency. Those with the necessary training and experience should form the basis of the team training subsequent members of this category.	✓	-	-	-
They must be fully aware of the relevant content of the MRI instructions for use.	✓	-	-	-
They must be aware of the location of the MR ENVIRONMENT and its hazards	✓	✓	✓	✓
They must understand the safety aspects relating to: <ul style="list-style-type: none"> - The electrical safety of the equipment. - The main static magnetic field and associated equipment. - Radio-frequency (RF) fields and associated equipment. - Gradient magnetic fields and associated equipment. 	✓	✓	-	-
They must understand emergency procedures arising from causes other than equipment failure.	✓	✓	-	-
They must understand the local regulations and procedures in connection with the MR diagnostic equipment and its location.	✓	✓	-	-
They must understand the significance of the MR CONTROLLED ACCESS AREA, MR ENVIRONMENT and MR PROJECTILE ZONE and be able to differentiate clearly between them. In particular they must be fully conversant with: <ul style="list-style-type: none"> - The projectile effect. - The effect of magnetic field upon implants and prostheses. - The effect of magnetic fields upon personal effects such as credit cards and watches. 	✓	✓	✓	-
They must understand the consequences and effects of quenching of superconducting magnets (section 5.4).	✓	✓	-	-
They must be fully aware of the recommendations on exposure to MR.	✓	✓	-	-
They must have had full instruction in, and must understand the consequences of, the correct selection, fitting, and use of ear protection.	✓	✓	-	-

Authorisation and Entitlement

In NHSGGC, a process similar to Ionising Radiation staff and IRMER regulations has been rolled out using two key terms: **Authorisation** and **Entitlement**

Only staff that **need** to be MRI trained, should be trained, decided by entitlement.

When the staff are actually trained then there is sign off by **both** MRRP and appropriate management.

Authorisation and Entitlement

The overview spreadsheet for the MRRP.... MRP-GUID-001

B	C	D	E	F	G	H	I	J	K	L	M
								Name	Signature	Date	
The following list details the non-medical staff within the Magnetic Resonance Imaging Service based in the XXXX MR Unit who are entitled by the General Manager to act as duty holders in compliance with the MHRA MR Safety Guidelines (2015) in fulfilment of the Health and Safety at Work etc. Act (1974)							Entitlement Authorised by MR Responsible Person				
							Entitlement Confirmed by General Manager, Diagnostic Imaging				
								S - supervisor, O - operator			
Name	Post	MR Unit Induction Completed	MR scan vetting (as per protocol)	Check Patient ID for MR Scanning	Check Pregnancy and act on it for MR Safety	Check breast feeding status and act on it for MR Safety	Check patient suitability for MR and act on it	ENTITLED TO CONTROL MR UNIT ACCESS Authorised Person (Supervising others and/or Operator) Paras. 4.7.1.3 & 4.8)	Authorised Person (MR Environment) Para. 4.7.1.2	Authorised Person (Non-MR Environment) Para. 4.7.1.1	
	e.g. MR Modality Lead, MR-core band 6 radiographer	✓	✓	✓	✓	✓	✓	S, O			
	e.g. MR band 5 radiographer, MR locum radiographer	✓		✓	✓	✓	✓	O			
	e.g. trainee MR radiographer, MR trained healthcare support worker	✓							✓		
	e.g. MR-trained clerical officer	✓								✓	
	e.g. MR trained anaesthesia nurses (Diagnostics)	✓							✓		
	e.g. MR trained anaesthesia nurses (Theatres)	✓							✓		
	e.g. MR trained anaesthesia nurses (Theatres)	✓							✓		

Authorisation and Entitlement

B	C	D	E	F
<p>The following list details the non-medical staff within the Magnetic Resonance Imaging Service based in the <u>XXXX</u> MR Unit who are entitled by the General Manager to act as duty holders in compliance with the MHRA MR Safety Guidelines (2015) in fulfilment of the Health and Safety at Work etc. Act (1974)</p>				

H	I	J	K	L	M
		Name	Signature	Date	
Entitlement Authorised by MR Responsible Person					
Entitlement Confirmed by General Manager, Diagnostic Imaging					

Authorisation and Entitlement

Post	MR Unit Induction Completed	MR scan vetting (as per protocol)	Check patient suitability for MR and act on it	ENTITLED TO CONTROL MR UNIT ACCESS Authorised Person (Supervising others and/or Operator) Paras. 4.7.1.3 & 4.8)	Authorised Person (MR Environment) Para. 4.7.1.2	Authorised Person (Non-MR Environment) Para. 4.7.1.1
e.g. MR Modality Lead, MR-core band 6 radiographer	✓	✓	✓	S, O		
e.g. MR band 5 radiographer, MR locum radiographer	✓		✓	O		
e.g. trainee MR radiographer, MR trained healthcare support worker	✓				✓	
e.g. MR-trained clerical officer	✓					✓
e.g. MR trained anaesthesia nurses (Diagnostics)	✓				✓	
e.g. MR trained anaesthesia nurses (Theatres)	✓				✓	
e.g. MR trained anaesthesia nurses (Theatres)	✓				✓	

Authorisation and Entitlement

- Training Package **A**
 - Authorised MR Environment; Operator or Supervisor and **controlling access** to the MR Controlled Access Area
- Training Package **B**
 - Authorised MR Environment; but **NOT** Operator or Supervisor
- Training Package **C**
 - Authorised Non-MR Environment; and needing MR Environment access under supervision.
- Training Package **D**
 - Authorised Non-MR Environment.