

Local Rules

ISIS Experimental Halls

Ionising Radiations Regulations 2017

Reference	LR-ISIS-ELJ-Local Rules for ISIS Experimental Halls		
Date	August 2026	Date of next review	August 2028
Controlled Areas External radiation & activated materials	R55, R77 – Neutron and muon beamline experimental areas, including general access areas and beamline blockhouses. Layout in Appendix 5. R80 - Beamline blockhouses, NILE blockhouse, LET detector test area, ChipIr roof, South manipulator area behind Stonehenge, Methane buffer tank room. Layout in Appendix 5. Other controlled areas demarcated (when required) by barriers and controlled area warning signs. <u>Note:</u> EPB1 & EPB2, target services areas, manipulator rooms, RHCs are designated as controlled areas but are covered by separate local rules. LET detector test area has separate local rules.		
Supervised Areas	R6, R80 – neutron and muon beamline experimental areas - general access areas and areas not specifically listed as controlled areas (above). Layout in Appendix 5. <u>Note:</u> HP radiochemical lab is a supervised area but is covered by separate local rules.		
Nature of Hazard	For ALF (ROTAX), CHIPIR, CRISP, ENGIN-X, LARMOR, IMAT, INTER, OFFSPEC, POLREF, PRISMA, SURF and TOSCA instruments: An intense collimated neutron beam is admitted through the front-end of the beamline into the blockhouse by opening the beamline shutter situated inside the target monolith. In the case of CHIPIR, there is also a beam blocker in the front of the blockhouse, which automatically opens after the shutter. Radiation levels in the beam are expected to be hundreds of mSv/h. With the shutter closed, radiation levels are expected to be tens of μSv/h. For EMMA (HET), GEM, HRPD, IRIS, LET, MAPS, MARI, MERLIN, NIMROD, OSIRIS, PEARL, POLARIS, SANDALS, SANS2D, SXD, VESUVIO, WISH and ZOOM instruments: The neutron beam enters a vacuum tank located inside the blockhouse when the beam line shutter is opened. The sample position is in the vacuum tank. Radiation levels in the beam are again expected to be hundreds of mSv/h and with the shutter closed, tens of μSv/h. For LOQ instrument: The neutron beam enters a vacuum tank located inside the blockhouse when the beam line shutter is opened. The sample position is immediately upstream of the vacuum tank. Radiation levels in the beam are expected to be hundreds of mSv/h and with the shutter closed, tens of μSv/h. For the muon instruments: A beam of muons enters the instrument enclosures when the blockers are opened. Radiation levels in the beam may be mSv/h and tens of μSv/h out of the beam. Levels in the instrument with the blockers closed are background only. For HRPD The intermediate shutter has been disabled and removed and a beamstop installed in the guide tunnel to ensure no dose rates are measurable in the R69 build and down stream of the beam stop. Active samples: Material placed in any neutron beam may become activated. All material which may have been affected in this way must be handled according to ISIS/SI16. Some samples may have been activated prior to arrival at ISIS or may be naturally radioactive. All such materials must be managed according to Experimental Operating Instructions (EOI1 and EOI3). While most samples are not active, some can be of the order of tens of μSv/h. Neutron Sources: Neutron sources may be used on instruments or other areas of the Experimental Halls. Each source is subject to its own risk assessment, local procedures and signage and must be secure at all times. It must have its movements logged promptly and accurately using the Isostock database. Radiation levels exhibited by these sources will generally be less than 1μSv/h in the working area.		

	For all other areas: Radiation from the monoliths, EPB1 and EPB2 (Extracted Proton Beam 1 and 2) has been shielded to the extent that working with completed shielding is non-hazardous (largely <1µSv/hr, although some areas very close to the monolith show levels of around 5-30µSv/h). Removal of shielding could expose radiation in the area of the shield wall and the beamlines when the ISIS accelerator is running beam to target. The expected levels are tens of µSv/h. Operational risks assessments have been completed for all experiment and experiment support work on the beam lines. These are available on the ISIS Health and Safety document store and in the experimental Risk Assessment SharePoint area. http://www.facilities.rl.ac.uk/isis/safety/default.aspx http://www.facilities.rl.ac.uk/isis/experiments/PDFExperimentRiskAssessments/Forms/ByInstrument.aspx			
Dose investigation levels	Classified persons:		3 mSv per year	
	Non-classified persons:		1 mSv per year	
	Daily action level (employees/contractors):		200 µSv (employees & contractors)	
			50 µSv (facility users)	
			10 µSv (visitors)	
Written Arrangements	The following written arrangements must be observed: 1. General requirements for experimental hall areas: R6, R55, R77, R80 2. Restriction of exposure within experimental hall areas. 3. Designation of temporary controlled areas 4. Modifications / Removal of shielding.			
				Signatures
RPS	R55, R80 and R6:	Erik Johnson, mob 07900 136963		Signed on master copy
	Samples:	James Taylor, mob: 07909-687374		
	Out of hours	ISIS Duty Officer ext 6736 / 6789		
RPA	Mark Bradley			Signed on master copy
	Sarah Clifton-Climas	ext 5594	mob 07702 611316	
	Tony Powell	ext 5293	mob 07864 959662	
	All phone numbers are available via the company directory			
Instrument Operations Group Leader	Erik Johnson	ext 1912	mob 07900 136963	Signed on master copy
Support Laboratories Group Leader	Sarah Youngs	ext 1677	mob 07827-807499	Signed on master copy
Experimental Operations Division Head	Marek Jura	ext 6226	mob 07770 858075	Signed on master copy

The management arrangements for radiation safety within STFC are detailed in STFC Safety Code 29

Incident Procedures and Contingency Plans

In the event that any element of the following contingency plans are enacted, the incident must be reported using SHE Assure and the RPA must be informed. All notified incidents will be investigated.

During enactment of a contingency plan, the advice of the RPA can be sought at any point.

a. Fire

On discovering a fire:

- i. Shout to alert people nearby and break nearest *break glass* point to sound alarm.
- ii. Leave the building by nearest exit, go to the assembly point and remain there until further instructions are given.
- iii. Notify ISIS Duty Officer (01235 44 6789) and RAL Site Security (01235 77 8888) of the location of the fire and any additional details of the current radiation hazard that would be relevant to the attending emergency services.

On hearing the fire alarm:

- i. Secure any radioactive material if it is safe to do so. DO NOT SIGNIFICANTLY DELAY YOUR EXIT.
- ii. Leave building by the nearest exit, go to the assembly point and remain there until further instructions are given.
- iii. Inform the building warden and the ISIS Duty Officer (01235 44 6789) of the presence of radioactive materials or other relevant hazards.

Before returning to the area:

If the fire has engulfed any radioactive materials, shielding or installed safety features, the advice of the RPA must be sought before allowing people to return to the area. Health Physics radiation and contamination monitoring will be carried out to inform any advice given.

b. Loss or theft of radioactive materials

If any radioactive materials cannot be accounted for:

- i. Perform an immediate physical check on all radioactive sources within the Isostock location/active sample cupboards, to confirm the loss and identify whether other sources are missing. A description should be prepared of the missing materials.
- ii. Inform the RPS, RPA, ISIS Duty Officer (01235 44 6789) and RAL Site Security (01235 77 8888).
- iii. Continue to search for the missing materials until the RPA has confirmed that the search can be stopped.
- iv. The RPA will advise if statutory authorities need to be informed and on additional Health Physics actions.

c. Damage to radioactive materials

In the event of damage to any radioactive materials (including sealed sources or activated materials):

- i. Contact the ISIS Duty Officer and RPS immediately, noting if personal contamination may have occurred. Get someone else to call if there is a risk of contamination.
- ii. Do not take any action that would spread radioactive contamination outside the immediate area. Do not touch or move equipment that may be contaminated. Make a mental note of where spread may have occurred. Until assistance arrives, instruct others to stay away.
- iii. If personal contamination is suspected, keep the individual stationary and contact the RPS or ISIS Duty Officer (01235 44 6789) for advice.

- iv. The RPS will contact Health Physics and the RPA to check for contamination and will maintain an exclusion zone until they arrive. In the specific case of suspected damage to a sealed source, contact Health Physics to perform a repeat leak test of the source.
- v. The RPA will advise if statutory authorities need to be informed and on subsequent actions.

d. Damage or reduction of radiation shielding and failure of radiation protection systems

Any suspected damage or reduction of radiation shielding (either deliberate or accidental) must be reported to the RPS and RPA immediately.

In the event of failure of any of the installed safety features (interlocks, emergency stops etc.), the ISIS Duty Officer (01235 44 6789) must be informed immediately. All operations to the area must cease and the RPS and RPA must be informed immediately.

Any failure of control systems identified during commissioning or cycle start-up must be remedied before generating the beam.

e. Exposure of persons

Anyone who considers they may have received a significant radiation exposure (**including a cumulative annual exposure in excess of the STFC dose investigation level of 1 mSv**) should notify the RPS as soon as possible. The exact details (source of exposure, distances, exposure times, part of body, witnesses etc.) should be recorded and the advice of the RPA sought.

f. Accidents & injuries

In the event of personal injury, follow general first aid requirements. Do not delay the administration of first aid because of radiological hazards.

- i. Notify the RPS and ISIS Duty Officer who will summon the emergency services as appropriate. If radiological contamination is suspected, request that Health Physics attend to deal with the contamination. Health Physics staff should remain in attendance to assist paramedics.
- ii. If first aid is required in situ, the RPA should be consulted if the instantaneous dose rate in the area exceeds 100 $\mu\text{Sv/h}$ or in the presence of radioactive contamination. Where available, the RPS should monitor the dose accumulated on the casualty's electronic dosimeter.
- iii. Attending paramedics must be provided with an electronic dosimeter and be supervised by the RPS at all times. The RPA should be contacted to provide information and instruction to the paramedics relevant to patient management and personal safety.

Health Physics will implement their own contingency plans for dealing with contaminated individuals.

g. Spill of a sample

In the event of a spill or release of a sample while working on a beamline.

- i. Minimise movement in and out of the vicinity to stop the spread of potential contamination (only move as much as needed to telephone, ask or shout for assistance).
- ii. Notify the RPS, ISIS Duty Officer and ask for Health Physics to attend to deal with the potential contamination.

h. Failure to follow procedures

The RPS must be notified of any breakdown in procedural controls whether or not it resulted in significant exposure or loss/damage to a source/equipment. For example, the use of the facility or access into controlled areas by unauthorised persons. The RPS will investigate all notified incidents to review whether existing procedures remain sufficient. RPA advice should be sought.

1. Written Arrangements: General requirements for Experimental Halls - R6, R55, R77 and R80

- i. Access to the Experimental Halls is through swipe access personnel doors located around R6, R55, R77 and R80.
- ii. Do not enter any Experimental Operations controlled area unaccompanied unless you have been individually authorised by the responsible person for the relevant area. Authorisation is conditional on completion of the ISIS online radiation safety training and completing an access form as specified by SI-10 (Safety instruction 10 found here: <https://intranets.facilities.rl.ac.uk/sites/isis/Pages/ISIS-Card-Swipe-Access-Reminder.aspx>). Additional radiation safety instruction should be given on working safety with specific hazards during tasks to be performed.
- iii. Do not interfere with or attempt to defeat or bypass any radiation safety features (e.g. captive keys, safety interlocks, warning devices, emergency stop devices).
- iv. When working within the area, the following dosimetry arrangements apply:

Employees:	ISIS issue personal dosimeters
Contractors:	Non-classified: ISIS issue personal dosimeter or EPD ⁺ for short term visits Classified: Own personal dosimeter plus ISIS-issue EPD ⁺
Facility users:	ISIS-issue personal dosimeter.
Accompanied visitors:	Host/guide to wear EPD ⁺ to assess visitor exposures.

** including neutron pack when ISIS beam is on and a neutron hazard has been identified by an RRA.*
- v. When within a beamline blockhouse, on hearing the pre-exposure warning or observing illumination of blue lights, hit the nearest emergency stop device and immediately leave the area by the nearest exit.
- vi. On hearing a fire alarm (bells), leave the area immediately by the nearest available exit. See also contingency plans for fire.
- vii. Do not undertake any task that cannot be performed in accordance with these local rules, until a task-specific radiation risk assessment has been carried out in consultation with the RPA, and additional control measures identified by the assessment have been adopted. These additional measures should be documented in the form of a set of supplementary written arrangements, further to these local rules.
- viii. Do not make any alterations to any radiation shielding, safety feature, warning device or ventilation system without explicit authorisation of:

For beamlines:	Instrument Ops Gp Leader
For the EPBs (ventilation):	Accelerator Ops Gp Leader and Target Ops Gp Leader
For the EPBs (other controls):	Accelerator Ops Gp Leader
For target areas:	Target Ops Gp Leader
- ix. All radioactive or potentially active materials removed from the Experimental Halls must be dealt with in accordance with LWI-01, ISIS SI-16 and SHE Codes 21 and 28. This involves the use of a labelling system using buff, blue and yellow labels to indicate hazard levels.
- x. In the event of an incident or accident, implement the appropriate contingency plan. All radiation safety related incidents should be notified using SHE Assure.
- xi. If you have any radiation protection concerns, leave the area and discuss your concerns with the RPS.

2. Written Arrangements: Restriction of exposure within Experimental Hall areas

A. Experimental Halls

General access

1. General access areas are regularly monitored by Health Physics and are below 2 $\mu\text{Sv/hr}$ (background).
2. Areas of significant higher dose have been labelled and where required either protected by barriers, fencing, shielding or interlocks.
3. Unaccompanied access to R55, R77 (controlled areas) and R6, R80 (supervised areas) is by swipe card to authorised persons only.
4. Do not enter any controlled area within R6 or R80 unless you have been given permission by the person responsible for the area. For blockhouses, this is the experimental scientist. Access should only be granted into the R6 and R80 controlled areas after instruction on radiation safety measures to be adopted.
5. Do not cross any barrier or enter any access point into a controlled area unless you have been given permission to do so.

Tours and Visits

6. Tours and visits must be planned to ensure radiation exposures remain ALARP, and below the ISIS daily visitor action level of 10 μSv . Generally these will follow a predefined route, avoiding controlled areas where possible.

Experimental Work

7. All users and Instrument Scientists must have completed the User safety training and completed a test. Which can be found here (registration required):<https://users.facilities.rl.ac.uk/auth/Login.aspx?service=https://proposal.isis.rl.ac.uk/home&redirecturl=https://proposal.isis.rl.ac.uk/home/login.do>
8. All users and Instrument Scientists must comply with their beamline risk assessments which can be found here:
<http://www.facilities.rl.ac.uk/isis/experiments/PDFExperimentRiskAssessments/Forms/ByInstrument.aspx>
9. All users and Instrument Scientists must comply with their experimental risk assessment.
 - i. Registered users can find their experimental risk assessment at this location:
<https://users.facilities.rl.ac.uk/eras/erassessments.aspx>
 - ii. For general access the experimental risk assessments can be found here:
<http://www.facilities.rl.ac.uk/isis/experiments/HealthAndSafetyTools/Search%20Sample%20Risk%20Assessment%20PDFs.aspx>
10. When handling samples users and scientist must comply with EO11 Sample handling instructions found here: www.facilities.rl.ac.uk/isis/safety/operatinginstructions/Forms/AllItems.aspx.
11. Active samples:
 - i. Must be handled for minimum possible time, at greatest distance possible from body.
 - ii. Must be stored and moved within a vessel designed to withhold the contents in the event of an incident e.g. dropped sample.
 - iii. Must be transferred, without delay, to a secure sample cabinet with shielding to achieve an external dose rate below 2.5 $\mu\text{Sv/h}$. To be confirmed using beamline monitor (Thermo 900D).

- iv. With a contact dose rate greater than 75 $\mu\text{Sv/h}$ (contact) or 7.5 $\mu\text{Sv/h}$ (at 30cm) must not be manipulated outside a designated controlled area. To be confirmed using beamline monitor (Thermo 900D).
- 12. If a sample with a contact dose rate greater than 75 $\mu\text{Sv/h}$ (contact) or 7.5 $\mu\text{Sv/h}$ (at 30cm) cannot be placed in a shielded store or kept under continuous supervision, then a suitable controlled area must be designated in accordance with the Written Arrangements in Section 3 of these local rules.
- 13. Do not remove any active sample from the sample position if it, or its containment, is thought to have been damaged during irradiation. Contact the RPS and request the immediate attendance of ISIS Health Physics.

Inspection, Maintenance and Upgrades

- 14. All inspection, maintenance or upgrade work must have an associated a risk assessment. Depending on the complexity of the work and findings of this risk assessment, further written arrangements will be prepared to supplement the requirements of these local rules.
- 15. Before any work is carried out consideration to relevant work risk assessment and radiation risk assessment must be given. Risk assessments can be found at this location: <http://www.facilities.rl.ac.uk/isis/safety/riskassessments/Forms/AllItems.aspx?RootFolder=%2Fsis%2Fsafety%2Friskassessments%2FExperimental%20Operations%20Division%2FInstrument%20Operations%20Group&FolderCTID=0x012000EB18259FCB3E784CB41EAFFBFC90CF09&View={BEBD7065-F4AC-4AFF-8A6A-EF88D7179268}> and radiological risk assessment at this location: <http://www.facilities.rl.ac.uk/isis/safety/Prior%20Radiological%20Risk%20Assessments/Forms/AllItems.aspx>. In the majority of working areas tasks will not expose a worker to a dose rate higher than 2 $\mu\text{Sv/hr}$ (background). Greater attention is required mainly when working on sample positions, chopper systems, jaws, guides and beamlines components and components under shielding.
- 16. Before any shielding is to be removed a beamline permit that is relevant must be issued to an authorised person and Health Physics asked to carry out a radiological survey of components and working area as shielding is removed
- 17. All work must be planned to ensure that radiation exposures remain ALARP, and below the daily action level of 200 μSv .
- 18. As per the radiation risk assessment for beamlines if a working area dose rate is measured at above 50 $\mu\text{Sv/hr}$ work must stop and the RPS contacted to discuss any further actions that should be implemented before work can resume.
- 19. In the event of an incident or accident, implement the appropriate contingency plan. All radiation safety related incidents should be notified using SHE Assure.

B. R80 Blockhouses and top-loading sample positions (controlled area)

- 1. Access only by those with the permission of the beamline scientist.
- 2. Specific instruction to be provided on requirements for working within blockhouses and top-loading sample areas before access is granted.
- 3. During the cycle, when the blockhouse/sample position is routinely accessed for set-up, beamline staff/users to remain vigilant against unauthorised access. Unauthorised persons to be prevented from entering or promptly ejected if found inside.
- 4. If it is necessary to leave the blockhouse/sample position unattended, it should be closed where practicable to prevent unauthorised persons going inside.
- 5. If it is essential that the door is left open and unattended for a period of more than 1 hour (e.g. awaiting the arrival of engineers), then a "controlled area" warning sign or Tensator barrier should be deployed across the open door.

6. Any blockhouse/sample position with an ambient dose rate greater than 7.5 $\mu\text{Sv/h}$ should not be left open and unattended.

C. Controlled areas around specific items/projects

1. Where possible, Items with a contact dose rate greater than 75 $\mu\text{Sv/h}$ (contact) or 7.5 $\mu\text{Sv/h}$ (at 30cm) must be stored inside an existing compound, that must be designated as a controlled area e.g. the storage compounds in R55 and R80. If this is not possible, a temporary controlled area must be established in accordance with the Written Arrangements in Section 3 of these local rules.
2. Do not cross any barrier or enter any access point into a controlled area unless you have been given permission to do so by the member of staff responsible for the area; have a justified reason for being inside; and you are able to work in accordance with the requirements of these local rules.
3. Do not enter any area designated on the basis of potential contamination except in accordance with specific written arrangements for entry, including the wearing of suitable PPE.

D. NILE bunker (controlled area)

Access only in accordance with local rules for area.

E. LET neutron detector test area (controlled area)

Access only in accordance with local rules for area.

F. Methane buffer tank room (controlled area)

1. Access to (SI10) authorised persons only.
2. Gamma dose rate instrument to be carried.
3. Spend minimum time in area at maximum distance from the tank. Do not remain in an area where dose rates exceed 100 $\mu\text{Sv/h}$. RPA advice should be obtained if access to higher dose rate areas is required.

3. Written Arrangements: Designation of temporary controlled areas

These arrangements apply in **R55 (controlled area)**, **R80 (supervised area)** and **R6 (supervised area)** for consistency.

A temporary controlled area must be established whenever an item is set down within a supervised area that:

- has a dose rate greater than **7.5 $\mu\text{Sv/h}$** , or
- has a contact dose rate greater than **75 $\mu\text{Sv/h}$** , or
- presents a contamination hazard.

These thresholds remain mandatory.

The purpose of temporary controlled areas is to ensure that unattended radiological hazards remain clearly identified, physically segregated, and protected from inadvertent access. This system replaces the previous spreadsheet-based notification process, which is no longer relied upon.

3.1 Attended items

Items being continuously managed by a competent person do not normally require temporary controlled area designation, provided:

- the person remains present and in control
- radiological risks are actively managed
- work is conducted in accordance with these Local Rules

3.2 Unattended items

Any radiological item left unattended must be physically delineated and identified using the barrier system described in Section 3.4.

Unattended items are the point at which awareness and control can be lost; therefore physical segregation becomes mandatory.

3.3 Determining the required level of control

Two levels of control are used for temporary controlled areas. The level required depends on whether a passer-by could inadvertently move the barrier and access a **75 $\mu\text{Sv/h}$ dose rate**.

Level 1 – Standard temporary controlled area

Used when:

- dose rate is greater than **7.5 $\mu\text{Sv/h}$** , and
- it is **not foreseeable** that a passer-by could inadvertently move the barrier and access a **75 $\mu\text{Sv/h}$ dose rate**.

Suitable where:

- the hazard is stable and clearly visible
- the barrier position is obvious and unlikely to be disturbed
- the item will be unattended for a short or moderate duration
- inadvertent access to a 75 $\mu\text{Sv/h}$ dose rate is not reasonably foreseeable

Examples:

- activated components awaiting movement
- **chopper assembly left temporarily while a van is collected**
- signage and barrier placed at the **7.5 $\mu\text{Sv/h}$ boundary**

Level 2 – Fixed-barrier temporary controlled area

Used when:

- dose rate is greater than **7.5 $\mu\text{Sv/h}$** , and
- it is **foreseeable** that a passer-by could inadvertently move the barrier and access a **75 $\mu\text{Sv/h}$** dose rate.

Suitable where:

- the hazard is in a busy or constrained area
- barriers could be knocked, nudged, or moved accidentally
- the hazard is complex, awkward, or partially obscured
- the item will be unattended for extended periods
- inadvertent access to a 75 $\mu\text{Sv/h}$ dose rate would have significant consequence

Examples:

shutter system with elevated dose rates being maintained or altered

- fixed Heras fencing at the **7.5 $\mu\text{Sv/h}$ boundary**, bolted or clipped together
- complex assemblies left overnight
- items placed in high-traffic areas or around corners

3.4 Barrier requirements

Level 1 – Standard barriers

Acceptable barrier types:

- Tensator barriers
- Chapter 8 barriers
- Equivalent temporary barriers

Purpose:

- delineate the **7.5 µSv/h boundary**
- provide clear visibility and discourage casual approach

Level 2 – Fixed barriers

Acceptable barrier types:

- Chapter 8 barriers **secured together** (e.g. cable-tied)
- Heras fencing **bolted or clipped together**
- Equivalent fixed physical segregation

Purpose:

- prevent inadvertent movement of the barrier
- ensure a passer-by cannot accidentally access a **75 µSv/h** dose rate

3.5 Signage requirements

All temporary controlled areas must display signage including:

- responsible person and contact details
- brief description of the hazard
- date and time placed
- dose rate at the boundary (if applicable)

Additional signage:

- For contamination hazards: “Controlled Area. Contamination. Keep Out.”
- For dose-rate hazards where the 7.5 µSv/h boundary cannot be used: measured dose rate must be stated.

3.6 Mandatory requirements for dose-rate hazards

Where dose-rate thresholds are exceeded:

- Barriers must be erected at or outside the **7.5 µSv/h boundary**
- If this cannot be achieved, signage must state the measured dose rate at the boundary
- Items with contact dose rate greater than **75 µSv/h** or greater than **7.5 µSv/h** must not be left unattended without a designated temporary controlled area

3.7 Mandatory requirements for contamination hazards

Where contamination risk exists:

- Where reasonably practicable, **contaminated or potentially contaminated items must be wrapped in heavy-duty polythene or similar protective sheeting** before being moved or set down

- The floor must be covered with heavy-duty polythene sheet before setting down the item(s)
- Barriers must be erected around the item(s) and work area
- Initial contamination monitoring at the boundary must be carried out by Health Physics
- Personnel entering the area must wear appropriate PPE
- All personnel and items must be monitored by Health Physics on exit
- Daily contamination monitoring must be performed and recorded
- A Health Physics clearance survey is required before removing barriers and signage

3.8 Ownership and responsibility

The responsible person for the item must be clearly identified on signage.

The RPS provides oversight and technical guidance but is not responsible for routine policing or auditing of temporary controlled areas other than to ensure the local rules are being followed.

The RPS must be consulted before establishing any temporary controlled area and supervises designation, boundary control and eventual de-designation.

The Main Control Room gains visibility through the physical presence of barriers and signage. No spreadsheet record is required.

3.9 Removal and de-designation

Once the item(s) have been removed and no further need for the area exists:

- For dose-rate controlled areas, barriers and signage should be removed
- For contamination controlled areas, Health Physics must complete a clearance survey before removal and polythene sheeting must be disposed of as potentially contaminated waste

The de-designation must be confirmed to the RPS.

3.10 Incidents within temporary controlled areas

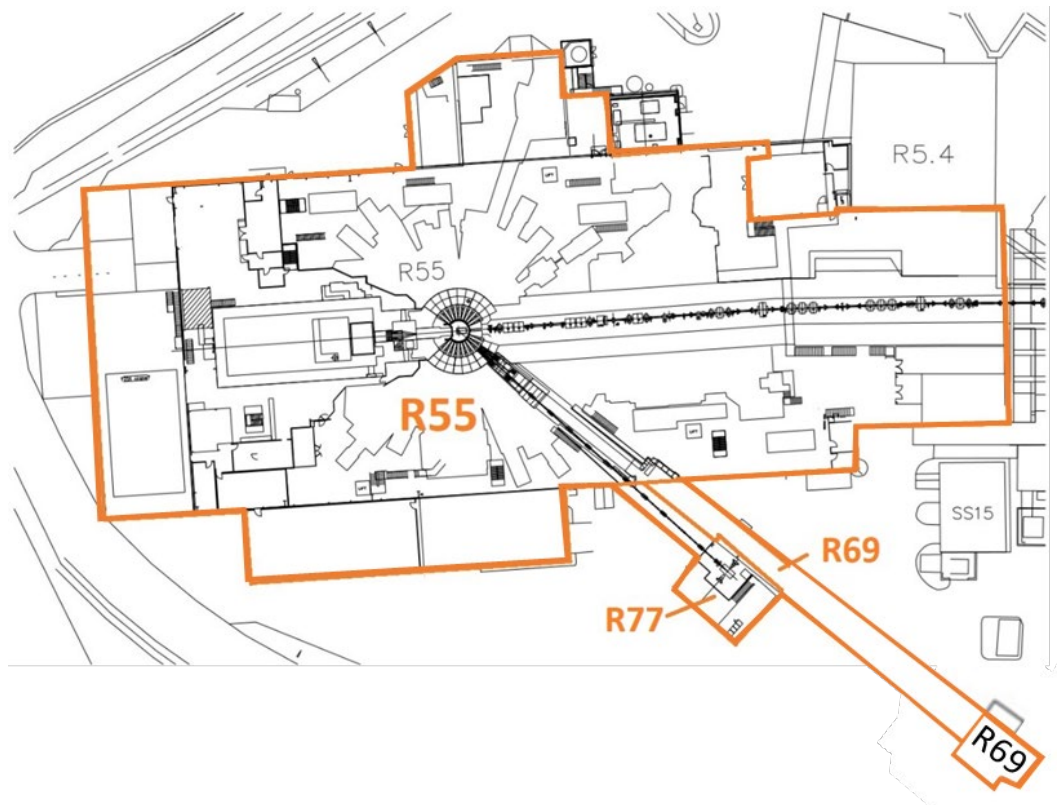
Any incident or accident occurring inside a temporary controlled area must be managed according to the relevant contingency plan in Section 2 of these Local Rules.

4. Written Arrangements: Removal and replacement of shielding

1. Under normal operations the neutron and muon beamlines will not be run with shielding removed. Work involving the removal of shielding cannot be undertaken unless a beamline permit for that work, ensuring that beam cannot be admitted, has been issued by the MCR.
2. On reinstating the shielding, a thorough examination must be undertaken by an authorised person before the beam permit can be cleared. The purpose of the examination is to confirm that radiation levels in accessible areas remain ALARP and, where relevant, all safety features and warning devices affected by the work are operational. A record of the examination is signed off by the Duty Officer before beam is readmitted.
3. A health physics survey of the shielding will take place as soon as beam is re-established.

5. Layout of controlled areas

A. R55 and R77



B. R80

