



University of  
St Andrews

## **Radiation Local Rules & Site-Specific Information**

Site Name: Scottish Oceans Institute, School of Biology

|                                   |  |
|-----------------------------------|--|
| <b>Document type</b>              | <b>Policy</b>  |
| <b>Scope (applies to)</b>         | Staff and students   |
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| <b>Approver</b>                   | Head of EHSS   |
| <b>Document owner</b>             | Deputy Director  |
| <b>School / unit</b>              | Environmental Health and Safety Services                         |
| <b>Document status</b>            | Published  |
| <b>Information classification</b> | Public   |
| <b>Equality impact assessment</b> | None   |
| <b>Key terms</b>                  | Health and safety/Hazard identification and risk assessment      |
| <b>Purpose</b>                    | Compliance with Ionising Radiations Regulations 2017 legislation |



## Radiation Local Rules & Site-Specific Information

Site Name: Scottish Oceans Institute, School of Biology

*This document constitutes the Local Rules under Regulation 18 of the Ionising Radiations Regulations 2017 (IRR17) for the above site and must always be kept up to date. The contents of this document and its references must be brought to the attention of all personnel affected by them.*

### Site Appointees – Radiation Protection Supervisors (RPSs)

The RPSs appointed under the IRR17 have roles including the responsibility for ensuring that St. Andrews University complies with these Local Rules and the associated Radiation Work Instructions as identified in Work Instruction 1 (WI 1)

| Name         | Date Training Completed | Date Next Refresher Due<br>(At least every 3 years) |
|--------------|-------------------------|---|
| Caitlin Burt | 14, 21, 28th April 2021 | April 2024  |
|              |                         |   |

### Radiation Protection Advisers

The Radiation Protection Advisers employed by Aberdeen Radiation Services act as RPAs to St. Andrews University. They can be contacted as below:

Working Hours: **01224 749784**  
**ARPS @aberdeenradiation.co.uk**

Outside working hours (emergency contact):  
**01224 518020**

### Radiation Protection Officer

The Radiation Protection Officer for St. Andrews University, Dr Paul Szawlowski, is responsible for the routine advice regarding IRR17 and the implementation of these Local Rules. He can be contacted as below:

Working Hours: **01334 462753 or 07715 843061**  
Outside Working Hours: **01333 450014 or 07715 843061**

### Dose Investigation Level

The St. Andrews University whole-body effective dose investigation level is **0.5 mSv** in a calendar year or **0.5 mSv** in a two-month period.

Where workers are issued with finger TLDs the dose investigation level is **0.5 mSv** in any two-month wear period.

## Contingency Arrangements

Section 2.6 of the Work Instructions has identified the contingency arrangements for foreseeable incidents happening within the laboratories in this area. Emergency incident posters will be located in rooms where radioactive work is undertaken. The detailed emergency arrangements can be found in the Work Instructions attached to this document

| Description   | Doc. Ref               |
|---|------------------------|
| Radiation Area Incidents - Work with Unsealed Sources | Work Instruction 2.6.2 |
| Contamination Monitoring                              | Work Instruction 6     |
| Lost Sealed or Unsealed Source                        | Work Instruction 2     |
| Work with Unsealed Sources                            | Work Instruction 4     |

It is vital to maintain training for the response to such incidents are practiced. An annual training session will be arranged by the URPO.

## Written Arrangements for Non-Classified Workers

Please refer to the job specific Radiation Work Instructions; these set out the arrangements in place to restrict an exposure to ionising radiation, including the use of PPE and restrictions on the type of work, dose rates and the time spent in the area. All written arrangements must be approved by the RPA. If the arrangements are not adequately defined in the Radiation Work Instructions, contact the RPA to assist with the preparation of a suitable written arrangement.

## Controlled Radiation Areas:

Location: None

## Supervised Radiation Areas:

Location: Gatty Marine Laboratory - Rooms 2.24 and 2.24A

The maximum quantities of radionuclide which can be stored in a Radiation Supervised Area is:

|              | Storage Supervised Area (MBq) | Usage Supervised Area (MBq) |
|--------------|-------------------------------|-----------------------------|
| Radionuclide |                               |                             |
| 3H           | 1000                          | 100                         |
| 14C          | 500                           | 50                          |
| 22Na         | 50                            | 5                           |
| 35S          | 500                           | 50                          |
| 45Ca         | 50                            | 5                           |
| 51Cr         | 500                           | 50                          |
| 86Rb         | 50                            | 5                           |
| 125I         | 10                            | 5                           |

If higher quantities of radionuclides are necessary, then these areas would have to be redesignated as a 'Controlled Area'.

## Temporary Radioactive Waste Storage Areas

Location(s) used: Gatty Marine Laboratory - Rooms 2.24 and 2.24A

## Permanent Radioactive Waste Storage Area

Location: **Radioactive waste store - The Scores, University of St Andrews, St Andrews, Fife**

Access Arrangements: **Key available from University Radiation Protection Officer, Dr Paul Szawlowski**

Telephone No.: **Work 01334 462753 or 07715 843061**  
**Home - 01333 450014 or 07715 843061**

## Small (exempt) Source Store Locations

Test: Not applicable

Other: N/A

## Designated Areas – Supervised Areas

All areas where unsealed sources are manipulated. All areas where Geological specimens are handled or worked with. All other areas where the risk assessment identifies that a radiation dose of greater than 1 mSv but less than 6 mSv may be received in a year.

**The maximum quantities of radionuclide which can be stored in a Radiation Supervised Area is:**

|              | Storage Supervised Area (MBq) | Usage Supervised Area (MBq) |
|--------------|-------------------------------|-----------------------------|
| Radionuclide |                               |                             |
| 3H           | 1000                          | 100                         |
| 14C          | 500                           | 50                          |
| 22Na         | 50                            | 5                           |
| 35S          | 500                           | 50                          |
| 45Ca         | 50                            | 5                           |
| 51Cr         | 500                           | 50                          |
| 86Rb         | 50                            | 5                           |
| 125I         | 10                            | 5                           |

If higher quantities of radionuclides are necessary, then these areas would have to be redesignated as a 'Controlled Area'.

## Designated Areas – Controlled Areas

All areas where a doserate in excess of 7.5  $\mu$ Sv/h exists or the risk assessment identifies that a dose of greater than 6 mSv per year may be received.

## Radiation Work Instructions

The following Radiation Work Instructions (RWI) and generic risk assessments apply at this site. These must be used in conjunction with the contents of the St. Andrews University Radiation Policy & Guidance Document (.....).

| RWI No.  | RWI Title (see .....)   | Applies                             | IRR17- Risk Assessments which apply   |
|--|---|-------------------------------------|---|
| <b>Management</b>                                  |   |                                     |   |
| 01   | Management of Work with Ionising Radiations at the University of St Andrews | <input checked="" type="checkbox"/> |   |
| 02   | Radiation Area Incidents  | <input checked="" type="checkbox"/> |   |
| 03   | Radiation Record Keeping  | <input checked="" type="checkbox"/> |   |
| <b>Laboratory Radioactive Materials Operations</b> |   |                                     |   |
| 04   | Handling unsealed radioactive solutions                                     | <input checked="" type="checkbox"/> | IRR17-Risk Assessment No. 1 - Risk assessment for the consent for the deliberate addition of radioactive substances in the production of products |
| 05   | Radioactive Waste   | <input checked="" type="checkbox"/> |   |
| 06   | Contamination Monitoring  | <input checked="" type="checkbox"/> |   |
| 07   | Use of Unsealed radioactive sources for undergraduate work                  | <input type="checkbox"/>            |   |
| 08   | Use of small sealed sources for teaching                                    | <input type="checkbox"/>            |   |
| 09   | Use of HASS Sealed Source   | <input type="checkbox"/>            |   |
| 10   | Use of Radioactive Sources for Luminescence Dating                          | <input type="checkbox"/>            |   |
| <b>Sealed Sources and Radiation Generators</b>     |   |                                     |   |
| 11   | X-Ray Crystallographic Units  | <input type="checkbox"/>            |   |
| <b>Geological Specimens</b>                        |   |                                     |   |
| 17   | Radon   | <input type="checkbox"/>            |   |
| 18   | Handling Specimens  | <input type="checkbox"/>            |   |
| <b>Animal Experiments</b>                          |   |                                     |   |
| 19   | Seal studies in pool  | <input checked="" type="checkbox"/> | IRR17- Risk Assessment No7 - Risk Assessment for the Consent for the Deliberate Administration of Radioactive Substances to Animals               |

Detailed additional project-specific risk assessments and written arrangements can be found on the relevant Radiation Protection Management Programme RadProt at URL: <https://portal.st-andrews.ac.uk/radprot/open/>

**Approved**



**Signature .....**

**Name .....** Dr Paul Szawlowski

**Position .....** University Radiation Protection Officer and Deputy Director of Environmental Health and Safety Services, University of St Andrews

| <b>Version number</b> | <b>Purpose / changes</b> | <b>Document status</b> | <b>Author of changes, role and school / unit</b> | <b>Date</b> |
|-----------------------|--------------------------|------------------------|--|-------------|
| v1.0                  | New Document             | Approved               | Dr Paul Szawlowski                               | 12/07/2021  |
|                       |                          |                        |  |             |
|                       |                          |                        |  |             |
|                       |                          |                        |  |             |