

| ENVIRONMENTAL LIMITS   |                                  |                            |                                    |  |                         |                         |   |                                    |
|--|----------------------------------|----------------------------|------------------------------------|--|-------------------------|-------------------------|---|------------------------------------|
| ELC Parameter  | Typical registration condition # | Data source                | No breaches                        | Minor breach(es) or minor environmental event(s) | Repeated minor breaches | Gross Breaches          | Significant breach(es)  |                                    |
| <b>Scope ELCs</b>  |                                  |                            |                                    |  |                         |                         |   |                                    |
| Authorised Activity  | 0.1                              | Inspection                 | Compliant with permit/registration | N/A  | N/A                     | N/A                     | change of authorised activity   |                                    |
| Authorised Place   | 0.2                              | Inspection                 | Compliant with permit/registration | N/A  | N/A                     | N/A                     | management of radioactive substances outwith authorised place   |                                    |
| Authorised Person  | 0.3                              | Inspection/<br>Data Source | Compliant with permit/registration | N/A  | N/A                     | N/A                     | failure to notify change of registered name   |                                    |
| Receipt of waste sources from another person   | B.3.1                            | Inspection                 | Compliant with permit              | N/A  | N/A                     | N/A                     | Received waste not described in permit  |                                    |
| Prohibition- introduction of material into organisms that leave the authorised place | B.4.2                            | Inspection                 | Compliant with permit              | N/A  | N/A                     | N/A                     | Prohibition against introduction of material into organisms that leave the authorised place unless authorised in permit |                                    |
| Prohibition- dilution to out of scope without authorisation                          | B.6.2                            | Inspection                 | Compliant with permit              | N/A  | N/A                     | N/A                     | Prohibition against dilution of waste to out of scope levels unless authorised in permit                                |                                    |
| Duty of Care   | C.1.1                            | Inspection                 | Compliant with permit              | N/A  | N/A                     | N/A                     | Transfer of sources to unauthorised person  | Applies to both material and waste |
| Transfer of waste sources  | C.4.1, C.5.1                     | Inspection                 | Compliant with permit              | N/A  | N/A                     | N/A                     | Transfer of sources outwith UK not in accordance with TFS   |                                    |
| Return of radioactive waste  | C.6.1                            | Inspection                 | Compliant with permit              | N/A  | N/A                     | N/A                     | Return of waste not to authorised place or in accordance with Government Policy   |                                    |
| <b>Numeric ELCs</b>  |                                  |                            |                                    |  |                         |                         |   |                                    |
| HASS radionuclide, number & activity limits  | B.7.2                            | Inspection                 | Compliant with permit              | N/A  | N/A                     | Any exceedance of limit | Causes Category 1 (major) or Category 2 (significant) environmental event   | Only applies to HASS permits       |
| Holdings of sealed sources   | D.1.1                            | Inspection/<br>Data source | Compliant with permit              | N/A  | N/A                     | Any exceedance of limit | Causes Category 1 (major) or Category 2 (significant) environmental event   |                                    |

| Process ELCs                    |       |            |                       |     |     |  |   |
|---------------------------------|-------|------------|-----------------------|-----|-----|--|---|
| Return of waste sources         | C.7.2 | Inspection | Compliant with permit | N/A | N/A | Failure to take back sources from outwith UK | Causes Category 1 (major) or Category 2 (significant) environmental event |
| HASS financial provision        | E.1.1 | Inspection | Compliant with permit | N/A | N/A | Financial provision inadequate or expired    | Causes Category 1 (major) or Category 2 (significant) environmental event |
| <b>Numeric statistical ELCs</b> |       |            |                       |     |     |  |   |
| none specified                  |       |            |                       |     |     |  |   |

Only applies to HASS permits

| ENVIRONMENTAL MANAGEMENT CONDITIONS         |  |             |  |  |   |   |
|---|--|-------------|--|--|---|---|
| EMC Attribute                               | Authorisation condition #  | Data source | Compliant  | Minor non-conformance  | Major non-conformance   | Comments  |
| <b>MANAGEMENT</b>                           |  |             |  |  |   |   |
| Best Practicable Means                      | A.7.2, B.1.1, B.2.1, B.2.2, B.5.2, B.6.1, B.7.1, C.3.1, C.7.1                                    | Inspection  | Protection of the environment and the public is optimised. No unnecessary radioactive waste is generated as a result of the management of the radioactive substances.  | Protection of the environment or the public is not fully optimised. Not all practicable measures have been taken to prevent the unnecessary generation of radioactive waste.   | Protection of the environment and the public not optimised. No/ inadequate measures taken to prevent the generation of unnecessary radioactive waste. Significant generation of unnecessary radioactive waste despite any measures taken.   | Sealed sources should not generate waste, except at the end of their lives. |
| Managerial Structure/ Commitment            | A.1.1, A.2.1   | Inspection  | Sufficient resources to ensure compliance. Defined management structure with evident organisational commitment to compliance. Clearly identified responsible person.   | Resource needed for compliance not always available. Some organisational commitment to compliance. Responsible person not formally recognised.   | Resources consistently insufficient to ensure compliance. No organisational commitment to compliance. No clearly identified responsible person.   | Resources include both financial and human                                  |
| Staffing                                    | A.5.1, B.10.1  | inspection  | Staff carrying out the activity are trained, experienced and competent in their required roles. Contractors are properly controlled and supervised. If required, RWAs are certificated and appointed. Demonstration that RWAs have been consulted on all significant disposal issues.  | Unable to demonstrate that all staff carrying out the activity are suitably trained and experienced. Evidence that despite training, some staff are not fully competent. Contractors not fully controlled or supervised. If required, RWAs appointed, but consultation with them is haphazard. RWAs advice is only partially considered.   | Significant numbers of staff are not trained, experienced or competent in their role. Contractors are not properly controlled or supervised. If required, RWA not appointed or not recognised by SEPA. No consultation with RWA.  | RWAs not required for most activities involving sealed sources              |
| Monitoring and control systems / procedures | A.2.2, A.3.1, A.5.2, B.4.1, B.4.3, B.7.3, B.8.1, C.2.1, C.2.2, C.6.2, C.6.3(a)+(d), D.2.2, F.1.1 | Inspection  | Effective written procedures readily available and implemented. No deviations from procedures. Management arrangements regularly reviewed and identified issues addressed promptly. Formalised security system to prevent unauthorised access, loss or theft of registered substances, including site security plans. Clearly stated intention for transfer/ disposal of sources at end of life. | Procedures incomplete, but most key areas covered. Some deviations from procedures. All procedures may not be readily available to staff. Management arrangements irregularly reviewed and/ or identified issues not addressed in timely fashion. Informal security system to prevent unauthorised access, loss or theft. Site security plans incomplete or lacking sufficient detail. Intention for sources at end of life unclear, no formalised plans for transfer/ disposal. | No/ inadequate written procedures or instructions. Management arrangements not reviewed or identified issues not addressed. Procedures not available and/ or routinely not followed. No security system in place to prevent unauthorised access, loss or theft. No site security plan. No plans for transfer/ disposal of sources at end of life. |   |

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| Emergency response procedures | A.9.2(b)+(d), B.5.1, B.9.1(a)+(b), C.2.4 | Inspection | Contraventions are investigated promptly and thoroughly. Actions arising from investigations are addressed in a timely fashion. In the event that a source is found to be leaking, lost or stolen, all reasonable actions are taken in a prompt manner to contain the dispersal or retrieve the material. | Not all contraventions investigated or not investigated thoroughly by appropriate persons. Actions arising from investigation are not acted upon in a timely fashion. In the event that a source is found to be leaking, lost or stolen, not all reasonable actions have been taken to contain the dispersal or retrieve the material or reasonable actions have been taken but not in a prompt manner. | No investigation undertaken into contravention or actions arising from investigation not acted upon. In the event that a source is found to be leaking, lost or stolen, insufficient steps have been taken to contain the dispersal or retrieve the material and/ or only after an unreasonable delay. | The Authorised Person may not experience any events of this nature. Compliance will focus on written arrangements to ensure the required actions are taken. |
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**PLANT & INFRASTRUCTURE**

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| Condition and operation of plant, equipment and infrastructure         | A.6.3(a), B.4.5, D.2.1     | Inspection | All areas suitably marked with trefoils and other signage. Immediate housing or container of sources legibly and robustly marked with unique identifier, radionuclide and activity. Security provisions fully comply with CTSA recommendations.   | Most areas marked or signed, but some omissions or illegible signage. Markings on immediate housing or container of sources not legible, not robustly marked or does not include unique identifier, radionuclide and activity. Security provision do not fully comply with CTSA recommendations.  | No/ inadequate signage on areas. No markings on immediate housing or container of sources. Significant non-compliance with security provisions as recommended by CTSA.  |  |
| Maintenance of processes, plant and installation to relevant standards | A.6.1, A.6.2, A.6.3(c)+(d) | Inspection | All sources, associated equipment and infrastructure kept in good repair. Physical aspects of site security, such as alarm and detection equipment, installed and maintained in accordance with the site security plan. Formal written arrangements in place for the acceptance into service of any necessary equipment or facilities. Adequate measures in place, implemented and regularly reviewed to ensure the physical security of the sources. Effectiveness of equipment as well as staff correct usage checked regularly and results recorded. Deficiencies noted are corrected as soon as reasonably practicable. | Not all sources, associated equipment and infrastructure appear in good repair. Not all items of physical site security installed or maintained as specified in the site security plan. Acceptance into service arrangements satisfactory but not formalised. Equipment and facilities not regularly checked for effectiveness or being used correctly. Defects may not be identified or corrected in a timely fashion. | Sources, associated equipment or infrastructure not maintained in good repair. The majority of physical site security items in the site security plan have not been installed or maintained. If mobile, sources not kept securely when not in use. No acceptance into service arrangements. No checking of equipment or facilities to ensure it is effective and being used correctly. Defects are not corrected. |  |
| Implementation of monitoring/testing/calibration programmes            | A.6.3(b), A.7.1, B.4.4     | Inspection | All relevant equipment regularly calibrated to an appropriate standard. Certificates available to demonstrate this. Regular wipe testing undertaken on sources. Source accountability checks performed regularly and recorded.  | Incomplete programme of calibration. Calibration certificates not available. Wipe testing of sources not undertaken regularly or certificates not available to demonstrate compliance. Source accountability checks performed irregularly or not recorded consistently.   | No/ inadequate calibration of equipment. No wipe tests of sources undertaken. No source accountability checks performed.  |  |

**REPORTING & RECORDING**

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| Record keeping | A.4.1, A.4.2, A.4.3, A.9.2(c), B.10.2, C.2.3, E.2.1 | Inspection | True, accurate and legible records maintained as required by the authorisation. Records kept in a manner and for sufficient length of time to demonstrate compliance with authorisation. If required, RWA has been appointed in writing. For HASS, written identification and photos retained for each source. | Data recorded but not kept in a manner or for sufficient time to demonstrate compliance with authorisation. Some records are not kept or do not comply with the requirements of the authorisation. For HASS, not all sources have written identification or photos. | Limited or non-existent records. Failure to record a significant proportion of the data required by authorisation. For HASS, no written identification or photos for sources. |  |
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| Reports to SEPA required under licence | A.8.1, A.10.1, C.3.2, D.2.3, F.1.2 | Data source | All reports required by the authorisation are made to SEPA in the manner specified and within the specified timescales. Significant changes to site security plans are sent to the CTSA promptly. | Reports are not made in the manner specified, do not contain all the required information and/ or are late in submission. Significant changes to site security plans not sent to CTSA in a reasonable time or do not contain sufficient information. | Reports are not made to SEPA. Site security plans are not sent to the CTSA. |  |
| Notification of incidents              | A.9.1, A.9.2(a)+(e), B.9.1(c),     | Data source | All notifications made to SEPA as specified in the authorisation, within the specified timescale and with the required information.   | Incomplete notifications made to SEPA, not made in the manner specified by the authorisation or made after delay.  | Notifications not made to SEPA.   | There may not be any cause to notify SEPA. Compliance will focus on written arrangements for notifications to be made. |

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