

## Keeping employee radiation dose low: a checklist for compliance

As required by IRR 2017 (1) every *employer* using ionising radiation must take all necessary steps to restrict, as low as is reasonably practicable (ALARP), exposure of its *employees* to ionising radiation.

To ensure ALARP the individual radiation worker must be aware of:

|   |  |                             |                             |
|---|--|-----------------------------|-----------------------------|
| <b>Radiation Risk Assessments</b>       | The risk assessment aids designation of areas, plans for systems of work, contingency potential, plus monitoring and classification status requirements.   |                             |                             |
| <b>Local Rules</b>                      | The Local Rules summarise the key working instructions intended to restrict exposure in radiation areas.   |                             |                             |
| <b>PPE</b>                              | Where PPE has been provided, there is a legal duty on the employee to use it correctly, report faults and store safely.  |                             |                             |
| <b>Dose Monitoring</b>                  | A radiation risk assessment will indicate the level and type of personnel monitoring required. Once issued there is a legal requirement for the employee to ensure dosimeters are worn correctly at all times when in a controlled area.   |                             |                             |
| <b>Dose Limits</b>                      | <b>Annual Limit (Effective dose)</b>   | <b>Employees (aged 18+)</b> | <b>Classification Level</b> |
|   | Whole Body   | 20 mSv                      | 6 mSv                       |
|   | Lens of the eye  | 20 mSv                      | 15 mSv                      |
|   | Extremity  | 500 mSv                     | 150 mSv                     |
|   | Skin averaged over 1cm <sup>2</sup> .  | 500 mSv                     | 150 mSv                     |
| <b>Classified radiation worker (CW)</b> | A CW is Identified as an employee who may receive an effective dose over 6mSv per year more than 3/10ths of any dose limit and must: <ol style="list-style-type: none"> <li>1. Ensure monitoring is worn at all times and exchanged on date</li> <li>2. When working at a second site maintain a radiation passbook</li> <li>3. Ensure training is up to date and locate records.</li> </ol> |                             |                             |
| <b>Multiple Employers</b>               | If an employee works with more than one employer, all employers must share dose information to ensure no annual dose limit is exceeded.  |                             |                             |
| <b>Outside Workers</b>                  | When performing work for their main employer in the controlled area of a second employer, they are an outside worker. These employees must be appropriately trained and monitored.   |                             |                             |
| <b>Training in Radiation Protection</b> | Radiation workers must complete regular training on the hazards of radiation, the biological effects and protective measures that can be taken. Training records must be available on inspection for the HSE or enforcement body for the appropriate home nation.  |                             |                             |

**Reference (1): Ionising Radiation Regulations 2017 HSE Statutory Instruments 1075.**