

Working with radioactive sources - training

In [bulletin 275](#) we looked at the importance of radiation risk assessments and the support available from SSERC for putting these in place. We also touched on the fact that risk assessments are only effective if the control measures identified within them are communicated clearly to users. One way of doing this is through providing operating procedures which accompany the radioactive sources and there are examples of these on our website available by logging in and visiting the ionising radiation pages (Figure 1) of our health and safety section [1].

Another vitally important way of doing this is of course through training. It is a legal requirement that anyone working with radioactive sources receives training first and that the training is recorded and also that the training is refreshed at appropriate intervals.

Training needs to cover safe handling, record keeping, leak testing, storage and security, dose minimisation, risk assessment, incident and contingency plans, PPE (where appropriate), and working with sources whilst pregnant/breastfeeding.



Figure 1 - Ionising Radiation web page.

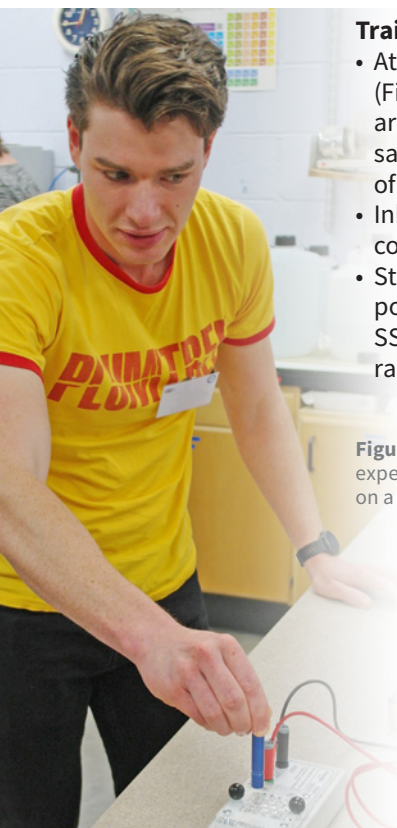
Your employer decides what format of training they require so please also check what their policy is over and above this.

This training must be refreshed/updated at appropriate intervals. Your employer should specify the interval. During recent school inspections, HSE have been recommending refresher training after 3 - 5 years. As a minimum, we suggest at least one person from a school which holds radioactive sources attends a SSERC training course (either the face to face or online version) every 5 years, after this they can then provide inhouse training/refresher training to other staff members. Also, every member of staff who works with the radioactive sources should familiarise themselves with SSERC guidance on an annual basis. It should be noted that whilst it is desirable to attend a SSERC course if possible, anyone with a physics or chemistry degree should have had sufficient training during their degree to be able to self-study SSERC guidance and be the person who then delivers in house training. This is an option (depending on your employer's policy) if attending a SSERC course is difficult. >>>

Training could be:

- Attending a SSERC course (Figure 2) - up and coming courses are advertised on the health and safety professional learning page of our website [2].
- Inhouse training provided by a competent member of staff.
- Study of the SSERC safety poster and relevant parts of the SSERC document "Working with radioactive materials in schools" [1].

Figure 2 - A delegate getting practical experience of working with sources on a recent SSERC training course.



Health & Safety

Both initial and refresher training needs to be documented. It may be that your employer already has a system in place for recording employee training. If this is the case, ensure it is kept updated (including in-house training) and store a copy along with your other records for your radioactive sources. Otherwise, we have produced a very simple template (Figure 3) you can use to create your own record documenting staff training. An editable version of this can be downloaded from the ionising radiation pages (Figure 4) of our website [1]. Only staff who have recorded, up to date training should work with a school's radioactive sources.

The requirement to provide and record training applies not only to members of staff but also to learners, in the very restricted cases where learners can work directly with radioactive sources. We have produced a checklist (Figure 5) to work through when considering having a learner use radioactive sources. All the criteria on this checklist must be met before the learner use can commence. In order for a learner to work with radioactive sources they must be aged 16 years or over **and** all those in the same room as the learner working with the radioactive sources must be aged 16 years or over. The learner must also be supervised, they must have received appropriate training and a separate risk assessment specific to this needs to be carried out. Again, an editable version of this checklist can be downloaded from the ionising radiation pages of our website [1]. By completing a checklist for each learner who works with radioactive sources, this will also provide a record of their training. <<

Staff Training Record

Any staff who work with radioactive sources within the school must be given suitable training prior to using the sources. The training needs to cover safe handling, record keeping, leak testing (where appropriate), storage and security, dose minimisation, risk assessment, incident and contingency plans, PPE and working with sources whilst pregnant/breastfeeding.

Training could be:

- Attending a SSERC course.
- Inhouse training by a competent member of staff.
- Study of the SSERC safety poster and relevant parts of the SSERC document "Working with radioactive materials in schools".

Your employer decides what format of training they require so please also check what their policy is over and above this.

This training must be refreshed/updated at appropriate intervals. Your employer should specify the interval. As a minimum, we suggest somebody from the school attends a SSERC training course (either the face to face or online version) every 5 years, after this they can then provide inhouse refresher training to other staff members. Also, every member of staff who works with the radioactive sources refamiliarises themselves with SSERC guidance on an annual basis.

This form should be used to document training. Only staff listed below who have up to date training should work with the school's radioactive sources.

Member of Staff	Details of Training	Date of Training
Jane Smith	Attended SSERC's 'Working with Radioactive Sources' day course.	15/09/2022
Neil Jones	Provided inhouse training by Jane Smith.	22/09/2022

Note this document is for recording staff training only, any student training required should be recorded on our "Student use checklist".

Figure 3 - Staff training record template.

References

- [1] <https://www.sserc.org.uk/health-safety/physics-health-safety/ionising-radiation>
- [2] <https://www.sserc.org.uk/professional-learning/secondary-clpl/health-safety-clpl/>

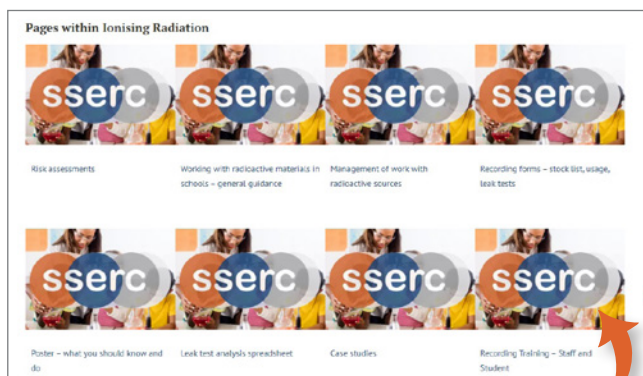


Figure 4 - Where to look on our Ionising Radiation web page.

Student Use Checklist

Work with radioactive sources should be restricted to teacher demonstration only when there are any under 16s in the same room. For a student to work with radioactive sources the following criteria must all have been satisfied. A checklist should be completed for each student who works with radioactive sources.

Checklist Item	Comments	Tick
Student is aged 16 years or over.		
All those in the same room as the student working with the radioactive sources are aged 16 years or over.	<i>Details of how this will be achieved/monitored should be documented here.</i>	
The student has received appropriate training prior to using the radioactive sources.	<i>Details of the training provided and by which member of staff should be documented here.</i>	
A risk assessment specific to student use has been carried out prior to the student using the radioactive sources.	<i>The risk assessment should accompany this checklist.</i>	
The student is directly supervised by an appropriately trained member of staff at all times whilst using the radioactive sources.	<i>Details of the staff providing supervision should be documented here.</i>	

Figure 5 - Student use checklist.