

Safety in Microbiology Level 3 training

Safety in Microbiology – A Code of Practice for Scottish Schools and Colleges (SSERC 2018) [1], the most recent edition of which was issued to schools in December 2018, contains guidance on the safe handling of micro-organisms for local authority and SSERC member schools and colleges. In most cases, local authority, or independent school/college, employers have adopted the Code of Practice to meet the requirements of the COSHH Regulations and of other related health and safety legislation.

Where the Code of Practice has been adopted by an employer, various training requirements are necessary for microbiological work to be undertaken according to the Code of Practice guidance.

The following extracts from the Code of Practice refer to training requirements:

1.8 The level of work with micro-organisms that a teacher or technician may undertake will be limited by the training that the teacher or technician has undergone.

Training required for work at level 1

2.2 [At level 1] No specialist training is required.

Training required for work at level 2

3.1 For class laboratory work with learners at level 2 a science teacher does not require specialist (level 3) training. However, teachers may prefer and feel more confident in managing level 2 laboratory class work if they are trained to level 3.

3.2 Support for science teachers with limited experience of microbiology could be provided in a short in-school training session from a more experienced technician or teacher colleague. Such support could be based on the SSERC Microbiological Techniques [2] resource materials.



3.3 Teachers of level 2 classes must be trained in dealing with spillages.

3.4 In order for level 2 class laboratory work to be safely carried out, personnel trained at level 3 must be available to carry out the preparation, maintenance and disposal level 3 tasks necessary to support level 2 work.

Training required for work at level 3

4.1 For level 3 work technicians and teachers are required to be trained to level 3. They must have undertaken and achieved the competence standards of the SSERC Safety in Microbiology for Schools course. Senior phase students may be trained to carry out a range of level 3 tasks for specific experiments or project work. Such students must be supervised by a teacher or technician trained to level 3.

4.2 The following level 3 tasks are normally required to be carried out in an establishment in support of level 2 work:

- a) order, receipt, labelling and storage of cultures;
- b) preparation of sterile media and sterile equipment;
- c) preparation of cultures for class use;
- d) maintenance of stock sub-cultures;
- e) sampling from bioreactors;
- f) sterilisation and disposal of cultures;
- g) sterilisation of used equipment;
- h) management of incidents of spillage;
- i) staining of incubated plates (e.g. starch agar).





Determination of competence to carry out level 3 tasks

To operate within the Code of Practice school technicians who are preparing and disposing of materials for level 2 work must be trained to level 3. There is no absolute requirement for teachers to be trained to level 3 (unless they are carrying out, or supervising level 3 tasks).

A teacher or technician is considered competent to carry out level 3 tasks if they have undertaken and achieved the competence standards of the SSERC course, Safety in Microbiology for Schools, which has been SCQF Credit and Levelled by SQA. However, employers may consider an individual competent if they have undertaken a

degree, course or work-based training that allows them to meet the same competence standard within the last five years. SSERC sometimes receives enquiries from teachers or technicians outlining their qualifications and asking us to determine their competence to undertake level 3 work. SSERC can only explain the guidance, it is for the employer to make the decision.

Level 3 refresher training

From time to time SSERC also receives enquiries, from individual technician/teachers who have already passed the Safety in Microbiology for Schools course, regarding refresher training. If an employer has a policy on refresher training, individuals must adhere to their employer's requirements. Otherwise, there is no hard and fast rule about refresher training. If an individual regularly uses and has maintained the skill level they achieved in microbiological techniques via the Safety in Microbiology for Schools course (or equivalent), there may be no need for a refresher course. If, however, an individual has not had the opportunity to maintain these skills through regular practice, refresher or re-training is appropriate. <<

References

- [1] Safety in Microbiology – A Code of Practice for Scottish Schools and Colleges (SSERC 2018) is available at <https://www.sserc.org.uk/health-safety/biology-health-safety/codes-of-practice/>.
- [2] SSERC advice on microbiological techniques is available at <https://www.sserc.org.uk/health-safety/biology-health-safety/microbiological-techniques/>.

Protactinium generator update

In our last bulletin, we told you that protactinium generators eight years old or more would require to be disposed of. We ourselves own one and whilst we knew that disposal would not be cheap, we were taken aback at just how expensive it could be. Co-ordinating disposals from a number of schools could bring the cost down significantly. If you have not already informed us that you have a protactinium generator awaiting disposal, please do so immediately. <<

