

## Chapter 4

# Competence and Training

Your organisation must make sure that all staff who are responsible for ESM activities are competent to carry them out. Your organisation must give them enough resources and authority to carry out their responsibilities. Your organisation must monitor their performance.

### 4.1 Guidance from volume 1

Staff should have the proper training, technical knowledge, skills, experience and qualifications for their job.

### 4.2 Background

Anyone doing safety-related work should be competent to do the work.

To be competent, you must have the necessary training, technical knowledge, skills, experience and qualifications to do *a specific task* properly. Competence is not a general reflection on someone's overall abilities. Just because you are not yet competent for a specific task does not mean that you are an incompetent person. And conversely, being competent at one task will imply little about your competence for another, unless the two tasks are very similar.

There are two primary obligations on you if you are assigning or accepting a safety-related task:

- 1 You should know your limitations and not go beyond them.
- 2 If you are assigning people to safety-related work, then you should ensure that they are competent for that work.

The first obligation is a requirement of the codes of practice of several professional institutions. For instance the British Computer Society Code of Conduct requires that 'Members shall only offer to do work or provide service which is within their professional competence.'

The second obligation is a legal duty in certain circumstances. See volume 1 for further details.

This chapter of the Yellow Book is concerned with the competence of individuals (chapter 5 talks about suppliers). It provides some general guidance on the following aspects of assuring the competence of staff:

- 1 specifying requirements for staff competence,
- 2 assessing personnel,
- 3 training,
- 4 monitoring.

This chapter is written for:

- those responsible for assigning safety-related tasks to staff, and
- anyone otherwise assessing the competence of staff.

### 4.3 Specifying competence requirements

Chapter 2 described how to allocate and document the responsibilities for safety-related work. From these responsibilities, you should derive and document criteria for knowledge, skills, experience and qualifications that are necessary to carry out the work.

Consider setting requirements on:

- education (for instance, relevant degrees or attendance at specific courses),
- professional status (for instance, Chartered Engineer), and
- experience (for instance, three years involvement in safety or quality auditing).

However do not restrict yourselves to requirements, like those above, which are easily assessed, but try and set criteria for the minimum fundamental skills and knowledge that are required to perform the task.

Many tasks require more skills and knowledge than any one person possesses. In that case they will have to be tackled by a team and you should specify the required collective competence of the team as a whole.

In addition to project-specific and non-safety criteria, Project Managers on safety-related projects and Project Safety Managers should generally:

- have received training in ESM; and
- be a Chartered Engineer or full member of another professional organisation.

Anyone taking a leading role in the design or operation of a safety-related system should be familiar with:

- the applicable law and standards, and
- current good practice.

Some tasks may also require certain personal attributes such as the resolve to resist any pressure to compromise safety,

#### 4.4 Assessing competence

Before someone is assigned a safety-related task, they should be assessed to decide whether or not they meet the criteria set for that task. This initial assessment should be documented and kept, along with any supporting evidence. This evidence may be required for the following reasons:

- as part of a Safety Case,
- for an independent safety assessment, or
- in investigating an incident.

The assessment is usually done by the individual's manager or a third person but it is usually most effective to work with the individual.

Assessment of education, experience and professional status can be checked by direct reference to CVs, which should be kept on file. Examinations or other tests may be used to assess general skills and knowledge, but it is generally more useful to refer to evaluated performance on similar tasks.

It is sometimes useful, or even necessary, to assign a safety-related task to someone who does not yet fulfil the requirements to perform it, but who is likely to gain the necessary qualifications (perhaps through performing the task). This is acceptable, provided that they work under the supervision of an experienced mentor who does fulfil the requirements. The mentor should be accessible to the person being supervised and should take overall responsibility for the work.

All of this guidance applies as much to individual contract personnel as to employees (although the selection of suppliers to take on specified tasks is covered in chapter 5).

#### 4.5 Developing competence

Those responsible for staff training should make sure that staff skills and knowledge are kept up-to-date. It may be necessary to arrange specific training for the work that they need to do.

Training does not just include formal courses but also distance learning packages (such as those provided by the Open University), computer-based training and on-the-job coaching from senior staff.

Several professional organisations (including the IEE, IMechE and BCS) provide continuing professional development schemes which can help in selecting appropriate training. Professional engineers are expected to maintain their professional competence through self-managed continuing professional development but the concept is of value to other professionals as well. The schemes generally provide individuals with mentors who periodically assist the individual to set plans for their learning needs and to monitor progress against previous plans. Each individual maintains a log book in which he or she records planned and actual professional development. Some schemes also provide guidance on the sort of training and experience which should be acquired for different types of work and levels of seniority.

If your organisation is arranging its own training then providing certificates of attendance or of passing a final test can make it easier to assess people later (see section 4.4). Certificates should have a limited life.

#### **4.6 Monitoring**

Most organisations have periodic evaluations of staff performance for business reasons. These evaluations are particularly important for staff performing safety-related work, to re-assess their level of competence for this work. This re-assessment provides information on any additional training that they may need, or whether the person is not suited to this role and should be transferred. Feedback on performance may also come from audits and assessments and from incident evaluations.

In the case where a person performing a safety-related task needs to be replaced or retrained, it is necessary to act quickly but with sensitivity.

#### **4.7 Transitional arrangements**

When introducing a more formal approach to assessing competence, it may be found that the most experienced and capable personnel have not been through the training programme that would be required for someone new taking on their job. This does not mean that they should not continue in their roles, and in fact they may be required to coach more junior staff.

A proven track record in a job is the most direct evidence of competence. It is normal under these circumstances to write some transitional arrangements into the training criteria, which exempt some existing staff from the formal criteria for their current job. However, it is necessary to show not just that the individuals have held the post for a period of time, but also that their performance has been satisfactory during that period.

#### **4.8 Review and audit**

Management should arrange to periodically review and/or audit the competency arrangements to check that they are being put into action as planned and that they are effective. If necessary, improvement actions should be defined and implemented.

#### **4.9 Related guidance**

Chapter 2 provides guidance on defining responsibilities

Chapter 5 provides guidance on selecting contract organisations to carry out safety-related work.

At the time of writing two organisations had issued draft guidance in this area which may be valuable further reading.

- HMRI had issued draft guidance on competence management and assurance which describes principles and factors to consider when setting up a system to manage competence.
- The Institution of Electrical Engineers, in collaboration with the British Computer Society, had issued a set of competency statements for safety-related functions and tasks.