

Hints and Tips on the Establishment of a Company Competence Scheme

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1.0 Introduction

The assessment of staff competency is not only an essential requirement of IEC 61508 (Part One), the safety standard for any responsible persons working in the field of safety engineering, it is also recognised as essential to Quality in the general field of engineering and is consequently an essential part of ISO9001: 2001.

It is the object of this short paper to provide some initial guidance on the requirements for a competency system and some ways in which the process might be structured and simplified.

What do we mean by 'competency'?

Dictionary Definitions: -

Competence: The ability to do something **well** or **effectively**.

Competent: Having **sufficient** skill or knowledge.

This helps because clearly the possession of a qualification is in itself not adequate (it may be too general). We can pass a recognised course but even that does not make us competent, though it does provide us with a structured grounding and the **potential** for competence.

Having **sufficient** skill or knowledge is the key, ie we need experience as well as qualifications because experience teaches the lessons that cannot be taught adequately by formal education.

Competency is based on:

- Technical skills
- Behavioural skill
- Underpinning knowledge
- Underpinning understanding

So, a competency system should be able to assess whether: -

- A person has adequate knowledge (appropriate qualifications)
- There is adequate evidence that a person can consistently apply his knowledge (adequate understanding)
- There is adequate evidence that a person is gaining and sharing knowledge and experience (Behavioural Skill)
- There is adequate evidence to show that a person is actively contributing to the local knowledge pool to improve company systems, products and capability.

Tip 1 *A competency system must be a part of a structured approach to staff recruitment and training and must include regular assessments.*

2.0 **Choice of Assessment Method**

You can establish your own unique system – but this could be time consuming and expensive and the result inconsistent with the rest of industry. Not a problem if you are unique but can cause problems when trying to recruit staff from the rest of industry or if you are required to interact with wider industry, i.e. providing contract workers or implementing site work.



The Institute of Electrical Engineering and the British Computer Society, in co-operation with the HSE, have produced a set of guidelines for the safety industry – Competency Guidelines for Safety-Related Practitioners. Cost is about £200.00, but this is insignificant compared with the cost of originating a system. It provides a ready built - structured, logical, objective system.

HINT 1 *Don't reinvent the wheel*

3.0 Planning and Programme

Ensure that senior management are committed to the decision to proceed then request that a senior manager leads the implementation. This will save time and ensure that delegated tasks are completed effectively and in a timely manner.

Working with the senior manager, identify tasks and a realistic time scale and allocate tasks to responsible persons.

HINT 2 *Figure 1 is recommended by IEE/BCS, but feel free to modify! Figure 2 may be more appropriate for some particular applications.*

Figure 1 IEE/BCS Scheme

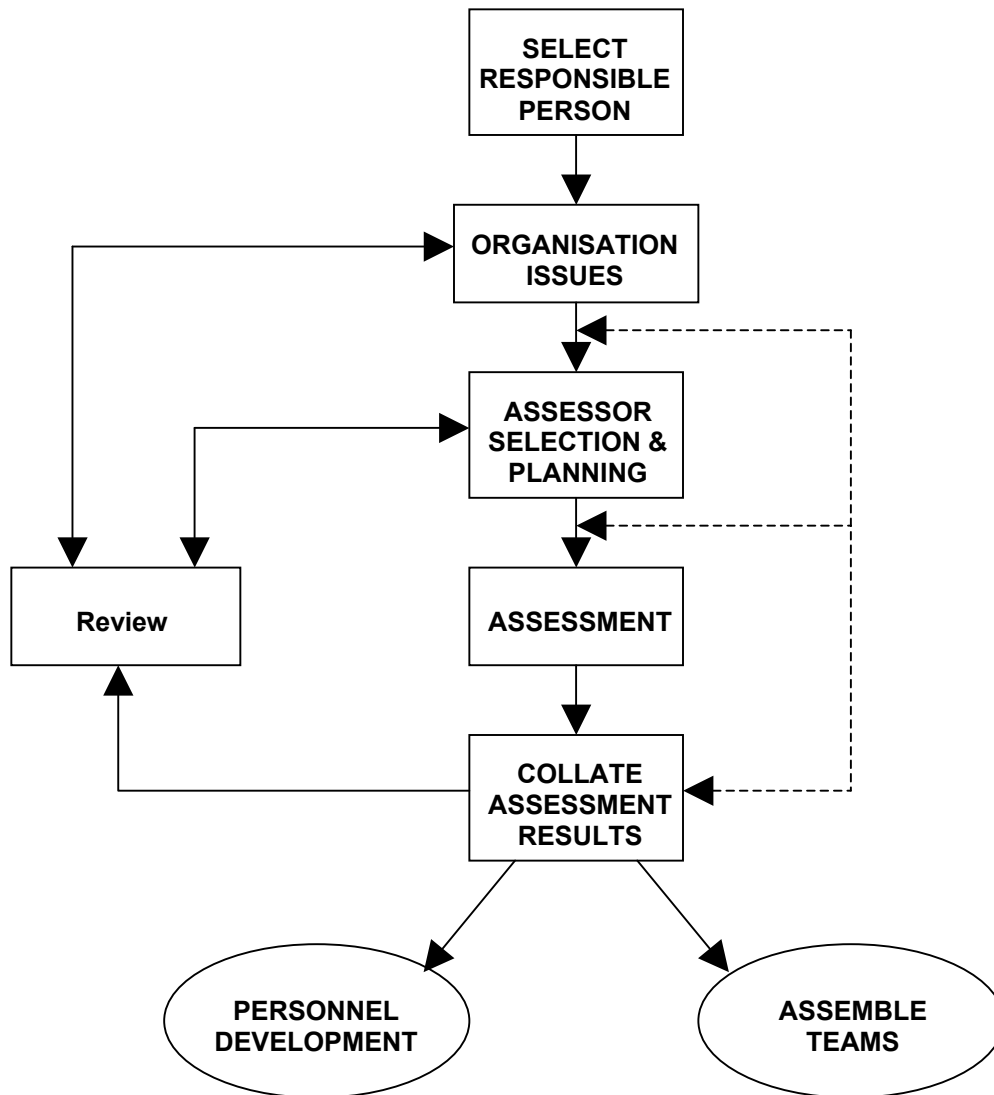
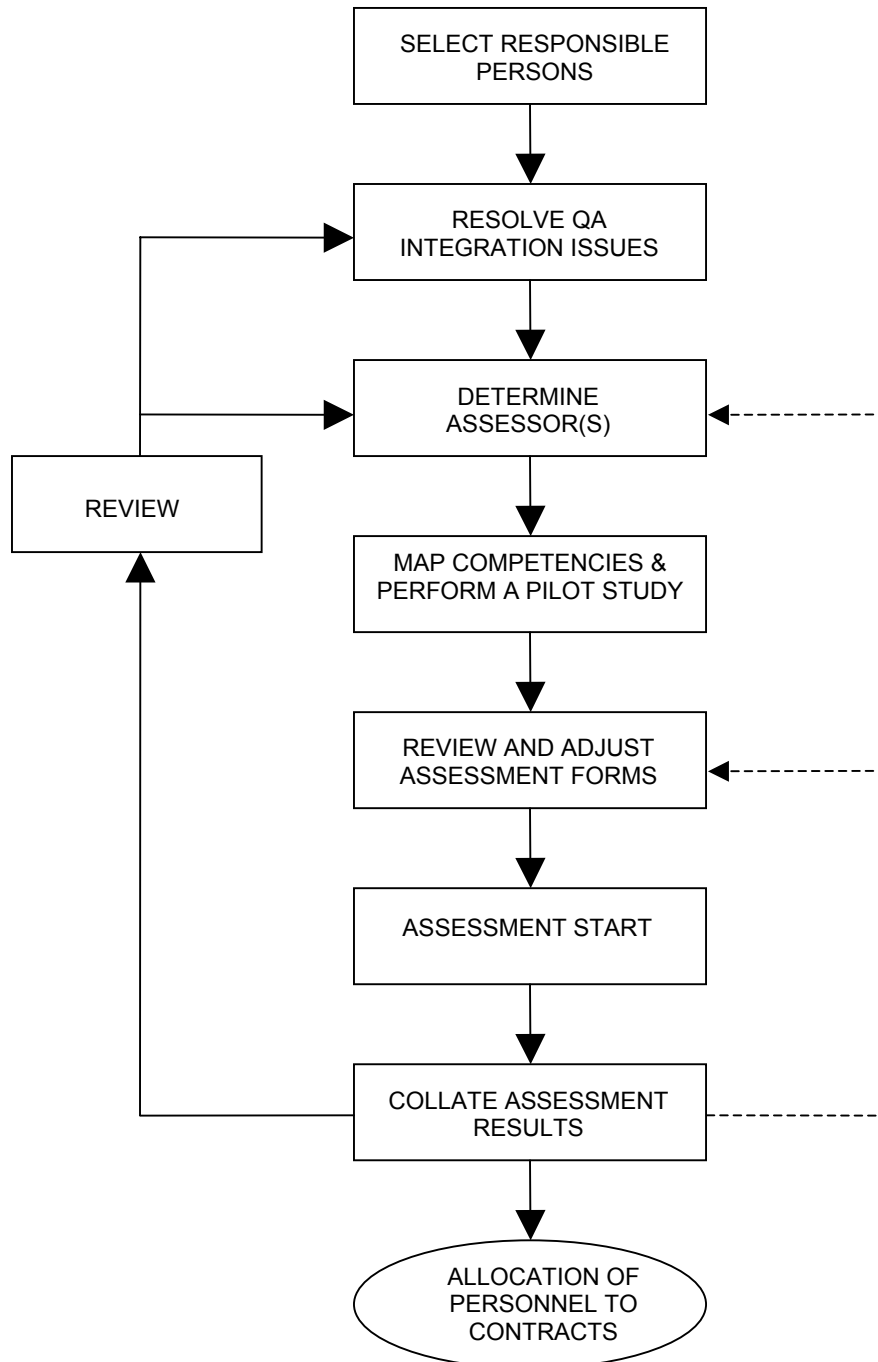


Figure 2 Alternative Scheme



Whether you use the IEE/BCS or develop your own assessment methods, plan on carrying out a pilot study with a small selection of personnel, this will help refine your procedures so that they are meaningful and clear.

4.0 Implementation

Tip 2 *Most companies now have some sort of quality system and quality systems involve staff training records. Use these as a basis to build upon. This will save time in the programme and cost on unnecessary work.*

Tip 3 *Integrate the personal assessment into the annual staff appraisals to minimise unproductive time. (But make it independent of salary structure).*

The implementation of a competence system MUST be seen as positive, helpful and NOT a threat.

Hint 3 *Don't use the IEE/BCS Guidelines direct – they probably need interpretation and simplification to be relevant to your specific competency requirements.*

So – Map the IEE Competencies to your own requirements.

Select competencies that are relevant and simplify them, if possible, to represent your specific requirements

Tip 4 *Don't present your staff with a finished system – encourage them to contribute -consult and communicate with them. They will be much more co-operative and feel much less threatened if they know, understand and have contributed passively or actively.*

Tip 5 *Recommended methodology: -*

- *Adapt IEE generic Assessments*
- *Establish a structure of assessment appropriate to your company*
- *Interpret generic assessments into Company specific assessments*
- *Profile individual engineer skills by asking each engineer to assess him/her self*
- *Perform independent assessment of the results by a Senior person*

5.0 System Maintenance

Good, you have a system in place. How well is it working?

Establish a review body consisting of a senior manager, QA engineer and a member of the staff representative of those being primarily reviewed and ensure that irregular meetings are convened to check on progress.

Don't be afraid of criticism and don't be afraid to change the system if it helps people to have confidence in using it. Remember the reasons for implementing a competence system, if your staff aren't interested and committed to the idea then you probably aren't assessing competence.

Honesty is the fundamental feature of this scheme so no criticism or punishment if someone has the courage to admit that he/she is not comfortable with some aspect of his or her job. Realise that this person has just taken a large step towards competency and as that is the aim of the system it is proof that it is working. So, ensure that this is understood throughout your management structure and reward honesty and integrity, at least by some intensive training.

Consider, establishing an unofficial certification scheme, remember that everybody likes to achieve and be recognised.

6.0 Summary

It is possible to implement a Competence assessment system that is: -

- Effective
- Relatively easy to implement

BUT: -

- It can be emotive if handled carelessly
- It needs drive and dedication to keep getting the best result for your staff and your Company.
- It needs to be targeted at your Company's capabilities and skills

Finally

It is a living system that needs to be encouraged and nurtured and staff should be self-motivated to achieve improved competency ratings, BUT your system must be clear about shortcomings. Don't set impossible targets but ensure honesty is rewarded.