Safety Human Factors Information

Prepared by WG16 for the Safety Advisory Council

Safety Info - HF 02/25 (Revision of Info HF – 02/17)

Individual

"Training and Competence"

Training helps people acquire the skills, knowledge and attitudes to make them competent in their routine and non-routine work, especially the health and safety aspects. It includes internal and external training for the job or task, instruction to individuals and groups, training and counselling at the workplace or job site.

Competence is the demonstrated ability to undertake responsibilities and to perform activities to a recognised standard. Competence is a combination of practical and thinking skills, experience and knowledge.

Training and competence are equally important to new employees, contractors and experienced employees.

Learning more about training and competence

If the answer to any of the questions below is 'no', then you need to take action.

1.	Does the company assess training needs, based upon the hazards in the tasks, when staff are first recruited or redeployed and does it continually assess these needs?	☐
2.	Can your company demonstrate that the hazards which could arise from everyday tasks (normal operational, maintenance) and from emergency tasks, have been identified and are documented?	☐
3.	Are the consequences of human failure taken into account when determining task training requirements? (Tasks with potentially severe consequences from operator error may require more detailed training or practical assessment).	☐
4.	Is the training material designed or validated by persons knowledgeable in the work activities, hazards and safeguards?	☐
5.	Does your company have a selection and assessment process to identify suitable personnel to carry out the tasks?	☐
6.	Does your company identify gaps in a person's skill or knowledge or experience?	☐
7.	Does your company follow up on the training and assessment that has been done to close these gaps?	☐
8.	Does your company provide additional supervision or support for employees who are new to a role, until they are authorised or competent to work alone?	☐
9.	Does your company identify the best way of providing the necessary skills and knowledge that people require for each task? (For example, classroom training, practical or on the job training).	☐
10.	Is enough time allowed for training and for implementing afterwards what was learned in the training?	☐
11.	Are trainees tested after training to establish that the training has been successful?	☐
12.	Are individuals re-assessed on a periodic basis to ensure they have maintained the required competence?	☐

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13.	Does the company keep training records showing what training everyone has completed and their current level of competence?	☐
14.	Does the training cover rare, unusual and emergency events?	☐
15.	Does your company include contractors and temporary workers in its training plans, where legislation allows?	☐
16.	Does your company hold safety briefings or meetings periodically?	☐
17.	Is training material regularly reviewed and improved, including lessons learned from safety incidents?	☐
18.	Does your company have a culture where an employee is encouraged to tell management that they do not yet feel competent to perform a task?	☐
19.	Does your company culture allow employees to request additional training at any time when they perceive a need or benefit?	☐

Never expect a person to do a task that they are not competent to do.

What can a manager or supervisor do about it?

Having well trained and competent staff and management is a key part of running a safe operation. This contributes to an effective safety culture.

- Ask employees whether they have concerns regarding training or competence (possibly using some of the questions above).
- Find out if there are particular problems with
  - training or competence of new recruits, including contractors,
  - obtaining approval to go on training courses,
  - how training is delivered,
  - training facilities and resources (for example for practical training),
  - the effectiveness of training and competence assessments.
- Bring any issues to the attention of company management.

What should my company do about it?

All EIGA member companies should have an internal system to manage competence that includes these five key components:

1. **Competence requirements**.

   Develop these by identifying activities, assessing their risks and selecting appropriate skill levels.

2. **Design of Competence Management System (CMS)**

   - Develop procedures to be used in the implementation of the CMS. Ensure the respective responsibilities of all stakeholders (line managers, human resources, safety department, employees) are clearly defined and understood.
   - Decide what methods to use to ensure that individuals meet the company's training and assessment standard (how to select, train and assess employees and contractors).
   - Ensure that training delivery methods (self-study, classroom face to face or virtual, and/or e-learning) are appropriate to the topic being taught and are effective. Consider updating delivery methods as technology evolves, for example interactive micro-learnings on smart devices or vehicle / driver simulation devices, use of virtual or augmented reality for remote competence assessment).
   - Monitor managers' competence in using the CMS.

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3. **Implementation of the CMS**

- Identify the required individual skills profile for each job. There should be a written description of the job that specifies the safety-related aspects (e.g. hazards to the jobholder and hazards that they could create or might have to manage).
- Select suitable job candidates using application form details, interviews and tests. Written and practical tests may be needed. The aim is to find out the candidate's existing level of job-related and hazard-related knowledge, skill and experience. There will probably not be a perfect match, so the company will need to assess and train the person selected based on the gaps.
- Organise structured on the job training.
- Allow hands on experience in actual work situations.
- Measure against the standards so it is known when people are ready to move to the next stage of their development.
- Make it clear which tasks each jobholder is not yet allowed to do.

4. **Assessment of Competency**

- Continually review performance via supervisor observations and feedback from mentors or other colleagues.
- Assess if jobholders are competent in emergency situations. Ensure they have participated in emergency exercises (realistic 'drills' or classroom-based exercises).[6]
- Ensure the people doing the assessment are themselves competent to assess employees and, where legislation allows, contractors
- Use competence evaluations and/or annual appraisals to identify training needs (content and frequency) as well as improvement plans for individuals
- Implement methods to develop competence for possible future roles.
- Where jobholders continue to fail to meet competency standards, explore the reasons for loss or lack of competence – are they to do with the job (changes in methods or equipment), the organisation (such as culture, workload, failures in the CMS) or the individual (e.g. personal problems, attitude, aging, injury).

5. Evaluation

- Establish an audit and review process to determine if the CMS is functional and effective.
- Use feedback obtained from other job observation systems, behavioural safety assessment activities and lessons from incidents to evaluate the effectiveness of the CMS on an ongoing basis.
- Identify measures or indicators of performance to use in the reviews (such as compliance with training plans, training course pass/fail statistics, assessments of jobholders, behavioural assessments, incident reports, safety performance reports).
- An independent review of any areas of concern may be required.
- Use the outcome of the audits and reviews to continually improve the system.

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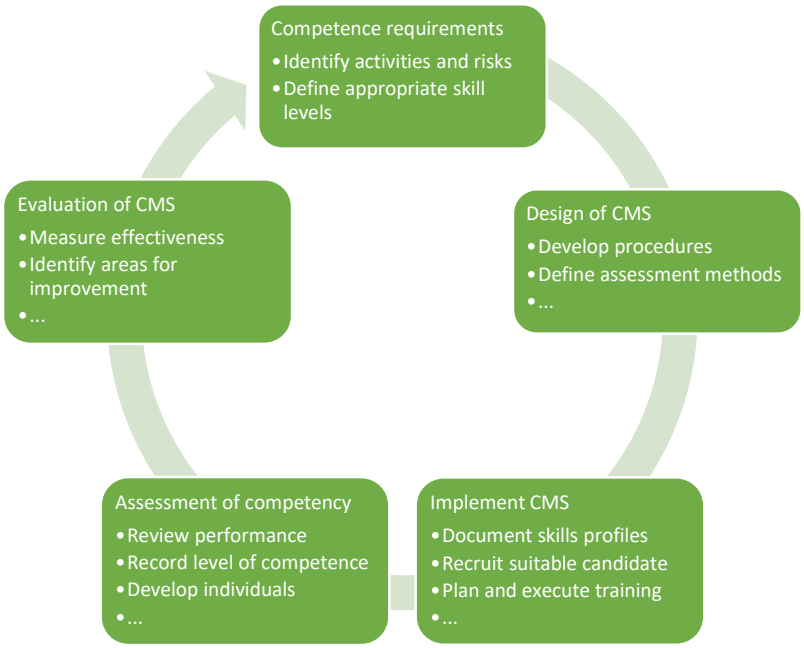

Managers Role

Managers should make adequate arrangements to implement, resource and monitor the system described above.

Managers should support, encourage, coach, and mentor individuals to:

- Develop a clear understanding of the individual's capabilities.
- Give regular feedback and encouragement.
- Test or observe performance – managers may need to assess more than just a skill, e.g. hazard awareness, safety attitude and behaviour.
- Discuss the results and next steps.
- Provide extra supervision and support to recent trainees.

Managers should:

- Ensure hazards are identified, risks are evaluated for all activities and the correct control measures in terms of training and competence are in place.
- Use incident analysis to obtain confirmation of competence or to identify gaps and up-date the content of the training to capture the lessons from incidents.

Employees Role

In their daily activities, employees should:

- Understand the role they play in ensuring safe operations and the importance of focussing on the task in hand and avoiding distractions.
- Use the acquired skills and competence to do the task.
- Recognise hazards, understand risks in their activities and confirm that the correct control measures are in place for before performing any task.
- Clearly understand work instructions and follow them, or ask for clarification.
- Not start any job they do not feel competent to do and ask for guidance at any time.
- Check if contractors and temporary employees working under their supervision have received appropriate training.
- Recognise that supporting colleagues or team members in avoiding incidents and in the correct way of performing tasks is part of their responsibility.
- Actively participate in and complete their training obligations.
- Apply the knowledge gained from training to their work activities.

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Managers Role	Employees Role
• Use interactions from behavioural safety programmes to better understand individual and team competence. • Provide sufficient resources to implement training and assessment plans. • Identify opportunities to train teams together. • Ensure trainers and the people doing assessments are competent and are credible to the workforce. • Keep training records up to date.	• Help identify new training and competence requirements, particularly if job or tasks have changed. • Know what action to take in an emergency and have taken part in any emergency practices. • Understand what additional measures (such as work permit, detailed work instructions, practice drills) may be necessary to perform infrequent tasks safely. • Assist their supervisors to keep their training records up to date.

Useful Reference Information

1. Energy Institute *Training and Competence, Human Factors Briefing Notes No 7, July 2011*. publishing.energyinst.org
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3. Health and Safety Executive *HSE Human Factors Toolkit, October 2005*. www.hse.gov.uk
4. Health and Safety Executive *Reducing Error and Influencing Behaviour*, HSG48, 1999, HSE Books ISBN 780717624522www.hse.gov.uk
5. EIGA Doc 23 *Safety Training of Employees*. www.eiga.eu
6. EIGA Doc 102 *Audit Guidelines*. www.eiga.eu
7. EIGA Info TS 03 *Training: Induction and Refresher Training of Drivers, Management & Other Transport Function Personnel*. www.eiga.eu
8. EIGA Doc 118 *Safe Management of Contractors*. www.eiga.eu
9. EIGA SI-HF 006 *Organisation - "Site Emergency Response"* www.eiga.eu

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