Competency Management Systems
Part A: Fundamentals

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- Canadian Energy Pipeline Association (CEPA)
- Explorers and Producers Association of Canada (EPAC)
- Petroleum Services Association of Canada (PSAC)

ABOUT ENFORM

Enform is the upstream oil and gas industry’s advocate and leading resource for the continuous improvement of safety performance. Our mission is to help companies achieve their safety goals by providing practices, assessment, training, support, metrics and communication.

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This document as well as future revisions and additions, is available from:

Enform Canada
5055-11th Street NE
Calgary, Alberta T2E 8N4
Phone: 403.516.8000
Toll Free: 1.800.667.5557
Fax: 403.516.8166
Website: enform.ca

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# Table of Contents

1. Introduction ........................................................................................................................................ 1  
2. Objectives ........................................................................................................................................ 2  
3. Competency ..................................................................................................................................... 4  
4. Competency Management System Fundamentals ......................................................................... 5  
5. Risk and Proportionality ................................................................................................................. 7  
   Appendix 1 ........................................................................................................................................ 8  
   Appendix 2 .................................................................................................................................... 26  
      Definitions .................................................................................................................................. 26
1 Introduction

In order to protect people, all workers need to be competent. There is significant risk associated with oil and gas activities, often related to challenging work environments. Mitigating risk in oil and gas activities depends on the competency of all workers involved in a job.

The best way to make sure that workers across industry are competent is to have a plan and involve systems. This document can help your company create a plan to manage its workers’ competence. That plan is called a Competency Management System (CMS).

A CMS is a tool that identifies the competency required for individual roles. This allows a company to assess workers to make sure they are competent for each role.

To be competent, workers need to:
- Know the tasks they are expected to do
- Understand the risks that are involved with each task
- Have experience
- Have ability to do their work properly
- Recognize when they are out of their comfort zone
- Protect themselves by mitigating risk

All workers need to be aware of competence. Each worker’s level of competence will impact the safety of the workforce, the public, and themselves.

Did you know? The oil and gas industry has a duty, under multiple General Duty of Care regimes in legislation, to ensure that workers develop the combined and/or appropriate level of competency for their jobs.
2 Objectives

This document will:

- Clarify what competence means
- Provide “how-to” guidance for companies to establish a CMS
- Provide a resource for larger/more mature companies, to check that their CMS has the essential elements
- Define the competency cycle and system

Organizations need to consider the tasks required to run their operations. What are the risks? Which regulations apply? This will help identify the roles in your organization, and the competencies associated with each role. Assessing the competencies lets you understand the ability of your workers. It will also help notice gaps in competencies that need more development. Assessing and developing competencies will positively affect your organization’s safety and compliance.

A CMS IS

✓ Able to provide a system that works with the size, nature, and complexity of the company’s operations
✓ Part of developing a safety culture that values competent workers
✓ Helpful in explaining how competency can mitigate risk and work with regulations
✓ Able to help improve health, safety, and environmental activities, as well as operational integrity outcomes

Use the CMS to assess, develop, and maintain competency.
This guideline is divided into two parts:

**Part A**

Describes a CMS and outlines key definitions, such as competencies. Appendix 1 of this document is intended to provide a high-level overview of the stages and phases in the CMS.

By reviewing Part A, the reader will have a basic understanding of a CMS.

**Part B**

Provides a step-by-step guide on how to build a CMS for your organization.

By reading Part B, you will understand how to both build and put the CMS into action in your company.
3 Competency

Competencies are the measurable or observable **knowledge, skills, experience, and behaviours** that you need to have in order to perform in a given job.

Competencies usually fall into one of two categories; behavioural or technical.

Behavioural competencies define an individual’s behavioural strengths that could predict future successes in the workplace. Communication skills, leadership and adaptability are some examples.

Technical competency refers to a skill or area of knowledge used to complete a particular task or job. Data analysis, welding and driving are some examples of technical competencies.

However, competence involves much more than just technical training. It includes attitude and behaviour, as well as experience and knowledge of the job.

In addition, workers should fit well with their jobs. Workers need the right technical skills and knowledge, as well as the physical and psychological skills specific to their job, in order to be fit for work.

Competence might be transferable from one work situation to another.

In other cases, very little knowledge and ability transfers from one task to another. Knowing how to use one machine does not necessarily mean you know how to use similar equipment. For example, different skill sets are required to run different styles of nitrogen pumps.

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It is the employer’s **legal obligation** to ensure that employees adhere to current regulatory requirements. This includes the required qualification and competencies of all workers. **Refer to the legislation that applies in your area.** It will outline what the employer’s responsibilities are, and give definitions. Using the CMS will help you meet these legislative requirements. Check the **Definitions (Appendix 2)** at the back of this document. It tells you how legislation applies in British Columbia, Alberta, Saskatchewan, and Manitoba.
### 4 Competency Management System Fundamentals

Ideally, a CMS defines all the competencies required for an organization to operate effectively and safely.

For every role within the organization, the CMS will detail which competencies are required for the position and the proficiency level required. Each individual within the organization should have their competency levels assessed and recorded.

A worker’s role is specified in terms of the work activities that they must be able to undertake. The competence criteria for each role specify the knowledge, skills, experience, and behaviour that is necessary for the worker to be considered competent.

It is difficult to build and roll out a CMS all at once. A CMS should be rolled out in stages. Organizations should identify the critical roles and focus their competency efforts on the functional areas where critical roles are connected. In the oil and gas industry, a good place to consider a CMS is in high-risk functional areas. Organizations can also target functional areas where competencies are already well defined, such as professional engineering roles.

Once its CMS is established, a company can compare a role’s competency requirements with a worker’s competency profile to generate a gap analysis. Where the gaps are large, the company can focus on the worker as a priority target for further training or coaching. Alternatively, the worker can be moved into a role where their competencies better match their role. If a worker is overqualified for their role, they can be moved to another area.

From a Human Resource perspective, the ability to quickly assess and compare the competency profiles for different roles to the competency profiles of workers is invaluable. It allows the organization to allocate training resources more effectively, and to make the best use of the organization’s talent pool.

![Some of the key benefits of a CMS include:
- Enhanced safety, efficiency and effectiveness of operations
- Reduced potential for human error
- Clarified roles, responsibilities and priority functions of workers
- Improved assurance that employees have been properly selected, trained, developed, and retained
- Enhanced encouragement for individuals to develop their knowledge and skills over time, in a way that is aligned with organizational goals
- Improved channels of communication with workers
- Enhanced motivation for workers, increased job satisfaction, and reduced turnover
- Enhanced and simplified worker performance reviews
- Improved verification of training effectiveness](image)
At the centre of any CMS are the **competency definitions**. These must be carefully developed for the CMS to be successful. Individual competencies should be precise enough to be meaningful, useful and assessable, but not too detailed. The CMS should not be full of an unmanageable number of competencies.

The competencies themselves should be carefully managed. Once the organization’s competencies are defined, they should be organized centrally to avoid overlaps and confusion.

To develop competency profiles for roles organizations can turn to a variety of tools including:

- **Education**
- **Trade/aptitude test**
- **Industry-specific competence assessment programs**, e.g. Petroleum Competency Program
- **Training certification**, e.g. Second Line Supervisor’s Well Control
- **Interviews**
- **Simulations**
- **DACUM (Developing a Curriculum) job analysis technique**
- **On-the-job coaching**

The size of your organization and of its undertaking within the scope of the CMS will affect the extent and formality of CMS procedures. In general, the effort you put into running the CMS should be **proportionate** to the effort that goes into other safety management activities.
5 Risk and Proportionality

Competence is important to ensure functional safety. Most companies possess some safety systems, which can include a safety management system, hardware, software, or other safety-related systems. It is important not to overlook competence during abnormal and emergency situations.

A risk-based approach ensures that hazards are identified and competencies are prioritized to ensure worker safety and negate financial loss. Each organization must assess the risks associated with their operations. The effort expended should be related to the risk associated with inadequate competence.

**Identifying Safety Critical Tasks/Roles**

Competence assessment should start with the identification of tasks of roles, using techniques such as risk assessment and task/job analysis. Such an assessment should cover all forms of activity including normal process operation, process upsets, planned maintenance, and unplanned maintenance.

At this stage, the analysis may simply provide a task or activity inventory for which assessment is required in the context of major accident prevention.

Given that, there are potentially a large number of safety critical tasks that may be assessed, prioritize the roles with the highest risk.
1. Define the **work tasks/activities** within the scope of the CMS.

2. Group related work tasks/activities into a **role**.

3. Establish **competence criteria**, which will depend on the role's work activities.

4. **Assess** each worker against relevant competence criteria.

5. **Compare** competence criteria with assessment results.

6. If the individual's assessment results meet the competence criteria, then they are **competent** for the role.

*Figure 2: High-Level Summary of Competency Assessment and Comparison*
Appendix 1

This appendix is intended to provide a high-level overview of the stages and phases in the competency management system. For more information, see Part B

**Competence Management System (CMS) Stages and Phases**

<table>
<thead>
<tr>
<th>STAGE 1</th>
<th>Phase 1</th>
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<tbody>
<tr>
<td>Plan</td>
<td>Define purpose and scope according to risk. Specify all work activities to be included in the CMS, based on the risk associated with those activities.</td>
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<thead>
<tr>
<th>STAGE 2</th>
<th>Phase 2</th>
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<tbody>
<tr>
<td>Design</td>
<td>Establish competence criteria. Select a list of competence criteria that covers all activities within the scope of the CMS. All workers that meet criteria are competent to perform the related work activity.</td>
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<tr>
<td></td>
<td>Decide processes and methods. Establish efficient and repeatable processes, procedures, and methods that cover the phases in this document.</td>
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<tr>
<th>STAGE 3</th>
<th>Phase 4</th>
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<tr>
<td>Operate</td>
<td>Select and recruit workers. Select from your own company or recruit externally workers with an appropriate competency profile.</td>
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<tr>
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<th>Phase 5</th>
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<td></td>
<td>Assess competence. Determine the extent to which workers currently meet the established competence criteria.</td>
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<th>Phase 6</th>
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<td></td>
<td>Develop competence. Improve and maintain workers competence, so they are able to meet competence criteria for their jobs.</td>
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<th>Phase 7</th>
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<td></td>
<td>Assign responsibilities. Ensure that workers only undertake work they are competent to do.</td>
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<th>Phase 8</th>
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<tbody>
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<td></td>
<td>Monitor competence. Monitor whether or not workers who have been assessed as competent are still able to do their jobs to the required standard.</td>
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<th>Phase 9</th>
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<td>Deal with failure to perform competently. Respond to any failures to perform competently so that safety is not impacted. Initiate action to restore worker competence.</td>
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<th>Phase 10</th>
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<tbody>
<tr>
<td></td>
<td>Manage assessor and manager competence. Make sure that senior managers, CMS managers, and assessors are competent to support and fulfill the CMS requirements.</td>
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<th>Phase 11</th>
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<td>Manage supplier competence. Ensure that all work related to supplier activities is performed only by competent workers.</td>
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<th>Phase 12</th>
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<td></td>
<td>Manage information. Maintain accurate information from the operation of the CMS. It must be detailed enough to keep operation efficient and to demonstrate that the CMS’s requirements are being met.</td>
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<th>Phase 13</th>
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<tr>
<td></td>
<td>Manage change. Monitor changes in the external environment and the internal operation of the organization. This will help determine implications for the CMS and initiate change to the CMS if needed.</td>
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<th>STAGE 4</th>
<th>Phase 14</th>
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<tbody>
<tr>
<td>Audit &amp; Review</td>
<td>Audit. Audit the CMS often enough to make sure that it is meeting its objectives as intended. Auditing will help initiate improvement action where needed.</td>
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<th>Phase 15</th>
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<tr>
<td></td>
<td>Review. Review the operation of the CMS, as well as changes made. Changes will stem from competence failures and audits, and will help initiate improvement action where needed.</td>
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STAGE ONE: Plan

Phase 1: Define Purpose and Scope According to Risk

Objective: To specify all work activities to be included in the CMS, based on the risk associated with those activities.

Define the purpose and scope of your CMS in terms of work activities where competence is critical. Identify all of the work activities relating to each role, including abnormal situations and emergencies. Assess the implications for hazards and risks if each work activity is not performed correctly.

Determine the extent to which competence is necessary to carry out the activity. For such activities, consider introducing new measures to reduce dependence on competence.

As an option, you may consider and allow for other factors that could affect the scope of your CMS. These include:

- Specific legislation or guidance material
- Business risks
- Contractual obligations (e.g., specified standards)
- The interface between your CMS and those of your customers
- Identify safety critical tasks
STAGE TWO: Design

Phase 2: Establish Competence Criteria

Objective: To select or develop a suite of competence criteria that covers all activities within the scope of the CMS and gives sufficient confidence that all workers who meet particular criteria are competent to perform the related work activity.

Identify and define a complete set of roles performed by your workers and/or by teams (e.g., hazard and risk analysis, system architect, safety assurance manager). The list of roles must cover all activities within the scope of the CMS.

Select or develop a list of competence criteria for every role. The criteria should cover technical and behavioural competencies. You should be able to use the criteria as a checklist to assess workers.

Criteria must be portable, so that competence in one context/organization also applies in another context. Criteria should also be modular. This means that competence can be built up by choosing different sets of competence criteria.

Check your criteria against other similar situations in industry to make sure you do not leave anything out.
Phase 3: Decide Processes and Methods

Objective: To establish efficient and consistently repeatable processes, procedures and methods that implement the requirements of the phases in this guidance.

Pick one or more persons to manage the CMS. They will introduce it, operate it, and monitor it to make sure it is still effective. They need to be competent and have the necessary senior authority to manage the project.

Decide how all the activities related to the CMS’s operation will be carried out. Use this guideline to specify transparent and repeatable processes and methods.

Specify how the CMS processes and methods will interoperate with those of suppliers and other workers.

Establish processes for effective communication between all those included in the system. There needs to be clear standards for which information is to be communicated and when.

Define the roles required for those operating the CMS. Then, define the associated responsibilities and competence requirements for each role.

Consider existing management systems or procedures (quality or safety management, workers review), relevant external development schemes (of professional institutions or industry bodies) and existing practice within the organization. Make the CMS as consistent with these as possible.
STAGE THREE: Operate

Phase 4: Select and Recruit/Rehire Workers

Note: This phase applies to brand new companies and may not be relevant for already established organizations.

Objective: To select internally, and recruit externally, workers that have an appropriate and demonstrable competence profile

Apply the CMS to recruitment and selection activities for workers that may be required to carry out activities within the scope of the CMS.
Phase 5: Assess Competence

Objective: To determine the extent to which workers currently meet the established competency criteria.

Consult with the worker to plan each assessment. Be sure to answer the following questions:

- **When** will the assessment take place?
- **What** is the assessment trying to accomplish? What are its objectives? What are its implications for the individual’s work?
- **Which** competence criteria will the worker be assessed against? Highlight any criteria that have changed since the last assessment.
- **How** will the criteria be assessed? **Who** will do the assessment? Make sure that the assessor is impartial and not subject to conflicts of interest.
- In what **context** will the criteria be applied? e.g., industry sector, application, technology, safety, integrity level, applicable standards, safety culture, abnormal situations, etc.

Collect available evidence of performance. Records should include any evidence of shortfalls or improvements.

Even though someone might have a competence certification or qualification, he/she can still be incompetent. Do not simply use records to define competence. **You still need to perform assessments.** If a third-party assessment is used as evidence, make sure it is applicable. Consider these questions:

- Did assessment take place immediately after training? In that case, it may be evidence of short-term information retention rather than long-term knowledge and experience.
- Did the assessment consider actual experience or theoretical knowledge?
- Did the assessment consider skills and behaviour in real-life situations?
- How well did the context of the assessment (e.g., sector, application, technology, industry practices) match the context of your work activities?
- How well the criteria do used for the assessment match your own competence criteria (e.g. in terms of specific work activities or abnormal situations)?
Carry out the assessment against the available evidence and record the results. Include:

- Which competence criteria the individual has complied with
- The context of that compliance
- Any restrictions, such as the need for supervision
- The action plan (including any development activities – see Phase 6)
- Any changes from the normal specified process for individual assessment
- The period of validity of the assessment (this may be affected by the characteristics of the individual or of their work situation)
- The assessor’s name

Give the individual a copy of the assessment record or a summary. **Workers need to understand their own competence.** They have to know when to stop work if they are in over their heads. This means that the summary must be detailed enough for a worker to identify work for which he/she is not competent. Communicate the results to the appropriate team leaders and managers.

Plan reassessment so that it takes place before the validity period expires.
Phase 6: Develop Competence

Objective: To extend and maintain the competence of workers so that they are able to meet relevant competence criteria

For each individual, create, implement, and maintain a personal development plan. This may be affected by the results of recruitment and selection (Phase 4), competence assessment (Phase 5), anticipated responsibilities (Phase 7) and/or monitoring activities and their response (Phase 8 and Phase 9).

The personal development plan gives details of proposed actions for training and development. Example actions include:

- Participating in a core training program
- Attending external courses
- Getting concrete experience through on-the-job supervision and training
- Structured development activities, such as supervision through a representative set of work activities or operating conditions
- Refresher training
- Limited-term placement in a specialized team or another department or organization
- Mentoring

In the description of each action, include:

- Its objectives: which competence criteria will it help meet? to what extent?
- Timing
- Present status
- Planned and actual outcomes

Establish a schedule to review progress against the personal development plan. Update as necessary.
Phase 7: Assign Responsibilities

Objective: To ensure that workers only undertake work for which they have been assessed as competent.

Ensure that each individual is aware of the roles and range of activities that they are currently assessed as competent to carry out, including:

- The maximum level of responsibility for which they are competent for each activity, including any requirements for them to be supervised
- The context (application domain, criticality, applicable standards, etc.) in which the competence is applicable
- The validity period of their assessment

It is crucial that workers only carry out activities that they are deemed competent to do. Make sure that workers are aware of how important this is.

Only assign individuals to work in areas in which they are competent.

Do not allow individuals to carry out any work activities for which they have not been assessed as competent. Empower them to refuse to carry out such work.

Provide supervision for each individual in each activity in accordance with the results of the individual’s competence assessment. For example, a supervisor may need to control the work activities, check the results, and take corrective action where necessary, in addition to taking overall responsibility for the work.

Where workers work together in teams, establish and satisfy the competence requirements for the team as a whole. In addition, decide competence requirements for each individual in the team.

If a worker’s role ever changes, consider whether his/her competence is still adequate for the work assigned (see also Phase 13). If not, revise:

- The work activities and responsibilities assigned to the individual
- Team structure and supervision
- The individual’s personal development plan
- Timing and scope of the individual’s next assessment
Phase 8: Monitor Competence

**Objective:** To monitor whether or not workers assessed as competent are continuing to perform competently and to initiate corrective action where appropriate.

All workers within the CMS must be monitored, including managers. Both proactive and reactive monitoring mechanisms are needed. Proactive mechanisms monitor competence. Reactive mechanisms deal with problems as they arise.

Mechanisms may include:

- Workers self-assessments
- Supervisor/manager observations
- Appraisals and performance reviews (manage these carefully: the CMS should not be penalizing lack of competence)
- Investigating incidents and accidents
- Individual realization that competence has deteriorated (e.g. due to lack of practice) or has improved
- Observations of repeated mistakes
- A perceived lack of commitment (perhaps through recognition of low morale or motivation, an unhelpful attitude, or recurring rule violation)

Initiate corrective action as appropriate (see Phase 9).

Encourage and enable workers to accumulate and track evidence of their competence as part of their work.
Phase 9: Deal with Failure to Perform Competently

Objective: To respond to failures to perform so that the impact on safety is minimized, including initiating actions to restore individuals’ competence.

Find out why an individual or team failed to perform competently.

Consider:

- Organizational culture (e.g., time or commercial pressures to ‘cut corners’)
- Team relationships (e.g., poor leadership, communications, or interpersonal relationships)
- Other circumstances that affect the work environment (e.g., general morale; actions of other workers, suppliers, customers or the public; defects in equipment; extreme weather conditions; problems with infrastructure like transport and telecommunications)
- Personal situation (e.g., illness, stress, fatigue, reduced fitness, relationship problems, death or illness in the family, financial problems, trauma following an accident)
- Failure of the CMS (e.g., workers performing activities for which they have not been assessed as competent, inadequate supervision, failure to meet training schedules, omissions or deficiencies in assessment, unclear or insufficient competence criteria)

Plan, implement and review corrective action as appropriate. Ideas include:

- Directed toolbox talks or workshops
- Team restructuring
- Defining and/or communicating required standards
- Alleviating unhelpful pressure
- Counselling
- Revising CMS procedures and practice
- Increased monitoring
- Attending to an individual’s competence failures

If a worker’s competence has failed, update his/her competence profile. Update all associated records. Change the worker’s job activities: reassign responsibilities or increase supervision.

If the failure is not the worker’s fault, make sure you record it. This could be because the CMS’s procedures failed, which is outside the worker’s responsibility. Revise the worker’s personal development plan. Schedule a reassessment.

Feed all relevant findings into the review of the CMS (Phase 15).
Phase 10: Manage Assessor and Manager Competence

Objective: To ensure that senior managers, managers of the CMS, and assessors are competent to support and fulfil the requirements of the CMS.

Ensure that the phases in this guidance are as appropriate to senior managers as they are to the director level. They must be applied throughout the hierarchy.

For example:

- Assigning responsibility for functional safety at the director level
- Ensuring senior managers understand how much their decisions impact functional safety and workers competence

Ensure that the requirements of the other phases in this guidance are fully applied to managers of the CMS.

This includes:

- Assigning overall responsibility for the CMS to one person who has sufficient competence and senior authority (see Phase 3)
- Assigning responsibilities to the managers for operating the CMS
- Establishing competence criteria for the managers and carrying out regular assessments against these criteria
- Monitoring manager competence effectively

Ensure that the requirements of the other phases in this guidance are fully applied to assessors.

This must include:

- Establishing competence criteria and carrying out regular assessments against these criteria
- Guarding against potential conflicts of interest
- Effective monitoring, verification and review
- Adequate management of assessor competence if they belong to an external organization (see Phase 11)
Phase 11: Manage Supplier/Subcontractor Competence

Objective: To ensure that all relevant competent workers always perform work activities of suppliers.

Ensure that all work activities of suppliers of products or services (e.g., contractors), relating to functional safety of safety-related systems, are always performed by competent workers. Do this by:

- Incorporating suppliers’ work activities and workers in your own CMS and applying all the same processes
- Looking at the suppliers’ own CMS: make sure that each organization understands the competence required to carry out its work and has a management system in place to do so
- Delegating some competence management activities to the supplier, which is a combination of the above two options (you retain your own responsibility to gain sufficient confidence that delegated requirements are met)

Agree on the division of competence management activities with the supplier.

Verify and audit any time the supplier takes CMS-related actions. Consider keeping copies of individuals’ competence records.
Phase 12: Manage Information

**Objective:** To maintain accurate information from the operation of the CMS. Information must be sufficiently detailed to enable efficient operation and to demonstrate that its requirements are being met.

Ensure your CMS operating procedures (Phase 3) include instructions for keeping and maintaining records in sufficient detail. This must include appropriate configuration management, version control, and long-term storage. Instructions will help:

- Enable consistent and efficient implementation of all requirements of the CMS
- Allow you to demonstrate to all relevant parties that requirements of the CMS (e.g., specific to an individual or to an activity, or concerning the CMS as a whole) have been and continue to be met

Establish requirements for access, security, and disaster recovery.

This can include:

- Who can read and change each item of information
- Time limits from a request for information to the information becoming available
- What information can be passed on to other future employers

Consider the extent to which you allow workers to access, update and own evidence of their individual competence. For example, should workers update their evidence after project completion? Should they take evidence with them if they leave the organization? Keep in mind that increased ownership and wider career advantage will help increase acceptance and personal motivation for the CMS.
Phase 13: Manage Change

**Objective:** To monitor changes in the internal operation of the organization and its external environment, to determine implications for individuals, teams and the CMS and to initiate changes as appropriate.

Monitor your organization for changes that may be relevant to your CMS or to individuals or teams’ competence, including changes in:

- Team structure
- Management
- Communications chain
- Working practices
- Tools, techniques and equipment
- Job requirements

Monitor your external environment for changes that may be relevant to your CMS, including additions and changes in:

- Legislation
- Interpretation or guidance on legislation
- Standards and industry guidance
- Published incidents
- External contracts
- Organizations (e.g. suppliers) on which you depend

Decide how best to accommodate identified changes, such as through revisions to:

- CMS procedures
- Competence criteria
- Organization-wide training
- Individual workers assignments, team structure and supervision
- Personal development plans
- Competence reassessment schedules
- Plans or schedules for CMS audit or review

Communicate changes to everyone who is likely to be affected by them. Feed findings into the review of the CMS (Phase 15).
STAGE FOUR: Audit and Review

Phase 14: Audit

Objective: To audit the CMS with sufficient frequency to give confidence that it is meeting its objectives and operating as intended, and to initiate improvement action where appropriate.

Competence assessment may be conducted by a mix of the following:

- Assessment can check if an individual is able to perform a task to a satisfactory level
- Assessment can be skill-based, where the assessor watches the individual carry out the task in a test situation
- Assessment may occur by setting the individual a selection of tasks relevant to the subject
- Successful completion means that the task is completed with the relevant competence level of skill

Plan and implement an audit program to check that the overall objectives of the CMS are being attained and that the CMS procedures are being consistently followed.

Initiate improvement action as appropriate based on the results. Feed findings into the review of the CMS (Phase 15).
Phase 15: Review

Objective: To review identified changes and the combined evidence on the operation of the CMS generated from dealing with competence failures and from audits, and to initiate improvements to the CMS as appropriate.

Regularly review the CMS operation at a senior management level, taking into account the results of:

- Dealing with failures to perform competently (Phase 9)
- Managing change (Phase 13)
- Audits (Phase 14)
- Any available benchmarking data on competence
- Any previous reviews and follow-up actions

Use the review as a way to reach proactive continuous improvement. Create an action plan for proposed changes. Communicate the plan and its rationale.

Implement the plan and monitor the effectiveness of the actions in addressing the issues identified.
Appendix 2

Definitions

**Competence:** The ability to perform a particular job in compliance with performance standards. This encompasses the technical requirements and skill to perform the job, as well as having the relevant knowledge and understanding successfully carry out the job under different and changing conditions. You must also be able to handle any emergency situations that could occur.

**Training:** The process of imparting specific skills and understanding to undertake defined tasks. Training can be undertaken in formal classroom situations, under supervision on the job, or as part of the normal working experience.

**Knowledge:** To know the theoretical or practical details of the subject. For example, to know how to start a vehicle and select the correct gears.

**Understanding:** The ability to perceive, predict, or make judgment on the outcome of actions. This is much more than just knowledge. If knowledge is knowing how to start a car, understanding is knowing that something is wrong if the car won’t start. Using seat belts is another example of understanding: they give the driver a better chance of coping with unexpected situations.

**Skill:** The practiced and expert ability to carry out an action or response. Skill is the ability to drive a vehicle successfully, efficiently, and safely over different types of terrain, while negotiating obstacles and avoiding hazards.

**Safety-Related System:** A system whose malfunction, either directly or indirectly, has the potential to lead to safety being compromised.

**Safety Critical Task:** A task is safety critical if the failure to correctly conduct the procedure or carry out the action would result in a major accident hazard or raise the risk of a major accident to an unacceptable level.