COMPETENCY MANAGEMENT SYSTEMS

A Program Development Guideline

Setting the standard in oil gas safety

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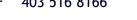
AVAILABILITY

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

Energy Safety Canada
5055 11 Street NE
Calgary, Alberta T2E 8N4

TF 1 800 667 5557
T   403 516 8000
F   403 516 8166

EnergySafetyCanada.com

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PREFACE

PURPOSE

This guideline outlines principles of competency management for Employers. This guideline is meant to assist companies in setting up systems that fit their unique competencies.

HOW TO USE THIS GUIDELINE

This guideline is intended for employers, safety professionals, operations supervisors and human resource professionals to assist in developing a competency management system.

LIMITATIONS

Energy Safety Canada offers this guideline with no specific guarantee or warranty stated or implied.

CONTRIBUTORS

This document incorporates information from the Canadian Association of Petroleum Producers (CAPP)

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1.0   Introduction

There is frequently significant risk associated with oil and gas activities, often related to challenging work environments. Mitigating risk in oil and gas activities depends on the cumulative competency of personnel involved in a job.

This document can help your company create a plan to manage its workforce competence. That plan is called a Competency Management System (CMS).

A CMS is a system that identifies, assesses and develops the critical competencies associated with specific roles.

Critical competencies include a demonstrated capability and/or ability relating to:

- Equipment function, limitations, maintenance and controls
- Process comprehension that includes purpose, method, failure points, and tolerances
- Risk mitigation and management expectations of the manufacturer/designer, regulator and/or employer
- Taking both previous knowledge and new information and being able to apply it to new situations/conditions (i.e. critical thinking/applied logic)
- Ability to make decisions - predict, when to seek guidance, discretion, risk mitigation
- Literacy (e.g. English, math, physics, computers, etc.)
- Social intelligence (an aggregate of self and social-awareness, along with a capacity to manage complex social change)

Important: **All workers** need to be aware of the cumulative competency of their crew, team or shift.

Important: **Did you know?** Employers in the oil and gas industry have a **duty**, under multiple General Duty of Care regimes in legislation, **to ensure that personnel develop/maintain the combined and/or appropriate level of competency** for their jobs.

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2.0   Objectives

This document will:

- Clarify what competence means
- Provide "how-to" guidance for companies to establish a CMS
- Provide a resource for companies, to check that their CMS has the essential elements
- Describe the competency cycle and system

A CMS IS

- ✓ By definition a system that works with the size, nature, and complexity of the company's operations
- ✓ Part of developing a safety culture that values competency
- ✓ Integral in risk mitigation and as a method of achieving regulatory compliance
- ✓ Able to help improve health, safety, and environmental activities, as well as operational integrity outcomes

Use the CMS to **assess**, **develop**, and **maintain** competency.

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 workforce. It will also help identify gaps in competency that need more development. Assessing and developing competencies will positively impact your organization's safety, compliance and productivity.

This Guideline:

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

By reviewing this guideline, the reader will have a basic understanding of a CMS.

3.0   Competency

Competencies are the measurable or observable knowledge, skills, experience, and behaviours that you need to have in order to perform the tasks assigned to perform your job.

Competencies usually fall into one of two categories: capability (thinking) and ability (doing). Competencies apply to both workers and leaders within an organization.

Behavioural competencies define an individual's cognitive strength or thought processes and predict future successes in the workplace. Communication/literacy skills, equipment/process knowledge and critical thinking are some examples.

Ability (doing) are commonly demonstrative and underlie individual and/or team performance or job. Data analysis, trouble shooting, welding, driving and worksite management are some examples.

A person with competencies appropriate to a specific role can research, evaluate, contemplate and adapt to situations and conditions that they have not received training/instruction on, have not previously experienced or are not specifically qualified to do.

Some competencies are transferrable from one work situation to another.

In other cases, very little knowledge and ability transfers from one role to another. Knowing how to use one machine does not necessarily mean you have the appropriate competencies to operate another.

Important: It is the employer's **legal obligation** to ensure that employees adhere to current regulatory requirements and, through the use of a CMS, can demonstrate their due diligence efforts to attaining a level of workforce competence in-line with legislative expectations.

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.

Important: It is important to note that **qualifications and designations** are issued to individuals to indicate a level of competency with reference to designated standards. The competency of an individual in a workplace must go **beyond** this and be based on the assessed competencies relevant to their role.

4.0 Competency Management System Fundamentals

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

An individual's role is specified in terms of their regulatory responsibilities and their employers' expectations as to their ability to mitigation risk. The competence criteria for each role should specify the capabilities/abilities that are desired for their role.

As it is difficult to build and roll out a CMS all at once, a CMS should be rolled out in stages.

To do this organizations should identify the significant business/operational risks where personnel are the method of mitigating this risk and focus on these critical roles.

Once its CMS is established, a company can compare a role's competency requirements with the individuals self-assessed and independent assessed competencies to identify gaps. Where the gaps are foundational, the company can focus on basic training or coaching. Alternatively, the individual may be moved into a role where their competencies better match their role or can be more effectively developed.

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 make the best use of the organization's talent pool and to allocate training resources more effectively.

Important: Some of the **key benefits** of a CMS include:

  ✓ Enhanced safety, efficiency and effectiveness of operations
  ✓ Reduced potential for human error
  ✓ Improved adherence to evolving regulatory requirements on competency
  ✓ Clarified roles, responsibilities and priority functions
  ✓ 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 personnel
  ✓ Enhanced motivation for personnel, increased job satisfaction, and reduced turnover
  ✓ Enhanced and simplified performance reviews
  ✓ Improved verification of training effectiveness

At the centre of any CMS are the functional competency statements. These must be carefully developed for the CMS to be successful. The functional competency statements should be precise enough to be meaningful, useful and assessable, but not too detailed. The CMS should focus on attaining in personnel the competency necessary to determine and execute their role

to the desired expectations rather than try to dictate an unmanageable number of specific competencies for all the tasks that may be undertaken.

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

The compiled functional competency statements for a role become the competency profile for that role.

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

- ✓ Education/training
- ✓ Trade/aptitude test
- ✓ Industry and jurisdictional (regulatory) specific competence assessment programs

5.0   Risk and Proportionality

Nearly all companies possess safety systems, which can include a safety management system, hardware, software, or other safety-related systems and all of which require an appropriate level of personnel competency to achieve the desired outcomes. It is also important not to overlook competence during abnormal and emergency situations.

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

5.1   Identifying Safety Critical Task/Roles

Competence assessment should start with the identification of areas of significant organizational risk and the associated controls that rely on personnel competence during normal process operations, process upsets/emergencies, planned maintenance, and unplanned maintenance.

Once an inventory of the controls reliant on personnel competency is in place, critical competencies can be identified and associated with specific roles. A role is safety critical if the failure to correctly carry out an action creates, contributes to or fails to limit the impact of a major accident hazard or raises the risk of a major accident to an unacceptable level. Risk is often assessed using consequence/likelihood matrixes such as illustrated below.

Given that there are potentially a large number of critical competencies that may be assessed, prioritize the personnel with critical competencies with the highest risk.

CONSEQUENCES	H	yellow	red	red	High Priority
	M	green	yellow	red	Medium Priority
	L	green	green	yellow	Low Priority
		L	M	H	
LIKELIHOOD					

Appendix A: Competency Management System (CMS) Stages and Phases

This appendix is intended to provide a high-level overview of the stages and phases in the competency management system.

STAGE 1 Plan	Phase 1	**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.
STAGE 2 Design	Phase 2	**Develop competency profile.** Select a list of competence criteria that covers all activities within the scope of the CMS. All workers that meet the criteria are competent to perform related work activity.
	Phase 3	**Decide processes and methods.** Establish efficient and repeatable processes, procedures, and methods that cover the phases in this document.
STAGE 3 Operate	Phase 4	**Select and recruit/rehire workers.** Select from your own company, re-hire or recruit externally workers with an appropriate competency profile.
	Phase 5	**Assess competence.** Determine the extent to which workers currently meet the established competence criteria.
	Phase 6	**Develop competence.** Improve and maintain workers competence so they are able to meet competence criteria for their jobs.
	Phase 7	**Assign responsibilities.** Ensure that workers only undertake work they are competent to do.
	Phase 8	**Monitor competence.** Monitor whether or not workers who have been assessed as competent are still able to do their jobs to the required standard.
	Phase 9	**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.
	Phase 10	**CMS Management and Assessor criteria.** Make sure the senior managers, CMS managers, and assessors are competent to support and fulfill the CMS requirements.
	Phase 11	**Manage supplier/subcontractor competence.** Ensure that all work related to supplier and/or subcontractor activities is performed only by competent workers.
	Phase 12	**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.
	Phase 13	**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.
STAGE 4 Audit & Review	Phase 14	**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.
	Phase 15	**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.

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5.2   Stage One: Plan

5.2.1   Phase 1: Define Purpose and Scope According to Risk

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

Identify all of the critical risks relating to operation activities, including abnormal situations and emergencies. Assess the risk implications if the correlating mitigation reliant on personnel competency is not executed correctly to identify critical competencies.

Where competence is necessary to carry out risk mitigation, consider the possibility of introducing engineering measures to reduce or remove the dependence on personnel competency.

A constant competence expectation of all leadership will be an ability to reference, interpret and apply regulatory requirements to the workplace. Regulatory non-compliance is a risk for all employers and personnel must understand the regulatory mitigation expectations relating to operational activities in order to prevent the reoccurrence of past industry incidents and demonstrate due diligence.

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

- Specific industry recommended practices or guidance material
- Business risks
- Contractual obligations (i.e., specified standards)
- The interface between your CMS and those of your customers
- Process Safety Management roles

5.3   Stage Two: Design

5.3.1   Phase 2: Develop Competency Profile

> *Objective: Select a list of competence criteria that covers all activities within the scope of the CMS. All workers that meet the criteria are competent to perform related work activity.*

Develop functional competency statements that addresses each of the critical competencies.

e.g.   Ability to operate, inspect and maintain 'x' equipment

Capability of explaining the purpose, method, failure points, and tolerances of 'x' process

The functional competency statement should cover the capability (thinking) and ability (doing) competencies necessary for the mitigation of the identified risk. A collection of multiple functional competency statements for a role would become the Competency Profile for that role and therefore the criteria to be used to determine assessment needs.

The functional competency statements should be predominantly transferable both within and between organizations, i.e. not be so specific that they become a company and job specific task checklist. Functional competency statements should also be inclusive and measure the highest indicator of functionality. This means that the one functional competency statement may require an individual to have numerous underlying competencies e.g. mathematic ability, literacy, etc.

Developed Competency Profiles should be compared to other similar organizations and/or industry norms to make sure you do not leave anything out.

5.3.2   Phase 3: Decide Processes and Methods

> *Objective: Establish efficient and repeatable processes, procedures, and methods that cover the phases in this document.*

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 in the process and intent of the CMS as well as 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 establish transparent and repeatable processes and methods.

Specify how the CMS processes and methods will interoperate with those of service suppliers and other contract personnel.

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 and available systems, tools and processes (quality, safety, productivity, legal and human resources), relevant external development schemes (of professional institutions, organizations and/or industry bodies). Make the CMS as consistent with these as possible.

5.4   Stage Three: Operate

5.4.1   Phase 4: Select and Recruit/Rehire Workers

> *Objective: Select from your own company, re-hire or recruit externally workers with an appropriate competency profile.*

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

Apply the CMS to recruitment and selection activities for personnel that may be required to carry out roles identified within the scope of the CMS.

5.4.2   Phase 5: Assess Competence

> *Objective: Determine the extent to which workers currently meet the established competence criteria.*

Establish a method of assessment for each functional competency statement (observation, interview, third-part assessment, performance metrics). Be sure to answer the following questions:

- When will the assessment first take place? How often should it reoccur? Is there triggers for
- completing a reassessment other than time (change in operations, regulations etc.).
- Who will assess (observe/interview) personnel? Is there a more objective assessment option
- (to remove bias and/or conflicts of interest)?
- Are the assessment conditions 'normal working conditions' and should they be (depending on competency i.e. emergency conditions)?
- Can an assessment tools common across companies be utilized for benchmarking assessment findings?

- Can currently collected and available performance data be used in the assessment process?

Even though someone might have third-party 'competence certification' or qualifications, he/she can still have competence gaps significant to your operations. Do not use third-party designation or training to assess competence. **Each employer needs to review assessment data to determine competence, the data may be externally collected but cannot determine competency in relation to an employers' operations**.

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 include related experience, cognitive ability (applied knowledge), education, designations, past work performance as well as observable abilities in real-life situations?
- How well did the assessment methods match with role expectations (e.g., process, environment, regulatory jurisdiction, technology, industry practices)?
  - Ensure personnel have access to/a copy of their assessment data/records. **Personnel need to understand their level of competence**. They have to know when to stop work or seek assistance from others, if they are in over their heads. This means that the summary must be detailed enough for personnel to identify the areas that require development. Communicate the results to the appropriate team leaders and managers in a manner that can be used to support development and mitigate for critical competencies that are lacking across a team or group.
  - Plan reassessment so that it takes place before the validity period expires, or operational/regulatory changes are active/enforced.

5.4.3   Phase 6: Develop Competence

> *Objective: Improve and maintain workers' competence so they are able to meet competence criteria for their jobs.*

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).

A personal development plan may include details/expectations relating to:

- publicly accessible resources (self-directed learning)
- external or internal training courses
- on-the-job involvement with a designated mentor or supervisor
- structured development activities (on-the-job experiences), such as supervision through a representative set of work activities or operating conditions or limited-term placement in another role, department organization.

CMS should track each action and include:

- A correlation with the competency under development
- Duration of development period and target reassessment date
- Present status
- Developmental success (post re-assessment)

Establish a schedule to review progress against the personal development plan. Update as necessary.

5.4.4   Phase 7: Assign Responsibilities

Objective: *Ensure that workers only undertake work they are competent to do.*

Ensure that each individual is aware of their assessment results and how their results correlate with their roles and responsibilities.

- Where an area of needed development is identified and associated with a critical competency appropriate resource personnel with the applicable competency must be readily available.
- Where an area of competence has been assessed in personnel as not requiring development that those personnel are aware that situations can still occur that are beyond the scope of the assessment conducted.

It is crucial that where **workers are to complete work that could endanger themselves that the worker only do so if they have been deemed competent for that work or if they are under the directly supervision of personnel with the appropriate competency.**

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

Where personnel work together in teams, establish and satisfy the competence requirements for the team as a whole (cumulative competency) and establish competence expectations/targets for the team.

5.4.5   Phase 8: Monitor Competence

Objective: Monitor whether or not workers who have been assessed as competent are still able to do their jobs to the required standard.

All personnel within the CMS must be monitored, including supervision and management. Both proactive and reactive monitoring mechanisms are needed. Proactive mechanisms monitor competency data (metrics) whereas reactive mechanisms deal with problems as they arise.

Mechanisms may include:

- Self-assessments
- Job/task observations
- Appraisals and performance reviews (manage these carefully: the CMS should not be penalizing lack of competence)
- Investigating incidents and accidents (as risks are most often managed through the layering of mitigation focus on the cumulative competency of leadership responsible for the work area the incident occurred)
- Degradation algorithms (e.g. due to the passage of time, lack of practice or impact of regulatory change)
- 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).

5.4.6   Phase 9: Deal with Failure to Perform Competently

Objective: Respond to any failures to perform competently so that safety is not impacted initiate action to restore worker competence.

To find out why an individual or team failed to perform to competency expectations. 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., personnel performing work for which they do not have the necessary competency, inadequate supervision, deficient cumulative (team) competency, failure to meet personal developmental plans, omissions or deficiencies in assessment, unclear or insufficient functional competency statements)

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 individual's failing to meet competency development targets

If an individual's competence has been demonstrated as deficient, update his/her competence profile and adjust their personal development plan to meet work requirements and schedule a reassessment. If necessary for personal of worksite safety change the individual's job activities: reassign responsibilities or increase cumulative (team) competency.

Feed all relevant findings into the review of the CMS (Phase 15).

5.4.7 Phase 10: CMS Management and Assessor Criteria

Objective: Make sure the senior managers, CMS managers, and assessors are competent to support and fulfill the CMS requirements.

To ensure the CMS has the required support to enable the successful assessment, development and maintenance of personnel and organization should ensure that;

- The CMS is applied throughout the hierarchy.
- Overall responsibility for the CMS is assigned at a senior level to one person with sufficient competence and authority (see Phase 3)
- Senior management understand how much their risk management success is impacted by personnel competence

- Ensure that the requirements of the CMS are fully applied to all levels of leadership (management, EHS Advisors, supervision, etc.).
- Responsibilities are assigned to managers in the operation of the CMS

Where assessors are utilized in the CMS for the assessment of personnel ensure that:

- Assessors do not have a conflict of interest (i.e. a personal or business reason that could influence their findings)
- Assessors are used only where and to the extent that standardized, objective and external assessment tools are not compatible.
- Assessors are effectively monitored to verify impartiality, consistency and adherence to CMS processes
- Assessor competence is adequately managed, for both internal and external assessors (see Phase 11)

5.4.8   Phase 11: Manage Supplier/Subcontractor Competence

> *Objective: Ensure that all work related to supplier and/or subcontractor activities are performed only by competent workers.*

Ensure that all reasonable effort and influence is taken to ensure suppliers of products or services (e.g., contractors) are managing the critical competencies of their personnel. Reasonable effort and influence includes;

- Reviewing the contractors' cumulative competency data to determine extent of utilization, developmental success, management of degradation and reassessment activity (in the selection process)
- Work site observations and feedback (during work execution)
- Include supplier/subcontractor personnel within your own CMS where, and only to the extent that the risk and mitigation that the supplier/subcontractor personnel are exposed/involved in are unique to your organizations and therefore better managed under your own CMS.

5.4.9   Phase 12: Manage Information

> **Objective**: *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.*

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 take the evidence of their competency 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.

5.4.10   Phase 13: Manage Change

> **Objective**: *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.*

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
- Personal development plans
- Re-assessment schedules
- Scheduled CMS audits/reviews

Communicate changes to everyone who is likely to be affected by them. Feed findings into the review of the CMS (Phase 15).

5.5   Stage Four: Audit and Review

5.5.1   Phase 14: Audit

Objective: Audit the CMS often enough to make sure that it is meeting its objectives as intended. Auditing will help initiate improvement action where needed.

Audit activities should confirm that;

- Identified critical roles align with organization risk
- assessments are being completed by the required personnel (internal and supplier/subcontractor)
- competency targets are being set for the organization and teams
- personal development plans are being established in alignment with the needs of critical roles
- reassessments are being complete as required by the CMS

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).

5.5.2   Phase 15: Review

Objective: 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.

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 (annual improvement rates, percentage of targets achieved, etc.)
- 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 B: 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.

Competency: A competency is a combination of knowledge, skills and attributes needed to perform a task. Individuals develop proficiency within a competency as they improve their knowledge, skills and abilities.

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.

Cumulative Competency: Cumulative competency is the combined competency of all individuals in a crew, shift, team, organization, etc. Cumulative competency expectations will be different depending on the work that has to be done. They have to reflect both employees and contractors. Competency has to be checked at the work execution level. This means planning (management) and execution (supervision) is critical.

Individual Competency: Individuals develop competence over time through training, on-the-job experience, mentorship, assessment feedback, and formal qualification programs. As an individual's competence increases, so does the ability to work independently.

Industry Competency: Industry competency refers to those critical competencies identified by the oil and gas industry for proactive workforce development.

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.

Experience: is any experience that a person gains while working in a specific field or occupation, but the expression is widely used to mean a type of volunteer work that is commonly intended for young people — often students — to get a feel for professional working environments.

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

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