



Section: System Management

Task 21: Training needs for the 50001 Ready system and the SEUs have been identified, and staff and contractors have been trained as needed to ensure they are qualified for their energy management role

Getting It Done

- Complete the [EnMS Training Needs Planning Matrix](#) .
- Address training gaps as identified.
- Retain records of training needs, offerings, and results.

Task Overview

Personnel performing work related to your organization’s significant energy uses (SEUs) must be competent to perform those tasks in order to minimize any potential negative impact on the organizations’ energy performance. If there are any competency gaps among the relevant personnel, then those gaps must be identified and steps taken to ensure that they are brought up to the level required to perform the job.

In addition to identifying training and other actions needed to address any competency gaps of personnel whose work is associated with the SEUs, your organization must identify training needs related to other EnMS elements. Typically, these training needs are identified and reviewed and updated at least annually by the management representative with support from the energy team and possibly environmental or safety and health personnel.

At the completion of this task, you will have...

- Ensured competency of personnel
- Identified and addressed SEU related training needs
- Identified and addressed EnMS related training needs

This guidance is relevant to Section 4.5.2 of the ISO 50001:2011 standard.

Associated Resources	Short Description
SEU Control Chart	A template spreadsheet form to track, record, and validate the implementation process for SEUs.



Associated Resources

Short Description

SEU Control Chart Example	An example of what an SEU control chart can look like and may be used to track/record/document/validate the PDCA process.
Competency Requirements and Record Form	A standard form may be used to track, record and validate SEU competency requirements.
Competency Requirements and Record Form Example	This resource gives users an example of how the competency requirements and record form may look and be used for tracking/following up/validation.
Advanced Manufacturing Office Training Website	Training on various systems/components that use energy is available to help manufacturing plants and buildings run more efficiently.

Full Description

Ensure competence of personnel

Personnel working on the organization’s behalf who are performing tasks related to its significant energy uses (SEUs) must be competent to perform those tasks. These personnel include salaried, hourly, part-time, and temporary employees, as well as on-site contractors, suppliers, and consultants. Your initial list of personnel performing work related to the SEUs was documented in the [SEU Control Chart](#) first introduced in [Significant Energy Uses \(SEUs\)](#) and [Performance Indicators \(EnPIs\)](#). (An [SEU Control Chart Example](#) was also provided in [Significant Energy Uses \(SEUs\)](#) and [Performance Indicators \(EnPIs\)](#).) Start with that information, and identify any additional personnel who may need to be included to meet the competency requirements of ISO 50001, Section 4.5.2.

Competency, as used in ISO 50001, is concerned with the qualities or abilities needed by an individual to effectively perform the responsibilities of their work position. Competencies may vary for each job and are based on one or more of the following:

- **Education** – Knowledge generally acquired through a formal educational program such as a school, technical institute, or university.
- **Training** – Knowledge generally acquired as a result of the teaching of vocational or practical skills and knowledge that relates to specific useful capabilities. Examples include boiler operation, electrical system maintenance, or wastewater treatment.
- **Skill** – Talent or ability that can be learned or developed and is subsequently demonstrated. Examples include welding, painting, or software development.
- **Experience** – The accumulation of knowledge or skill that results from direct participation in events, activities, or tasks.

In an ISO 50001 EnMS, the work positions associated with significant energy uses must have defined competencies. For example, if a boiler system is identified as an SEU, the jobs associated with the operation and maintenance of the boiler system must have defined requirements for education, training, skills and/or experience—any one, or combination of these. The [Competency Requirements and Record Form](#)



can be used to define competency requirements for each position. For an example of how this form can be completed, see the [Competency Requirements and Record Form Example](#) for a maintenance electrician.

Identify and address SEU related training needs

When employees and contractors are performing work related to the SEUs, they must also be aware of the following as they relate to their work responsibilities:

- Operational controls associated with the SEUs (see [Operational Controls](#))
- Monitoring, measuring, and analysis requirements (see [Monitoring](#), [Measurement](#) and [Significant Energy Uses \(SEUs\)](#))
- Energy performance evaluation of products, services, and equipment procured from suppliers (see [Procurement](#))

Personnel who will perform work related to SEUs on behalf of the organization are evaluated against the competency requirements. Any gaps in competency for an individual are identified, and specific training needs or other actions are determined. Once identified, the needs are used to develop a plan to bring the employee up to the desired competency level.

The [Competency Requirements and Record Form](#) can be used to record the evaluation of an individual's education, training, skills, or experience relative to the competency requirements, and to identify gaps.

Page 2 of the [Competency Requirements and Record Form](#) may be used to record the training plan as well as the completion status. Once developed, the training plan usually is reviewed by the employee, supervisor, and/or training coordinator for relevance to the identified training need(s). An example training plan appears on Page 2 of the [Competency Requirements and Record Form Example](#).

For organizations considering technical training on energy systems, the U.S Department of Energy's (DOE) Advanced Manufacturing Office (AMO) has created training programs focused on best system practices and AMO software tools. AMO courses offerings are available through Instructor-led classes and workshops, and through self-paced interactive e-learning courses. To learn more, refer to the DOE [Advanced Manufacturing Office Training Website](#) website.

Identify and address EnMS related training needs

Many larger organizations already have processes in place to identify and address the training needs of personnel across the organization. Most often these processes are "owned" by Human Resources and/or environmental and safety and health (EHS) functions that need to ensure an annual refresher or other training related to EHS regulatory requirements. Establishing these processes for the EnMS



should leverage any existing training processes and resources.

The EnMS Training Needs Planning Matrix (see also the Example EnMS Training Needs Matrix) can help you identify and plan EnMS-related training such as ISO 50001 training for the management representative ([Energy Team](#)) and the energy team ([Energy Team](#)), general energy awareness training for all personnel (including new employees and on-site contractors) ([Communications](#)), and internal auditor and lead auditor training ([Internal Audit](#)).

Once EnMS training needs are identified, you must follow through by providing the training or taking other necessary actions. Maintain records of training. Review EnMS training needs at least annually and update as needed. Some organizations integrate EnMS-related training with their EHS training.