

Questions & Answers

The Role of Competency in Pipeline Safety Management Systems

Q1: How do you measure and manage competencies for contractors?

We should manage competencies for contractors in the same way we manage our engineers in our operating and engineering companies. Anybody who works with or decides on an asset or makes decisions on them should be competent to do so. In some cases, we have very good competency programs internally but are not as strict when it comes to hiring staff to work on our assets. This is something that needs to change. There are now standards available to allow us to check the competence of any personnel involved in safety-critical decisions, whether they are employees or contractors.

Q2: How do companies you work with manage vendor competency? It is often documented as part of contracts or master service agreements, but is this enough? Or what should companies be asking for to demonstrate or validate that the vendor has a competency program?

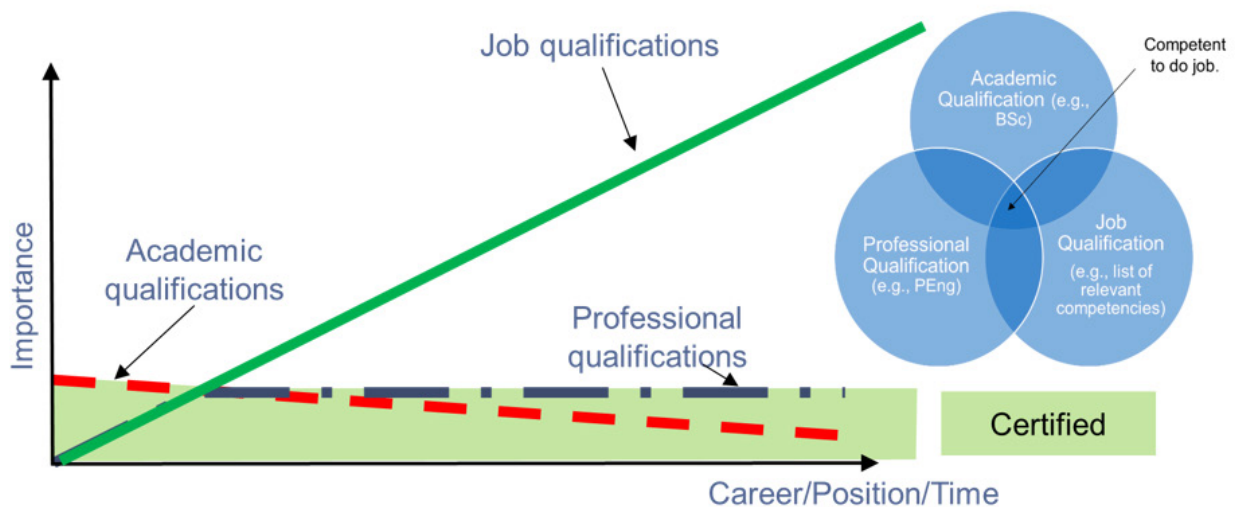
Documentation supporting competency for either employees or vendors is always a good first step, but what we need to see more of in the industry is “demonstrable competencies.” This means competency-based assessments ensuring that specific competencies have been tested properly – this is not just attending a training course but being able to demonstrate that the outcomes specified for that competency have been tested, and the requirements of the competency standard have been met.

Q3: Earlier in your presentation, you started the process by listing the competencies necessary for the role. Would that not be the same thing as a job description?

A job description states a job's title and the department and defines the position the job holds in the organization's hierarchy. Additionally, it will list the job's responsibilities and expected contributions from the employee. By contrast, a job competency is a key element of the job description that describes a skill, knowledge or attitude that enables an employee to perform his/her assigned tasks. Job competencies are the attributes required to accomplish the work tasks assigned to a particular organizational role.

Q4: How do you change the assumption that PE licensure is “enough” in many of these industries we are trying to evolve?

All qualifications are required to be competent, but their relative importance changes over our professional career timeline. If we look at the graph below, we see that if we group our qualifications into academic, professional (PE licensure) and job-related ones, the earlier qualifications academic and professional lose importance as we specialize more in what we do. They are very relevant and important when we start, but they are not always specifically related to the “job” we do. We have a full paper on this topic – please get in touch if you would like access to it.



Q5: How often do you assess competence?

Candidates will need their competencies revalidated after a period of time; five years is often quoted. This revalidation is necessary to ensure all skills are up to date and the candidate remains fit to practice. It depends on the level you are assessing. We have set up three different levels of competence: Foundation, Practitioner, Expert.

1. The Foundation Level competency has no validity period; consequently, candidates who have passed a Foundation Level assessment retain this qualification. Although standards, technologies, methodologies and regulations change with time, a Foundation Level candidate is always supervised. If reassessment is needed against an updated competency standard, then this is recommended.
2. A Practitioner Level competency – by definition – needs to have been practiced in the revalidation period. It is necessary for a candidate to have gained further experience in this Practitioner Level competency. The assessor will perform a full assessment on the candidate, using the current competency standard as though he/she had not been assessed before. The candidate's certificate will be reissued after this assessment, if successful.
3. An Expert Level competency needs to have been practiced in the revalidation period. It is necessary for a candidate to have gained further experience in this Expert Level competency. The assessor will perform a full assessment on the candidate, as though he/she had not been assessed before. The candidate's certificate will be reissued after this assessment, if successful.

Q6: What experience do you have implementing competency frameworks in the pipeline industry, and how does it compare to other industries?

We have a dedicated team working in competence development here at ROSEN, supported by an international panel of pipeline experts. We have competence experts, practitioners and researchers working with customers worldwide.

We have done this for over four years now and have completed comprehensive research, looking not only at our industry but other industries, as well. We have looked in particular at the aviation, chemical, construction, medical and pharmaceuticals industries.

An interesting fact is that the aviation industry uses competency-based training and assessment using competency standards (as we do), and they have been able to demonstrate huge improvements in safety due, partly, to this approach.

We are now implementing this approach in different operating, engineering and regulation companies worldwide, always with the same objective: improvements in safety.

Q7: How does competency link to safety? Where is the connection?

Staff competence relates to safety. It has always been important to the safety and success of the pipeline industry. Turning that question around, we find that incompetence, demonstrated as human error, is a contributory factor – if not the primary cause – of most incidents.

Q8: Do you really need to assess personnel? What is the benefit?

Yes, assessment is essential. You cannot demonstrate competence by simply attending a training course or staying in the same job for ten years. Assessment is by formal examination or interview, for example. The pipeline industry does assess its field and operational staff but does not assess its professional staff. We are way behind other industries (aerospace, health and others) when it comes to competency assessment.

The main benefit is that you can identify any gaps and design the program to fill them. If you do not know what you do not know, it is very difficult to learn about it.