

A Competency Profile for Temporary Structures: Why?



From anchorage and scaffolding to shoring, timbering, guard rails, parapets, and much more: Temporary structures are as wide-ranging as they are essential. The engineers who design these structures, supervise their installation or verify their compliance now have a versatile evaluation tool to help them in their practice: the competency profile for temporary structures prepared by the OIQ.

"I would have liked to have this tool available to me when I began dealing with temporary structures, about thirty years ago," says Paul Jean, Eng., bluntly. This construction method advisor at Hydro-Québec participated in the work of the expert panel that the OIQ set up to draft the new profile.

"Hydro-Québec uses many different types of temporary structures, and my job is mainly to evaluate their safety," explains the seasoned engineer. I work with a multidisciplinary team because the world of temporary structures is quite vast and no one can possess all of the competencies required for all types of structures. To design a temporary structure, engineers must not only be experts in their field of practice, but also have, depending on the

The OIQ would like to thank the eleven engineers who helped prepare this new competency profile as members of the working group or as participants in the validation meeting.

context, a basic understanding of environmental, soil behaviour, road traffic and many other concepts... The competency profile offers them a huge advantage in that it covers the entire spectrum of competencies required for temporary structures."

Scaffolding expert Pierre Grenier, Eng., General Manager for Eastern Québec and Technical Director of the AGF Access Group, was one of the committee members. "I shared my expertise because there is a real need for such a reference document," he says.

TEMPORARY STRUCTURES REQUIRE EXPERIENCED ENGINEERS WHO ARE VERY FAMILIAR WITH THE RELATED LAWS, STANDARDS AND REGULATIONS.

For example, when designing permanent anchorage for lifelines, the standards require stainless steel bolts, and this is for good reason. The competency profile will prompt the engineers who read it to ask themselves: What are the laws, standards and regulations that govern this particular structure? And they will then instinctively go consult them."

BECAUSE THEY ARE NOT PERMANENT STRUCTURES...

The new competency profile provides a framework for a separate field. "As opposed to permanent structures, temporary structures are generally installed at sites that are already built," explains Pierre Grenier. The environment and context become even more important: Will the temporary structure go above a watercourse, where there will be a lot of condensation? On a roof in winter? Near to electrical wires? It is necessary to take the time to analyze the existing factors to determine all potential risks.

To detail the professional competencies of engineers in this field, the profile covers the main steps in designing, installing and certifying temporary structures. For instance, the "Searching for information and relevant data"

Basically, the document discusses the professional competencies that engineers must possess in relation to the following 10 required actions:

- | | |
|---|---|
| A. Act professionally | F. Search for relevant information and data |
| B. Demonstrate your professional skills | G. Determine the solution |
| C. Communicate effectively | H. Design the solution |
| D. Manage your projects and teams | I. Supervise the work |
| E. Establish the mandate | J. Assist with its operation |

competency area delves into a crucial, yet sometimes underestimated activity in the design of a temporary structure.

"The profile is an example of good practices from A to Z, and I will ask the engineers on my team to read it carefully," states Pierre Grenier. On his end, Paul Jean confirms that his expert colleagues and he will use it as a source document: "Because exceptional conditions must often be taken into account when designing temporary structures and performing the related calculations, these structures demand good judgment and analysis, imagination and projection, as well as excellent knowledge of laws and processes. The competency profile makes engineers aware of the fact that they need certain competencies and encourages engineers who are taking their first steps in this field to acquire the competencies they lack."

And you, will you do the same? The competency profile can be found in the "Professional Development" section of the OIQ's Web site.

To find out more, go to competences.oiq.qc.ca.

DO YOU HAVE YOUR PROFILE?

In the last several years, the OIQ has published competency profiles for fields of engineering that are deemed higher risk. In addition to serving as a framework for professional inspection, these profiles help engineers evaluate their strengths and weaknesses so that they can pursue professional training and improve.

Is your field covered by a competency profile? Consult the "Professional Development" section on the OIQ's site (www.oiq.qc.ca). New competency profiles will be published soon...