



Designers' Roles in Plant Safety go beyond Regulatory Compliance – Case Finland

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ABSTRACT

In Finland the services of external engineering companies are relied upon when companies in the process industries aim to invest in new processes or installations. Typically, more than one external service provider is involved in such a project. Some of the engineering companies employed are probably located in another country, e.g. in the USA.

In general, the employer is responsible for the safety of his employees. For instance, European Union's "OSH Framework Directive" states that "the employer shall have a duty to ensure the safety and health of workers in every aspect related to the work".

A high level of safety in process plants is, however, inextricably linked to process and plant design. We claim that the role of engineering companies in assuring the safety of process plants, has grown and is today far beyond what the legislation requires – or how courts of law are interpreting current laws.

In Finland the obligations of EU's directive can be found in the Occupational Safety and Health Act. The Act imposes obligations not only on the employer, but also on the designers. Section 57 reads:

"Anyone who by commission provides a design concerning a structure in the working environment, working premises, a working or production method, machinery, work equipment or other device shall ensure that the provisions of this Act have been taken into consideration in the design of the item in question according to its intended use as stated by the designer."

According to the results of our study, Section 57 seems to have been left unnoticed when rulings concerning accidents in the Finnish process industries have been given in Finnish courts of law. In reality, however, the role of external designers and engineering companies in assuring the safety of process plants has increased.

An ongoing research project at VTT will be finalised in November 2011 when a guidebook (in Finnish) dealing with the obligations and roles of external designers in assuring the safety of process plants will be released on the internet.

The proposed conference paper will discuss both the obligations and the roles of the designers. It will also describe the main points in the guidebook, e.g. how to manage safety during the design procedure involving several parties, and how to disseminate safety related information between the designers and to other parties later in the life cycle of a process plant.