



**Safety Culture Observation  
in NPP'S and NPP Projects in Finland**

CNRA Supply Chain Workshop  
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# 1. Regulation Background

The Radiation and Nuclear Safety Authority (STUK) shall specify detailed safety requirements concerning the implementation of safety level in accordance with Nuclear Energy Act

Radiation and Nuclear Authority Regulation on the Safety of a Nuclear Power Plant (STUK 1/Y/2016):

Para 1: **”When designing, constructing, operating and decommissioning a nuclear power plant, a good safety culture shall be maintained. Nuclear safety and radiation safety shall take priority in all operations. ...”**

STUK has published guides, which are binding: Guide YVL A.3, Management system for a nuclear facility, defines requirements for Safety Culture.

” The management system shall support a good safety culture. In a good safety culture, safety is of primary importance, actions are prioritised based on their safety significance, the senior management and the entire personnel are committed to a high level of safety, the atmosphere is open and fosters a questioning attitude, safety is considered systemically, and safety is continuously improved.”

Guide YVL A.4, Organisation and personnel of a nuclear facility.

” Managers and supervisors shall ensure that the working conditions and arrangements promote the safety culture...”

## 2. Safety Culture Findings - Leadership

In some cases during the course of regulatory body oversight it has been observed, that suppliers licensing organization has a significant power over project organization and can bypass the views of safety or technical parts of the suppliers organizations.

In general it seems that in program there is habit to invent ways to get Construction License for NPP without solutions for design are not sufficiently ready.

STUK has made observations of weakness in leadership in supplier organization. Contractor tries to influence in decision making of its customer.

After challenges occurred in the construction phase of plant under construction, STUK is carefully observing, how organizations behaves and how supply chains works.

# 3. Safety Culture Findings – Case Valve

Welded installation of Safety Class 2 valves with cracks/rupture were presented to be inspected for STUK inspector at construction site. Cracks could be seen with the naked eye,

By Finnish regulatory safety guides (YVL) it is required that safety classified valves are to be inspected as disassembled. This requirement was found missing from inspection records.

Quality documentation shows YVL requirement was missed when licensee were writing construction plan of valve. Also Inspection body did not find it when accepting the plan.

Subcontractor worker who makes tube installation weldings at site must have seen rupture but was unconcerned about the quality.

In discussions with licensee: The licensee missed the Regulatory requirement (YVL-guide requirement).

Discussion with inspection body; Inspection body missed also the requirement. STUK oversight right were delegated to the inspection body.

Personnel at all level and in every organization are allowed to observe and report observations.

# 4. Purpose of Safety Culture Oversight

The purpose of active Safety Culture observations is to affect in change of behaviour of Management and Personnel in supply chain companies.

Open speak-up and no-blaming behaviour is couraged.

STUK acquires information from the state of safety culture f.eg. by intereviewing employees and management.



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