# Enabling safety improvements at the operating NPPs

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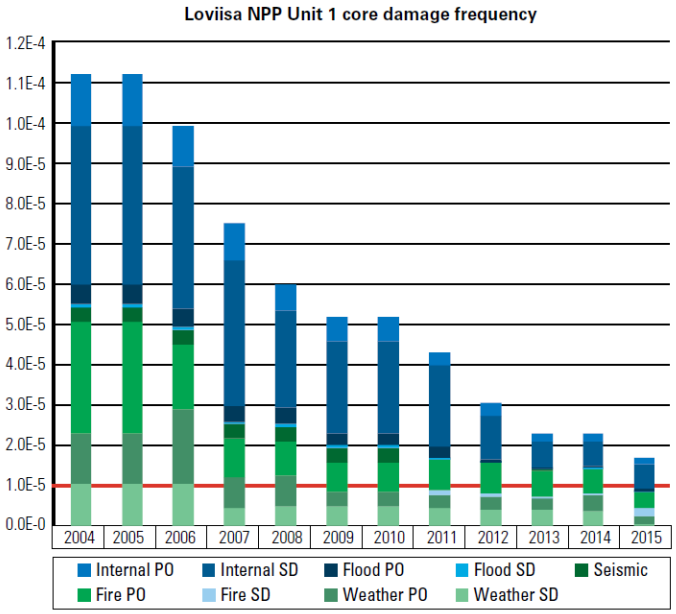
# Can too conservative/outdated regulatory requirements prevent some safety improvements?

- Ageing management – maintaining safety
- Plant modernisations are also opportunities to improve safety
- Licensees' have also other processes to identify safety improvement opportunities (e.g. periodic safety review, probabilistic risk assessment)
  - Finnish licensees argue that sometimes documentation and qualification requirements are unreasonable increasing the costs or even preventing the modification because there are no willing suppliers



# Updated Finnish regulatory requirements for commercial-grade components

- **Serially manufactured component -** has not been designed particularly based on the customer's specification but is procured from an existing product line of the manufacturer.
  - Typically manufactured in large quantities and can be used for other applications too
- Manufacturing process needs not to be changed, uniform quality ensured

- Updated Finnish requirements for mechanical, electrical and I&C components will enable the use of serially produced components also in higher safety classes
- Location-specific requirements remain: integrity and functionality in accordance to the design basis shall be demonstrated subject to possible stressors such as radiation and seismic hazards
- Software qualification requirements exist also in conventional standards for safety critical use

# The way forward?

- Development of STUK's oversight practices according to new strategy
  - Further use of risk informed methods and graded approach
  - Oversight is adjusted according to the ability of utilities/suppliers
  - Development of nuclear safety regulations to be more goal-oriented, risk-informed, enabling
- Further development of equipment level oversight includes benchmarks, participation of utilities initiative (KELPO), developing risk-informed methods, analysing previous oversight findings
  - In addition to regulatory activities, co-operation of licensees is needed
  - Feasibility of industrial design standards (in addition to nuclear ones) needs to be considered to wider extent
  - Harmonisation of standards needs also more active involvement of industry