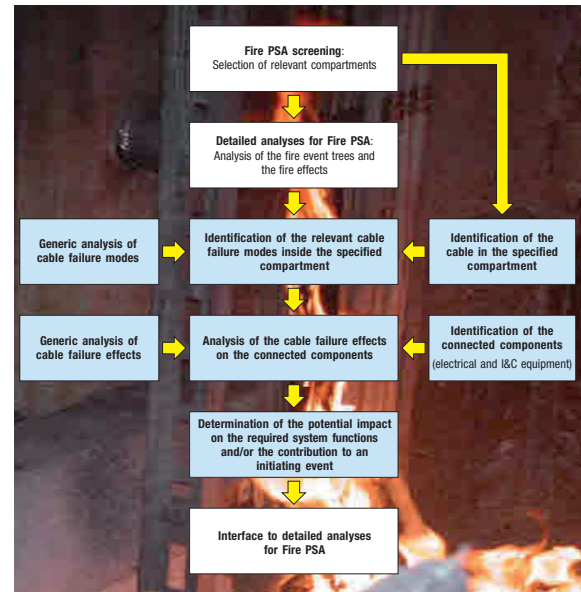
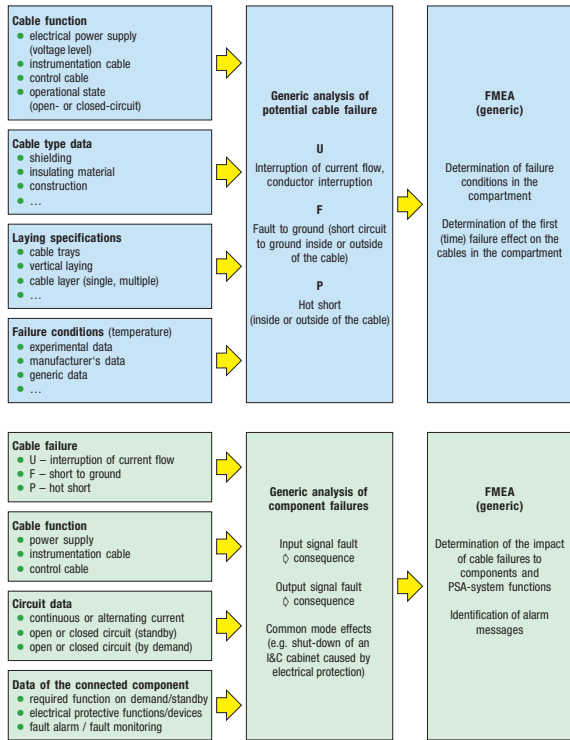


# Failure Mode and Effect Analysis of Cable Failures within a Fire PSA

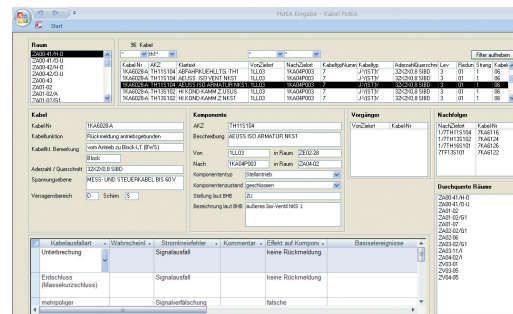
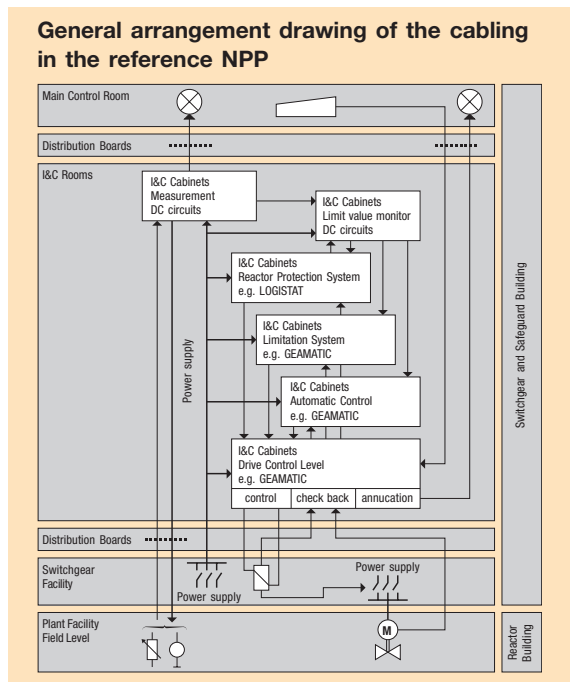
(J. Herb and E. Piljugin)

An enhanced method for the assessment of cable failures caused by fire has been developed by GRS based on a failure mode and effect analysis (FMEA). It intends to overcome the limitations of simplified screening methodologies.



The FMEA-tool **CaFEA** (Cable Failure Effect Analysis) has been developed by GRS on the base of MS Access. **CaFEA** supports the analysis and records the result of the FMEA. The **CaFEA**-database contains

- all relevant data on cables of the reference NPP
- information on components (description, type, operational mode etc.)



Based on information found in a generic FMEA for representative components the cable specific FMEA can be performed for each cable in all relevant compartments of a NPP. The availability of the cable data in a database provides an opportunity for further investigations such as the analysis of failure propagation due to cable routing via crossbar racks/distribution boards.

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