

Title	Guidance to Risk-Informed Evaluation of Technical Specifications using PSA
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Abstract This report presents guidance for evaluation of Technical Specification conditions with PSA. It covers quality in PSA, how to verify that the PSA model is sufficiently robust and sufficiently complete and general requirements on methods. Acceptance criteria for evaluation of changes in the TS conditions are presented.

As the probabilistic safety assessment (PSA) has developed over the years, it has demonstrated to constitute a useful tool for evaluating many aspects of the TS from a risk point of view. and in that way making the PSAs as well as the decision tools better. This also means that it will be possible to take credit for safety system overcapacity as well as inherent safety features and strength of non-safety classed systems.

However, PSA is only one of the tools that shall be used in an evaluation process of TS changes (strengthening/relaxation). PSA is an excellent tool to be used to verify the importance, and thereby possibly relaxation, of TS requirements. But, since PSA is only one tool in the evaluation, it is not sufficient in itself for defining which equipment that shall or shall not have TS requirements.

The purpose of this guidance document is to provide general requirements, requirements on methods and acceptance criteria on risk-informed evaluation of TS changes based on PSA. The purpose is not to provide a single solution.

As part of the review of the TS conditions this guidance specify requirements on:

- Quality verification of the PSA model
- Verification that the PSA model is sufficiently robust with regard to SSCs for which requirements both are and are not defined by the TS
- Verification that the SSCs, for which TS demands are to be evaluated, are modelled in a sufficient manner
- Methods for performing the evaluation

- Which evaluation criteria that shall be used (and how that is verified to be correct)
- Acceptance criteria

This guidance also briefly discusses the documentation of the analysis of the TS changes.

This guidance document is to a large content influenced by the structure and guidance given in the NRC Regulatory Guide 1.174.

Key words Technical Specifications, PSA, Risk optimisation, Risk evaluation