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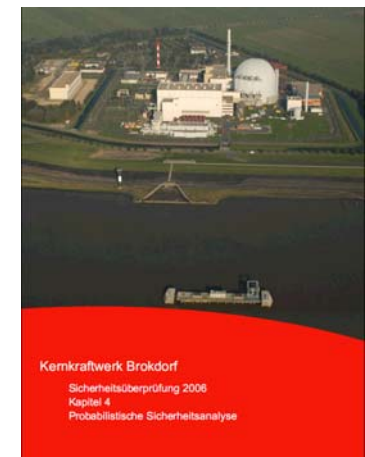
Review Process of PSA Level 2 of Brokdorf NPP Concept and Experience

Probabilistic Safety Assessment (PSA)

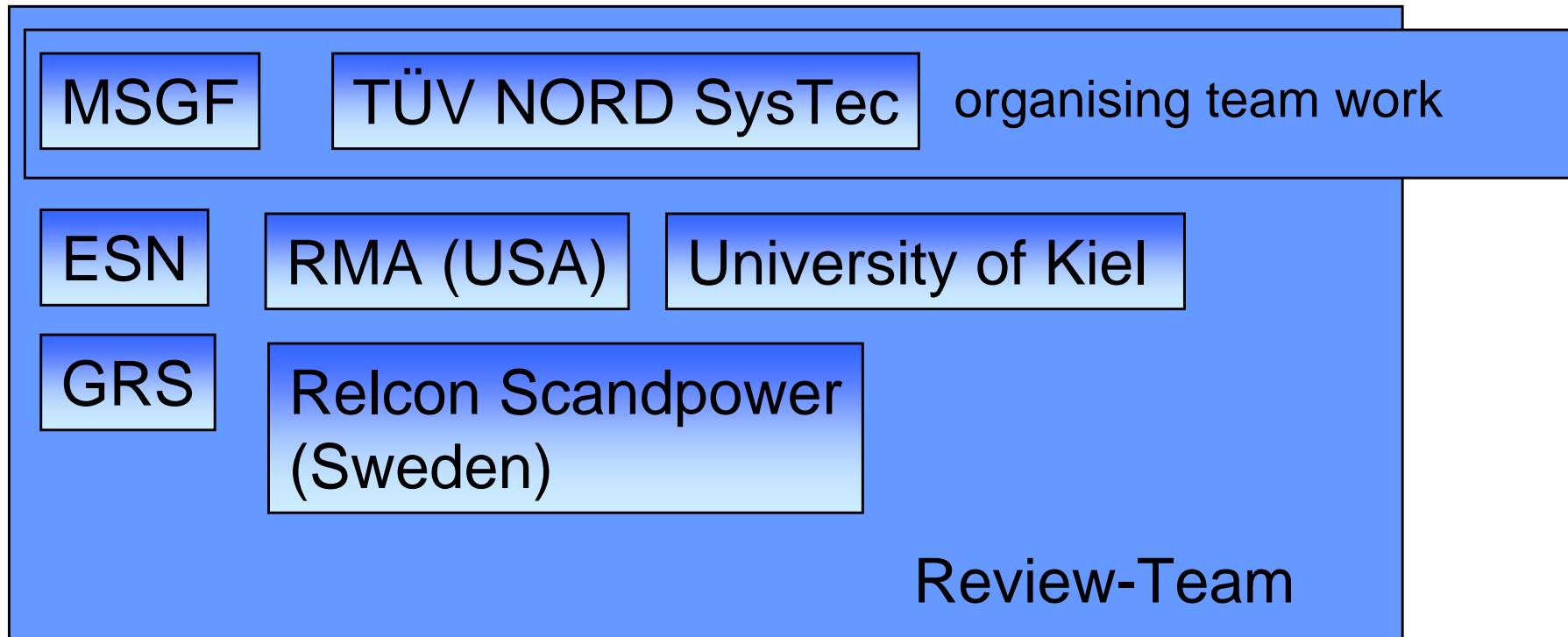
- PSA Level 1 – frequency of core damage states
- PSA Level 2 – frequency of radioactive material release
- PSA Level 3 – offsite risk

Basis For The Analysis

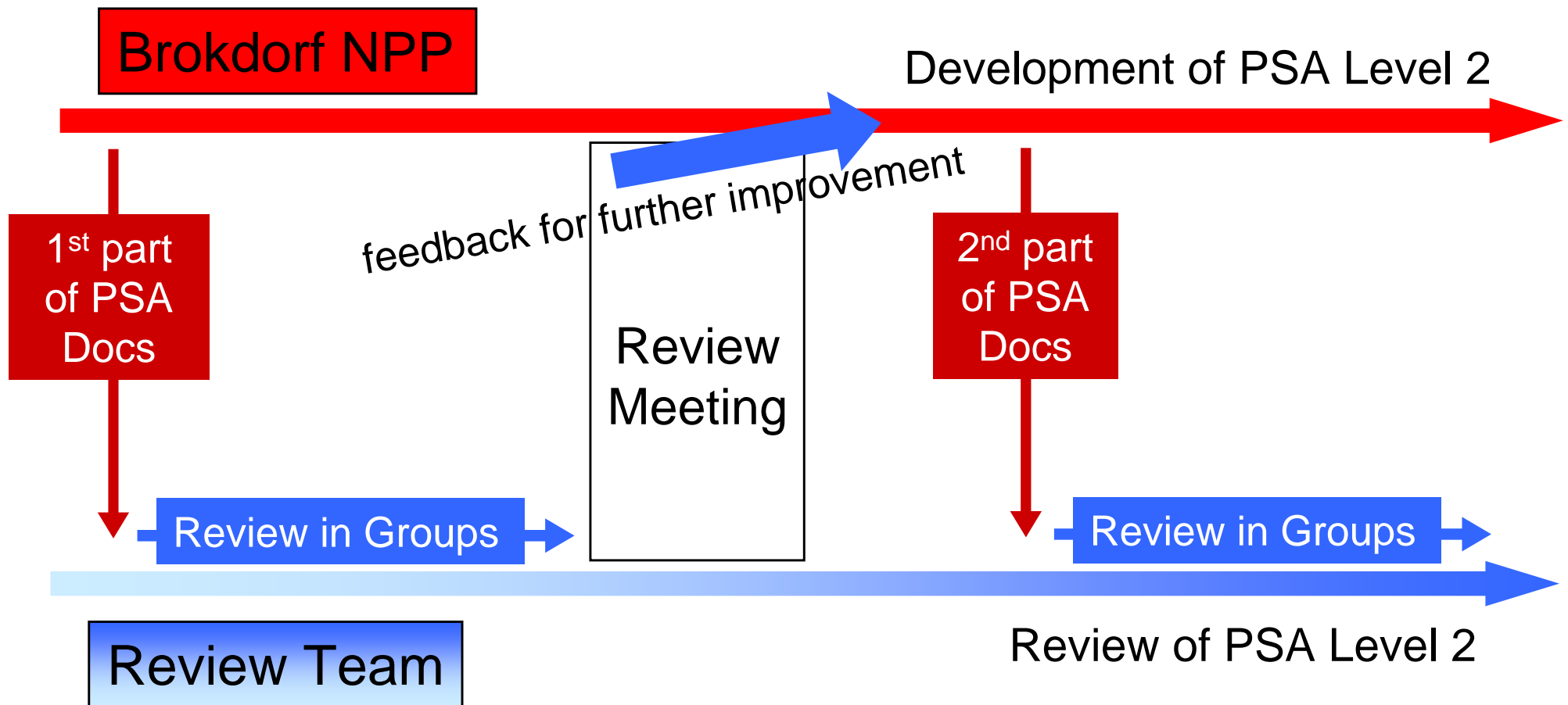
- In 2005, a revised version of the German PSA guideline was released
- According to the guideline plant-specific PSAs have to include a PSA Level 2.
- In 2006, one of the first full scope PSA Level 2 study was started for Brokdorf.
- The supervisory authority initiated a review process of the analysis.



The Review Team



The Review Process

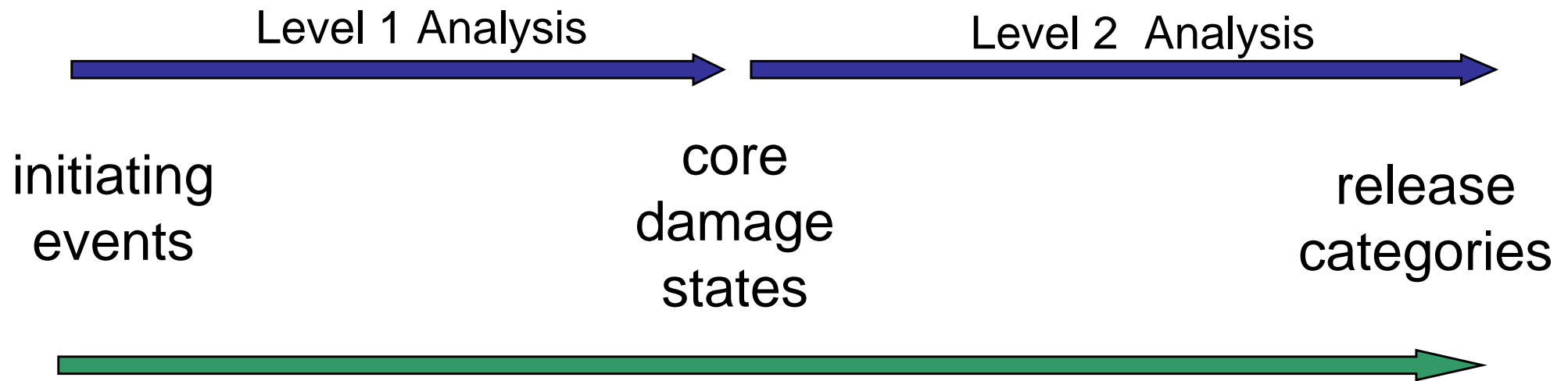


Emphasis / Topics Of The Review Process

Meeting	Emphasis / Topics
Kick-Off Meeting	<ul style="list-style-type: none"> • Familiarisation with the Plant • Arranging the Review Procedure
1 st Review Meeting	<ul style="list-style-type: none"> • Plant Description / Design • Methodology Used for Level 2 PSA • Interface with Level 1 PSA
2 nd Review Meeting	<ul style="list-style-type: none"> • Event Tree and Release Categories • Containment Structural Analyses • MELCOR Application / Plant Nodalisation, Deterministic Accident Analyses
3 rd Review Meeting	<ul style="list-style-type: none"> • Source Term Analyses • Topics from Meeting 1 and 2 with Updated Documents
4 th Review Meeting (Forthcoming)	<ul style="list-style-type: none"> • Release Category Definition • Probabilistic Quantification • Final Meeting

Lessons Learned

Two Step Approach



One Step Approach

Lessons Learned

- A detailed MELCOR modelling and nodalisation of core and reactor system is essential to gain insights into the progression of severe accidents and the basic physical phenomena
- A specified NPP Brokdorf containment structural analyses study should be performed

Lessons Learned

- Good experience with the working groups
- Support from the plant staff is necessary
- Definition of the review criteria as a first step of the process is needed for a good framework

Benefit

- Insights gained were fed into the process very early
- Valuable comments and recommendations for further improvement of the study
- Integration of national and international know how and practical experience by the experts in the review team

Finally, we believe a common understanding and agreement will be reached between all parties involved on the major topics of the PSA Level 2 study at the end.

Thank you for your attention.