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Living PSA Documentation

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PSA Documentation

- **PSA documentation is hard to keep up to date with a Living PSA**
- **New demands for the use of PSA puts demands on a management system of the PSA documentation:**
  - regulatory expectations for licensing submittals
  - management of equipment out of service assessments
- **What processes and/or tools will NPP need in the future to control and maintain the documentation in their PSA?**

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Requirements on Software Tool for PSA Documentation

- **Include all PSA documentation in one relational database**

- **Manage two linked relational databases (the PSA model and the PSA documentation tools database)**

- **Complement, not replace, existing QA systems already in place**

- **Track changes in plant documentation to relevant modeling assumptions made in the PSA model database and the PSA documentation**

- **Generate reports from the documentation included in the tool and by using data in the PSA model database**

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Documentation Organised in a Database

- **Paragraphs of text**
- **Tables**
- **Diagrams**
- **Fault Trees**
- **Event Trees**
- **Referenses**

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Report Generation

- **Build a report from paragraphs (Notes), tables, Fault Trees, etc**

Report Generation (cont)

- **Section Blocks**
  - Reports often follow the same structure and order of paragraphs, tables and graphs
  - Section Blocks generates all system analysis reports at once, following the same general order of sections applicable for all safety system reports in one PSA

Palo Verde Nuclear Generating Station (PVNGS)

- **Notes**
  - holds text and relations to many other record in the database (Basic Events, Fault Trees)
  - houses references to plant documentation used to develop the PSA model itself
- **PVNGS compares the information in the Notes in the RiskSpectrum Doc database with the current plant documentation for Palo Verde stored in electronic form in a so called "Impact Review" to identify potential impacts that the plants existing design might have on the current PSA**

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