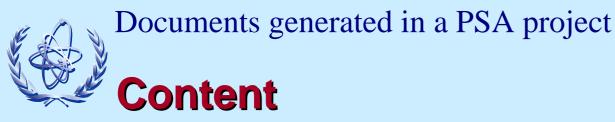# PSA Project

Documents generated in a PSA project

Content

- General
- Documentation content
- Documentation for the Management of the PSA
- Technical Documentation

General

- It is essential to identify at the beginning of the project the documentation that will be generated, and to develop it throughout the course of the work

- It would be very difficult to generate the technical documents discussed in the second part of this presentation, after the work has been finished

Documentation content

- Documentation for the Management of the PSA
- Technical Documentation

Documentation for the Management of the PSA

- Project Plan

- Quality Assurance Plan

- Quality Assurance Procedures

Project Plan

- Its primary aim is to ensure that the PSA's purpose and objectives and hence its scope is clearly understood and defined at the beginning of the project

- As many of the future applications as possible should be identified at this stage, as these will affect the approach to be used in the individual tasks

- It identifies the requisite level of QA

- It also identifies the various reports and procedures which will be produced during the course of the PSA development

QA Plan and Procedures

The main objectives of the QA plan and procedures are:

- to ensure that the necessary documentation is developed,
- and to ensure that the review process for all is work products clearly specified

Technical Documents: Rationale

The basis for the PSA model should be comprehensively documented so that each aspect of the model can be directly related to an existing plant document, to plant design and operational features which may be non-documented or for which the existing documentation is not comprehensive enough, or to the analysts assumptions of how the plant and the operating staff behave

Technical Documents

- Work plan: Task Procedures
- Task Documentation: Analysis Files or Calculation Notes
- Document Data Base
- Summary Report

Task Procedures

- The purpose of these documents is to ensure that all analysts working in a task develop a consistent set of models which interface without overlap or omission

- Future revisions to the PSA will use the same procedures so ensuring consistency with the original model

The Task Procedures should include:

- Detailed set of steps that give guidance of how to perform the tasks

- Techniques to be used

- General assumptions to be made

- Each Task Procedure should clearly identify the interfaces with other tasks and the information/data to be exchanged between tasks

Task Analysis Files

- Controlled documents which are maintained for the life of the plant

- They enable any PSA analyst familiar with the particular task to either recreate or modify the particular part of the model

- Only if there is a complete set of such files it is possible to define and understand each element of the computer model, and the results of its quantification

The Task Analysis Files should include:

- All the systematic and explicit information on the assumptions made in the development of each aspect of the final model

- Detailed steps in the development of each part of the model

- Identification of the interfaces with other tasks and the information/data that has been exchanged between tasks

- List of all references used including version number and date

Document Data Base

- The performance of the PSA requires the use of documents generated at the plant, and documents generated by outside bodies such as the plant designer, architect engineer, or research organisations

- Significant amount of new material is generated during the development of the PSA, for example, minutes of meetings, procedures, calculation notes, reports, etc.

- Future changes to the input documents will impact the PSA

- It is recommended to develop a <u>Document Data Base</u> to have control of all the documentation used and produced

Summary Report

- Its purpose is to communicate the project's motivations, objectives and scope, methods, results and conclusions of the study, to interested users

- It should also provide an overview of the contents and organisation of the documentation of the study

Documents generated in a PSA project

References

- **IAEA-TECDOC-1101 Framework for a quality assurance programme for probabilistic safety assessment**

- **IAEA-Safety Series 50-P-4 Procedures for Conducting Probabilistic Safety Assessments of Nuclear Power Plants (Level 1)**

- **IAEA-TECDOC-832 IPERS guidelines for the international peer review service**