Role of the regulator, operator, the supplier and tso regarding design and manufacturing documentation - identification of best practice

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PROJECT DOCUMENTATION CONTROL

Contract

• All crucial aspects relevant to project documentation should be agreed in a contract (types, list of documents, schedule of handover, rules for workflow, rules for approval,…)

Quality Assurance Program / System

• Project documentation control – important part of QA, procedures must be agreed ideally during contracting stage or very soon after contract signature

Interested Parties Involvement

• All relevant parties must be identified, their roles agreed and implemented into Contract and QA procedures
• Human and other resources plans must reflect agreed roles

Efficient Document Management System

• Ideally one electronic system supplied as an integral part of the Supply
• Ideally shared by all interested parties
INTERESTED PARTIES INVOLVEMENT ASPECTS

Ultimate Responsibility of Licensee for Nuclear Safety

- Responsibility for nuclear safety cannot be fully transferred to any party
- Involvement of Licensee in Project documentation control is one of possible mechanisms how to execute responsibility for nuclear safety
- Documentation for information / for approval

Intelligent Customer Concept

- Each licensee together with Regulator decides the scope of application of the Concept
- Tradition and current national practice can cause different application scopes in different countries
NEED OF LICENSEE

Project documentation must enable licensee:

- to keep track of the Project development
- to review and approve selected documentation
- to have detailed knowledge of the Plant design and the Plant systems, equipment and their functions, effective operation and maintenance
- to check if the Plant design and Plant systems, equipment and its functions meets all relevant requirements, specifications and the applicable Codes and Standards as well as licensing requirements
- to train the staff for operation, testing, maintenance and possible further development of the Plant systems and equipment
- to operate and maintain the Plant systems after the Final Takeover during all the Operational States and Incident/Accident Conditions
- Etc.
INTERESTED PARTIES INVOLVEMENT AND THEIR ROLES

Regulator
- Role is defined in national legal system, including types of approvals related to documentation
- Generally the right for access to any Project documentation
- Licensee should agree with Regulator common rules and procedures

Supplier
- Role is defined by Contract and Scope of Supply (who elaborates particular types of documentation)
- Role can differ based on contract type (EPC contract, other types of Contract)
- Responsibility for the overall supplier chain (subcontractors)

Other parties like TSO
- Role must be exactly defined and incorporated in Contract and agreements with Regulator
TEMELIN PROJECT EXPERIENCE
PROJECT DOCUMENTATION STRUCTURE EXAMPLE

- General requirements documents
- Project organization and planning
- Quality and environmental control
- Industrial safety, fire protection, wastes
- Site conditions
- Permitting and Licensing
- General technical documentation
- Mechanical area
- Electrical area
- I&C area
- Civil area
- Safety and radiation
- Core and nuclear fuel
- Procurement documentation
- Construction, erection and testing
PROJECT DOCUMENTATION STRUCTURE EXAMPLE

- Commissioning
- Operation and maintenance
- Physical protection system

Each category involved
- List of particular documents
- Identifier (for information / for approval by Licensee)
- Project phase (when elaborated)
PROJECT DOCUMENTATION CONTROL

CHALLENGES

• Understanding of documentation types and their rough content

• Scope of documentation for approval (CEZ wanted more than Suppliers)

• Commercial discussions (impacts to Project schedule and finance in case of delays during documentation review and approval)

• Access to manufacturing records (CEZ expectation was to see them practically on-line in information system – documentation management system, Suppliers had difficulties to accept it or sometimes denied it)
CONCLUSION

- Project documentation topics must be agreed in time in a balanced way
- Licensee should have reasonable requirements
- Suppliers should understand responsibility for nuclear safety of Licensee and need to keep track of the Project development
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thanks for your attention