





Design specific activities panel

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Introduction



- ▶ **AREVA is engaged in several Licensing process based on the same original design but in different Regulatory framework**
 - ◆ **Construction of Olkiluoto 3**
 - ◆ **Construction of Flamanville 3**
 - ◆ **Construction of Taishan 1&2**
 - ◆ **Design Certification ongoing in the USA**
 - ◆ **GDA process ongoing in the UK**

- ▶ **There are a lot of exchanges between Regulators within the EPR WG which is welcome by AREVA**

- ▶ **But interactions between the MDEP EPR WG and AREVA have been scarce**

The issue of managing the design differences which may result from these different regulatory landscape is a key issue for AREVA

How AREVA manage this issue internally



- ▶ Key objective is to combine into a reference design a consistent and optimum set of **technical** features based on experience feedback accumulating from actual on-going EPR projects, bids, licensing or other initiatives, in order to:
 - ◆ Improve **quality** by stabilized continuous industrial processes
 - ◆ **Facilitate Licensing**
 - ◆ Minimize **risks** for all parties during Project implementation
 - ◆ More generally, **take into account the Lessons Learnt from the experience**
 - ◆ Facilitate EPR Projects **engineering activities** through:
 - Replication of a sound and optimized design to the maximum extent possible
 - Focus on project-specific adaptation studies
 - ◆ Introduce **scale effects** which should be favorable on the quality
 - For AREVA NP manufactured primary components
 - For subcontracted equipments

The target is to converge as much as possible towards a unique reference design : The Standard EPR™ Reactor

The Standard EPR™ Reactor: a real project



- ▶ The Standard EPR™ definition is **managed like a real project** and is implemented/deployed in gradual steps. It is currently benefiting from:
 - ◆ Current on-going projects: Olkiluoto 3, Flamanville 3, Taishan 1&2
 - ◆ AREVA NP internal Project to optimize the product
 - ◆ R&D
 - ◆ US EPR Design Certification
 - ◆ UK EPR Generic Design Assessment
- ▶ A dedicated management and coordination unit has been established with its own resources to work on the Standard EPR™ Nuclear Island
- ▶ A dedicated internal Committee has been established:
 - ◆ EPR Configuration Management Board (ECMB) to review major technical topics and to monitor the configuration evolution

Anticipated Manufacturing of Primary Components



- ▶ **One key objective of AREVA is to standardize the design and manufacturing of NPP major components in order to**
 - ▶ **Improve quality by stabilized continuous industrial processes**
 - ▶ **Reduce risks during the project Implementation**

- ▶ **The regulatory conformity assessment process as it is today induces constraints which does not allow manufacturing of components independently of the end-user**

- ▶ **AREVA proposes that the Vendor Inspection Co-operation WG analyze the issue and work out with the Vendors/Manufacturers alternate schemes which would allow for anticipation of primary components manufacturing**

Conclusions



- ▶ **AREVA welcomes MDEP initiatives**
 - ◆ To increase knowledge transfer between Regulators to improve the efficiency of the Regulatory processes and create the conditions of mutual recognition of the regulatory work already performed.
 - ◆ To move towards convergence on regulatory practices
 - ◆ To work for establishing a framework which allows for collecting and sharing regulatory documents
- ▶ **AREVA is ready to contribute to help the work of the EPR-WG and of the other specific issue WGs**

AREVA is expecting that MDEP will strengthen its organization and increases its resources

AREVA is in line with the CORDEL proposal which will be presented later during the conference