
Overview of Multinational Design Evaluation Program



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Multinational Design Evaluation Program

- Stage 1 – International cooperation within existing regulatory framework
- Stage 2 – Convergence of codes, standards, and safety goals across international borders
- Stage 3 – Implementation of Stage 2 products to facilitate licensing of Generation IV reactors

MDEP – Stage 1

- Currently focused on the U.S./Finnish/French design reviews of the AREVA EPR
- Technical expertise of other regulators informs licensing reviews
- Implementation will complement existing and established national licensing/regulatory processes
 - Each regulatory authority remains solely responsible for safety determinations of reactor designs in their country
- Other applications of MDEP Stage 1 to be considered on a case-by-case basis

MDEP - Stage 2

- Incorporate ongoing Stage 1 lessons learned and will enable Stage 3 implementation
- Focus on convergence of regulatory requirements and safety policies associated with the design of new reactors
- National regulators retain sovereign authority for all licensing and regulatory decisions
- NEA will perform secretariat function

MDEP Stage 2

- Stage 2 Terms of Reference Agreed Upon on September 22, 2006
- US, France, Finland, China, Russia, Great Britain, South Korea, Canada, South Africa, Japan participating

MDEP Stage 2

- MDEP Policy Group chaired by Andre Lacoste of France
- MDEP Steering Committee chaired by Gary Holahan of NRC
- Pilot project begun consisting of two working groups:
 - Licensing basis / Scope of design safety review / Safety goals
 - Component manufacturing oversight

MDEP Stage 2 – Integration With Ongoing Initiatives

- IAEA Safety Standards
- International Codes and Standards Committees
- Generation IV International Forum (GIF)
- Development of Risk-Informed Reactor Regulation and technology neutral regulatory concepts

Proposed MDEP Stage 3

- Utilize Stage 2 output to facilitate the licensing process for Generation IV reactors
- Enable multinational design review teams
- Enhance standardization and multinational acceptance of regulatory safety reviews

MDEP Benefits

- Enhances safety through cooperation among regulatory authorities
- Promotes early identification of important safety-related technical issues
- Improves efficiency through the leveraging of regulatory counterpart reviews
- Sets the stage for enhanced post-licensing international cooperation with key foreign regulators

MDEP Benefits

- Enables and encourages global use of standardized reactor designs
- Allows more meaningful international exchanges of reactor operating experience
- Facilitates the design reviews of reactors in many countries, including developing countries
- Facilitates further public understanding of regulatory safety goals on an international basis