MDEP
VVERWG
Programme Plan
2017 - 2018

Related to: VVER Working Group Activities

VVERWG Programme Plan for 2017 and 2018

Multi-National Design Evaluation Programme

VVER Working Group (VVERWG)

1. VVERWG Goals

- Leverage national regulatory resources by sharing information and experience on the regulatory safety design reviews of the VVER with the purposes of enhancing the safety of the design and enabling regulators to make timely licensing decisions to ensure safe designs:

    - Exchange experience on licensing process and design reviews, lessons learned, and design-related construction, commissioning and initial 2 year phase of operation experience
    - Work to understand the differences in regulatory safety review approaches in each country to support potential use of other regulators safety design evaluations, where appropriate
    - Look for opportunities to provide input to design-specific and issue-specific working groups on potential topics of significant interest

- Promote safety of designs through cooperation (consideration should be given to promoting harmonization of regulatory practices where there may be a safety benefit):

    - Document common MDEP positions on aspects of the review to enhance safety and standardization of designs (and coordinate communications) as requested
    - Communicate MDEP views and common positions to vendor and operators regarding the basis of safety evaluations and standardization
    - Identify design differences originating from regulatory requirements and document reasons for differences in regulatory requirements
    - Use experience gained in learning about similarities and differences in licensing frameworks to identify potential paths forward to harmonize licensing approaches and practices when there is a safety benefit.

2. Intermediate Objectives

- Share information including evaluations among VVERWG members to leverage resources and focus design reviews on safety issues, commissioning and initial operation activities in areas that are critical to take licensing decisions including Fukushima-related issues
- Encourage improvement of designs through design safety review cooperation when there is a clear safety benefit
- Document the activities of the technical expert subgroups through technical reports and common positions

3. 2017-2018 MDEP VVERWG Work Plan

- Continue to communicate timelines for sharing regulatory evaluations of the VVER among all VVERWG member countries
- Address Fukushima-related issues within the VVERWG and with the vendors and licensees/operators/applicants to ensure follow-up on safety issues
- Continue to share information among VVERWG members in the areas in which technical expert subgroups (TESGs) have been formed for design related issues of interest to the members. Areas of current consideration for subgroup activities are:
    - Fukushima lessons learned,
    - Severe accidents,
    - Reactor pressure vessel and primary circuit,
    - Accidents and Transients.

  Potential topic for future consideration includes Safety systems. These subgroups should perform the following:
    - Meet regularly to exchange information on relevant aspects of the design review status. Meetings may be accomplished through teleconferences
    - The technical expert subgroups should provide a work plan including description and scope of issues to be addressed to the VVERWG and report on the status at every VVERWG meeting
    - Share relevant evaluations when they become available
    - Produce technical expert subgroup technical reports on subject that the subgroup deems important to safety to identify and document similarities and differences among designs, regulatory safety review approaches and resulting evaluations
    - Produce MDEP VVERWG common positions, especially on important safety evaluation findings
    - Post evaluations, positions, reports, etc. in the MDEP library
    - Consider Fukushima-related issues in subgroup activities to determine their potential safety impact on the designs

- Address important ad hoc issues to support design safety review decision making including in the areas of:
    - Radiation Protection
    - Spent fuel pool
    - Construction oversight
    - Other areas as applicable

  Note: Ad hoc groups should consider Fukushima-related issues in their work.

- When necessary, plan and conduct design-related technical site visits or inspections to ensure adequate design configuration control, quality assurance, and acceptability of structures, systems, and components of the VVER (appropriate coordination with VICWG)

- Provide recommendations, when appropriate, to the STC for considering possible items as topics to address generically

4. Outputs of the VVER WG during 2017-2018

- Update of Fukushima Common Positions in the areas in which the VVERWG will cooperate – beginning of 2017
- Technical report on Severe accident analysis and management, mid of 2017
- Technical report on regulatory approaches and oversight practices related to RPV and primary components – mid of 2017
- Common Positions addressing ex-vessel corium cooling strategy - June 2018
- Common Positions on Reactor pressure vessel and primary components reliability for AES-2006 designs - June 2018
- Common Positions addressing the Vienna Declaration on Nuclear Safety - 2018
- Technical reports to identify and document similarities and differences among designs, regulatory safety review approaches and resulting evaluations, as appropriate
- Document lessons learned from design reviews and design issues faced during construction and commissioning and early phases of operation
- Recommendations and inputs to other MDEP working groups regarding potential generic issues and harmonization opportunities (coordination with DICWG, VICWG, CSWG or to the EPRWG, AP1000, APR1400, ABWRWG as appropriate)

5. Key Stakeholders with whom the VVER WG members will interact

- Other MDEP working groups
- Other non-VVERWG regulators when appropriate (care taken to NOT share proprietary or sensitive info inappropriately)
- CNRA (WGRNR)
- IAEA (safety review of VVER TOI design)
- Design owner
  - SC “Rosatom”
- Design organizations
  - JSC “Atomenergoproekt”, JSC “Atomproekt” SPb, OKB “GIDROPRESS”, NRC “Kurchatov Institute”
- Utilities/Licensees/Operators, as applicable

- JSC "Concern Rosenergoatom", Akkuyu Project Company, NPCIL, Fennovoima Oy, Jiangsu Nuclear Power Company, MVM Paks II Project Company JSC.

- Other Groups as appropriate to further MDEP goals