

MDEP APR1400WG Programme Plan 2017-2018

Related to: APR1400 Working Group Activities

Programme Plan for 2017-2018

Multi-National Design Evaluation Programme
APR1400 Working Group (APR1400WG)

1) Long-Term Goals

- Leverage national regulatory resources by sharing information and experience on the regulatory safety design reviews of the APR1400 with the purposes of enhancing the safety of the design and enabling regulators to make timely licensing decisions to ensure safe designs through:
 - Exchanging experience on the licensing process and design reviews, lessons learned, and design-related construction, commissioning, and operating experience
 - Working to understand the differences in regulatory safety review approaches in each country to support potential use of other regulators safety design evaluations, where appropriate
 - Looking for opportunities to provide input to issue-specific working groups on potential topics of significant interest.
- Promote safety and standardisation of designs through MDEP co-operation (consideration should be given to promoting harmonisation of regulatory practices where there may be a safety benefit) through:
 - Identifying and understanding key design differences including those originating from regulatory requirements or design changes and then documenting the reasons for differences
 - Documenting common MDEP positions on aspects of the review to enhance safety and standardisation of designs
 - Communicating and coordinate communications on MDEP views and common positions to vendor and operators regarding the basis of safety evaluations and standardisation
 - Using experience gained in learning about similarities and differences between the designs as a result of different licensing frameworks to identify potential paths forward to harmonise licensing approaches and practices when there is a safety benefit

2) Intermediate Objectives

- Share information including evaluations among APR1400WG members to leverage resources and focus design reviews on safety issues in areas that are important to make licensing decisions including Fukushima-related issues;
- Encourage harmonization of designs through design safety review co-operation when there is a clear safety benefit;
- Document the activities of the technical expert subgroups through technical reports and common positions;
- Provide a forum for feedback of design related issues during the early phase of commissioning and operation.

3) 2017-2018 MDEP APR1400WG Work Plan

- Continue to communicate timelines for sharing regulatory evaluations of the APR1400 among all APR1400WG member countries
- Plan to issue a revised Fukushima Common Position Paper to incorporate additional information about the Korean APR1400 automatic seismic trip system.
- Continue to share information on design review, construction issues and commissioning activities including significant events during the commissioning.
- Continue to share information among APR1400WG members in the areas such as Severe Accidents – SA (Lead: UAE), Accidents and Transients – A&T (Lead: USA). These groups should perform the following:
 - The TESGs should carry out tasks according to the work plan which contain the description and scope of issues to be addressed to the APR1400WG and report on the status at every APR1400WG meeting
 - TESGs meet as needed to exchange information on relevant aspects of the design review
 - Share relevant evaluations, including significant licensing/technical challenges and/or their resolutions
 - Produce technical expert subgroup technical reports on subjects 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 APR1400WG common positions, especially on important safety evaluation conclusions
 - Post evaluations, positions, reports, etc. in the MDEP library
- When necessary, plan and conduct design-related inspections to ensure adequate design configuration control, quality assurance, and acceptability of structures, systems, and components of the APR1400 (appropriate coordination with VICWG)
- Provide recommendations, when appropriate, to the STC for considering possible items as topics to address generically
- Provide recommendations, when appropriate, to issue-specific working groups and other design-specific working groups regarding addressing important issues relevant to design safety reviews

4) Outputs of the APR1400WG during 2017/2018

- Technical Report on the APR1400 Design Differences
- Common Position on In-vessel Down Stream Effects
- Revision of APR1400 Fukushima Common Position Paper
- Initial draft of Common Position Paper on the Fuel Pellet Thermal Conductivity Degradation
- Technical Report on the Molten Core Concrete Interaction (MCCI) for the APR1400
- Technical Report on the Prevention and Mitigation Measures against Severe Accident.

5) Key Stakeholders with whom the APR1400WG members will interact

- Other non-APR1400WG regulators when appropriate (care taken to NOT share proprietary or sensitive info inappropriately)
- CNRA (WGRNR, WGOE, etc.)
- KHNP, KNF, KEPCO E&C, ENEC, -and other applicants/licensees/operators, as applicable
- Other Groups as appropriate to further enhance the MDEP goals

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