Multinational Design Evaluation Programme (MDEP)

An initiative taken by national safety Authorities to leverage resources and knowledge for new reactor design reviews and to explore potential regulatory harmonisation paths

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Chair, MDEP Policy Group

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MDEP Membership

➤ Current MDEP members: Canada, China, Finland, France, Japan, Republic of Korea, Russian Federation, South Africa, the United Kingdom, and the United States
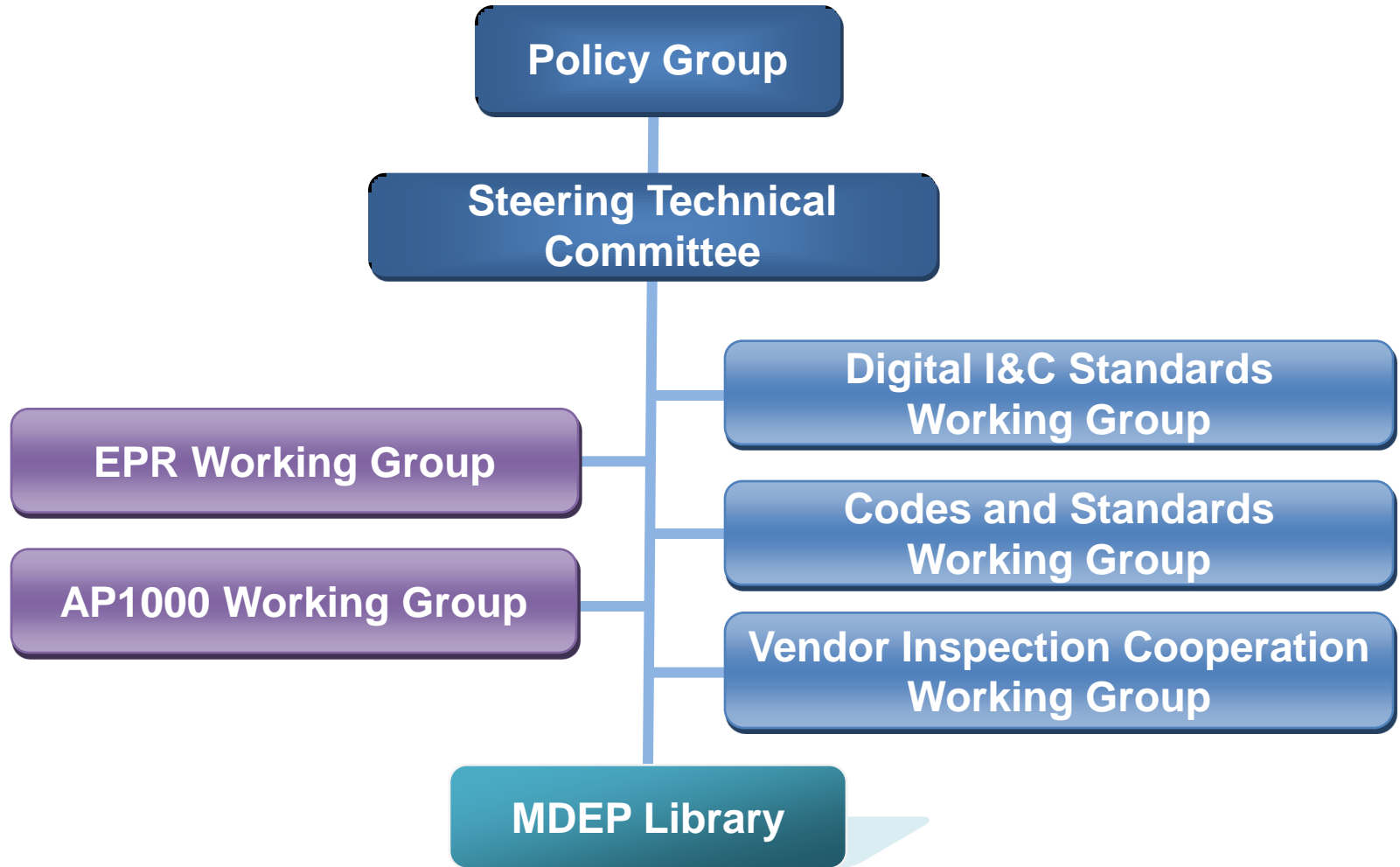
➤ Terms of Reference revised to define new categories for membership for potential expansion
  – MDEP Members
  – MDEP Associate Members
  – MDEP Candidates
  – Potential expansion of membership to be discussed by Policy Group in June 2011 Meeting in Paris

➤ NEA chosen to ensure the MDEP Secretariat

➤ IAEA takes part in the generic work of MDEP

MDEP Organization

Policy Group

Steering Technical Committee

EPR Working Group

AP1000 Working Group

Digital I&C Standards Working Group

Codes and Standards Working Group

Vendor Inspection Cooperation Working Group

MDEP Library

Issue and Design Specific Working Groups

Issue Specific Working Groups

➢ **Goal: to benefit from other regulators' experiences and to encourage harmonization in regulatory practices and requirements and in industry codes and standards**

Design Specific Working Groups

➢ **Goal: to share and cooperate on specific design   evaluations and construction feedback regarding design-related issues**

Design Specific Working Groups

EPR Working Group

- **Members: Finland , France, Canada, China, U.K., U.S.**

AP1000 Working Group

- **Members: U.S., China, Canada, U.K.**

Accomplishments

- **Developed Common Positions (EPR Digital I&C design, AP1000 squib valves)**
- **Shared issues identified, questions to applicant, and drafts of evaluations**
- **Identified differences among various country designs**
- **Identified additional questions for applicants based on MDEP interactions**

Issue Specific Working Group

Vendor Inspection Cooperation WG (VICWG)

➢ **Performed approximately 24 witnessed and 1 joint inspections**

➢ **Developed Inspection Protocol for conducting witnessed and joint inspections**

➢ **Compared quality assurance requirements used in the oversight of vendors with the goal of pursuing potential harmonization**

Codes and Standards WG (CSWG)

➢ **Completed comparison of pressure boundary for Class 1 pressure vessels, piping, pumps, and valves in coordination with standards development organizations (SDOs)**

➢ **Obtained commitments in principle from SDOs to work together to minimize further divergence of code requirements**

Digital Instrumentation and Control WG (DICWG)

➢ **Developed DI&C common positions**

➢ **Obtained agreement from IEC and IEEE to increase cooperation and consider MDEP common positions**

MDEP Products

Common Positions

- **Design Specific Common Positions agreed upon by members of a design specific working group. Each regulator responds independently to its applicant, taking the same position.**

- **Generic Common Positions developed by issue specific working groups. Constitute best practices, recommended by MDEP members to IAEA and standards organizations.**

- **There is no obligation for any regulatory body to follow them. If a regulatory body chooses to adopt a Generic Common Position, it is through that country's normal processes. The responsibility for regulatory decisions continues to be with the national regulator.**

MDEP Interactions

- **Goal is to communicate MDEP activities to key stakeholders**

  - **Non-MDEP Regulators**
    - **CNRA and CSNI (via the Working Group for the Regulation of New Reactors)**
    - **WENRA**

  - **International organizations**
    - **IAEA (attends generic MDEP meetings), GIF, EC**

  - **Industry**
    - **Vendors, licencees, standards development organizations (ASME, JSME, AFCEN, CSA, NIKIET, KEA, IEEE, IEC, etc.), WNA and other industry organizations**

  - **Second MDEP Conference on New Reactor Design Activities 15 – 16 September 2011 at OECD Headquarters in Paris**

  - **Public : each regulator should take the lead in its own country, and information may be found at the MDEP public website www.oecd-nea.org/mdep**

Summary

MDEP is Supporting Safety Design Reviews

MDEP is Supporting Harmonisation where Safety will be enhanced

MDEP is Communicating with Stakeholders about its Activities

MDEP continues to be a unique and key program for new build activities for the mid and long term