

 **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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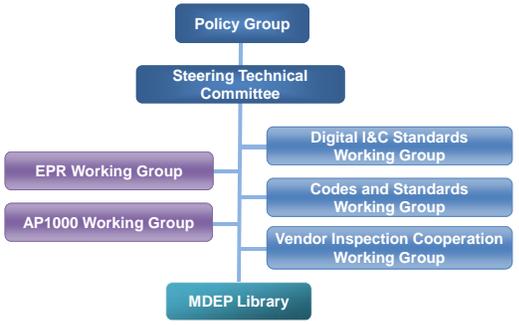
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 **MDEP Membership**

- 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

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 **MDEP Organization**



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graph TD; PG[Policy Group] --> STC[Steering Technical Committee]; STC --> EWG[EPR Working Group]; STC --> AP1000[AP1000 Working Group]; STC --> DICS[Digital I&C Standards Working Group]; STC --> CS[Codes and Standards Working Group]; STC --> VICO[Vendor Inspection Cooperation Working Group]; STC --> ML[MDEP Library];
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 **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

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 **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

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 **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

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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.

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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, licensees, standards development organizations (ASME, JSME, AFCEN, CSA, NIKIET, KEA, IEEE, IEG, 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

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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

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