

## MULTINATIONAL DESIGN EVALUATION PROGRAMME (MDEP)

### Terms of Reference (TOR)

#### Background

The Multinational Design Evaluation Programme (MDEP) is a multinational initiative taken by national safety authorities to develop innovative approaches to leverage the resources and knowledge of the national regulatory authorities involved in the review of new reactor power plant designs.

MDEP incorporates a broad range of activities including:

- An enhanced multilateral co-operation within existing regulatory frameworks, with a view to harmonisation<sup>1</sup> of regulatory requirements and practices;
- Facilitating multinational convergence of safety standards and safety goals through interactions with standards development organizations, other multinational organizations, and industry;
- The implementation of the MDEP products to facilitate licensing of new reactors as well as oversight of their construction.

A key concept throughout the work of the MDEP is that national regulators retain sovereign authority for all licensing and regulatory decisions.

#### Objective

The main objective of the MDEP effort is to enable increased co-operation and establish reference regulatory practices to enhance the safety of new reactor designs. The enhanced co-operation among regulators will strengthen the effectiveness and efficiency of the regulatory design reviews, which are part of each country's licensing process. MDEP should focus on co-operation on regulatory practices that will culminate in harmonisation of regulatory requirements. The IAEA safety standards, which provide a general level of harmonisation, provide input to the work and can benefit from the final results. Progress towards harmonised regulatory practices and requirements for Generation IV reactor design will be a natural outgrowth of MDEP. It is expected that this will also:

- Enable and encourage safer global standardised reactor designs;
- Facilitate co-operation between regulators on the design reviews of new reactors, including regulators from new entrant countries;

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<sup>1</sup> Process of bringing the requirements to a certain point where they do not contradict each other and reflect a similar view of safety

- Enhance public understanding of the international progress toward harmonisation of safety goals.

## **Scope**

The focus of the MDEP is on enhanced co-operation, in specific technical areas and within existing regulatory frameworks, on design reviews and vendor inspections, facilitated by establishing common regulatory positions. The programme of work will be developed by the Steering Technical Committee (STC) and proposed to the Policy Group (PG) for approval.

## **Expected outcomes and outputs**

The expected results of the MDEP are to:

- Increase knowledge transfer through the exchange of information on regulatory practices used by the regulators in their design reviews including the technical evaluations, codes, standards and safety goals, inspection practices, licensing requirements, safety research, operating experience, etc.;
- Identify similarities and differences in the regulatory practices and obtain insights to better understand the technical basis for the differences;
- Move towards harmonisation of regulatory requirements, including convergence on common regulatory positions in order to facilitate more efficient and effective design reviews;
- Increase stakeholders understanding of regulatory practices on an international basis;
- Enhance public confidence that equivalent safety outcomes are being sought by the different MDEP member countries;
- Enhance the ability of regulators to co-operate in reactor design reviews, vendor inspections, construction oversight, commissioning and early phase operation leading to more efficient and more safety-focused regulatory decisions.

In completing its work, it is anticipated that the MDEP products would constitute a very useful input to upgrade the IAEA safety standards.

## **Membership**

MDEP members are national regulatory authorities of interested countries that already have commitments for new build or firm plans to have commitments in the near future for new reactor designs. They participate in the PG, STC activities, and working groups addressing the specific design(s) and issue(s) of interest.

Current MDEP members are listed in Appendix 1.

New members are accepted after review by the PG of the applicant's response to the MDEP membership application questionnaire that addresses MDEP criteria, and consensus from the PG.

The IAEA is invited to participate in the issue-specific working groups, the STC and the PG, in order to maximise the benefit of the harmonisation work carried out by MDEP.

## **MDEP implementation**

MDEP should be implemented under the PG and the STC guidance, with the OECD Nuclear Energy Agency (NEA) serving as the technical secretariat. Two lines of activities should be established to carry out the work, each following particular terms of reference.

### **Design-specific activities**

Working groups for each new reactor design share information and co-operate on specific reactor design reviews, construction and commissioning oversight, and early phase operation. Participants in these working groups are members who are interested in a specific reactor design and are willing and capable of contributing positively to the group's activities. A design-specific working group would be formed if three or more members express interest in working together. The design-specific working groups and members are listed in Appendix 2.

### **Issue-specific activities**

Working groups should be organised for the technical and regulatory process areas identified by the STC and approved by the PG. These current issue-specific working groups are detailed in Appendix 2. Participation in such working groups is open to all members based on a desire for active involvement in the topic and a commitment to provide and share up to date information with the MDEP members through meetings and other methods of communication. IAEA, while not a regulator, is welcomed to participate in the working groups.

### **Non-disclosure and proprietary information exchange**

Appendix 3 contains a non-disclosure and information exchange protocol to support sharing of proprietary design information in order to fully realise the benefits of the information exchange within MDEP, including within its design-specific and issue-specific working groups.

## Organisation

The programme of work is governed by the PG and implemented by the STC, each of them consisting of representatives from each of the MDEP members.

The PG:

- Provides guidance to the STC on the overall approach including establishment of new working groups;
- Approves the closure of the working groups on the recommendation of the STC;
- Monitors the progress of the programme of work in terms of results and timeliness;
- Provides guidance on the interaction with industry and other stakeholders;
- Establishes financial terms by setting a yearly membership voluntary contribution to cover the MDEP common costs;
- Determines participation in MDEP.

The chair of the PG is elected by consensus of all PG members and generally serves a term between three to five years.

The STC:

- Manages and approves the detailed programme plan for each working group, including defining topics and working methods, establishing technical experts subgroups, nominating experts;
- Takes on important cross-cutting issues to be addressed by the STC itself or a subcommittee of the STC; or identifies other appropriate organizations to address the issue;
- Approves technical reports and common positions developed by the working groups<sup>2</sup>;
- Ensures co-ordination and interaction of the activities performed by design-specific and issue-specific groups;
- Establishes interfaces with other international organizations such as NEA (CNRA and CSNI), IAEA and WENRA to benefit from available work and avoid duplication. Interacts, as needed, with the GIF and INPRO to ensure effective communication and alignment with activities in similar areas;
- Implements PG guidance on interacting with industry and other stakeholders;

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<sup>2</sup> MDEP members can, at their convenience, translate technical reports or common positions published on the MDEP webpage <https://www.oecd-nea.org/mdep/>, providing the translation includes the document's cover and refers to the published English version on the MDEP webpage as the only official document.

- Develops procedures, with the support of the NEA Technical Secretariat, for the functions of the STC and working groups, including the handling of information to be shared;
- Reports progress of the working groups to the PG;
- Proposes to the PG additional design specific working groups to exchange information and produce reports identifying opportunities for convergence on reference regulatory practices;
- Proposes to the PG the completion of working groups or transition of the functions of working groups to other organisations, when appropriate;
- Performs assessment of the effectiveness of MDEP every 3 years.

When a vacancy occurs, the STC proposes by consensus a new chair to the PG for its approval. The STC chair generally serves a term between three to five years.

It is expected that the leadership of the MDEP (i.e. the chairs of the PG, STC, and working groups) should reflect the MDEP membership.

The present Terms of Reference have been agreed by the MDEP members (see List in Appendix 1).

# **MULTINATIONAL DESIGN EVALUATION PROGRAMME (MDEP) Terms of Reference (TOR)**

## **Appendix 1**

### **List of members**

Current MDEP members are the national regulatory authorities of:

- Argentina;
- Canada;
- the People's Republic of China;
- Finland;
- France;
- Japan;
- Hungary;
- India;
- the Republic of Korea;
- Russian Federation;
- South Africa;
- Sweden;
- Turkey;
- United Arab Emirates;
- the United Kingdom;
- the United States.

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**Appendix 2**

**List of Working groups and members**

<b>Working group</b>		<b>Member Regulators from</b>
Design specific	EPR	<ul style="list-style-type: none"> <li>• China</li> <li>• Finland</li> <li>• France</li> <li>• India</li> <li>• Sweden</li> <li>• the United Kingdom</li> </ul>
Design specific	AP1000	<ul style="list-style-type: none"> <li>• Canada</li> <li>• China</li> <li>• the United Kingdom</li> <li>• the United States</li> </ul>
Design specific	APR1400	<ul style="list-style-type: none"> <li>• Korea</li> <li>• the United Arab Emirates</li> <li>• the United States</li> </ul>
Design Specific	VVER	<ul style="list-style-type: none"> <li>• China</li> <li>• Finland</li> <li>• Hungary</li> <li>• India</li> <li>• Russia</li> <li>• Turkey</li> </ul>
Design Specific	HPR1000	<ul style="list-style-type: none"> <li>• Argentina</li> <li>• China</li> <li>• South Africa</li> <li>• the United Kingdom</li> </ul>
Issue specific	Vendor Inspection Co-operation (VICWG)	All interested MDEP members + the IAEA

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## **Appendix 3**

### **NON-DISCLOSURE AND PROPRIETARY INFORMATION EXCHANGE PROTOCOL**

This **NON-DISCLOSURE AND PROPRIETARY INFORMATION EXCHANGE PROTOCOL** is made between the members of the Multinational Design Evaluation Programme (“MDEP”)

**CONSIDERING** that pursuant to the terms of reference, the main objective of the MDEP is to enable increased co-operation among nuclear regulators and establish reference regulatory practices to enhance the safety of new reactor designs, with the aim to strengthen the effectiveness and efficiency of the regulatory design reviews;

**CONSIDERING** that to fulfil such objective, the members may exchange in the course of their collaboration information which may be of proprietary nature, and which requires an adequate and effective protection;

**CONSIDERING** that bilateral agreements are the most efficient means to set up the framework for a free exchange of proprietary information, but that some members still do not have such agreements in place;

**NOW THEREFORE**, the members state as follows:

#### **SECTION 1**

##### **PURPOSE OF THE PROTOCOL**

1. The protection, use and disclosure of proprietary information that may be provided by one member to another, for the purpose of implementing the MDEP Programme of Work developed by the Steering Technical Committee (STC) and approved by the Policy Group (PG) is to be governed by the provisions set forth in this protocol.

## **SECTION 2**

### **DEFINITION OF PROPRIETARY INFORMATION**

2.1 “Proprietary Information” means trade secret information of any kind, including but not limited to trade secret information of a business, planning, marketing, or technical nature, disclosed by a disclosing member to a receiving member for the purpose of implementing the MDEP Programme of Work, regardless of the form in which such information may exist and has been disclosed; provided that such information may have economic value and has been held in confidence. Such information would be explicitly identified as ‘PROPRIETARY INFORMATION’ by the disclosing member.

2.2 For the purposes of this protocol, the following information is not considered to be proprietary information:

- (i) Information which is in the public domain at the time of receipt, or comes into public domain thereafter; or
- (ii) Information which was, and can be shown by credible evidence, to have been, known to the receiving member on an unrestricted basis prior to disclosure by the disclosing member; or
- (iii) Information which was or is lawfully disclosed to the receiving member on an unrestricted basis by a third party having the full right and authority to disclose it; or
- (iv) Information which was or is independently developed by the receiving member without use of the proprietary information, as can be shown by credible evidence.

2.3 When a member that provides proprietary information under this protocol informs members that received the information that such information is no longer proprietary, the information is no longer to be considered proprietary.

## **SECTION 3**

### **CONFIDENTIALITY**

3.1 Each of the member regulators, including staff from their technical support organisations, who may receive the proprietary information on a “need to know” basis, is to hold in confidence all information which was identified at the time of disclosure as being proprietary information, and is not to disclose such proprietary information to third parties without the prior consent of the disclosing

member. Receiving members are to follow their countries' laws, regulations and procedures for obtaining authorization from disclosing members.

3.2 The receiving member is to take reasonable steps to protect such proprietary information against unauthorised disclosure; and ensure that its employees and staff from their technical support organisations, who may receive the proprietary information on a "need to know basis" are advised of the restrictions on disclosure and use of the proprietary information.

3.3 In case the disclosure of proprietary information is required by law or regulation, the receiving member is to inform the disclosing member prior to the effective disclosure of the concerned proprietary information. Receiving members are encouraged to utilize domestic laws and regulations available to preserve the proprietary nature of the information in such circumstances.

3.4 The withdrawal of this protocol does not mean that the proprietary information becomes public or stop being proprietary. Members are to seek to preserve the proprietary nature of proprietary information until informed by the disclosing member that it is no longer proprietary.

## **SECTION 4**

### **USE OF PROPRIETARY INFORMATION**

4. The proprietary information provided by a disclosing member to a receiving member is to be for the sole purpose of implementation of the MDEP Programme of Work. In this regard, proprietary information is to be shared solely within working groups that have a "need to know", based upon particular working group activities. A receiving member that is unable to comply with such restrictions is to so indicate to the disclosing member, and the disclosing member is to then decide whether to disclose the information. All members are to take appropriate measures to protect proprietary information they may receive from other members against unauthorised use.

## **SECTION 5**

### **APPLICABILITY**

5. The withdrawal from the MDEP by a member or the termination of the MDEP shall not affect the obligations of withdrawing members under this Protocol.