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NUCLEAR ENERGY AGENCY RADIOACTIVE WASTE MANAGEMENT COMMITTEE

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RWMC SUPPORT TO MEMBER COUNTRIES AND RELATIONSHIP WITH THE IAEA, EC AND OTHER ORGANISATIONS

This documents provides information on how the work of the NEA/RWMC supports the needs of NEA member countries and how it differs from, and complements, the related work of the IAEA and EC. In particular, the document reviews the respective roles and specificities of these organisations and their modus operandi, including co-operation and co-ordination mechanisms.

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1. Introduction

The purpose of this paper is to provide information on how the work of the Radioactive Waste Management Committee of the Nuclear Energy Agency (NEA/RWMC) supports the NEA member countries and how the NEA and the RWMC differ from, and complement, the related work and roles of the International Atomic Energy Agency¹ (IAEA) and the European Commission (EC).

2. The RWMC, its Role within the NEA, and its Focus Areas

The NEA is made up of member countries with active and advanced waste management programmes and the RWMC programme activities provide an opportunity to share experience from the diverse perspectives of developers, regulators, researchers and policy makers.

The goal of the NEA radioactive waste management activities, as reflected in the NEA Strategic Plan², is: "To assist member countries in the area of management of radioactive waste and materials, focusing on the development of strategies for the safe, sustainable and broadly acceptable management of all types of radioactive waste, in particular long-lived waste, and spent fuel."

The RWMC is one of the seven NEA Standing Technical Committees. In the context of the overall NEA mission to *"forge common understandings as input to government decisions and policy analyses"*, the RWMC general objective is to assist member countries and facilitate the exchange of experience on the management of radioactive waste and materials.

The Committee focuses on the development of strategies for the safe, sustainable and acceptable management of all types of radioactive waste and materials, in particular, long-lived waste and spent fuel. In the development of these strategies, the RWMC gathers the expertise of nearly all countries with considerable and advanced programmes in waste management.

The RWMC operates at policy and strategy level and examines issues at the cross-section of technical, regulatory and societal interests and demands. Safety is the common denominator of the work of the RWMC and its working parties.

A large part of the programme of work of the RWMC is conducted through discipline-oriented working parties in the areas of safety assessment methodology (IGSC), decommissioning (WPDD), and issues related to stakeholder involvement and confidence in radioactive waste management solutions (FSC). In addition, RWMC members from regulatory authorities meet in the Regulators' Forum (RF) on issues of specific regulatory significance. Finally, the RWMC participates in programmes to develop new technologies for waste conditioning and long-term management.

¹ Additional information, more broadly addressing the relationship between the NEA and the IAEA, is in a paper by Dr. Gail H. Marcus, Deputy Director-General of the NEA, "The NEA and the IAEA: Partnering for Progress' [*NEA News, 2005 (No. 23-2)*].

² See the Summary of the Strategic Plan of the Nuclear Energy Agency: <u>http://www.nea.fr/html/nea/strat05-summary.pdf</u>

3. **RWMC Support to Member Countries**

RWMC offers an efficient and effective way to gain the benefits of member country extensive experience through multilateral exchanges and joint initiatives. In particular, with its working parties, the RWMC pools the world's best waste management expertise among developed countries, all democratic with market economies, to address in-depth scientific, technical work in this area. The homogeneity of the RWMC member countries enables prompt and efficient response to member countries' needs. At the same time, the diverse RWMC membership, representing regulators, developers, researchers, and policy makers, all of whom are nominated by the countries they represent, enables sharing of perspectives from a number of view points on important waste management issues.

The NEA/RWMC activities benefit member countries by:

- i. bringing about a shared and broad-based understanding on the management of radioactive waste and materials, particularly in the long-lived waste area;
- ii. facilitating the elaboration of waste management strategies at national and international level;
- iii. helping elaborate common regulatory vision and approaches in the management of radioactive waste materials; and
- iv. enabling the management of radioactive waste and materials to benefit from progress of scientific, technical and societal knowledge.

The mechanisms employed to provide each of these benefits are described in the Annex to this paper.

4. Relationship to IAEA

With regard to its relationship with the IAEA, a goal identified in the NEA strategic plan is "to ensure complementarity and increase synergy with the International Atomic Energy Agency (IAEA) ... to optimise resources, capitalise on NEA expertise and disseminate the results of NEA work to a wider audience."

This goal is to be achieved by NEA activities to enhance co-operation with the International Atomic Energy Agency (IAEA) and undertake additional efforts to maintain the different profiles of the two agencies by:

- ensuring full implementation of the co-ordination and consultation mechanisms provided for in the existing Agreement between the two agencies;
- co-ordinating with the IAEA to maintain the complementarity of the two agencies' programmes;
- undertaking activities jointly with the IAEA in appropriate areas and when organising meetings and international conferences;
- benefiting from the participation of non-member countries in NEA activities through the IAEA, whenever the principle of added value is met;
- transmitting the results of NEA work to the IAEA so that they can also be applied outside the NEA; and
- ensuring cross-participation in the governing bodies and relevant committees of the two agencies.

In comparison with the NEA, the functions of the IAEA are broader, and the IAEA member states are more extensive. In addition to the common interests in safety for nuclear facilities and materials, the IAEA mandate includes safeguards in support of non-proliferation of nuclear weapons and nuclear explosive devices, security, transportation, and technical support to less developed countries. Also, within the safety

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context, the IAEA main focus is on development of IAEA Safety Standards and guidance documents (primarily for the purpose of establishing reference standards that must be adopted by countries that receive IAEA financial aid), whereas the NEA focus is on the sharing of the vast experience between the member countries on their advanced nuclear programmes, and focusing its attention on documentation of the evolving state of the art and resolution of issues relating to the member country advanced national nuclear programmes. Regarding members, the IAEA member states include states with all types of economies and in all stages of nuclear development, from those with no or very limited nuclear activities to states with extensive nuclear programmes. Members of the NEA are instead only market economies and democracies with an extensive experience in commercial use of nuclear power.

Although unlike the IAEA, the NEA and RWMC do not have a mission of transfer of knowledge to less developed countries and do not develop standards that member countries have to adopt, when interfacing with the IAEA, the work of the RWMC typically provides a suitable technical basis for the IAEA standards activities. Not only is this helpful to the IAEA, but it is also of service to NEA member countries in that it facilitates, at the initial drafting stage, that views and experience of institutional experts from NEA member countries are taken into account. When the IAEA and RWMC share common interests, the joint participation provides synergistic benefits and efficiencies.

5. The nature of working groups at NEA and IAEA

Both NEA and IAEA engage individual experts and expert groups to support the work of the respective organisation, however the nature of the work of the Secretariat and the role of the expert groups differ.

The NEA's products are not products of the permanent staff or consultants, but rather products of its committees and working parties. To this end the committees and working parties develop products under their responsibility, and any delegate in the work is a recognised representative of the country that nominates him/her. At term, the output represents the member countries' shared understanding of commonalities and differences. It is also understood that the current views are not binding and will likely evolve in the future. It is the role of the NEA Secretariat to facilitate this co-operation and, when applicable, make available to the groups its specialist knowledge. In order to represent as many viewpoints as possible from the member countries, delegates to each NEA working group typically come, for each country, from multiple national institutions. Thus implementers, R&D specialists, policy makers, and regulators have a concurrent examination of the problem at hand.

The IAEA groups, while also representing a high level of expertise, gather firstly in a role to support the Agency in its work and to advise the IAEA Secretariat and guide it on the development and implementation of its programmatic activities. The lead role of the Secretariat and the supporting role of the experts acting as individuals is thus a characteristic of the IAEA work. In the area of the IAEA safety standards programme, however, a formal and extensive system is applied to review the Secretariat's work, involving experts in member states and a system of working groups to bring in expertise and views that are representative of the national level. This higher level of review is due to the fact that final documents are provided with a view to inform national regulations and should represent a reasonably stable body of guidance for several years.

By the same token, international peer reviews are carried under the aegis – not the lead - of the NEA and are meant to provide recommendations for future improvement. The NEA-organised peer reviews do verify that international good practices are followed, but do not make reference to abiding to a body of international rules or regulations, as the NEA is not mandated to implement or judge any such kind of international guidance. Peer reviews on the IAEA side, on the other hand, do bear the mark of an official IAEA product and do carry a connotation of verification that some internationally-specified IAEA guidance is followed.

As noted earlier, the RWMC is made up of member countries with active and advanced waste management programmes, and thus represents for these countries an important opportunity to efficiently and effectively gather experience from the diverse perspectives of developers, regulators, researchers and policy makers. Unlike the RWMC, the membership in working groups at the IAEA tend to privilege one or another institutional affiliation.

6. **Relationship to EC**

The EC has a more regional and focussed nature than the NEA. The latter comprises only the more nuclear-advanced members of the European Union (EU) as well as members from other global regions. Accession to the EU does not imply membership in the NEA. The EC has, however, the status of a member of the OECD and the NEA, and this special relationship provides excellent in-roads to the respective programmes of work, both for the NEA and the EC. Thus, the NEA research work has benefited from EC initiatives and vice-versa.

The goal "to ensure complementarity and increase synergy with ... other international bodies as well as to optimise resources, capitalise on NEA expertise and disseminate the results of NEA work to a wider audience" formulated in the NEA strategic plan applies as well to the RWMC interaction with the European Commission (EC).

NEA activities to enhance interaction with the EC address this goal by:

- holding periodic co-ordination meetings and organising cross-participation in relevant activities;
- undertaking activities necessary to help OECD members benefit from the results of activities sponsored by the EC, i.e., ensuring timely feedback on results from the EC framework programme for R&D; and
- helping the EC to benefit from NEA results in its formulation of work programmes and policies.

7. The nature of working groups at NEA and EC

The EC has the mandate of promoting both research in the EU states and policy position.

In the case of research, the EC uses a highly formalised process to set up research projects amongst EU member organisations, to which partners from non-EU countries may also participate. Calls for project proposals are made at regular intervals according to annual work programmes established by the EC as part of multi-annual research Framework Programmes adopted unanimously by the member states. These Framework Programmes have strategic and political objectives in addition to purely scientific ones. The latest programme is combating fragmentation in EU research and encouraging greatly increased cooperation where this can lead to added value at the level of the EU. Research projects are selected for EU funding by independent experts contracted by the EC. Most projects are of a shared-cost nature and depending on the consortium, partners will bring in both public and private sector finance in addition to the allocated EU funds. The results of this research are owned by the consortium partners, and may also be used in the formulation of EU policies and subsequent work programmes. The NEA projects are set up upon proposal and funding by member countries and require continued approval by them. Thus, control is always in the hands of the member countries and the result of any work is owned by them. The other main differences between the two organisations are much lower budgets within the NEA, and less reliance on consultants. The NEA also uses the mechanism of in-kind financing of projects, highlighting the fact that these are truly cooperative projects.

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In the policy area, the EC staff launch work that is performed by consultants and groups in order to receive quality information for writing policy directives. In this sense, the modus operandi of the EC is rather different than that of the NEA, where no mandate exists to provide for directives. The work and documents of the NEA are, however, of sufficiently high level to be used by EC staff for their policy making tasks. It is acknowledged that such use is legitimate, and it is a practice not only of the EC but also of other NEA members.

8. Relationship to Other International Organisations

The NEA strategic plan goal "to ensure complementarity and increase synergy with ... other international bodies as well as to optimise resources, capitalise on NEA expertise and disseminate the results of NEA work to a wider audience" applies to other international groups as well.

RWMC activities to enhance interaction with other international groups include:

- co-operating with the G8 Nuclear Safety and Security Working Group, as appropriate, notably when NEA expertise is required in terms of nuclear legislation and liability or radiological emergency preparedness;
- co-operating with other bodies, such as the European Bank for Reconstruction and Development, on a case-by-case basis; and
- participating in the review of the work of the International Commission on Radiation Protection.

9. Coordination Mechanisms to leverage resources and to avoid unnecessary Overlap and Duplication

The NEA RWMC and IAEA activities are coordinated routinely, both at the planning and at the implementation stages. In particular, timely consultations are conducted when preparing each Agency's Programme of Work, and NEA and IAEA designate officers to ensure co-ordination in the implementation of the programme. Efforts are also made to co-sponsor activities where these organisations share a common interest. Also, in the case of the EC, the EC may provide resources to support specific joint initiatives.

ANNEX

MECHANISMS EMPLOYED TO BENEFIT NEA MEMBER COUNTRIES SAFETY PROGRAMMES IN THE AREA OF MANAGEMENT OF RADIOACTIVE WASTE AND MATERIALS

The NEA/RWMC radioactive waste management activities benefits member countries by:

- i. bringing about a shared and broad-based understanding on the management of radioactive waste and materials, particularly in the long-lived waste area by:
 - providing multidisciplinary fora for exchanging information and experience and for promoting an open dialogue amongst waste management implementers, regulators, policy specialists at government level, research and development specialists and stakeholders;
 - issuing collective opinions on topical issues; and
 - preparing documents and databases on national waste management frameworks and approaches for technical specialists as well as decision makers, opinion formers and stakeholders.
- ii. facilitating the elaboration of waste management strategies at national and international level by:
 - reviewing strategies adopted by member countries with a view to identify and analyse emerging technical and policy issues, and improve understanding and consensus;
 - organising peer reviews of national programmes for such activities as research and development and performance assessment, as requested;
 - examining and improving approaches for performing long-term safety analyses and for documenting safety cases;
 - examining criteria for stepwise decision making;
 - o preparing good practice documents; and
 - o liaising with other relevant, international institutions.
- iii. helping elaborate common regulatory approaches in the management of radioactive waste by:
 - identifying and analysing emerging regulatory issues associated with the waste management strategies of member countries;
 - promoting the dialogue between waste management implementers and regulators to identify and address future regulatory challenges and integrate technical and non-technical approaches; and
 - reviewing regulatory bases, requirements and criteria, and licensing processes with a view to support regulatory approaches.
- iv. enabling the management of radioactive waste and materials to benefit from progress of scientific and technical knowledge by:
 - reviewing the state of the art of scientific and technical bases of geological disposal concepts and decommissioning technology for nuclear facilities with a view to identify

areas where additional efforts are required;

- promoting co-operative efforts to compile internationally applicable data and information, and benchmarking exercises;
- promoting joint technical initiatives in support of repository development and decommissioning technologies;
- promoting initiatives to maintain relevant competencies, as well as the accumulated knowledge, within organisations during the execution of long-term waste management and decommissioning projects; and
- promoting initiatives to transfer current waste management and decommissioning knowledge to future nuclear systems, including new fuel cycles.