

**RADIOACTIVE WASTE MANAGEMENT COMMITTEE (RWMC)**  
**Summary Record of the 47th Session**  
**Paris, 26-27 March 2014**

The 47th session of the Radioactive Waste Management Committee (RWMC) took place in Paris on 26-27 March 2014. This document provides a summary record as well as: a summary of the main items and decisions (Annex 1); the list of written materials made available for the meeting (Annex 2); and the list of participants (Annex 3). All materials are downloadable from the RWMC restricted web page.

	<b>INTRODUCTION</b>	
<b>1.</b>	<p><b>WELCOME AND OPENING REMARKS</b>  <i>Jean-Paul MINON, RWMC Chairperson</i></p> <p>Mr. Jean-Paul Minon welcomed the participants and the invited experts to the 47th meeting of the RWMC. He noted that there were over 60 participants registered from 19 countries, the IAEA and the EC. He gave a special welcome to new RWMC members, from the Republic of Korea, Slovenia, and Switzerland.</p>	
<b>2.</b>	<p><b>RECENT DEVELOPMENTS WITHIN THE NEA AND THE OECD</b>  <i>Luis E. ECHÁVARRI (NEA Director-General)</i></p> <p>Mr Luis E. Echávarri briefed on the OECD NEA activities regarding Fukushima Daiichi accident, and introduced a recent OECD NEA publication 'The Fukushima Daiichi Nuclear Power Plant Accident: OECD/NEA Nuclear Safety Response and Lessons Learnt' (No. 7161, OECD NEA 2013), reporting on immediate response by NEA member countries and NEA actions in follow-up to the Fukushima Daiichi accident. NEA's intensive dialog with China continued, and China will present at the 128th Meeting of the Steering Committee for Nuclear Energy (April 2014). Previous 127th Meeting of the Steering Committee (October 2013) was followed by a policy debate on decommissioning.</p> <p>Mr Echávarri reminded the RWCM that he is leaving the NEA in April 2014 after nearly 17 years of his service. He summarized the main achievements of the NEA in radioactive waste management during this period, and he thanked Member Countries for their contribution and the Secretariat for their support.</p> <p>Mr Jean-Paul Minon thanked Mr Luis Echávarri, for his constant support of the RWMC over the years. Mr Minon highlighted Mr Echávarri's role in establishing the Working Party on Decommissioning and Dismantling, and the Forum of Stakeholders Confidence, as well as his support of the Reversibility &amp; Retrievability project and RWMC's peer review activities.</p>	

3.	<b>ADOPTION OF AGENDA</b> <i>Jean-Paul MINON, RWMC Chairperson</i> <b>Decision:</b> The Agenda of the meeting was adopted as proposed.		<a href="#">NEA/RWM/A(2014)2</a>
4.	<b>APPROVAL OF THE SUMMARY RECORD OF RWMC-46</b> <i>Jean-Paul MINON, RWMC Chairperson</i> <b>Decision:</b> The Summary Record of RWMC-46 was approved.		<a href="#">NEA/RWM/M(2013)1</a>
<b>INTERNATIONAL DEVELOPMENTS IN RWM IN THE YEAR PAST</b>			
5.	<b>EUROPEAN COMMISSION</b>		
5.a.	<b>DEVELOPMENTS AT A POLICY LEVEL</b> <i>Thomas KIRCHNER, EC DG ENER</i>  Mr Thomas Kirchner informed the RWMC on climate and energy goals for a competitive, secure and low-carbon EU economy to be met by 2013, and updated on the main actors in the EC Directorate General for Energy (DG ENER). Mr Kirchner further briefed on current status of Member States' implementation process of the EC Directive 2011/70/ EURATOM, on ENSREG WG2 work on Directive's guidelines, on support of small Member States in responding to Directive, and on EC coordination with IAEA's ARTEMIS (see also item 6.).	Presentation	
5.b.	<b>DEVELOPMENTS IN THE R&amp;D PROGRAMME</b> <i>Christophe DAVIES, EC DG Research and Innovation</i>  Mr Christophe Davies summarized main drivers, method of work and main achievements in geological-disposal related activities supported by the EC 7 <sup>th</sup> Framework Programme (2007-2013). Mr Davies also informed the committee on key messages of EURADWASTE '13 Conference (14-16 October 2013, Vilnius, Lithuania), and on Horizon 2020 (Framework Programme 2014-2018) with focus on programmes in RWM and geological repository.	Presentation	
6.	<b>DEVELOPMENTS IN THE IAEA PROGRAMME</b> <i>Irena MELE, IAEA official observer</i>  Ms Irena Mele informed the RWMC on recent activities concerning preparation of the IAEA report on Fukushima, on peer review missions to Japan and the Russian Federation, and on establishing the ARTEMIS (new IAEA peer review service for RWM and SF management, decommissioning and remediation). Ms Mele also informed the group about recent IAEA publications, status of IAEA international projects and working groups, the CONNECT information platform, and on planned activities.		Presentation

	<p>Discussion: Outputs from the IAEA Peer Review Missions to Fukushima are downloadable from the public IAEA website. Concerning the international peer review on the application of international safety standards to the liquid RWM practices in the Russian Federation, a mission report is being reviewed, and has not yet been released to public domain.</p> <p>A new project on costing methods and financing schemes for waste disposal has been launched by the IAEA, with a first consultancy meeting in May 2014. This project, as explained by Ms. Mela, is meant to be complementary to recent IAEA and NEA achievements in costing methodologies for decommissioning.</p>	
<b>7.</b>	<p><b>OVERVIEW OF RWMC ACTIVITIES AND PUBLICATIONS</b> <i>Claudio PESCATORE (NEA Secretariat)</i></p> <p>Mr Claudio Pescatore summarized the publications issued under the auspices of the RWMC since RWMC-46 (March 2013).</p> <p>Mr Jean-Paul Minon highlighted that these documents are important for consolidation and transfer of knowledge in RWM, disposal and D&amp;D.</p>	<p><a href="#">List</a> of Publicly Available NEA Documents</p> <p>List of RWM-related International NEA Events Presentation</p>
<b>THE RWMC PROGRAMME OF WORK</b>		
<b>8.</b>	<p><b>WORKING PARTIES ACHIEVEMENTS AND PLANS</b></p>	<a href="#">NEA/RWM(2014)1</a>
8.a.	<p>IGSC + Report from IGSC symposium <i>Klaus-Jürgen RÖHLIG, IGSC Chair (TUC, Germany)</i></p> <p>Mr Klaus-Jürgen Röhlig informed the RWMC on the main work directions of the IGSC, on activities of the Clay Club, Salt Club, on the drafting of a position paper on gas issues in geological disposal, on continuing work on FEP database, on the Expert Group on Operational Safety established in 2013, and on the recently launched RepMet project on data management. Mr Röhlig also informed the RWMC on the organisation and main observations of the Safety Case Symposium (7-9 October 2013, OECD, Paris). Besides continuing to work on current IGSC projects, the IGSC may seek cooperation with the FSC, e.g., on monitoring and on communication aspects concerning the safety case.</p>	Presentation
8.b.	<p>FSC <i>Holmfridur BJARNADOTTIR, FSC Chair (KASAM, Sweden) [via visio conference]</i></p> <p>Ms Holmfridur Bjarnadottir briefed on the FSC's aims, mode of work</p>	Presentation

		<p>and current status of FSC organisation. Membership has been renewed importantly in 2013. Revision of the Programme of Work is on-going. 14<sup>th</sup> plenary meeting (September 2013, NEA) focused on new FSC member countries (Republic of Korea, Russian Federation) and held a topical session on transparency and changing dynamics of interaction among RWM institutions and stakeholder confidence. Future focus will be placed on updating the FSC strategic document and some older FSC publications, and on cooperation with other RWMC projects and NEA technical standing committees.</p> <p>In the discussion it was noted, that, in 2013, the FSC exchanged with the NEA Nuclear Law Committee on the application of the Aarhus convention on the issue of early involvement of the public. Ms. Bjarnadottir, prior to ending her presentation, requested the RWMC to extend the mandate of the FSC.</p> <p><b>Decision: the RWMC granted a 2-year extension to the FSC.</b></p>	
8.c.	<p>WPDD <i>Juan Luis SANTIAGO, WPDD Chair (ENRESA, Spain)</i></p> <p>Mr Juan Luis Santiago informed that the 14<sup>th</sup> plenary meeting (November 2013) held a topical session on preparing for decommissioning while in operation and after final shutdown. The Task Group on R&amp;D and Innovation Needs has completed its work. The Task Groups on Radiological Characterisation and the Decommissioning Cost Estimation Task Group continue working on new subjects after completion of their previous tasks. The Task Group on Nuclear Site Restoration has been launched. Mr Santiago also informed the committee on the current status of the Cooperative Programme for Decommissioning and their recent activities – a platform for exchange of scientific and technical information amongst recent and ongoing decommissioning projects participating in the Programme.</p>	Presentation	
		<p><b>Decision: The RWMC appreciates the work of its subordinate parties. The Working Parties are invited to continue their efforts in the area of knowledge consolidation and transfer.</b></p>	
<b>9.</b>	<b>REGULATORS' FORUM</b>		
9.a.	<p>Overview of RF-17 <i>Georg ARENS, RF Chair (BMU, Germany)</i></p> <p>Mr Georg Arens informed the RWMC about the main outputs of the 17<sup>th</sup> meeting of the Regulators' Forum (24-25 March 2014). Challenges to the independence of the safety regulator were</p>	Presentation	

		discussed as well as the graded approach in regulating RWM. RF work will be extended by topics on decommissioning and RWM of LILW. RF supports the RWMC's initiative to create a TG on RWM for an extended period of time with a view to disposal. RF also discussed the regulation of WM after an accident and held a session on the regulator-implementer dialogue.	
	9.b.	The RF-organised workshop in 2015 – status <i>Risto PALTEMAA, (STUK, Finland)</i>  Mr Risto Paltemaa informed the RWMC on the background and current status of the preparation of a workshop 'Challenges to the regulator in construction, licensing and operation of waste repositories' (2015), including proposed topics and case studies.	Presentation
		<b>Decision:</b> The RF's work is appreciated. The RWMC endorses the September 2015 workshop organised by the RF but also open to other constituencies than regulators. The RWMC is also interested in future discussions on the ICRP latest guidance and on the issue of transfer of responsibilities at the time of closure. Exchanges could potentially take place during the joint Topical Session with the CRPPH in April 2015.	
	<b>10.</b>	<b>THE RK&amp;M INITIATIVE</b>	
	10.a.	Overview of Phase-I <i>Claudio PESCATORE (NEA Secretariat)</i>  Mr Claudio Pescatore presented the main aim and targets of the project as well as the project's membership. He also summarised the project outreach (studies, articles, statements uploaded on a wiki-based info platform) that is based on analyses of a vast amount of bibliographical resources and research work within RK&M. The project also produced a gap analysis of the literature; a glossary; and a catalogue of selected countries' legislation and regulation.  Current participants are interested in continuing to work into a 3 year Phase II to collect view points, studies, and continue forming links to related projects and interested parties. (see 10.c.)	<a href="#">NEA/RWM/RKM(2014)2</a>
	10.b.	Proposed RWMC collective statement, <i>Kathryn SHAVER (NWMO, Canada)</i>  Ms Kathryn Shaver presented the main messages of the collective statement on foundations and guiding principles for the preservation of the records, knowledge and memory across generations with a focus on the post-closure phase of geological repositories. This statement reflects the common understanding of regulators and	<a href="#">NEA/RWM/RKM(2014)3 /PROV</a>  Presentation

	<p>implementers within the RKM initiative, which also includes a IAEA representative.</p> <p>In the discussion a question on the time span of regulatory control over a geological repository was raised. Not all regulators see their responsibility as extending indefinitely after closure - their responsibility may be transferred one day to the State, which would have the ultimate oversight role.</p>	
10.c.	<p>Phase-II proposal <i>Claudio PESCATORE (NEA Secretariat)</i></p> <p>Mr Claudio Pescatore introduced the modus operandi, membership, and programme of work of the proposed new. This initiative is carried out with the financial support of its participants.</p> <p><b>Decision: The RWMC approved the work activities of the RK&amp;M.</b></p>	<p><a href="#">NEA/RWM/RKM(2014)1</a> Presentation</p>
10.d.	<p>The international conference on “Constructing memory” at Verdun, September 2014 - status <i>Marine FORMENTINI (NEA Secretariat)</i></p> <p>Ms Marine Formentini informed the committee on the current status of the preparation of the conference: conference website, programme, speakers/session chairs, and on the venue and practical and organisational issues. RWMC members are invited to participate in and inform others about the conference.</p>	<p>Presentation <a href="#">Link</a></p>
10.e.	<p>Report on RepMet <i>Hervé BIENVENU (ANDRA, France)</i></p> <p>Mr Hervé Bienvenu presented the recently launched initiative whose aim is to create guidance on collecting and managing data from pre-operational and operational phase of repositories for their use during and after the operational phase. This initiative is complementary to the RK&amp;M one, which focuses on only the post-operational phase. Mr Bienvenu briefed on the milestones and schedule of the initiative, which is carried out with the financial support of its participants. Mr. Piet Zuidema (Switzerland, Nagra) pointed out the importance of the subject of RepMet. Mr. Bienvenu agreed and confirmed that common areas between RepMet and the IAEA database NEWMDB will be found.</p>	<p><a href="#">NEA/RWM(2014)2</a> Presentation</p>
	<p><b>Decision: The RWMC is pleased with the RK&amp;M Phase-I work output and modus operandi. The proposed Collective Statement on Guiding Principles is approved in principle. Comments are elicited through the end of April. The</b></p>	

	<p>Collective Statement will be published thereafter. RK&amp;M Phase-II is approved as proposed.</p> <p>The RWMC welcomes the Verdun conference initiative and will help to make it known to peers. The RWMC also welcomes the RepMet initiative.</p>	
<b>11. Outlook on ICGR-2016</b>	<p><i>Michael SIEMANN (NEA Secretariat)</i></p> <p>Mr Michael Siemann summarised the key objectives of the previous four International Conferences on Geological Repositories organised up to now, and briefed on status concerning the ICGR-2016. Mr. Ouzounian confirmed that France is ready to organise the next ICGR in 2016.</p>	Presentation
	<p><b>Decision:</b> ICGR-2016 - The RWMC supports the ICGR conference to be hosted by Andra in France in 2016. Gérald Ouzounian (France, Andra) will convene a small group to start preparing for the conference (Programme Committee).</p>	
<b>TOPICAL SESSION I</b>		
<b>12. THE IMPLEMENTER-REGULATOR DIALOGUE</b>	<p><i>Catherine HANEY, Co-Chair (NRC, USA) (Regulator)</i>  <i>Piet ZUIDEMA, Co-Chair (NAGRA, Switzerland) (Implementer)</i></p>	
12.a.	<p>Introduction on context</p> <p><i>Jean-Paul MINON (ONDRAF/NIRAS, Belgium)</i></p> <p>Mr Jean-Paul Minon introduced a background document on the the topic of the implementer-regulator dialogue and further work in this area. He proposed to set up a group that would gather and analyse country specific information on the subject and produce a status report. In a subsequent phase an international workshop should be organised.</p>	<p><a href="#">NEA/RWM(2014)3</a> Background paper Presentation</p>
12.b.	<p>The implementer-regulator dialogue in France</p> <p><i>Loïc TANGUY (ASN, France) (Regulator)</i>  <i>Sylvie VOINIS (ANDRA, France) (Implementer)</i></p> <p>Mr Loïc Tanguy described the technical guidance provided by the ASN to the implementer through safety guides and technical position statements. The implementer-regulator dialogue is important during developing safety related guidance. During a project implementation, the dialogue should start at the early project phase, e.g. at the feasibility study phase. A step-wise approach and public involvement are important aspects.</p> <p>Ms Sylvie Voinis presented the step-wise decision making process for the waste disposal programme. The process shows different levels of</p>	<p>Presentation Presentation</p>

	<p>implementer-regulator dialogue/communication, as well as examples of dialogues at specific steps in decision making..</p> <p>In the discussion it was noted that the ASN's guides and statements as well as ANDRA's documentation are accessible to public.</p>	
12.c.	<p>The implementer-regulator dialogue in Canada</p> <p><i>Don HOWARD (CNSC, Canada) (Regulator)</i>  <i>Kathryn SHAVER (NWMO, Canada) (Implementer)</i></p> <p>Mr Don Howard presented CNSC's early involvement in the pre-project phase of the NWMO – Adaptive Phased Management Project. Early preparedness of regulator is formed through early building a knowledgebase and communication with future applicant. Communication is staged, has been based on a memorandum between CNSC and NWMO in advance of license submission, and includes pre-project technical review/guidance. Early communication with communities builds confidence.</p> <p>Ms Kathryn Shaver presented the dialogue with the regulator from the view point of NWMO, which is responsible for implementing the plan selected by the Government of Canada in 2007 for the long term management of used nuclear fuel. Public opinion surveys were carried out on topics of importance. Information exchange on the implementer's project plan, work progress and regulator's expectations is vital from the early phases as well as early dialogue with communities.</p> <p>In the discussion it was highlighted that communication is based on the Service Agreement, which describes the role of the regulator in the process, outlines regulator's framework, protects regulator's independency, helps avoiding overlaps, makes regulator-implementer relationship transparent and easier to understand by public, and also describes financial aspects.</p>	<p>Presentation Presentation</p>
12.d.	<p>Plenary discussion based on the presentations and addressing also the role of the public</p> <p><i>Catherine HANEY, Co-Chair (NRC, USA) (Regulator)</i>  <i>Piet ZUIDEMA, Co-Chair (NAGRA, Switzerland) (Implementer)</i></p> <p>Concerning the scope of the future group, only HLW disposal was assumed, but extension to SF may be discussed in the Bureau. Relating to the role of the public, although FSC focuses on early involvement of regulator in dialogue, the project should be operated under RWMC auspices and build upon the FSC experience.</p>	



	<p>12.e. Rapporteur's report <i>Johan ANDERBERG (SSM, Sweden)</i></p> <p>Mr Johan Anderberg summarized main outcomes of the session on the implementer-regulator dialogue. The dialogue has to be launched early on and should be adapted to the current phase and to the country policy. This will allow the regulator to formulate better regulatory expectations; to be transparent and build up a public confidence, maintaining the independence of both regulator and implementer.</p>	The report is available on web.
<p><b>Decision:</b> The need for dialogue increases over time - from pre-technical to fully technical phases. The dialogue is observed by other stakeholders as well, and there should be awareness and acknowledgement of this. The NEA initiative should not be limited to geological disposal facilities but should consider all disposal topics, because we have to look at the past to see what has worked. The need may be higher, however, in the HLW/SF disposal area, as new challenges arise in this area.</p> <p>The Bureau is mandated with creating a Task Group under the RWMC with a balanced participation of regulators and implementers. Phase-I work will be planned as described in the background paper for this agenda item. The FSC work in this area will be acknowledged and considered.</p> <p>Title of the new group: Task Group on Regulator Implementer Dialogue for Disposal Facilities.</p>		
<b>TOPICAL SESSION II</b>		
<p><b>13. MANAGEMENT OF RADIOACTIVE WASTE FOR AN EXTENDED PERIOD OF TIME WITH A VIEW TO DISPOSAL</b> <i>Jean-Paul MINON (ONDRAF/NIRAS, Belgium)</i></p>		
	<p>13.a. Introduction <i>Gloria KWONG (NEA Secretariat)</i></p> <p>Ms Gloria Kwong summarised past RWMC work. RWMC-45 held an extended discussion on storage and disposal, and actioned the Bureau to further discuss potential initiatives on the topic. RWMC-46 discussed country status and issues in disposal and extended storage and decided to establish a WG on predisposal management with a view to disposal.</p>	Presentation
	<p>13.b. The results of the CSNI workshop <i>Claudio PESCATORE (NEA Secretariat)</i></p> <p>Mr Claudio Pescatore briefed on the International WS of Safety and Long Term Interim Storage Facilities (Munich, 21-23 May 2013). Many</p>	Presentation Infodoc#1: Munich Proceedings

	<p>countries are about to implement a site for a long-term storage for min 50 years with design for 100 years (contingency). Surveillance, ageing management and periodical safety reviews are relevant issues. There are data gaps concerning long-term cladding and cask integrity. SF and HLW long-term storage facilities will have to be created in many countries due to delays in the final disposal programme.</p>	
13.c.	<p>The results of the topical session at RF-17 <i>Shawn SMITH (NRC, USA)</i></p> <p>Ms Shawn Smith briefed on topics having been identified for further discussion, in the view point of what is a level of complexity of regulator's safety related requirements, in what extent are ageing management issues addressed, and what are other issues to be addressed in extension of storage licences. RF supports the proposal for a RWMC Pilot Group on RWM for extended period of time with a view to disposal.</p>	Presentation
13.d.	<p>Discussion</p> <p>It was noted that the NEA initiative should also address transportation. The IAEA works on similar project focusing on the SF. The Pilot Group should work on all types of waste.</p>	
13.e.	<p>Creation of the RWMC Pilot Group on Activities for the Management of Radioactive Waste in View of Disposal <i>Jean-Paul MINON (ONDRAF/NIRAS, Belgium)</i></p> <p>Mr Jean Paul Minon presented the aim and mode of work of the Pilot Group, as described in the supporting document.</p>	<a href="#">NEA/RWM(2014)4</a>
	<p><b>Decision:</b> The Secretariat will post the CNSI workshop proceedings on the RWMC password-protected web page. The RWMC will create a Pilot Group addressing the three tasks as described in the supporting document to Item 13.e. The Pilot Group will have a two-year mandate and will report to the RWMC in their annual plenary meeting.</p>	
14.	<p><b>COUNTRY UPDATES (Part I)</b> <i>Michael SIEMANN (NEA Secretariat)</i></p> <p>Mr Michael Siemann summarised the status of the Country Profiles and Country Reports currently on the RWMC web site.</p>	
	<p><b>First round of country updates</b></p> <p><b>Decision:</b> All Delegations are invited to update their Country Profile and Report, if they have not done it already.</p>	Oral reports

	<b>15. WASTE INVENTORYING AND REPORTING</b>		
	15.a.	<p>Introduction</p> <p><i>Jean-Paul MINON (ONDRAF/NIRAS, Belgium)</i></p> <p>Mr Jean-Paul Minon underlined the importance of the subject and the high level of interest from three international organisations: the NEA, the IAEA and the EC.</p>	
	15.b.	<p>IAEA Initiative on international reporting system</p> <p><i>Irena MELE, IAEA official observer</i></p> <p>Ms Irena Mele introduced the IAEA initiative on preparing the document on status and trends in RWM and SFM (2013-2015) that counts on the use of data from IAEA NEWMDB, Joint Convention Reports, and eventually expert judgement will be used when satisfactory data are not available. The NEA is invited to join a common IAEA &amp; EC initiative. The main challenge of this initiative is due to the different countries' RW classes. While some member states had attempted to transform their RW inventory data to match the IAEA RW classes, such transformation was noted to be complicated</p> <p>In the discussion it was noted that the outcome of the IAEA initiative should be consistent with the Joint Convention format, taking also into consideration the obligation by EU countries to report according to EC Directive 2011/70 (August 2015). Ms. Mele completed her reporting assuring the RWMC members that this initiative shall not increase their current workload.</p>	Presentation
	15.c.	<p>Proposal for a group on methodology for transposing waste inventory data into a common presentation scheme</p> <p><i>Gérald OUZOUNIAN (ANDRA, France)</i></p> <p>Mr Gérald Ouzounian, on behalf of the RWMC Bureau, indicated that an authoritative publication systematically summarising RW and SF inventories is missing. Therefore the Bureau supports the project of a regular RW and SF Status and Trends Report, that would cover all waste types and also give information on countries' RW infrastructure, and legal and regulatory frameworks. Current national RW classes were derived on basis of safety and regulatory aspects and other considerations specific to each country. The Bureau proposes to study countries' RW classes and their reporting methodology into a common set of RW classes among NEA Member Countries. This would then serve as methodological support to the IAEA, EC, and NEA future initiative on Status and Trends. The IAEA and the EC are invited to join the NEA methodology study group.</p>	<p><a href="#">NEA/RWM(2014)5</a></p> <p>Presentation</p>

	<p>15.d. Discussion and way forward <i>Jean-Paul MINON (ONDRAF/NIRAS, Belgium)</i></p> <p>The EC supports the IAEA initiative stating that the project timing meets the milestones of the EC Directive. IAEA's NEWMDB contains transposition matrices between countries specific and IAEA RW classes. Since the RW classes transposition is a responsibility of the IAEA Member Countries contributing to NEWMDB, it may be of interest of all involved countries to better understand country specific approaches.</p>	
	<p><b>Decision:</b> There is value in a global report of RW inventories. An understanding must be gained of possible methodologies for favouring a global reporting, given that national schemes exist already. The methodology or methodologies must be acceptable nationally. A group will be started in the RWMC - open to EC and IAEA - to gain that understanding. The group will apply a step by step investigation strategy, focusing first on the SF and HLW categories.</p> <p>The RWMC supports the involvement of the NEA Secretariat in the IAEA and EC joint effort (Joint Secretariat) to create a regular global reporting. The RWMC shall decide, however, on endorsing such reporting in the future, when more information becomes available. Progress will be assessed at RWMC-48 and a decision will be made then.</p>	
<b>TOPICAL SESSION III</b>		
<b>16.</b>	<p><b>WASTE MANAGEMENT AFTER AN ACCIDENT</b> <i>Georg ARENS</i></p>	Infodoc#2: Background paper
	<p>16.a. Summary feedback from RF-17 session <i>Walter BLOMMAERT (FANC, Belgium)</i></p> <p>Mr Walter Blommaert summarised lessons learnt from accidents of nuclear facilities, and pointed out some aspects concerning transfer from emergency exposure situation to the phase of remediation, including requirements on regulatory and infrastructure framework. Sharing and maintaining knowledge and experience from past cases, clear understanding of responsibilities, step-wise decision making process, and communication with stakeholders, forming strategies and guidance are some of important elements.</p> <p>Regulators have been making an effort in developing regulatory systems to respond accidental situations, but there still is a long way ahead. Such effort needs cooperation among regulators, governmental bodies and implementers. RF supports cooperation on related subject with NEA CRPPH as well as the IAEA and the EC.</p>	Presentation

	16.b.	<p>The Tchernobyl experience <i>Sergey DERYABIN (Rosatom, Russian Federation)</i></p> <p>Mr Sergey Deryabin briefed on immediate RW disposition actions made after the accident, on international project on inventorying waste from the accident in Ukraine, Belarus and Russian Federation and elaboration of RWM strategies, and on other projects on delivery of RW treatment facilities for Tchernobyl. Tchernobyl experience is considered when legal, regulatory and infrastructural framework is formulated in the Russian Federation.</p>	Presentation
	16.c.	<p>Discussion <i>Jean-Paul MINON (ONDRAF/NIRAS, Belgium)</i></p> <p>A proper balance of off-site remediation activities extension is important to find since this extension impacts a RW production and related RWM activities. Implementers rely on regulator's guidance on this issue.</p>	
	16.d.	<p>TMI-2 Recovery Project – Critical Lessons Jack DeVine (URS), presented by Edward Lazo (Secretariat)</p> <p>Mr Edward Lazo briefed on causes of the TMI-2 accident and main remediation activities, sharing also his own experience as a member of the TMI staff at the time. He picked up five lessons learned: building a public trust; clear definition and communication of interim states and the end state; characterisation plan; flexible and adaptable methods; and workers' protection.</p>	Presentation
<p><b>Decision:</b> The RWMC proposes that the slides from the RF topical session on the same subject be made available to the whole committee.</p>			
17.	<p><b>RD&amp;D ON RADIOACTIVE WASTE AT THE FUKUSHIMA DAI-ICHI PLANT SITE</b></p>		
	17.a.	<p>Lessons learned from the accident with focus on RWM and decommissioning , and need for R&amp;D <i>Shigeyuki SAITO (NRA, Japan)</i></p> <p>Mr Shigeyuki Saito introduced the structure of the NRA, evolution of regulation and guidance framework after the Fukushima accident, and regulations concerning on-site RWM and D&amp;D activities. Mr Saito also summarised identified needs for new safety research after the accident. RWM and D&amp;D are human resources demanding and require a constant regulator-implementer dialogue. Sharing technical information and experience is necessary.</p>	Presentation

	<p>17.b. Lessons learned and R&amp;D needs with focus on Decommissioning <i>Christine GEORGES (CEA, France)</i></p> <p>Ms Christine Georges pointed out on R&amp;D challenges that are similar in the programme of work of the CEA and in the Fukushima R&amp;D programmes such as high contamination and radiation levels, wide range of and large amount of HLW, and lack of information on radiochemical status. In such case a dedicated R&amp;D programme for D&amp;D and RWM techniques is inevitable. Reliable D&amp;D and RWM strategy should be defined early in the process, which requires an extensive and systemised inventory characterisation programme using innovative techniques. Ms Georges also presented recent CEA's R&amp;D achievements in various areas of D&amp;D and RWM.</p>	Presentation
	<p>17.c. Proposal for an expert group under the aegis of RWMC (vision, schedule, PoW, etc.) <i>Kentaro FUNAKI (IRID, Japan), Toshiki Sasaki (JAEA, Japan)</i></p> <p>Mr Kentaro Funaki briefed on the organisation of Fukushima Daiichi decommissioning activities in light of the Mid-and-Long-Term Roadmap, on priorities of the IRID as R&amp;D management platform, followed by information on WM activities at Fukushima Daiichi, and related challenges - long-term: developing the integrated WM concept, and short-term: developing the methodology for characterisation and categorisation.</p> <p>Mr Funaki proposed that RWMC set up an expert group on methodology of characterisation and categorisation, and presented a proposal of its mode of operation and its schedule of work.</p>	<a href="#">NEA/RWM(2014)6</a> Infodoc#3: Background paper Presentation
	<p>17.d. Way forward <i>Jean-Paul MINON (ONDRAF/NIRAS, Belgium)</i></p> <p>In the discussion it was highlighted that integrated waste management is an important aspect since it links together waste characterisation, waste categorisation and WM optimisation. It is also necessary to share international R&amp;D achievements and further adapt them to project specific needs.</p>	
<p><b>Decision:</b> An expert group will be set up with the objective to develop integrated management systems after an accident with focus on radiological characterisation. The Secretariat will look for experts' availability soon. The Bureau will be involved in further defining the scope of work and drafting the mandate.</p>		

TOPICAL SESSION IV		
<b>18.</b>	<b>THIRD PARTY LIABILITY ON LOW-RISK FACILITIES</b> <i>Jean-Paul MINON (ONDRAF/NIRAS, Belgium)</i>	
18.a.	Introduction: providing an actual example <i>Marc DEMARCHE (ONDRAF/NIRAS, Belgium)</i>  Mr Marc Demarche presented an example of application of the third party liability to the future surface disposal facility in Belgium (legal framework and insurance cost model).	Presentation
18.b.	Liability and compensation for nuclear damage <i>Ximena VASQUEZ-MAIGNAN (NEA Secretariat)</i>  Ms Ximena Vasquez-Maignan explained situations addressed by nuclear liability and compensation regimes, international regimes under OECD and IAEA auspices, basic principles of nuclear liability regimes, and some post-Tchernobyl enhancement of the regimes, followed by overview of nuclear power generating states and nuclear liability conventions they have signed/ratified.	Presentation
18.c.	CRPPH technical recommendations <i>Ted LAZO (NEA Secretariat)</i>  Mr Ted Lazo informed on the recommendation of the CRPPH to the Nuclear Law Committee on technical criteria for the exclusion of nuclear Installations from the application of the Paris Convention. The installation activity criteria that have been agreed are rather conservative and most likely only a few installations would be eligible for exclusion early in their decommissioning. However, it is clear that at some point during the decommissioning process the installation will meet the threshold activity criteria and will be eligible for the site-specific assessment based on the dose criteria of 1 mSv in a year.	Presentation
18.d.	Way forward <i>Jean-Paul MINON (ONDRAF/NIRAS, Belgium)</i>	
<p><b>Decision:</b> There is interest in determining when and how disposal facilities could be progressively excluded from the international liability regime (ILR) for reduced/low risk facilities. We charge the Secretariat with organising reflection group - including other NEA committees - on what is possible as a progressive exclusion from the ILR. They will elaborate a discussion paper. Interest by UK, Canada, Spain, France, Belgium in participation in the reflection</p>		

	<p>group. Background information can be provided by the Law Committee. We note however that the NEA deals only with the Paris Convention. IAEA will be informed of this initiative.</p>		
<b>19. DECOMMISSIONING</b>			
	<p><i>Jean-Paul MINON (ONDRAF/NIRAS, Belgium)</i></p>		
19.a.	<p>Results of the Policy Debate at NEA Steering Committee (October 2013)</p> <p><i>Michael SIEMANN (NEA Secretariat)</i></p> <p>Mr Michael Siemann briefed on the Policy Debate on Decommissioning at the 127<sup>th</sup> NEA Steering Committee. The Debate started with presentations on key aspects of decommissioning given by himself; Commissioner Ostendorff, US NRC; Dr Simper, UK NDA; Mr Cordes, CEO, EWN GmbH, Germany; and Mr Nakanishi, DG, METI, Japan, followed by discussion. One point that the Steering Committee stressed was that the decommissioning of nuclear facilities is a subject of growing importance for NEA Member Countries and that it will represent significant budgets and industrial activity in the future. The Committee welcomed continued NEA work on decommissioning.</p>	<p>Infodoc#4</p> <p>Presentation</p>	
19.b.	<p>Generic paper on organising decommissioning</p> <p><i>Marc DEMARCHE (ONDRAF/NIRAS, Belgium)</i></p> <p>Mr Marc Demarche presented a generic paper on decommissioning focusing on key actors in decommissioning project life cycle as a regulator, licensee, decommissioning fund administrator – if different from the licensee, decommissioning operator company, waste management organisation, and public.</p>	<p>Infodoc#5: Background paper</p> <p>Presentation</p>	
<b>OTHER NEA ACTIVITIES</b>			
19.c.	<p>Nuclear Development Committee (NDC) initiative on decommissioning costs – main findings</p> <p><i>Ron CAMERON (NEA Secretariat)</i></p> <p>Mr Ron Cameron reported on the progress of the NDC Project on Costs of Decommissioning, the initiative on update of publication ‘Decommissioning Nuclear Power plant – Policies, Strategies, Cost’ (2003), aiming to gather and assess country available knowledge on completed decommissioning projects, review funding mechanisms in place or under consideration, and to the extent possible, consider cost estimates for high level processes.</p>	<p>Presentation</p>	



	<b>Decision:</b> An opinion paper will be prepared on decommissioning organisation based on the presentations and discussion paper for this agenda Item.	
	<b>RWMC GOVERNANCE</b>	
<b>20. DATES OF NEXT MEETING</b>	<b>Decision:</b> Next meeting date(s): 14-15 April 2015.	
<b>21. STATUS OF RWMC PoW for CURRENT BIENNIUM</b> <i>Michael SIEMANN (NEA Secretariat)</i>  Mr Michael Siemann informed the RWMC about the status of Secretariat's human resources supporting the RWMC, and the status of activities' progress according to the RWMC Plan of Work.		Presentation
	<b>CLOSURE OF THE MEETING</b>	
<b>22. COUNTRY TRENDS – Analysis report</b> <i>NEA Secretariat</i>  Mr Vladimir Lebedev presented analysis report on country trends based on country reports given during the meeting. Amongst the various points, it was noted that Fukushima accident lessons learned are widely considered in national plans, engagement of stakeholders is increasing, public opinion becomes an important driver, and the growing scale of decommissioning activities in many countries demands development of RWM capacities to manage rising RW volumes.		Presentation
<b>23. OTHER BUSINESS</b>  Mr. Kazuo Shimomura, Deputy Director of the NEA, repeated the new Director-General will begin in September 2014. He then suggested further RWMC tasks / activities may be planned for a longer timeframe, e.g. 5 years.		
<b>24. REVIEW OF MAIN ITEMS AND DECISIONS</b>  Main items and decisions were summarised.		

## ANNEX I

## SUMMARY OF MAIN ITEMS AND DECISIONS

	<b>Item</b>	<b>Decision</b>
<b>1.</b>	WELCOME AND OPENING REMARKS	
<b>2.</b>	RECENT DEVELOPMENTS WITHIN THE NEA AND THE OECD	
<b>3.</b>	ADOPTION OF AGENDA	The Agenda of the meeting was adopted as proposed
<b>4.</b>	APPROVAL OF THE SUMMARY RECORD OF RWMC-46	The Summary Record of RWMC-46 was approved
<b>5.</b>	EUROPEAN COMMISSION	
<b>6.</b>	DEVELOPMENTS IN THE IAEA PROGRAMME	
<b>7.</b>	OVERVIEW OF RWMC ACTIVITIES AND PUBLICATIONS	
<b>8.</b>	WORKING PARTIES ACHIEVEMENTS AND PLANS	The RWMC appreciates the work of its subordinate parties. The Working Parties are invited to continue their efforts in the area of knowledge consolidation and transfer.
<b>9.</b>	REGULATOR'S FORUM	The RF's work is appreciated. The RWMC endorses the September 2015 workshop organised by the RF but also open to other constituencies than regulators. The RWMC is also interested in future discussions on the ICRP latest guidance and on the issue of transfer of responsibilities at the time of closure. Exchanges could potentially take place during the joint Topical Session with the CRPPH in April 2015.
<b>10.</b>	THE RK&M INITIATIVE	The RWMC is pleased with the Phase-I work output and modus operandi. The proposed Collective Statement on Guiding Principles is approved in principle. Comments are elicited through the end of April. The Collective Statement be will published thereafter. Phase-II is approved as proposed.

		The RWMC welcomes the Verdun conference initiative and will help make it known to peers. The RWMC also welcomes the RepMet project
<b>11.</b>	Outlook on ICGR-2016	ICGR-2016 - The RWMC supports the ICGR conference to be hosted by Andra in France in 2016. Gérald Ouzounian will convene a small group to start preparing the conference (Programme Committee).
<b>12.</b>	THE IMPLEMENTER-REGULATOR DIALOGUE	<p>The need for dialogue increases over time - from pre-technical to fully technical projects. The dialogue is observed by other stakeholders as well, and there should be awareness and acknowledgement of this. The NEA initiative should not be limited to geological disposal facilities but should consider all disposal topics, because we have to look at the past to see what has worked. The need may be highest, however, in the HLW/SF disposal area, as new challenges arise in this area.</p> <p>The Bureau is mandated with creating a Task Group under the RWMC with a balanced participation of regulators and implementers. A Phase-I of work will be planned as described in the background paper for this agenda item. The FSC work in this area will be acknowledged and considered.</p> <p>Title of the new group: Task Group on Regulator Implementer Dialogue for Disposal Facilities.</p>
<b>13.</b>	MANAGEMENT OF RADIOACTIVE WASTE FOR AN EXTENDED PERIOD OF TIME WITH A VIEW TO DISPOSAL	The Secretariat will make available on the RWMC password-protected web page the CSNI May 2013 workshop proceedings. The RWMC will create a Pilot Group addressing the three tasks as described in the supporting document to Item 13.e. The Pilot Group will have a two year mandate.
<b>14.</b>	COUNTRY UPDATES	All Delegations are invited to update their Country Profile and Report, if they have not done it already.
<b>15.</b>	WASTE INVENTORYING AND REPORTING	<p>There is value in a global report of RW inventories. An understanding must be gained of possible methodologies for favouring a global reporting, given that national schemes exist. The methodology or methodologies must be acceptable nationally. A group will be started in the RWMC - open to EC and IAEA - to gain that understanding. The group will apply a step by step investigation strategy, focusing first on the SF and HLW categories.</p> <p>The RWMC supports the involvement of the NEA</p>

		Secretariat in the IAEA and EC joint effort (Joint Secretariat) to create a regular global reporting. The RWMC shall decide, however, on endorsing such reporting in the future, when more information will become available. Progress will be assessed at RWMC-48 and a decision will be made then.
16.	WASTE MANAGEMENT AFTER AN ACCIDENT	The RWMC proposes that the slides from the RF topical session are made available to the whole committee.
17.	RD&D ON RADIOACTIVE WASTE AT THE FUKUSHIMA DAI-ICHI PLANT SITE	An expert group will be set up with the objective to develop integrated management systems after the accident in Fukushima Daiichi for the on-site radioactive waste with focus on radiological characterisation. The Secretariat will look for experts' availability soon. The Bureau will be involved in further defining the scope of work and drafting the mandate.
18.	THIRD PARTY LIABILITY ON LOW-RISK FACILITIES	There is interest in determining how disposal facilities could be considered as reduced risk facilities in the international liability regime (ILR). We charge the Secretariat with organising a reflection group - including other NEA committees. They will elaborate a discussion paper. Interest by UK, Canada, Spain, France, Belgium in participation in the reflection group. Background information can be provided by the Law Committee. We note however that the NEA deals only with the Paris Convention. IAEA will be informed of this initiative.
19.	DECOMMISSIONING	An opinion paper will be prepared on decommissioning organisation based on the presentations and discussion paper for this agenda item.
20.	DATES OF NEXT MEETING	Next meeting date(s): 14-15 April 2015
21.	STATUS OF RWMC PoW for CURRENT BIENNIUM	
22.	COUNTRY TRENDS – Analysis report	
23.	OTHER BUSINESS	
24.	REVIEW OF MAIN ITEMS AND DECISIONS	

## ANNEX II

## LIST OF WRITTEN MATERIALS MADE AVAILABLE FOR RWMC-47

ITEM	TYPE	NUMBER	TITLE	AUTHOR
03.	OLIS	<a href="#">NEA/RWM/A(2014)1</a>	Draft Provisional Agenda	NEA Secretariat
04.	OLIS	<a href="#">NEA/RWM/M(2013)1</a>	Summary Record of RWMC-46	NEA Secretariat
05.a	PPT presentation		EC: Developments at a Policy Level	T. Kirchner
05.b	PPT presentation		EC: Developments in the R&D Programme	C. Davies
06.	PPT presentation		Developments in the IAEA Programme	I. Mele
07.	Link		List of Publicly Available NEA Documents	NEA Secretariat
07.	Link		List of RWM-related International NEA Events	NEA Secretariat
07.	PPT presentation		Overview of RWMC Activities and Publications	C. Pescatore
08.	OLIS	<a href="#">NEA/RWM(2014)1</a>	Working Parties Achievements and Plans	NEA Secretariat
08.a	PPT presentation		IGSC & Report from IGSC Symposium	K.-J. Roehlig
08.b	PPT presentation		FSC	H. Bjarnadottir
08.c	PPT presentation		WPDD	J.-L. Santiago
09.a	PPT presentation		Overview of RF-17	G. Arens
09.b	PPT presentation		The RF-organised workshop in 2015 - status	R. Paltemaa
10.a	OLIS	<a href="#">NEA/RWM/RKM(2014)2</a>	Overview of Phase-I	NEA Secretariat
10.a	PPT presentation		Overview of Phase I	NEA Secretariat
10.b	OLIS	<a href="#">NEA/RWM/RKM(2014)3/PROV</a>	Proposed RWMC Collective Statement	NEA Secretariat
10.c	OLIS	<a href="#">NEA/RWM/RKM(2014)1</a>	Phase-II proposal	NEA Secretariat
10.c	PPT presentation		Phase-II proposal	C. Pescatore
10.d	Link		The international conference on "Constructing memory" at Verdun, September 2014 - status	NEA Secretariat
10.d	PPT presentation		The international conference on "Constructing memory" at Verdun, September 2014 - status	M. Formentini
10.e	PPT presentation		Report on RepMet	H. Bienvenu
10.e	OLIS	<a href="#">NEA/RWM(2014)2</a>	Vision document for RepMet	NEA Secretariat
11.	PPT presentation		Outlook on ICGR-2016	M. Siemann

12.a	OLIS	<a href="#">NEA/RWM(2014)3</a>	Background paper	NEA Secretariat
12.a	PPT presentation		Implementer-Regulator Dialogue	J.-P. Minon
12.b	PPT presentation		The implementer-regulator dialogue in France (Regulator)	L. Tanguy
12.b	PPT presentation		The implementer-regulator dialogue in France (Implementer)	S. Voinis
12.c	PPT presentation		The implementer-regulator dialogue in Canada (Regulator)	D. Howard
12.c	PPT presentation		The implementer-regulator dialogue in Canada (Implementer)	K. Shaver
12.e	PPT presentation		Rapporteur's report	J. Anderberg
12.e	Document		Rapporteur's Report Session I	J. Anderberg
13.a	PPT presentation		Introduction to Topical Session II: key outcomes of RWMC-45 and RWMC-46	G. Kwong
13.b	INFODOC	#1	The results of the CSNI workshop	NEA Secretariat
13.b	PPT presentation		The results of the CSNI workshop	C. Pescatore
13.c	PPT presentation		The results of the topical session at RF-17	S. Smith
13.e	OLIS	<a href="#">NEA/RWM(2014)4</a>	Creation of the RWMC Pilot Group on Management of Radioactive Waste in View of Disposal	NEA Secretariat
14.	Other		Country updates provided by: Belgium, Canada, Czech Republic, Japan, Finland, France, Hungary, Korea, Poland, Russian Federation, Slovenia, Spain, Sweden, Switzerland, UK and US.	
14.	PPT presentation		Country reports and country profiles	M. Siemann
15.b	PPT presentation		IAEA Initiative on international reporting system	I. Mele
15.c	OLIS	<a href="#">NEA/RWM(2014)5</a>	Proposal for a group on methodology for transposing waste inventory data into a common presentation scheme	NEA Secretariat
15.c	PPT presentation		Proposal for a group on methodology for transposing waste inventory data into a common presentation scheme	G. Ouzounian
15.d	PPT presentation		Discussion and Way Forward	J.-P. Minon
16.	INFODOC	#2	Background paper on Waste Management after an Accident	NEA Secretariat
16.a	PPT presentation		Summary feedback from RF-17 session	W. Blommaert
16.b	PPT presentation		The Tchernobyl experience	S. Deryabin
17.a	PPT presentation		Lessons learned from managing the accident with focus on waste and decommissioning issues	S. Saito

17.b	PPT presentation		Lessons learned and R&D needs with focus on Decommissioning	C. Georges
17.c	PPT presentation		Three Mile Island (TMI)	T. Lazo
17.d	INFODOC	#3	Background paper: Proposal for an expert group under the aegis of RWMC	NEA Secretariat
17.d	PPT presentation		Proposal for an expert group under the aegis of RWMC	K. Funaki
17.d	OLIS	<a href="#">NEA/RWM(2014)6</a>	Proposal to set up an Expert Group on Integrated Management of Accident-oriented Radioactive Waste under the OECD/NEA RWMC	NEA Secretariat
18.a	PPT presentation		Introduction: providing an actual example	M. Demarche
18.b	PPT presentation		Liability and compensation for nuclear damage	X. Vasquez-Maignan
18.c	PPT presentation		CRPPH technical recommendations	T. Lazo
19.a	PPT presentation		Results of the Policy Debate at NEA Steering Committee	M. Siemann
19.a	INFODOC	#4	Results of the Policy Debate at NEA Steering Committee	NEA Secretariat
19.b	INFODOC	#5	Generic/background paper on organising decommissioning	NEA Secretariat
19.b	PPT presentation		Generic/background paper on organising decommissioning	M. Demarche
19.c	PPT presentation		Nuclear Development Committee (NDC) initiative on decommissioning costs - main findings	R. Cameron
21.	PPT presentation		Approval in principle of RWMC PoW for current biennium	M. Siemann
22.	PPT presentation		Country Trends and Analysis	V. Lebedev & G. Kwong
24.	PPT presentation		Main items and decisions	NEA Secretariat
24.	Document		List of decisions	NEA Secretariat

## ANNEX III

## PARTICIPANTS LIST

**Participants list for 47th Session of the  
Radioactive Waste Management Committee (RWMC)**

**26-27 March 2014  
OECD Conference Centre, Paris, France**

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