

Unclassified

NEA/RWM(2014)7

Organisation de Coopération et de Développement Économiques
Organisation for Economic Co-operation and Development

17-Jul-2014

English - Or. English

**NUCLEAR ENERGY AGENCY
RADIOACTIVE WASTE MANAGEMENT COMMITTEE**

Mandate of the RWMC Expert Group on Waste Inventorying and Reporting Methodology (EGIRM)

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JT03360521

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MANDATE OF THE RWMC EXPERT GROUP ON WASTE INVENTORYING AND REPORTING METHODOLOGY (EGIRM)

Preamble

Radioactive waste inventory data are one of the most important elements in developing a national programme as it affects the design and selection of the ultimate disposal methods. Inventory data are generally presented as an amount of radioactive waste under various waste classes accordingly to the waste classification scheme developed and adopted by the country and/or national programme.

There is an increasing need for NEA countries to conform to international conventions and treaties such as the IAEA's Joint Convention on the Safety of Spent Fuel Management and Safety of Radioactive Waste Management (JC) and requirements, as in the Council Directive 2011/70/EURATOM of 19 July 2011 establishing a Community framework for the responsible and safe management of spent fuel and radioactive waste. These international recommendations or requirements often require member countries to develop a credible strategy that shows how radioactive waste can be safely managed, from production to final disposal.

Various waste classification schemes have evolved as most countries classify their waste according to their origin, to the protection of workers criteria or to the physical, chemical and radiological properties of the waste and/or their planned disposal method(s). Such variance has restricted the comparison of waste inventories generated in different countries and also caused difficulties in interpreting waste management practices, both nationally and internationally. The various waste schemes evolved in different countries have also constrained a global radioactive waste inventory to be estimated and further hindered comparison of how waste is managed among countries.

To address the above shortcomings, a methodology to assure consistency of national waste inventory data when it is required to place them into a common scheme.

Description

In 2013, in response to the issuance of the European Committee EC Directive 2011/70 which specifies the required contents of a national radioactive waste management program, the Nuclear Energy Agency (NEA) Radioactive Waste Management Committee (RWMC) conducted a survey to assess the latest situation of waste classifications in the NEA Member Countries. Results of this survey clearly indicated that a wide variety of waste classification schemes are being used in different countries. Such variance has caused difficulties in comparing the existing waste types managed by the member countries.

With such shortcoming, the RWMC, in their 2013 plenary meeting (RWMC-46), recognized the need to create a dedicated working group to tackle all relevant issues associated with the predisposal management of all radioactive waste [NEA 2013 Summary Record]. Initial tasks of this new working group have since been proposed including (i) to fully understand the fundamental principles used by

different Member Countries in classifying their radioactive wastes; and (ii) to derive a method to compile the various waste schemes so that the various waste types could be compared and a global inventory be estimated.

In January 2014 a joint IAEA and EC working group “Status and Trends” (STJWG) which focuses on periodic publication devoted to RW and SF management was formed under IAEA. Current and prognosis status of RW/SF management as well as the estimated future arisings on the international world/regional level will be published. The first meeting of this joint working group has been held in June 2014, with an objective to start the work on the publication. The RWMC supports the involvement of the NEA in the STJWG and the NEA Secretariat in a joint IAEA, EC, NEA Secretariat. The RWMC shall decide, however, on endorsing the STJWG publications in the future, when more information will become available. Progress will be assessed at RWMC-48 and a decision will be made then. At RWMC-47, the RWMC also decided to establish an expert group for developing a methodology for transposing national RW inventory data into a common presenting scheme. A joint Secretariat with representatives from the NEA, EC and IAEA is to be organized.

Membership

Members of this expert group are specialists experienced in waste classification and characterization. Members are expected to be from waste management organizations, regulatory authorities and research institutes. Members of the EGIRM shall adhere to the rules and procedures of the OECD. Expected number of working group participants is 5-6 persons.

It is proposed that NEA, IAEA and EC establish a joint Secretariat of the Expert Group.

Mission

The EGIRM is a technical body of the RWMC, aims at developing a universal approach based on the understanding of various RW classifications established in different countries and developing relevant methodology to provide application of approach. This methodology should be a universal tool to provide the understanding, comparison and compilation of inventory data of different countries. In principle, the scope of EGIRM’s activities includes the RW classification schemes in NEA countries, actual international schemes, their background, main aspects of application, conformity of each RW class to disposal route (when defined). In particular, the EGIRM work includes:

- Development a methodology to assure consistency of national RW inventory data when it put into a common presenting scheme (this scheme will be used only to a comparison and combination of RW inventory data).
- Supporting NEA members in preparing their National Report for the JC and the European Directive 2011/70 with above mentioned method as tool of comparison and compilation of data.
- Proposal to the joint project “Status and Trends” of above mentioned method as a tool for presenting RW data in preparing publications.

The starting effort of this expert group will focus on Spent/used Fuel and High Level Waste. This first part of methodology will initially be tested on several selected waste classification schemes. Then the possibility of extension to other classes will have to be evaluated.

Mode of Operation

The working programme and modus operandi of EGIRM shall emphasise the pooling of expert's knowledge, the sharing and synthesis of understanding and experience, and the provision of result to NEA countries and then to STJWG.

Communication within the expert group will take place through two meetings a year supported by status reports on EGIRM activities and key findings. Extended use of electronic technologies e.g. a dedicated EGIRM working area of the NEA web site further facilitates communication between meetings. The meetings will be mainly devoted to:

- in-depth discussions of current interim (or final) results of work where specialists from outside the EGIRM can also be invited;
- discussion of EGIRM studies and reports;
- the identification and review of relevant topics of work within the general objectives of the group, taking into account guidance given from the RWMC;
- the discussion of the working programme, and
- overall decision-making regarding on-going and future activities by the group.

To ensure an efficient conduct of the work programme:

- The Secretariat of the EGIRM will inform the Bureau about current status of work.
- The EGIRM will present the interim result of work (1st year period) to RWMC for discussion and approval.
- The EGIRM will document all relevant details of the proposed method in a final report.

Information collection, analysis and method development are the major objectives of the EGIRM. These imply information and opinion exchange among EGIRM members as well as the effort to have involved into discussions a larger audience of specialists. This objective is addressed by the sending of final product draft into NEA countries for approval by both implementers and regulators. Also some experts outside of EGIRM can be involved in discussion at the interim stage of work when first observation and proposals will be formulated. The EGIRM also emphasises coordination with RWMC and STJWG.

Decision making in national programmes towards developing and implementing RW classification schemes must take into account a lot of different aspects specific for given member country, e.g. safety, technical, legal, regulatory, societal, etc. The EGIRM does not intend to impose a new waste classification or to alter the existing RW classification schemes of the member countries. The methodology proposed is solely for a global comparison of RW inventories. Moreover it's necessary to provide clear explanations that transferring the national RW inventory data into proposed presenting scheme should be done only regarding to final stage of RW management – disposal. This means only factors directly concerned to disposal route should be considered.

Duration of the mandate

The mandate is to be accepted at the first meeting of expert group and forward to the RWMC. The duration of this working group is 2 years – from September 2014 till September 2016. Mandate may be extended at the discretion of the RWMC.