SUMMARY OF THE IAEA INTERNATIONAL WORKSHOP ON

A Common Framework for the Safety of Radioactive Waste Management and Disposal

Cape Town, South Africa, 2-6 July 2007

Executive Summary

The Agency convened an international workshop on a common framework for the safety of radioactive waste management and disposal in Cape Town, South Africa during July 2007. The workshop had been triggered by the continuing international interest in the establishment of comprehensive national radioactive waste management policies and implementing strategies that will ensure that all radioactive waste is appropriately managed and that a safe solution can be found for the disposal of all types of radioactive waste. The concept of a common framework linking radioactive waste types to disposal options in a manner that respects international safety standards, and takes cognisance of local circumstances, has been evolving for a number of years. Important to the concept is a comprehensive system of radioactive waste classification - a topic area where the IAEA Safety Standards are presently being revised to meet this objective, and international consensus on methodological approaches to safety demonstration; to provide assurance of compliance with safety standards. All these issues were addressed by the workshop, which came to a number of important conclusions. There was consensus that international standards on radioactive waste classification should encompass all waste types, including those containing naturally occurring radionuclides and disused sealed sources, and should essentially be based on long term management of the waste, essentially waste disposal. There was also agreement that radioactive waste with minimal amounts of radioactive content, refereed to as very low level waste, was a legitimate and useful concept and should be part of the classification scheme. It was recognised that there is certain radioactive waste that is not suitable for near surface disposal, but does not warrant the degree of isolation and containment provided by geological disposal. Disposal at intermediate depths i.e. between a few tens of metres and several hundred meters, in a suitable geoclinal environment was considered to offer good prospects for safety. The revised standards on radioactive waste refer to such waste as intermediate level waste. This is a notable change from previously when this term was used to describe waste which on account of the radiation dose rate at the package surface required remote handling. Whilst classifying radioactive waste based on disposal options was considered to offer many benefits, it was recognised that the safety of any particular disposal facility had to be demonstrated, including the suitability of waste for disposal in the facility. As such, only limited guidance of a quantitative nature could be offered, nevertheless in terms of developing national waste polices and strategies it was agreed that the approach proposed was preferred. The conclusions from the workshop will be taken forward in the further development of IAEA Safety Standards and supporting documents related to the matter.

Introduction and Background

Recent international conferences on the safety of radioactive waste management and the first two meetings of the Joint Convention on the Safety of Spent Fuel Management and the Safety of Radioactive Waste Management (2003 and 2006) have all highlighted the need for comprehensive national waste management policies and implementing strategies which encompass all types of radioactive waste from their generation to their reuse, recycling, clearance or disposal.

In giving consideration to national radioactive waste management strategies suitable options for disposal of all waste types have to be determined. Many waste disposal facilities developed to date have been targeted on waste arising from the back end of the nuclear fuel cycle and certain waste generated from the manufacture and use of artificial radionuclides. These are often based on quite large inventories of waste and make use of near surface disposal or disposal at depths of some tens of metres. Some disused sealed sources do not meet waste acceptance criteria for near surface disposal, nor does some waste containing longer lived radionuclide of both natural and anthropogenic origin. The increase in planning for and the actual conduct of decommissioning activities has also identified the fact that significant amounts of radioactive waste will arise with low levels of radioactive content in the near future, waste that does not require the robust containment provisions typical of modern near surface radioactive waste disposal facilities. Increasing attention is also being given to waste containing radionuclides of natural origin, often arising from activities not associated with the nuclear fuel cycle or traditional industrial and medical uses of radioactive material.

In view of these various factors the IAEA has given consideration in recent years to the development of a common framework for the management and disposal of radioactive waste. The framework is intended to assist with the development of rational, comprehensive and optimized national radioactive waste management policies and implementing strategies that will provide and assure the necessary levels of safety. An essential component of such a framework is a comprehensive system for the classification of radioactive waste and an appropriate approach to safety demonstration. Work related to these two areas is currently underway on the revision of the international standard on the classification of radioactive waste and the safety case and safety assessment for disposal, together with a number of international intercomparison and harmonization projects on disposal safety demonstration. This work covering all waste types and management and disposal options is at an advanced stage and it is deemed that the time is right for both to be discussed more broadly at an international level prior to finalization and publication.

The objective of the workshop was to create awareness amongst interested parties of the concepts and ideas forming the basis for the common framework and the issues that have arisen in revision of the international standards on the classification of radioactive waste and safety assessment, to provide an international platform for their discussion, and to work towards an internationally harmonized basis for national radioactive waste management policies and implementing strategies that will provide and assure high levels of safety.

The workshop took place over five days, the first four dedicated to discrete topic areas and the final day being given over to summaries of the daily sessions and panel discussions. Topics on the first day were; “the Global Waste Safety Regime and Classification of Radioactive Waste”,

the second day; “Waste Management Policy – Perspectives”, the third day; “Disposal Issues” and the fourth day “Safety Demonstration and the Common Framework”. The meeting was opened by key note presentations from Maurice Mugugemla, Chief Executive Officer of the South African national Nuclear Regulator, Didier Louvat, Manager of the IAEA Radioactive waste Management Programme, Leslie Gumbie, South African Ambassador and Permanent Representative to the International Atomic Energy Agency and Rob Adam, Chief Executive Officer of eth Nuclear Energy Corporation of South Africa. Over one hundred participants from thirty nine countries took part in the meeting.

DAY 1: THE GLOBAL WASTE SAFETY REGIME AND CLASSIFICATION OF RADIOACTIVE WASTE

The session was chaired by Thiagan Pather (South Africa) and the session rapporteur was Luc Baekelandt (Belgium).

Global Waste Safety Regime

The role of the IAEA in relation to the safety of radioactive waste disposal was described. This encompasses the administration of the Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management (the Joint Convention), the development of international safety standards, and the provision of assistance in the use and application of the standards.

It was noted that the technical basis for the Joint Convention was the principles contained in the IAEA Safety Fundamentals document "The Principles of Radioactive Waste Management", published in 1995. The objective of the Joint Convention is to ensure a high level of safety worldwide in the management of radioactive waste and spent fuel.

The process for achieving this objective involves the preparation, by Contracting Parties to the Convention, of national reports and the review of the reports at the periodic review meetings. The IAEA Safety Standards are deemed to be a good benchmark for ensuring the harmonization of safety worldwide.

The discussions highlighted that the burden on Contracting Parties to the Joint Convention is not negligible, in particular for those that are also contracting parties to the Convention on Nuclear safety (with similar obligations). The IAEA was requested to investigate possibilities to make the burden less heavy.

The main benefits of the Joint Convention, in addition to the international peer review process, were the fact that Contracting Parties perform a self assessment, which if carried out with reference to international Safety Standards, contributes to establishing and maintaining a high and harmonized level of safety throughout the world.

Conclusions from the first two review meetings held in terms of the Joint Convention highlighted that –

- clearance is still an issue, since there is not yet unanimity on the use of internationally agreed clearance levels;

- the implementation of the Code of Conduct with respect to the management of disused sealed sources is important;
- not all countries have a national policy and strategy for the management of radioactive waste; (the IAEA envisages assistance to the development of such plan);
- keeping the memory of installations in case of delayed decommissioning is important but may be not easy;
- most countries acknowledge the importance of public consultation and acceptance.

The presentation and subsequent panel discussions provided an encouraging view of the progress being made towards global waste safety. It was concluded that the Joint Convention does play a major role in improving waste safety worldwide.

A presentation on the waste safety standards covered the history and hierarchy of the standards, the process for their development and the current status of documents in preparation. Furthermore proposals have been made for further consolidation and integration of the safety standards beyond 2010 and this was elaborated upon.

A presentation on the WENRA (Western European Nuclear Regulators Association) initiative related to waste safety harmonisation detailed the progress made with the development of safety reference levels for decommissioning and storage of radioactive waste.

The methodology adopted by WENRA included:

- Development of safety reference levels based on IAEA Safety Standards for waste and nuclear safety;
- Involvement of stakeholders;
- Conducting of a self assessment by WENRA States on national legislation;
- A process of peer review of national arrangements against reference levels;
- Development of national action plans to address the outcomes of the benchmarking exercises.

WENRA plans to develop safety reference levels for waste disposal in the future.

Classification of Radioactive Waste

Among IAEA member countries, various waste classification schemes have been developed. The purpose of the IAEA Safety Standard on classification was to provide a consistent basis for dealing with the safety of radioactive waste management.

The classification scheme was also intended as a point of reference for use within international frameworks such as the Joint Convention on the Safety of Spent Fuel Management and on the safety of Radioactive Waste Management.

The proposed revision to the IAEA Safety Standard on radioactive waste classification was presented and it was highlighted that the scheme was linked to disposal options and long term safety. The proposed classification scheme considers the following classes of waste:

- exempt waste
- very low level waste
- very short-lived waste
- low level waste
- intermediate-level waste
- high-level waste

A further presentation highlighted the classification scheme used in the Ukraine, it was noted that this scheme had some differences from the proposed IAEA Safety Standard on radioactive waste classification.

The panel discussion expressed support for the harmonised approach presented by the proposed IAEA Safety Standard on radioactive waste classification. The consensus was that the scheme must be comprehensive and cover all types of waste encountered. It was noted that exempt waste and very short lived waste will generally not be disposed of as radioactive waste, but it is important that these waste types are addressed to ensure a holistic approach to radioactive waste management.

With regards to quantitative guidance related to the distinction of radioactive waste classes it was concluded that –

- Definitive values exist for determining exempt waste (values provided in RS-G-1.7).
- Very low level waste is represented by waste characterised by activity levels that are between some tens to 100 times the values in RS-G-1.7.
- For the other classes only indicative values are provided the precise classification would be dependent on the disposal option.

There is also clear need for harmonization in the terminology used – the inconsistent use of terminology hampers the efficient and effective sharing and exchange of knowledge and lessons learned. It was considered to be particularly important in IAEA publications.

In response to questions, in the opening session, the audience confirmed the view that the current scientific and philosophical basis for radiation protection based on the fundamental scientific evidence provided by UNSCEAR and elaborated upon by the ICRP and IAEA was sound and provided an adequate and appropriate level of protection.

DAY 2: WASTE MANAGEMENT POLICY - PERSPECTIVES

The session was chaired by Piet Bredell (South Africa) and the session rapporteur was Peter Lietava (Czech Republic).

Papers from ten countries and two international organisations (IAEA and WNA) on the topic illustrated the increased interest of in the subjects of radioactive waste management policy and implementing strategy. This interest ranges from the activities of the IAEA in this area through the development of national policies and strategies in countries with both small and large nuclear industry sectors and collective perspectives from an international association of nuclear operators.

From the broad spectra of issues related to the development of radioactive waste management policies and implementing strategies, the following were identified from the presentations and panel discussions to be of note:

- international co-operation on various aspects of RAW management covering issues such as sharing of financial, human and technological resources, development of national policies and strategies (cost of storage vs. disposal, delayed development of geological repositories, ...,
- periodic updating of national policies and strategies and their adaptation to changed external conditions;
- comparison of large vs. small RAW management projects; what are the commonalties and differences and what are the lessons learned;
- management of historical and legacy waste, the responsibility of governmental bodies and pre-disposal and disposal options;
- technical issues influencing the definition of national RAW management policies and strategies such as;
    - treatment of ion exchange resins
    - centralised waste management facilities
    - NORM, sealed disused sources and VLLW.

The meeting responded very well to the above listed issues. In the area of international co-operation the participants highlighted the need for knowledge management. It is quite difficult to deal with this issue, but as the nuclear industry expects dynamic growth in the forthcoming decades, it is vital to assure the exchange of practical operational experience between different generations of operational staff. The IAEA acknowledges the role of knowledge management and recently, in June 2007 had organized an international conference dealing with this issue.

The terms national policy and national strategy are often used to describe the same concept. The approach taken in IAEA documentation has been to consider "policy" as more broadly covering what will be done and "strategy" the practical measures to implement the policy and associated timeframes. With such meaning usually there would be less need to update the national policy i.e. the final goals which should be met (safe disposal of all categories of radioactive waste). But the technical means and processes how to reach these goals as described in national strategy could require more frequent updates. It was clearly stated that the national policies and strategies should not be considered as dogmatic documents and some level of flexibility is needed. But this flexibility should not put in question the final step in the radioactive waste management process – the disposal of radioactive waste. Participants from Germany shared their experience with the development and update of national waste management strategy taking into account the changed time schedule of the development of the Konrad facility and the changed properties of the disposed waste (volume, density, ...).

A significant part of the panel session was dedicated to the so called "pragmatic" approach to disposal of radioactive waste. Not all countries are not yet considering disposal as the final step in their national policies. Some also are considering very ambitious nuclear projects including the construction of several nuclear power units, but disposal of some waste streams, especially high level waste and spent fuel has been given limited consideration. Similar statements were made also during presentations to other sessions (e.g. Session V). The IAEA representatives clearly

expressed their opinion that this approach was not compatible with one of the fundamental principles – no undue burden to future generations. The disposal option has to be offered to future generations including sufficient financial resources and established regulatory, organisational and R&D frameworks. The indefinite storage of radioactive waste is not considered as a sustainable radioactive waste management option.

DAY 3: DISPOSAL ISSUES

The session was chaired by Wolfgang Goldammer (Germany) and the session rapporteur was Mogwera Khoathane (South Africa).

Four of the five presentations in this session dealt with disposal issues related to specific types of waste. A further presentation presented a summary of the Cordoba Symposium on low level waste in 2004.

The management of waste containing naturally occurring radionuclides was addressed in two presentations from South Africa.

One presentation on this subject described the management of waste from the gold and uranium mining industry in South Africa. Successes in the management of tailings were described. Major challenges which still need to be addressed were identified:

- Management options for waste rock with low activity concentration (< 0.5 Bq/g) but high volumes still need to be addressed;
- The long-term institutional control over the on-surface disposal facilities represents an important issue for future consideration;
- Challenges arise with regard to the interaction with stakeholders and their preparedness to agree to options for closeout / reprocessing of tailings;
- Materials arising in small quantities but with high activity concentrations (CAT III materials above 1000 Bq/g) are currently stored only and suitable disposal options still need to be identified.

The other presentation on NORM issues presented a case study for the management of tails from the processing of mineral sands. Options for their management (blending these tails with lower level wastes or burial of these tails beneath the other wastes) were discussed and analyzed with regard to their potential to achieve compliance with regulations. The analysis concluded that clarification is needed on how to apply regulatory criteria (in particular dose constraints) and on how to identify the ‘best’ option.

The panel discussion on these issues reached the main conclusion that further guidance seems to be required with regard to suitable criteria for waste containing naturally occurring radionuclides and their application. The issue of long-term (basically indefinite) institutional control over such wastes disposed of at or near the surface also appears to require further discussion in order to demonstrate compliance with the fundamental principles for waste management. Challenges related to the safety demonstration for such facilities and time scales also would warrant additional discussion on the international level.

A specific issue which is relevant, for example, for the CAT III waste in South Africa, is the question whether the dilution of such wastes by disposing them together with lower level waste (e.g. in tailings impoundments) would be considered as an appropriate management option. The conclusion was reached that this could represent a justifiable management option as long as materials of the same principle origin and with the same principle radionuclide inventory are disposed of together. Nevertheless, such management options would require a case-specific justification in the safety assessment.

An important overall conclusion reached from the discussion of NORM waste relates to the new proposed waste classification scheme. Although important differences exist between the management of waste containing artificial and naturally occurring radionuclides, the workshop concluded that NORM should be seen as part of the waste classification scheme and not be excluded from the classification.

A presentation from Australia addressed the upper end of the classification scheme, namely the delineation between high level and intermediate level waste. The current waste classification contains a quantitative delineation between HLW and ILW (2 kW/m^3). This quantitative boundary is no longer present in the new draft version of the classification.

It was stated that from this change problems arise for Australia in terms of operational and contractual difficulties to accept wastes from reprocessing back to Australia if they are not, based on the waste classification, clearly to be seen as ILW. Since also negative stakeholder reaction is foreseen, the request was made to maintain consistency of the classification in this regard and to keep the above mentioned quantitative boundary.

During the panel discussions, reasons for not including this quantitative boundary in the new classification were explained. These are mainly based on the fact that the whole rationale behind the waste classification is based on linking waste types to appropriate disposal options. Since this linkage depends on the actual facilities available or planned in a country, quantitative delineations can, if at all, only be given as rough indications because the actual distinction between waste classes depends on the safety cases for these facilities. It was further noted that there does not appear to be any profound basis for the heat generation criterion of 2 kW/m^3. Based on this discussion, the majority of workshop participants agreed to the approach taken in the new draft classification document to not mention an explicit delineation criterion between HLW and ILW.

A presentation from France first provided an overview of radioactive waste in France and the strategy to manage these. The presentation then focussed on the management particular wastes:

- Graphite waste from Gas-Graphite reactors
- TE-Norm (ore processing, enhanced Ra-226)
- Disused Sources

Requirements and options for their management in an intermediate depth disposal facility were discussed and long-term safety issues (e.g. performance of engineered barriers) were presented as important aspects to be addressed in the safety case for such facility.

A further presentation made on the main outcomes of the Cordoba Symposium on Low Activity Radioactive Waste made it apparent that a new urgency exists in many countries to develop or extend arrangements for low activity waste management and disposal because of the ongoing or imminent decommissioning phase of their commercial nuclear plants. The subject of low activity radioactive waste management is raising several issues of both a philosophical and a technical nature, such as the question of when a waste is to be considered radioactive from regulatory perspective, the issue of suitable management strategies for waste that is both long lived and present in large volumes and of finding suitable routes for new types of low activity waste. A particular challenge to solve these issues arises for countries with limited resources.

In the panel discussion it was agreed that several of these outcomes of the Cordoba Symposium still require to be addressed further. Nevertheless, it was noted that progress has been made in several areas since 2004. In particular, IAEA initiatives supporting countries with limited resources were mentioned. Examples for concrete projects supported by the IAEA are the mobile processing facilities and the borehole concept for the safe disposal of sources.

DAY 4: SAFETY DEMONSTRATION AND THE COMMON FRAMEWORK

The session was chaired by Francios Besnus (France) and the session rapporteurs were Bob Loijk (Canada) and Adrian Joubert (South Africa).

The days sessions featured four presentations on the structure and content of safety cases, safety assessment for near surface disposal, international projects on harmonisation of safety demonstration and software tools supporting safety assessment and safety case development. Regulatory programmes from China and Romania where also presented.

The Safety case was described as an integration of arguments and evidences that describe, quantify and substantiate the safety, and the level of confidence in the safety of a disposal facility. It should be developed in a step-by-step manner with well-defined decision points and regulatory bodies and their technical support organisations must be informed about the state of development at each step and involved in the major decisions (e.g. about the disposal facility concept or about R&D priorities), no matter whether or not there is a formal requirement for doing so.

A number of key project stages were identified from a regulatory perspective; conceptualisation, siting, design, excavation/construction, operation and closure. At each stage it was considered necessary that the facility design and the safety strategy, the site and engineering suitability, the radiological impact assessment, the management system adequacy must be confirmed by the safety case, both individually and in a integrated manner, before moving to the next project stage.

It was concluded that the structure of safety case should be maintained through every stage of the step-by-step process, with the content of the safety case being progressively developed as the project proceeds. For each key step of decision making, a decision should be taken only if structured information on all important elements of the disposal system is available. Additionally whatever the stage is the Safety case must back up on a Safety assessment that always comprises three components: assessment of the site / engineering, assessment of the radiological impact and assessment of the management system. A particular issue emphasised was the importance of the site and engineering assessment, which were considered fundamental and that the radiological

impact assessment the assessment of management systems were seen as tools to assist in confirming the site and engineering adequacy.

The updated post closure safety assessment for the South African near surface disposal facility was performed because new regulations had been promulgated and the source term revised to include possible increased power reactor waste, historic waste from fuel cycle facilities and possible future waste from the pebble bed modular reactor. The assessment context, scenarios and modelling approach were described and the outcome of the assessment was presented, which indicated that the facility could most likely accommodate the revised inventory.

The obligation on facility operators to demonstrate the safety of facilities prior to construction, during operation and at closure is included in the internationally recognised fundamental safety principles. As such there is considerable interest internationally in approaches and methodologies for such safety demonstration for all the various radioactive waste management facilities and activities. There is also a strong level of interest internationally in harmonisation of such approaches and methodologies; in view of the globalized nature of the nuclear industry and because of the long time scales that are often involved, which renter international borders somewhat meaningless. In view of these factors, the programme of work undertaken by the IAEA includes a number a ongoing inter-comparisons and harmonization projects an overview of which was presented. The projects cover near predisposal radioactive waste management, decommissioning, environmental transfer of radionuclides, near surface disposal, geological disposal and mine tailings disposal from both uranium and other mining and minerals processing activities. All of the projects entail the development of agreed systematic approaches to safety assessment and demonstration, inter-comparison of applying safety assessment approaches and the identification of issues and problems encountered in demonstrating safety and in regulatory review of such demonstration. The projects have attracted broad international interest and have provided invaluable feedback to the safety standards development process.

The SAFRAN software tool was developed as a result of developments in the harmonisation projects discussed above. The project participants recognised that the systematic approach developed to safety assessment for predisposal management of radioactive waste lent itself very much to software application. This was in respect of data collection and storage for the waste being managed and the waste management facilities, the assumptions and scenarios forming the basis of the assessment and the outcome of the assessment. Initially the tool was developed for application to normal operational of waste management facilities and to accident situations. A new version was under development for applications in decommissioning. The tool was intended to assist and facilitate the development, review and presentation of safety assessment and is freely available on the IAEA website. Participants were encouraged to make use of the tool and provide feedback on any shortcomings identified with a view improvement further development for future applications.

The regulatory framework as applied in Romania was presented were the authorization process follows a phased approach through predisposal, storage and disposal. Currently a disposal facility is situated at Baita Bihor, designed for low and intermediate waste and a new facility is planned at Saligny near the nuclear power station site. The VVR-S research reactor at Magurele is planned for decommissioning. Currently fuel is stored in pool on site, but is planed to be returned to Russia. The Triga research reactor is to be decommissioned and the HEU to be sent

back to USA and the zero power reactor at Pitesti is to be decommissioned. Spent fuel from the nuclear power plant will be stored on site at Cernavoda.

The regulatory framework in China makes provision for various aspects regarding waste management such as basic safety standards, predisposal management, discharges, disposal, and decommissioning. Disposal options that could be considered include near surface disposal, surface disposal, geological disposal, disused sources and exempt discharge. A detailed waste classification exists. The regulatory system for obtaining a nuclear authorization and the processes of verifying compliance were discussed and a number of issues were identified to be of importance. The issues included; moving from regulations to implementation, public education on radioactive waste management, how to regulate materials containing naturally occurring radionuclides, where to set quantitative boundaries in the radioactive waste classification scheme and what were appropriate disposal options for disused sealed sources.

The Common Framework

This concept of a common framework linking radioactive waste types and disposal options was presented. The internationally recognized safety objectives and safety principles were elaborated and, in this context, proposed matrices were presented for all types of radioactive waste including those containing naturally occurring radionuclides. The common framework could assist in decision making related to finding an appropriate, safe and cost effective disposal solution for the various wastes, for instance in countries who have no nuclear energy programme but have to find a solution for disused sealed sources and to rationalise the (near surface) disposal of mine tailings and other waste containing naturally occurring radionuclides.

The presentation provoked considerable discussion on a broad range of related matters including the classification scheme and safety demonstration summarised in bullet form below:

- The panel discussion touched on the issues of Pros and cons of prescriptive vs. a performance based approach. It was generally agreed that the performance based approach provides greater flexibility and a better opportunity to achieve an optimized solution. However, it was also pointed out that it requires a mature regulator and that it may not be suitable for all licensees. Small licensees would likely not have the resources for a propose-dispose approach.
- It was recognized that setting radiological criteria for the long term would be difficult. Various options were discussed and it was pointed out that the most robust solution may also end up being the least costly. Also, there may be safety benefits in carrying out the work right away.
- Since the common framework is also a common approach to safety, it is expected that its implementation would lead to better stakeholder acceptance. Again, countries could integrate the guidance in their own documents.
- While it is hard to quantify an acceptable a trade-off between economy and safety, the most expensive option may turn out to be the cheapest.
- It was felt that the existing proposal would accommodate mixed waste.
- The common framework links management options and classification. Implementation would require programmatic and management tools in addition to regulations.
- Equivalencies in the proposal for NORM may require some revision as they are not truly equivalent and the two classification schemes should agree on NORM definitions.

- Tailings pose unique problems due to their volume and long term hazard and other solutions may be required to deal with local conditions and effects.
- The participant touched on the subject of how safe is safe.
- Why propose near surface when sooner or later will need a DGR? (depends on situation).
- It was clarified that the proposal is an IAEA recommendation, which may be published as a separate document. There is no link to the Joint Convention.

There was agreement among the participants that there are common safety, technical, economical and societal aspects that need to be addressed and a common approach to their consideration would have benefits. However, a comprehensive and coherent classification scheme was deemed essential to support any such approach. It was also concluded that a common framework will help to find a safe and cost effective disposal solution for the various wastes and will assist in decision making to link a waste type with a suitable disposal option. There was widespread support for the issuance of a reference document on the common framework by the IAEA. While countries that have developed policies for the management and disposal of nuclear waster could use the document to provide background for their policies, other countries could use the document for policy purposes.