

April 13, 2011

**ATTACHED ARE COMMENTS
FOR A NOVEMBER 20, 2010
MEETING WITH IAEA**

TITLE

U.S. NRC Comments on “Radioactive Waste Management Objectives: Achieving the Nuclear Energy Basic Principles”

COMMENTS BY REVIEWER				RESOLUTION			
Reviewer: U.S. NRC (Contact: Bobby Abu-Eid)							
Page 1 of 3							
Country/Organization: USA/U.S. NRC				Date: 11/19/2010			
Comment No.	Para/Line No.	Comment/Proposed new text	Reason	Accepted	Accepted, but modified as follows	Rejected	Reason for modification/rejection
1	General	This document was essentially developed to satisfy the needs of the IAEA <i>Nuclear Energy (NE) Basic Principles (BPs)</i> regarding radioactive waste management. We note that the NE-BPs overlap with the IAEA <i>Fundamental Safety Principles (SF-1)</i> and with the IAEA <i>Nuclear Security Fundamentals, NSF</i> (e.g.; under the IAEA <i>Security Guidelines</i>). For example, BPs Principle 3 (<i>Protection of People and the Environment</i>) overlaps with SF-1 Principles 5 (<i>Optimization of Protection</i>), Principle 6 (<i>Limitation of Risks to Individuals</i>) and Principle 7 (<i>Protection of Present and Future Generation</i>). BPs Principle 4 (<i>Security</i>) and Principle 5 (<i>Non-Proliferation</i>) overlaps with the basic principle of NSF. Because of such overlaps, we note of several overlaps in this document with key safety and security documents. For example, the objectives presented in this document overlap with the key objectives and safety requirements in IAEA GSRs Parts 3, 5, and 6, as well as with IAEA SSR-5. Therefore, in order to minimize overlaps we recommend that this document’ objectives focus on radioactive waste technology developments and design optimization, as related to radioactive waste management, to satisfy the needs of the Nuclear Energy BPs. In addition, we suggest that whenever there are significant overlaps in the areas of safety and security, the document should refer, and reference, the specific documents to avoid duplications and redundancies.	Minimization of overlaps of objectives as stated in this document with those objectives presented in key IAEA safety series (e.g., GSRs and SSRs) and Security Guidelines. Such overlaps can be minimized through focus of this document on aspects of technology and design optimizations of radioactive waste to satisfy the NE-BPs.				
2	1.2, Para 2	It is noted that the IAEA has developed a separate series of documents concerned with the safety of radioactive waste management, the Safety Standards Series [2]. The Nuclear	In this general Purpose and Scope paragraph security and non-proliferation				

		Energy Series documents are intended to provide guidance on strategies, methods and technologies that will together with the IAEA's safety documents ensure efficient and effective technical solutions and required level of safety (radiological and non-radiological) while managing radioactive waste. Add a statement to refer to and include as reference to the Nuclear Security and Non-Proliferation documents and treaties	references are notably missing.				
3	1.2, Para 3	In this document, radioactive waste management technology aspects and design will be considered is taken to include all of the steps	Focus the objectives of this document on waste management technology and design aspects in order to minimize overlap with safety series.				
4	2.2, Para 2 Objective	Objective: Developing technologies and designs for minimization of generation of waste and optimization of the management of radioactive waste.	Focus the document on design and technologies to minimize overlaps with safety series.				
5	2.2 Basic Principle 1; Benefit	Despite these schemes, some radioactive waste will inevitably be generated; by optimizing the technologies used for radioactive waste management, the associated costs can be kept to a minimum, taking due account of the other relevant factors, such as safety, security, non-proliferation , feasibility, public acceptability, sustainability, etc	Recommend that security and non-proliferation be included in the list of relevant factors, especially considering the prominence of the two missing factors in the Purpose and Scope paragraph and their having separate Basic Principle paragraphs				
5	2.2, page 4, last Para	It is important, therefore, that each country has national strategies in place for optimization of technologies and designs for safe and cost-effective management of all types of waste generated in that country [3].	Minimize overlap and redundancy, and focus objectives on technology development for waste management.				
6	Page 6, Para 3	However, while appropriate management techniques have been developed for most types of radioactive waste,	Minimize overlap and redundancy with the safety and nuclear series.				

		<p>there are some areas where additional Attention is needed to focus on technical and design aspects to ensure that the public and environment are properly protected. For example, in some countries, problematic waste streams exist that may require technology development, disused sealed radioactive sources have not been properly controlled and managed and, in others, land areas affected by uranium mining and milling or by past nuclear incidents or accidents have yet to be remediated. In these situations, technology enhancement and development are necessary to ensure adequate protection of the public. may be less than adequately protected.</p>					
7	Page 8, Objective and Para 2	<p>Objective: <i>Promotion of radioactive waste management technologies and methods and design schemes that save resources and utilize them efficiently</i></p> <p>Many opportunities exist to reduce the use of resources in radioactive waste management. One of the most obvious areas is the remote handling technologies and techniques of segregation, recycling, and reuse of materials that might otherwise be declared as waste during the operation and decommissioning of nuclear facilities, either directly, if not contaminated, or after decontamination or storage for decay to reach acceptable levels. Similarly, innovative techniques are needed for the decontamination of buildings and clean-up of contaminated lands to permits their release for unrestricted use and development</p>	Consistency, harmony, and focus on technical aspects to satisfy NE-BPs.				