From: Pinkston, Karen
Sent: Thursday, April 29, 2010 9:35 AM
To: ForeignTravel
Cc: Esh, David; McKenney, Christepher
Subject: International Trip Report - Vienna - Apr 2010
Attachments: Quick Look and Final Report_KEP_Apr2010.docx

The combined Quick Look and Final International Trip Report for a trip to Vienna, Austria is attached.

The purpose of this travel was to attend a meeting at the IAEA on the Safety Assessment Driven Radioactive Waste Management Solutions (SADRWMS) project. During this meeting, the work that has been done to date on this project was presented. This work includes the development of a software tool, SAFRAN, that can assist in the development of safety assessments for waste management facilities and activities. Once this software has been finalized, it may be useful to NRC staff and licensees in performing safety assessments for pre-disposal waste management activities, such as waste storage.

No policy issues or items of interest to the Commission were identified.

Combined Quick Look and Final International Trip Report

Travel Dates

April 10-20, 2010

Location

Vienna, Austria

Author, Title, and Agency Affiliation

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Organization/Committee

Plenary Meeting of the International Project on Safety Assessment Driving Radioactive Waste Management Solutions (SADRWMS) organized by the International Atomic Energy Agency (IAEA)

Background/Purpose

The purpose of this trip was to attend the Plenary Meeting of the International Project on Safety Assessment Driving Radioactive Waste Management Solutions (SADRWMS) at the IAEA. The desired outcome for this meeting was for NRC staff to provide their experience in reviewing safety cases for waste management facilities and activities and for NRC staff to evaluate the status of the development of review tools for regulators in the SADWRMS project.

Abstract: Summary of Pertinent Points/Issues

The work that has been done to date for the SADRWMS project was presented in the plenary meeting. The objective of the SADRWMS project is to examine the application of safety assessment methodology to predisposal waste management practices and facilities, including waste storage, and to improve and harmonize such approaches and methodologies. The activities completed for this project include the development of a software tool, Safety Assessment Framework (SAFRAN), which can assist in the implementation of the safety assessment methodology. In addition, safety assessments were performed using this software for a number of test cases. A test case performed for a waste management facility in Thailand was presented during the plenary meeting. During the next phase of the project it is expected that safety assessments that cover a range of waste management activities will be developed, and expertise will be provided on the application of safety assessments in radioactive waste management. In addition, support will be provided for the SAFRAN software, such as reviewing the SAFRAN tool and providing the necessary documents to support the use of SAFRAN in performing safety assessments.

Discussion

The objective of the SADRWMS project is to examine the application of safety assessment approaches and methodologies to activities and facilities associated with the predisposal management of radioactive waste. The outcomes for this project include guidance for the application and regulatory review of the safety assessment methodology for predisposal activities and the SAFRAN software tool that can assist in the implementing of the safety assessment methodology. During the plenary meeting, the work performed for this project to date was presented. This work included the development of the SAFRAN software and the completion of safety assessments for test cases. The outcome of the test case for the TINT facility in Thailand was presented in detail at the plenary meeting. This predisposal radioactive waste management facility has solid waste treatment (i.e., an incinerator and a compactor), liquid waste treatment, underground tanks, waste storage, and disused source storage. In this test case, a safety assessment was performed for the facility using the SAFRAN software.

The SAFRAN software can be used to document and describe the waste management facilities and relevant design features and to describe and visualize the waste streams at a facility. The software can also be used to perform and provide justification for a safety assessment, including documentation of postulated initiating events that could lead to an accident at the facility. It is also possible to evaluate alternative configurations for the facility using this software. In addition, the software can be used to perform some quantitative assessments, such as the dose from normal operations as well as the dose from some accident conditions, such as fire. A version of this software is available on the web, but the software is not completely finalized yet and the documentation and user manual for the software needs to be developed further.

The meeting participants discussed several areas of potential future work for this project. This included discussions on the documentation and guidance that is needed for performing safety assessments using the SAFRAN software tool. The content that should be included in the user manual for the software and the types of tutorials needed for new users were also discussed. In addition, the meeting participants considered proposed facilities that could be used for future case studies. The types of facilities considered for future case studies included a range of predisposal waste management facilities, and included some complex sites as well as more simple sites, such as disused sealed source storage facilities.

The next phase of the project will likely include the development of the user manual for SAFRAN and guidance on the methodology for using SAFRAN and the application of SAFRAN to performing safety assessments for a range of waste disposal facilities and activities.

Pending Actions/Planned Next Steps for NRC

There are no open actions or unresolved problems or issues. However, it would be useful for NRC staff to follow-up once the SAFRAN software tool has been finalized and released to determine if this software is of use to NRC staff or licensees in performing safety assessments for predisposal waste management activities, such as waste storage.

Policy Issues

The meeting did not involve policy issues.

Points for Commission Consideration/Items of Interest

None

Attachments

Meeting agenda

International Atomic Energy Agency

Technical Meeting
Safety Assessment Driving Radioactive Waste Management Solutions (SADRWMS): Project Outcomes and Follow-up Activities

12-16 April 2010
IAEA Headquarters, Vienna, Austria
Meeting Room M1

DRAFT AGENDA

MONDAY, 12 April 2010

Time	Topic	Presenter
9.30	***Opening remarks***	***P. Metcalf***
9.40	***Introductory remarks from the Secretariat***	***M. Kinker***
9.50	***Introductory remarks from the Meeting Chair***	***C. Fisher***
10.00	***Review of the activities of the IAEA***	***M. Kinker***
10.30	***Review of the activities of the SADRWMS project***	***J. Raicevic***
11.00	*Coffee Break*	
11.30	***Application of the SADRWMS Methodology: DS284 and SAFRAN Tool***	***W. Goldammer***
12.30	*Lunch*	
13.30	***SAFRAN Tool***	***D. Hofman***
15.00	*Coffee Break*	
15.30	***TINT Facility Test Case: results and lessons learned***	***W. Goldammer*** ***N. Yanaant***
17.30	***Summary of results, lessons learned, and future activities***	***Chair***

TUESDAY, 13 April 2010

09.00	***Proposals for the post-SADRWMS Project***	***M. Kinker***
	Plenary Discussion on proposals the new project	
10.30	*Coffee Break*	
11.00	***Working Group Sessions:*** *Scope of the new project*	
17.00	***Plenary Briefing***	

WEDNESDAY, 14 April 2010

09.00	***Plenary Discussion on the Scope for the new project***
10.30	*Coffee Break*
11.00	***Working Group Sessions:*** *Structure, Working Groups for new project*
17.00	***Plenary Briefing***

THURSDAY, 15 April 2010

09.00	***Future development of SAFRAN***	***R. Avila***
	Plenary Discussion on the Project Structure	
10.30	*Coffee Break*	
11.00	***Working Group Sessions:*** *Expected outcomes. outputs*	
17.00	***Plenary Briefing***	

FRIDAY, 16 April 2010

09.00	***Plenary Session on the new project prospectus, meeting summary and activities going forward***	
12.00	***Closing***	***Chair, IAEA***