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International Atomic Energy Agency
Agence internationale de l'énergie atomique
Международное агентство по атомной энергии
Organismo Internacional de Energía Atómica

7th EMRAS Aquatic Working Group Meeting

(Environmental Modelling for Radiation Safety Working Group 4
Model validation for radionuclide transport in the
aquatic system "Watershed-River" and in estuaries)

6–10 November 2006
IAEA Headquarters, Vienna

M I N U T E S

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M I N U T E S

The seventh EMRAS WG 4 meeting was held in Vienna (Austria) and was hosted by the IAEA (International Atomic Energy Agency). The objectives and aims of the meeting were to discuss the status of the WG activities and to plan further actions to finalise the exercises and to prepare the final report.

Scenario 2: The Techa River prepared by Ivan Kryshev and Alexander Kryshev (TYPHOON, Russia)

Typhoon has prepared a preliminary draft of the final document with results from IRSN (France), Atomenergoproject (Russia), Institute of safety development of atomic energy (Russia), Typhoon (Russia). Results from further participants will be added.

Scenario 5: Self-cleaning capacity of Huelva estuary.by Raul Periáñez (University of Sevilla). Results from University of Sevilla (Spain), EDF (France), IMMSP and UHI (Ukraine) were presented. Raul Periáñez (University of Sevilla) will be responsible for the preparation of the relevant section of the final report.

Contribution from the WG-4 to the revision of Tec. Series No 364: The draft of the chapter "Physical processes in freshwater ecosystems" was discussed. Some amendments were proposed.

Table 1. Planned actions for the preparation of the Final Report

Introduction	from A.1 of Loira scenario + MODELLING RADIONUCLIDES IN AQUATIC ECOSYSTEMS ….	To be completed and revised
Part 1 Section 1	Wash-off of ^{90}Sr and ^{137}Cs deposit from the Pripyat floodplain	Will be distributed **as soon**.
	1. Introduction 2. Main characteristics of the models 3. Results and discussion 4. Conclusions 5. References	
Part 1 section 2	Simulation of ^{90}Sr wash-off from contaminated Prypyat River flood-plain during flood 1999 with commercial software products	GL will send the revised text to LM before the **15 December 2006**.
Part 1 Appendix A1	Scenario description (short version)	Authors will send revised versions of model descriptions to LM **before the end of December 2006**.
Part 1 Appendix A2	Description of the models 1. University of Se villa 1.1. Model for the blind test 1.2. 2-steps kinetics model 1.3. Sensitivity analysis 2. ENEA 3. COASTOX	
Part 1 - The draft will be distributed by LM to participants for comments. A detailed review is asked to JB, RH and PB before the end of January 2007. Final draft: end of February.		
Part 2	Behaviour of ^{137}Cs and ^{90}Sr of Chernobyl origin in the Dnieper-Bug Estuary	RH will send new results and a short description of the applied model before the **15 December 2006**.

	1. Introduction 2. Main characteristics of the models 3. Results and discussion 4. Conclusions 5. References	LM will distribute a draft **before the end of January 2007**.
Part 2 Appendix A1	Scenario description (short version)	
Part 2 Appendix A2	Description of the models 1. University of Se villa 2. ENEA 3. COASTOX 4. University of Uppsala 5. NRG	
Part 2 - The draft will be distributed by LM to participants for comments. A detailed review is asked to IK, ML, NG before the end of February 2007. Final draft: end of March.		
Part 3	Migration of tritium in Loire river. The structure was discussed during the last meeting.	IMMSP will send paragraph E4 to **EDF as soon**. EDF will prepare a table of notation and will send it to participants **before the end of November 2006**. The model descriptions should be revised removing the parts that were already reported in the previous sections of the whole report. Modellers are asked to prepare revised versions and send these to EDF **before the end of December 2006**.
Part 3 - EDF will send the draft to the participants before the end of February 2007. RP, RH, JB will provide a review before the end of March 2007. Final draft: end of April.		
Part 4	Radioactive Contamination of the Techa River by ^{90}Sr, ^{137}Cs and $^{239,240}Pu$ (South Urals, Russia)	Typhoon will prepare a document **(including the results and description of IMMSP)** and will send it to ENEA. ENEA will distribute the document to all **before the end of December 2006**. Typhoon will distribute a final draft **before the end of January 2007**. Participants will send comments **before the end of February 2007**.
Part 4 -Typhoon will prepare a draft before the end of March 2007. EDF, JB, GL will provide a review before the end of April 2007. Final draft end of May 2007.		
Part 5	Huelva scenario	Participants will send final model results and descriptions to RP **before the end of November 2006**. RP will prepare and distribute the draft **before the end of January 2007**. Comments from participants **before the end of February 2007**.
Part 5 - RP will prepare a final draft before the end of March 2007. LM, PB, JB, IK will provide a final review before the end of April. Final draft: end of May 2007.		

General rules (to allow the final editing of the complete document)

— All the drafts of the 5 parts of the document should be ready before the end of May 2007 to allow the editing of the whole tec-doc during June.

— The single parts should be structured as much as possible like the part 1 (wash-off from flood plain) that will be distributed (Table 2).

— Formulae, figures and tables should be numbered as follows: Number#X (for instance, Fig. 1#A, Table 2#B, etc.), where: Number is the item number and X is:

- A for the flood plain scenario
- B for the Dnieper –Bug
- C for the Loire River
- D for Techa River
- E for Huelva estuary

Each author should prepare an executive summary of few pages including:

— Presentation of the exercise

— Participants

— Models main caharactersitics

— Results and Conclusions

Table 2. Suggested structure for the document

(1) A first part including (for each scenario):

(i) General description;

(ii) General results;

(iii) Conclusions;

(iv) Recommendations;

(2) A second part including

(i) The detailed description of each scenario;

(ii) The description of each model;

(iii) The detailed results of each scenario.