

**The IAEA's Programme on
Environmental Modelling for Radiation Safety
(EMRAS II)**

**EMRAS II
Reference Approaches for Human Dose Assessment
Working Group 1
Reference Methodologies for "Controlling Discharges" of Routine Releases
MINUTES
of the Third WG1 Meeting held at IAEA Headquarters, Vienna
25–29 January 2010
(during the Second EMRAS II Technical Meeting)**

IAEA Scientific Secretary	Working Group Leader
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* Initials used to refer to participants within minutes and actions as appropriate.

⁺ Signed up to attend WG1 but were busy in other WG Meetings.

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Summary

There is a lot of interest in this Working Group (WG1) and it is growing steadily. There are a number of people who are very interested in working in WG1 but they are busy in other WG Meetings that were held at the same time as this one (⁺ in Attending List above). These people have contributed results and I hope these Minutes will help update them.

Mr Richard O'Brian (ARPANSA, Australia) has indicated that he might have a document that could be used by WG1 to help with its medical isotope release scenario. He was not sure whether he can officially release it and said that he would look into that.

Mrs Françoise Siclet (EDF/R&D, France) mentioned that WG1 could also model a river scenario in France if need be. However, there is a need to check that WG1 would not be duplicating work that was done during EMRAS I.

During the meeting, **TJS** presented the preliminary results of Scenario A version 1 (Scenario Av1) by simply running the software on his laptop. These results varied greatly between users and models. It was then noticed that a lot of parameters which were thought to have been the same in each model, were not the same in each different model. There was then a lot of discussion about this and it was decided to compare the parameters directly. WG1 did this and then carefully discussed each parameter for one isotope that was released in the marine environment and in the atmospheric environment. During these discussions, we fixed (agreed upon a value) to be used in the re-running of this Scenario

(named Scenario Av2). It was decided that after this meeting, someone would calmly look through these values and compare them to the literature, to provide a “refereed” source of values. Ms Lauren Bergman will be/is doing this at Health Canada.

RH gave a talk about how his code POISIDON works. This led to a good discussion on the marine environment.

JGS and **LS** gave a demonstration of two versions PC-CREAM to WG1, thereby enabling new members who have not modelled before to get an idea of how to model radionuclides moving in different environments.

WG1 also had discussions about the questionnaire. The new deadline for the questionnaire is 31 May 2010. The IAEA will send a reminder email to all questionnaire recipients, thereby informing of the new deadline date.

DMT led a discussion on the selections of the critical group for Scenario B (this is the same as Scenario A, but the users are allowed to choose their own critical group within the habits data provided in the scenario). As a group, WG1 then decided which parameters it would let users change for Scenario B: this will be Sizewell, UK again. Again, as a group, WG1 then went through all of the parameters (as above, for one radioisotope for marine and one radioisotope for atmospheric) and decided which ones people were allowed to vary in their Scenario B results and which ones were fixed.

It was decided that people would need realistic meteorological data for the Scenario B. WG1 have some meteorological data for the same site, but it is very old, which, however, is acceptable for WG1’s purposes. It was also decided that the modellers would have the freedom to choose their age groups.

TJS will need to send out a copy of the Sizewell report to everyone and a copy of the maps.

Timelines

- Participants should work on their critical groups for Scenario B.
- The parameters for Scenario Av2 will be looked at carefully (in the template), the template will then be updated and sent out by latest 1 March 2010.
- Before Scenario Av2 is sent out, a copy will be sent to the Working Group Leader of WG4 (Nick Beresford, CEH, UK) for comments, so that ultimately the information obtained from the scenario can be shared with WG4 (Biota Modelling).
- End of April 2010 receive results of Scenario Av2.
- Analyze results and if satisfactory, then proceed with Scenario B.
- Hold the Fourth Working Group Meeting of WG1 in (approximately) September 2010 to discuss results of Scenario B.