

6th EMRAS Biota Working Group Meeting

25–27 June 2007

IAEA Headquarters, Vienna

MINUTES

Attending:

Participant*	Affiliation
Nick Beresford (NAB) co-chair	CEH, UK
Justin Brown (JB)	NRPA, Norway
Jing-Jy Cheng (JJC)	ANL, USA
David Copplestone (DC)	EA, UK
Rudie Heling (RH)	NRG, Netherlands
Ali Hosseini (AH)	NRPA, Norway
Brenda Howard (BJH) co-chair	CEH, UK
Geert Olyslaegers (GO)	SCK·CEN, Belgium
Diego Telleria (DT)	IAEA
Jordi Vives i Batle (JV)	WSC Ltd., UK
Mike Wood (MW)	University of Liverpool, UK
Tamara Yankovitch (TY)	AECL, Canada

*Initials used to refer to participants within minutes and actions as appropriate.

MINUTES

Agenda

The workshop was devoted to the Perch Lake and Chernobyl scenario, discussion of report content and feedback to IAEA for consideration within EMRAS II.

November 2006 actions

Status of paper was reported: *Exercise I* JV has replied to referees comments (paper accepted by Radiat. Environ. Biophys. During workshop); *Exercise II* - NAB submitted to Environmental Modelling in May; *IAEA April 2007 paper* – NAB submitted to Applied Radiation and Isotopes.

Report status was outlined: Introduction – drafted; Modelling chapter inputs required for SUJB, ECOMOD, D-Max, ERICA, RESRAD-BIOTA, EPIC-Doses3D, R&D128 and LAKECO. Exercise I chapter – JV adapting from paper; Exercise 2 paper – NAB adapting from paper; Perch Lake chapter – TY has partial draft (input required from RH); Chernobyl chapter introduction drafted, inputs required for R&D128 and D-Max. Discussion – agenda item for the workshop. During the course of the workshop DT confirmed that colour figures could be used in the TechDoc..

The schedule agreed by participants for production of the report is outlined in the actions below.

The group agreed that a good draft report should be available for the November EMRAS meeting and a final draft for submission to the IAEA would be available approximately one month later.

Perch Lake Scenario

Predictions additional to those described in November 2006 were described: RESRAD-BIOTA by AH/JB; RESRAD-BIOTA by MW; LAKECO by RH.

TY presented a comparison of all model predictions to the available data. Anomalies were identified and some time during the workshop devoted to addressing these. Other questions raised are actioned below.

Chernobyl Scenario

Predictions additional to those described in November 2006 were described: FASTer-EPIC by AH/JB; D-Max (Jim Smith not attending); RESRAD-BIOTA by JJC.

NAB presented a comparison of all model predictions to the available data. Anomalies were identified and some time during the workshop devoted to addressing these. Other questions raised are actioned below. Where investigation of these result in substantial model revisions it was agreed to keep the initial model predictions within results section and include revisions and reasoning within discussion section.

Feedback to IAEA

The group reiterated its support for the suggestion that a 'TRS364' for biota is produced.

Models being applied to demonstrate protection of the environment from ionising radiation are all relatively recent and still developing. To date the BWG has conducted predictions for only two scenarios and for a limited range of radionuclides. There is therefore justification for continuing the work of the BWG into EMRAS II to more comprehensively test the various models (including a marine scenario). Areas for focusing any future work were discussed included: consideration of radionuclides relevant to waste issues; expanding scenarios to include consideration of effects; boundary ecosystems.

The Perch Lake scenario has demonstrated the benefit of application by groups other than the model developers and this should continue.

It was noted that the PROTECT project would be considering some of the issues raised in discussions. This project will have finished before the next EMRAS programme so outputs will be available to help set the objectives for any follow-up to the BWG. Similarly, ICRP Comm. 5 should be close to delivering by the time the next EMRAS programme begins and outputs from UNSCEAR within this topic area should be available for consideration.

ACTIONS AND AGREED TIMETABLES

Action	Responsible	Due date	Status
<i>Perch Lake Scenario*</i>			
Confirm predictions being used for comparison by TY	RH	06/07/07	Completed at workshop
Supply text and assumptions for LAKECO	RH		Partially completed during workshop
Ask Typhoon why ECOMOD CRs differ between years	NAB	06/07/07	Awaiting response
Respond on any remaining anomalies identified	All	13/07/07	
Investigate source of ERICA and R&D128 fish Sr CR values	JB/DC	01/08/07	
What is the source of RESRAD fish BiV for Sr	JJC	01/08/07	
Does turtle data include shell	TY	01/08/07	
AH to send list of RESRAD BiVs to JJY so that provenance can be determined	AH/JJC	01/08/07	
Check comparative estimates of external dose for macrophytes by ERICA	NAB	27/07/07	
Data to JV for analyses	TY	30/07/07	
Perform and report statistical analyses	JV	01/09/07	
Circulate draft for comment	TY	1/10/07	
<i>Chernobyl Scenario</i>			
Provide PowerPoint of Chernobyl summary	NAB	06/07/07	02/07/07
Circulate revised table of predictions for final checking	NAB	06/07/07	02/07/07
Confirm/correct above	All	11/07/07	Received from TN, JTS & AH
Respond on any remaining anomalies identified	All	13/07/07	
Compare assumptions made in RESRAD and FASTER applications	JJC/JB/AH	01/08/07	
Discuss LIETDOS 'outliers' with Tatjana Nedvekaite (not attending)	NAB	11/07/07	
Data to JV for analyses (including SD values for observed data)	NAB	30/07/07	
Perform and report statistical analyses	JV	1/09/07	
Circulate draft for comment	NAB	1/10/07	
<i>Report (TechDoc)</i>			
Circulate format to chapter authors	NAB	11/07/07	10/07/07
Send Exercise I chapter to NAB	JV	30/07/07	
Circulate Chapters 1-4 for comment	NAB	15/08/07	
<i>Feedback to IAEA</i>			
Provide feedback to IAEA	NAB/BJH	11/07/07	11/07/07

*Send Perch Lake information to TY (cc'ed to NAB)