

**U.S. ENVIRONMENTAL PROTECTION AGENCY
SCIENCE ADVISORY BOARD
RADIATION ADVISORY COMMITTEE (RAC)
AUGMENTED FOR REVIEW OF EPA's RADIOGENIC CANCER RISK ASSESSMENT
Marriott Key Bridge; 1401 Lee Highway; Arlington, VA 22209
March 23, 24 & 25, 2009**

Purpose of Meeting: The purpose of this public meeting is for the Panel to discuss, deliberate and prepare the responses to the Charge Questions posed to the augmented Radiation Advisory Committee (RAC) by the Agency in review of the draft document entitled: **“EPA Radiogenic Cancer Risk Models and Projections for the U.S. Population,”** December 2008 (Prepared by the U.S. EPA/ Office of Radiation and Indoor Air (ORIA)).

Monday, March 23, 2009:

9:00 a.m.	Convene the Meeting	Dr. K. Jack Kooyoomjian, <i>Designated Federal Officer (DFO), RAC SAB Staff Office</i>
	Welcoming Remarks	Dr. Vanessa Vu, <i>Director, SAB Staff Office</i>
9:15 a.m.	Introductory Remarks Review of the Agenda, Introduction of Augmented RAC and Participants	Dr. Bernd Kahn, RAC Chair
9:30 a.m.	Overview of Development of the Blue Book	Mr. Jonathan Edwards, <i>Director, RPD, ORIA</i>
	Highlights of ORIA Current Activities, Background on <i>Blue Book</i> , Previous SAB/ RAC Reviews, Introduction of Charge and Agency Presenters	Dr. Mary E. Clark, <i>Assistant Director for Science, ORIA</i>
10:00 a.m.	Highlights of Previous Consultative Advice on Radiogenic Cancer Risk Assessment, Including the Recent White Paper and Other Products	Dr. Bernd Kahn, RAC Chair
10:15 a.m.	BREAK	
10:30 a.m.	Technical Overview and Highlights of EPA's Draft Document	ORIA Staff TBA
12:00 noon	LUNCH	

Day 1:Continued:

- 1:15 p.m. Continued Presentations by ORIA Staff, Including Questions & Answers by Augmented RAC ORIA Staff TBA
- 3:00 p.m. **BREAK**
- 3:15 p.m. Public Comments Dr. K. Jack Kooyoomjian, *DFO* as facilitator
- 3:45 p.m. Plenary Discussion of Charge Question #1: *Chair & Augmented RAC (Sub-Group Leads, and Discussants as Appropriate)*
- a) Approaches for extending risk estimates to radiations of different LETs;
 - b) EPA’s adaption of BEIR VII weighted geometric mean approach for combining EAR & ERR models for projecting risk from the LSS to the U.S. population;
 - c) Estimation of risks not specified in BEIR VII, including kidney, bone, and skin cancers, as well as for alpha particle irradiation of the liver;
 - d) Calculating breast cancer mortality risk, accounting for time from detection until death;
 - e) Separating out nonfatal skin cancers and risks from prenatal exposures from the overall risk estimates.
- 5:15 p.m. Re-Cap & Summary of Review Process & Next Steps Dr. Bernd Kahn, RAC *Chair*
- 5:30 p.m. **ADJOURN DAY 1**

Day #2:

Tuesday, March 24, 2009:

- 8:30 a.m. Reconvene Augmented RAC Dr. K. Jack Kooyoomjian, *Designated Federal Officer (DFO), RAC, SAB Staff Office*
- Planning Expectations for the Day’s Activities Dr. Bernd Kahn, Chair,

Day #2: Continued:

8:45 a.m.	Plenary Discussion of Charge Question #1: Continued	<i>Chair & Augmented RAC</i>
10:00 a.m.	Plenary Discussion of Charge Question #2 regarding the uncertainty analysis contained in Section 4: a) Comment on adequacy of the approach to Discussants TBA uncertainty analysis; b) Are the distributions chosen for the various sources of uncertainty reasonable?	<i>Chair & Augmented RAC</i> <i>Sub-Group Leads, and Discussants as Appropriate</i> <i>Sub-Group Leads, and Discussants as Appropriate</i>
10:15 a.m.	BREAK	
10:30 a.m.	Plenary Discussion of Charge Question #2: c) Continued	<i>Sub-Group Leads, and Discussants as Appropriate</i>
12:15 p.m.	LUNCH	
1:30 p.m.	Plenary Discussion of Charge Question #3 regarding presentation of the overall information and application of BEIR VII pertaining to: a) Scientific defensibility and appropriateness of models and assumptions; b) Presentation of the calculations and results, and; c) With respect to the document's intended purpose, the accuracy, balance and level of detail of the scientific background material presented.	<i>Chair & Augmented RAC (Sub-Group Leads, and Discussants as Appropriate</i>
3:00 p.m.	BREAK	
3:15 p.m.	WRITING SESSION	
5:30 p.m.	ADJOURN: Day #2	

Day #3:

Wednesday, March 25, 2009:

8:30 a.m.	Reconvene Augmented RAC	Dr. K. Jack Kooyoomjian, <i>Designated Federal Officer (DFO)</i>
	Planning Expectations for the Day's Activities	Dr. Bernd Kahn, <i>RAC Chair</i>
8:45 a.m.	Public Comments	Dr. K. Jack Kooyoomjian, <i>RAC DFO</i> , as facilitator
9:15 a.m.	Continued Presentation and Discussion of Draft Responses to Charge Questions	<i>RAC Chair</i> , Sub-Group Leads, and Discussants as Appropriate
10:30 a.m.	BREAK	
10:45 a.m.	Continued Presentation and Discussion of Draft Responses to Charge Questions	<i>RAC Chair</i> , Sub-Group Leads, and Discussants as Appropriate
12:00 p.m.	LUNCH	
1:00 p.m.	Additional WRITING SESSION (As Needed)	Augmented RAC Sub-Groups As Appropriate
	Summary of Recommendations, Action Items, and Next Steps	Dr. Bernd Kahn, <i>RAC Chair</i> and Augmented RAC
2:30 p.m.	MEETING ADJOURNED	