

U.S. Environmental Protection Agency
Science Advisory Board
Radiation Advisory Committee (RAC)
Multi-Agency Radiation Survey and Assessment of Materials and Equipment
(MARSAME) Manual Review Panel
Summary Minutes of Public Conference Call Meeting¹
October 9, 2007

Committee: Radiation Advisory Committee (RAC) Multi-Agency Radiation Survey and Assessment of Materials and Equipment (MARSAME) Manual Review Panel of the U.S. Environmental Protection Agency's (EPA's) Science Advisory Board (SAB). (See Roster - Attachment A.)

Date and Time: Tuesday, October 9, 2007 from 1:00 p.m. to 4:00 p.m. eastern standard time (See Federal Register Notice - Attachment B).

Location: This is a conference call with no location announced. All participants were connected via the conference lines.

Purpose: The purpose of this public conference call meeting is to introduce the subject and discuss the charge to the Panel; determine if the review and background materials provided are adequate to respond to the charge questions directed to the U.S.EPA/SAB's RAC MARSAME Review Panel; and agree on charge assignments for Panelists.

The main document to be reviewed is entitled "*Multi-Agency Radiation Survey and Assessment of Materials and Equipment Manual (MARSAME)*," dated December, 2006 (NUREG-1575, Supp. 1; EPA 402-R-06-002; DOE/EH-9707), which is a supplement to the Multi-Agency Radiation Survey and Site Investigation Manual (MARSSIM), EPA 402-R-970-016, Rev. 1, August 2000 and June 2001 update. MARSAME was developed collaboratively within the Multi-Agency Workgroup over a 5-year time frame. During the public conference call, the U.S. EPA/SAB RAC MARSAME Review Panel plans to discuss and organize to deal with specific charge assignments, and to inform the ORIA and the Multi-Agency Workgroup participants of any specific points that may need clarification or emphasis in preparation for the October 29, 30 and 31, 2007 face-to-face public advisory meeting.

During the October 9, 2007 public conference call, the RAC's MARSAME Review Panel will organize to begin the process of creating a draft report in direct response to the Multi-Agency MARSAME Manual. (See Meeting Agenda - Attachment C.)

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NOTE: Please note that these minutes represent comments that are individual statements and opinions and are not necessarily consensus comments at this stage of the process in the review of any given topic. In all cases, the final SAB report to the EPA Administrator represents the consensus on the topic.

SAB/RAC MARSAME Review Panel Members as Attendees: RAC MARSAME Review Panel Members Dr. Jill Lipoti, RAC Chair, Dr. Tom Borak, Mr. Bruce Church, Dr. Faith Davis (incoming RAC Member), Mr. Kenneth Duvall, Dr. Shirley A. Fry, Dr. William C. Griffith, Dr. Jan Johnson (logged in for the first 15 minutes of the conference call), Dr. Bernd Kahn, Dr. Jonathan M. Links, Dr. Paul Merges, Mr. Bruce Napier, and Dr. Richard Vetter were present. (See Attachment A); Dr. K. Jack Kooyoomjian (Designated Federal Officer of RAC), and Dr. Anthony F. Maciorowski, Deputy Director, - SAB Staff Office, participated.

SAB/RAC MARSAME Review Panel Members not Present: The RAC MARSAME Review Panel Members not present included Drs. Antone L. Brooks, Brian Dodd, and Daniel O. Stram. Dr. Helen Grogan is an outgoing member of the RAC and chose not to participate in this exercise.

Agency Staff Attendees: ORIA: Washington, DC: Dr. Mary E. Clark, Ms. Kathryn Snead, and Capt. Colleen F. Petullo, U.S. PHS assigned to the U.S. EPA/OSWER Staff office.

Public Attendees: The MARSAME Multi-Agency Workgroup members, including the following: Mr. David Alberth, DoD- U.S. Army, Aberdeen Proving Grounds, Aberdeen, MD; Lt. Col. Craig Bias, DoD -USAF, Washington, DC; Dr. Ramachandra (Ram) Bhat, USAF, Washington, DC; Dr. Carl Gogolak, Consultant/Contractor to MARSAME Workgroup; Dr. Robert Meck, U.S. NRC; Washington, DC, and Mr. Scott Hay, Cabrera Services, Inc. (Contractor to the MARSSIM Workgroup), others which include Mr. John McCall, U.S. DOE Oversight and Investigation Group, Washington, DC.

Meeting Summary: The meeting followed the issues and general timing as presented in the meeting Agenda (see Meeting Agenda - Attachment C). Verbal comments were provided to the Committee by members of the MARSAME Multi-Agency Workgroup during the course of the conference call meeting. Other than the Multi-Agency MARSAME Workgroup members, no members of the public attended the meeting.

Welcome and Introductions: Dr. K. Jack Kooyoomjian, Designated Federal Officer (DFO), opened the meeting at approximately 1:02 pm with identification of the participants logging into the call and with opening remarks. He introduced himself as the DFO for the Radiation Advisory Committee's (RAC) MARSAME Review Panel, explained the purpose of the call, indicating that the RAC and its MARSAME Review Panel operates under the requirements of the Federal Advisory Committee Act (FACA) and is chartered to conduct business under the SAB Charter. He explained that, consistent with FACA and with EPA policy, the deliberations of the RAC's MARSAME Review Panel are conducted in public meetings, for which advance notice is given. He explained that he is present to ensure that the requirements of FACA are met, including the requirements for open meetings, for maintaining records of deliberations of the RAC's MARSAME Review Panel, and making available the public summaries of meetings, as well as providing opportunities for public comment.

Dr. Kooyoomjian also commented on the status of this Panel's compliance with Federal ethics and conflict-of-interest laws. The RAC's MARSAME Review Panel follows the

Committee and Panel Formation Process, as well as determinations made by the SAB staff and others pertaining to confidential financial information protected under the Privacy Act. Each Panel member has complied with all these provisions; hence, there are no conflict-of-interest or appearance issues for any of the Panelists, nor did any individual need to be granted a waiver or be recused. Dr. Kooyoomjian further noted that the Form 3110-48 Financial Disclosure and Ethics Training was completed by all RAC MARSAME Review Panel members and is on file at the SAB, that there is no need for disclosure at this time, and that there is no particular matter that may pose a potential conflict of interest. He advised that the RAC's MARSAME Review Panel need to briefly introduce themselves and voluntarily disclose their interests in relation to review of the MARSAME Manual dated December, 2006. Should interested parties from the public join us, we could introduce ourselves, but each individual member's relations and experiences to the issues pertaining to the discussions to take place today will in fact be required at the upcoming October 29, 30 and 31, 2007 face-to-face meeting. He also advised that the biosketches of each Panelist are posted on two places on the SAB website, namely for the current RAC Members and for the consultants whose expertise is augmenting the RAC for this particular review can be found on the RAC MARSAME Review "Shortlist" of prospective candidates.

The U.S. EPA/SAB RAC MARSAME Review Panelists "logged-in," and at 1:16 p.m. Dr. Lipoti provided some brief opening remarks, welcoming members and participants (Roster, Attachment A), offered some "housekeeping" remarks pertaining to the ongoing follow-up activity to the SAB Charter Board's Review of ORIA's Draft White Paper, reviewed the meeting agenda (Attachment C), stressing that this public conference call will be helpful for planning the upcoming Oct 29-31, 2007 face-to-face meeting. The focus of this public conference call is to discuss and refine the proposed October 29-31 agenda to maximize the face-to-face interactions of the Panel. Other points that Dr. Lipoti touched on included the need for the RAC's MARSAME Review Panel to discuss and understand and to be fully responsive to the charge questions being asked by the Multi-Agency MARSAME Workgroup, and that the agenda is formatted to provide opportunities for break-out sessions and to allocate sufficient time for collaboration by the Panelists and for writing and discussion sessions, so that we are likely to write about 50% of the report in the face-to-face meeting and reach consensus on many of the issues.

At 1:22 p.m., Dr. Lipoti asked that Dr. Mary Clark and the ORIA Staff provide some opening remarks. Dr. Clark made some very brief introductory remarks and comments in introducing the work of the Multi-Agency MARSAME Workgroup. She introduced Ms. Katherine Snead of the ORIA Staff. Ms. Snead emphasized that the product developed is a result of collaboration between the technical staff of DOD, DOE, the NRC and EPA that became the Multi-Agency Workgroup. She gave more background on the changes to the MARSSIM template to produce the current (Dec 2006) MARSAME Manual. A discussion by the RAC MARSAME Review Panel members followed Ms. Snead's introductory remarks.

Panel Discussion:

Questions were raised by the Panel members, such as: “How will we organize the Break-Out Groups?” How do you (the Panel, the Agency, the Multi-Agency Workgroup, and finally the U.S. EPA/SAB RAC MARSAME Review Panel) ultimately decide on the Charge Questions?” A discussion followed on how best to organize the Panel to deal with this particular review. The discussion included the need for clear cross-walks between the break-out groups, the charge questions and the document’s organization.

A discussion followed on how to organize the Plenary session and the break-out sessions, and how to deal with the cross-cutting issues. It was agreed that changing the charge might be problematic, because all the Agencies have already agreed and “signed off” on the wording presented to the SAB Panel. The Panel decided that they will organize so that they can be responsive to the elements of the charge questions. The Panel recognized that they can go “beyond the charge” issues where this is warranted. The Panel decided not to organize directly to answer the charge questions, but to track the three functional areas involving design, implementation and decision-making & assessment. It was agreed that the roadmap and case studies may be better handled by everyone in the plenary sessions.

It was observed that we do need a group that feels confident to address statistics, but that the statistics topic would be infused throughout the three Break-out Groups. Since statistics provides the background for everything else, the statisticians need to be “nested” into each Breakout Group

The Panel members thought that it would be helpful for them to get their preliminary written comments to the DFO, Jack Kooyoomjian by October 25, then Jack will share them with the Panel, and post them.

A discussion followed on design of the Break-out Groups, who should be assigned to what group, how to deal with basic concepts, new concepts, terminology, implementation issues, how we may have divergent opinions in the face-to-face meeting that will need to be resolved, how to handle the “beyond the charge” issues, and so forth.

Dr. Lipoti reminded the Panelists of the tremendous and proven utility of the RAC’s traditional “around the table” venue where each Panelist is requested to share their 1 or 2 most important points. The RAC Panelists may utilize the “round the table” venue until all the major points are flushed out, and/or they may hold more than one session in the course of a 3-day review. She also pointed out that the RAC and its specialty Panels, in particular, has always been very collegial in our dealings, and strives for and has always managed to achieve consensus. Also, typically, there will be writing assignments for the 2nd day of the meeting, so it is expected that writing the beginnings of the report or advisory activity is a typical expectation while the group is assembled to discuss these items in a face-to-face venue where these matters can be extensively discussed and resolved in both the Break-out sessions and the Plenary sessions. This typically helps in reaching consensus later on, since there would be discussions in the face-to-face meeting, followed typically by conference calls to reach closure on the text

refinements.

Public Comment: At 2:57 p.m., Dr. Lipoti asked if there were any members of the public who wished to address the RAC's MARSAME Review Panel. There were no members of the public present, and no comments were offered. At this point, Dr. Kooyoomjian asked if any member of the Multi-Agency Workgroup would like to offer any comments. Mr. Craig Bias of the Multi-Agency MARSAME Workgroup, USAF asked if the RAC MARSAME Panel had the flexibility to deviate from having 3 Break-Out sessions. Dr. Lipoti noted that there are 3 break-out rooms available, but that we (the RAC's MARSAME Review Panel) will be flexible. She remarked that the idea of the utility of Break-Out sessions came from the MARSSIM exercise, where it proved to be very effective for that Multi-Agency review. That format was also followed successfully for the MARLAP review. The Break-Out session format allowed for much more interaction and information exchange with staff and specialty experts from the various agencies who authored sections of the draft report being reviewed by the Panel, which she thought was very helpful.

Captain Colleen Petullo asked for clarification on which Panel members were assigned to Break-out Group #2. She also had a comment relating to the usefulness of relaying the underlying logic of why the Multi-Agency MARSAME Workgroup might have placed something in the MARSAME manual that is tied to MARSSIM or MARLAP, and wondered if the Panel would want some of this logic highlighted in the presentations on October 29th. The Panelists thought this would be very helpful.

Continued Panel Discussion:

One Panelist brought up the subject of the practical applications of cleanup on private properties and the use of the Independent Verification Contractor (IVC) to MARSAME. Captain Petullo thought this was a good point and she would highlight this issue regarding how it is handled by DOE, the NRC and DOD, because there are some operational and policy differences between the agencies. Lt. Col. Bias of the USAF observed that this exact point is addressed in the MARSSIM text, but not currently in the MARSAME text discussion. Another Panelist noted the action levels in the Tables and in Appendix E, and observed this might be helpful to bring this forward in the MARSAME text. It was also observed that there are no action levels of volumetric contamination.

One Panelist felt that the relationship between MARSAME and MARSSIM boundaries need to be better defined. Another Panelist said that he would like to see a discussion on the target audience, and he would also like to echo the comments regarding the utility of logic bridges or ties in MARSSIM and MARSAME, particularly with respect to the boundaries issues, and the blending issues, and noted that these are raised in field-oriented decisions and often are involved in trade-off decisions.

The remarks ended around 3:10 pm. Dr. Lipoti took the opportunity to thank everyone for their inputs and candid dialogue. She reminded everyone regarding their writing assignments, which are due to Dr. Jack Kooyoomjian by October 25th. She also reminded

Panelists as they read the review and background materials, to think about comments they would like to make the next time they meet and where there will be a “Round-the-Table” discussion of their personal observations and comments the first day, and that perhaps the 2nd and 3rd day as well, and that the “Round the Table” venue will be further structured into the revised agenda.

Summary & Action Items from the October 9, 2007 Public Conference Call, 1-4 pm

EST: A discussion followed on assignments, and the following captures those discussions in summary fashion:

- 1) Email preliminary comments on any part of the MARSAME document to Jack Kooyoomjian by October 25, 2007. These will be circulated to all MARSAME Review Panel members in preparation for our face-to-face meeting;
- 2) Be prepared for a “Round-the-Table” comment session on the afternoon of the first day. There may be other opportunities for additional “Round-the-Table” comment, such as the planned 12 noon session on Day #3;
- 3) Be prepared to participate in a breakout session. You are encouraged to comment on any item in the Charge questions, but should focus on your assigned area in particular. The breakout sessions may alternate between Plenary sessions, and we will further refine this as may be needed when we assemble. A revised Agenda will reflect these suggestions;
- 4) After some discussion, the Breakout Groups were reorganized as follows:

Breakout Group 1: **DESIGN**, concentrating on Chapters 2-3, Charge Questions 1a and 1b. Tony Brooks, Faith Davis, Shirley Fry, Bill Griffith, Paul Merges, and Dick Vetter.

Breakout Group 2: **IMPLEMENTATION**, concentrating on Chapters 4-5, Charge questions 1c and 2a. Tom Borak, Ken Duvall, Jan Johnson, Jon Links, and Jill Lipoti.

Breakout Group 3: **DECISION-MAKING AND ASSESSMENT**, concentrating on Chapter 6, Charge question 2b. Bruce Church, Brian Dodd, Bernd Kahn, and Dan Stram;
- 5) It was agreed that we would tackle the **ROADMAP AND CASE STUDIES** as a committee of the whole, Charge questions 1d, 2c, and 3;
- 6) Statistics will be “infused” throughout the Breakout Groups, so we need to keep in mind to spread the statistics expertise accordingly in the three Breakout Groups;
- 7) The following Panel members requested hard copies of MARLAP and MARSSIM [Dr. Borak, Mr. Duvall, Dr. Fry, Dr. Links, Dr. Merges (MARLAP only), and Dr. Vetter]. It was suggested by Dr/ Lipoti that the CD’s would be user friendly and a lot less bulky. ORIA would arrange to provide both or either, depending on preferences. Need to re-poll Panel members for preferences, as the MARLAP is 2,000 pages long, and MARSSIM is approx. 700 pages long. Dr. Kooyoomjian will also re-poll these Panel

members to see who might also wish to receive the SAB reports and Agency responses as a reference set.

- 8) The U.S. EPA/SAB RAC MARSAME Review Panel members are reminded that our task in answering the charge questions, including the “beyond the charge” issues, whether on action levels, target audience issues, the MARSSIM and MARSAME boundaries and trade-off decisions, integration with MARLAP, the Independent Verification Contractor (IVC) issue regarding practical applications of clean-up on private properties, or any of the other issues raised is to focus on the technical and science areas, and not into the policy areas which are the purview of the Multi-Agency Workgroup members. (POSTSCRIPT: These were messengered to the requestors.); and
- 9) There will be no arrangement for teleconference hookup to the hotel. (POSTSCRIPT: Arrangements are being made to accommodate one Multi-Agency MARSAME Workgroup Member at select times.)

ADJOURN: There being no additional business to be discussed, Dr. Lipoti thanked the participants and adjourned the meeting at 3:15 pm on Tuesday, October 9, 2007.

Respectfully Submitted:

Certified as True:

_____/S/_____
K. Jack Kooyoomjian, Ph.D.
Designated Federal Official
Radiation Advisory Committee (RAC)
MARSAME Review Panel

_____/S/_____
Dr. Jill Lipoti, Chair
Radiation Advisory Committee (RAC)
MARSAME Review Panel

List of Attachments

<u>Attachment</u>	<u>Description</u>
A	Radiation Advisory Committee (RAC) MARSAME Review Panel Roster dated October 2, 2007
B	<i>Federal Register</i> Notice: September 24, 2007, Vol. 72, No. 184, pages 54255-54257
C	Meeting Agenda dated October 9, 2007
D	Meeting Agenda dated October 29, 30, & 31, 2007
E	Mailout Dated September 27, 2007 Containing Memo from K. Jack Kooyoomjian, Ph.D., DFO RAC to RAC MARSAME Review Panel Members entitled “Transmittal of Review and Informational Materials for the October 9, 2007 Public Conference Call and the October 29-31, 2007 Face-to-Face Meeting,” containing the following:
E-1	1) The charge, which includes a summary, background, on MARSAME, and the proposed charge questions (File Name: MARSAMERevSABRACchaerge013007);
E-2	2) The <i>Federal Register</i> notice of two upcoming public meetings (Federal Register dated Sept. 24, 2007, Vol. 72, No. 184, pp. 54255-54257). And the hotlink for this notice;
E-3	3) The RAC MARSAME Review Panel Internal Roster dated September 27, 2007 (File Name: RAC03MARSAMEIntRoster092707.pdf);
E-4	4) The Agenda for the October 9, 2007 Public Conference call to be held from 1:00 pm to 4:00 pm EST (File Name:RAC MARSAME Panel Agenda 100907.pdf);
E-5	5) The Agenda for the October 29-31, 2007 public Face-to-Face Meeting. (To be use for discussion and planning purposes (File Name:RAC MARSAME RevPanelPDFPropAgenda112907.pdf); and
E-6	6) The draft review document referred to as the MARSAME Manual and entitled “Multi-Agency Radiation Survey and Assessment of materials and Equipment (MARSAME) Manual,”December 2006 (NUREG-1575, Supp. 1; EPA 402-R-06-002; and DOE/EH-707). Hotlinks are also provided.

Attachment

Description

- F RAC MARSAME Review Panel Pre-Meeting Communications, which include the following significant items which are highlighted in Attachment F): (See Select Items Identified below)
- F-1 Mailout Dated October 5, 2007 Containing Memo from K. Jack Kooyoomjian, Ph.D., DFO RAC to RAC MARSAME Review Panel Members entitled “FW: MARSAME Pre-Meeting Comments for Posting Onto SAB Web site,” and containing suggestions from Mr. Kenneth Duvall dated October 5, 2007 on suggestions pertaining to consistency and effectiveness of implementation(File Name: DuvallChargeSuggestions100507.pdf)
- F-2 Mailout Dated October 9, 2007 Containing Memo from K. Jack Kooyoomjian, Ph.D., DFO to RAC MARSAME Review Panel Members entitled “Dr. A. Brooks Suggested Charge Assignments.”
- F-3 Mailout Dated October 9, 2007 Containing Memo from K. Jack Kooyoomjian, Ph.D., DFO to RAC MARSAME Review Panel Members entitled “FW: MARSAME Charge Questions.”(A communication from Dr. Richard Vetter regarding his charge assignment preferences.)
- F-4 MailoutDated October 9, 2007 Containing Memo from K. Jack Kooyoomjian, Ph.D., DFO to RAC MARSAME Review Panel Members entitled “FW:MARSAME Pre-Meeting Comments for Posting Onto SAB Web site” (A memo regarding Dr. Jan Johnson’s preferences regarding charge assignments.)
- F-5 MailoutDated October 9, 2007 Containing Memo from K. Jack Kooyoomjian, Ph.D., DFO to RAC MARSAME Review Panel Members entitled “Additional Items for MARSAME Oct 9th Agenda Discussion.” (A memo containing a compilation of charge preferences and Pre-meeting comments of RAC MARSAME Review Panel Members)
- F-6 Mailout Dated October 9, 2007 Containing Memo from K. Jack Kooyoomjian, Ph.D., DFO to RAC MARSAME Review Panel Members entitled “Additional Comment Added to Compilation - Dr. Merge’s Preferences on Charge Questions.” (Dr. Merge’s comment added to the file.)
- F-7 Contains October 11, 2007 E-mail from K. Jack Kooyoomjian, Ph.D., and DFO/RAC to the RAC MARSAME Panel Members entitled “Action Items from Oct 9, 2007 Public Conference Call of the RAC MARSAME Review Panel.”

Attachment

Description

G	COMMUNICATION WITH THE PUBLIC:
G-1	Contains E-mail Communication Dated October 4, 2007 from Mr. John McCall of TDEC/DOE-Oversight Requesting Dial-In and Pass Code Information, and Dr. Kooyoomjian's response dated October 4, 2007
H	Post-Meeting RAC MARSAME Review Panel Communications
I	Background SAB Reports and Consultations Relating to MARSAME
J	Proposed Project Sheet 06-10; Project Title: Multi-Agency Radiation Survey & Site Investigation Manual (MARSSIM) Supplement: Multi-Agency Radiation Survey and Assessment of Materials and Equipment (MARSAME)
K	DFO's Marked-Up Agenda of 10/09/07 Conference Call (K. Jack Kooyoomjian)
L	DFO's Notes of 10/09/07 Conference Call

End of Record