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26-April-2016

Description of document:

Records describing the program status of the Nuclear Waste Technical Review Board (NWTRB) report project on the management and disposal of Department of Energy (DOE)-managed spent nuclear fuel (SNF) stored at federal facilities, 2015-2016

Requested date:

Released date: 02-May-2016

Posted date: 30-May-2016

Source of document:

FOIA Request US Nuclear Waste Technical Review Board 2300 Clarendon Blvd., Suite 1300 Arlington, VA 22201 Fax: 703-235-4495

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UNITED STATES NUCLEAR WASTE TECHNICAL REVIEW BOARD 2300 Clarendon Boulevard, Suite 1300 Arlington, VA 22201

May 2, 2016

Re: Freedom of Information Act Request (April 26, 2016)

The U.S. Nuclear Waste Technical Review Board (Board) has received your emailed request for information under the Freedom of Information Act (FOIA). Specifically, your request for "a copy of documents and memos describing the program status of the report project" . . . [the report on the management and disposal of DOE-managed SNF stored at federal facilities]. You noted that we may "limit this request to documents dating between October 1, 2015 and the present.

In response to your request, attached are the Board's responsive documents as summarized in the table below:

Document Type	Subject	Date
Memorandum	Minutes of Board Business Meeting and Action Items List (Redacted)	October 22, 2015
Email from Bret Leslie	The DOE SNF Report	October 29, 2015
Email from Daniel Campbell	RE: DOE SNF Report	November 12, 2015
Email from Bret Leslie	RE: Can help out where needed	December 22, 2015
Email from Daniel Ogg	RE: Can help out where needed	December 22, 2015
Email from Bret Leslie	From the glossary of the SNF report	December 22, 2015
Email from Bret Leslie	RE: Here is where it is located	January 5, 2016
Email from Bret Leslie	Revised figure for fact sheet on DOE SNF	January 19, 2016
Email from Roberto Pabalan	RE: Revised figure for fact sheet on DOE SNF	January 20, 2016
Email from Bret Leslie	Tab 7my last input is attached	February 8, 2016
Email from Bret Leslie	RE: revised figure for factsheet needs to correct an error that Collette found	February 11, 2016
Power Point Presentation by Bret Leslie	Discussion of Report on Management and Disposal of U.S. Department of Energy (DOE) Spent Nuclear Fuel (SNF)	February 8, 2016
Email from Nigel Mote	Updates for Rod	March 15, 2016
Email from Bret Leslie	Discuss NWTRB Questions to DOE/EM on SNF activities at Hanford and INL	March 31, 2016
Email from Bret Leslie	ACTION: Can you please do an editorial review of the attached chapter of the DOE SNF report.	April 18, 2016
Email from Bret Leslie	Emailing: Combined Chapter 5 SRS Marika	April 19, 2016
Phone Record from Call	DOE-EM SNF activities at INL and Hanford	April 4, 2016

Thank you for your inquiry. There is no fee required for processing your request.

Sincerely,

n 1/

Debra L./Dickson Director of Administration

From:	Leslie, Bret	
Sent:	Thursday, October 29, 2015 6:41 PM	
То:	Campbell, Daniel	
Cc:	Mote, Nigel; Dickson, Debra	
Subject:	The DOE SNF report	
Attachments:	DOE SNF appendices and references Marika.docx; Combined Chapter 2 Marika and v13 redline_to be pasted back into redlineV14.docx; Combined Chapter 3 Marika and v13 redline_to be pasted back into redlineV14.docx; Combined Chapter 4 Marika and v13 redline_to be pasted back into redlineV14.docx; Combined Chapter 5 Marika and v13 redline_to be pasted back into redlineV14.docx; Combined Chapter 5 Marika and v13	

Dan,

Nigel asked me to forward chapters of the DOE SNF report that I have been working on. A bit of background. Chapters 2 -5, the chapters on the Hanford Site, Idaho National Laboratory, Savannah River Site, and Fort St. Vrain Site, respectively, were sent out to the editor of the Blue Ribbon Commission report (Marika) for an editorial review. Those chapters also had comments from Board member that I needed to resolve (usually comment bubbles). Marika did an editorial review of each of those chapters and I have resolved her changes and addressed all the Board comments in Chapters 2, 4, and 5 (those chapters are attached). Chapter 3 (Idaho National Laboratory) is also attached and as you go through it you will realize how far I have gotten in resolving Marika's and the Board's comments. Marika also did an editorial review of the appendices of the references. I had put them together using the Chicago Manual of Style Approach (primarily what has been used in Board reports). It would be helpful if you could check and do an editorial review of the Appendices file, especially the references. By marking up that document it might illuminate what other changes I could be in store for as I revise Chapters 1, 6, and the Executive Summary and you do an editorial review.

I don't know exactly what Nigel wants you to do with Chapters 2-5. The complete report that went out for editorial review is at I:\Staff\Leslie\SNF Report_bwl002\bwl002\v13_Management & Disposal DOE SNF redline.

Thanks, Bret

Bret W. Leslie, Ph.D. Senior Professional Staff U.S. Nuclear Waste Technical Review Board 2300 Clarendon Blvd., Suite 1300 Arlington, VA 22201-3367 <u>www.nwtrb.gov</u> Tel. 703-235-9132 Fax 703-235-4495 leslie@nwtrb.gov

From:	Campbell, Daniel
Sent:	Thursday, November 12, 2015 12:51 PM
То:	Leslie, Bret
Subject:	RE: The DOE SNF report
Attachments:	DOE SNF appendices and references Marika_DC_30Oct15.docx

Here are my thoughts on the document. Let's discussed. I will not be here on Friday. Dan C.

From: Leslie, Bret Sent: Thursday, October 29, 2015 6:41 PM To: Campbell, Daniel Cc: Mote, Nigel; Dickson, Debra Subject: The DOE SNF report

Dan,

Nigel asked me to forward chapters of the DOE SNF report that I have been working on. A bit of background. Chapters 2 -5, the chapters on the Hanford Site, Idaho National Laboratory, Savannah River Site, and Fort St. Vrain Site, respectively, were sent out to the editor of the Blue Ribbon Commission report (Marika) for an editorial review. Those chapters also had comments from Board member that I needed to resolve (usually comment bubbles). Marika did an editorial review of each of those chapters and I have resolved her changes and addressed all the Board comments in Chapters 2, 4, and 5 (those chapters are attached). Chapter 3 (Idaho National Laboratory) is also attached and as you go through it you will realize how far I have gotten in resolving Marika's and the Board's comments. Marika also did an editorial review of the appendices of the references. I had put them together using the Chicago Manual of Style Approach (primarily what has been used in Board reports). It would be helpful if you could check and do an editorial review of the Appendices file, especially the references. By marking up that document it might illuminate what other changes I could be in store for as I revise Chapters 1, 6, and the Executive Summary and you do an editorial review.

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From: Sent: To: Cc: Subject: Leslie, Bret Tuesday, December 22, 2015 3:27 PM Ogg, Daniel Mote, Nigel; Severson, Karyn RE: Can help out where needed

Dan,

It would be helpful to have factsheets on the each of the sites (Hanford, INL, SRS, and Fort St. Vrain) in the DOE SNF report that we could use when the report is complete. Those factsheets would be especially helpful in the visits to Congressional delegations. I have a ton of work to do to complete the report and would not be able to start working on the factsheets until a month or more from now.

If you can use the "new" factsheets that Bobby will be putting up on our website as a starting point (in terms of "sections") and come up with the information that we could present for each of the sites in the factsheets that would start the ball rolling. We can talk through this at your convenience. Thanks for the offer ... Bret

From: Ogg, Daniel
Sent: Tuesday, December 22, 2015 3:19 PM
To: Leslie, Bret; Pabalan, Roberto; Dickson, Debra; Einziger, Robert; Mote, Nigel
Subject: Can help out where needed

Bret, Bobby, Bob,

Let me know if you need any assistance on any of your projects (borehole report, SNF report, screening geologist resumes, February meeting preps, etc.). I will have some extra time in the next few weeks.

Ready to help...

Dan

From: Sent: To: Cc: Subject: Ogg, Daniel Tuesday, December 22, 2015 3:34 PM Leslie, Bret Mote, Nigel; Severson, Karyn RE: Can help out where needed

Bret,

Absolutely - I can work on that - should be pretty straightforward.

I'll get started right away.

Dan

From: Leslie, Bret Sent: Tuesday, December 22, 2015 3:27 PM To: Ogg, Daniel Cc: Mote, Nigel; Severson, Karyn Subject: RE: Can help out where needed

Dan,

It would be helpful to have factsheets on the each of the sites (Hanford, INL, SRS, and Fort St. Vrain) in the DOE SNF report that we could use when the report is complete. Those factsheets would be especially helpful in the visits to Congressional delegations. I have a ton of work to do to complete the report and would not be able to start working on the factsheets until a month or more from now.

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From: Ogg, Daniel
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Bret, Bobby, Bob,

Let me know if you need any assistance on any of your projects (borehole report, SNF report, screening geologist resumes, February meeting preps, etc.). I will have some extra time in the next few weeks.

Ready to help...

Dan

From:	Leslie, Bret
Sent:	Tuesday, December 22, 2015 3:44 PM
То:	Pabalan, Roberto
Subject:	from the glossary of SNF report

- **high-level radioactive waste** The highly radioactive material resulting from the *reprocessing* or *processing* of *spent nuclear fuel*, including liquid waste produced directly in *reprocessing* or *processing* and any solid material derived from such liquid waste that contains fission products in sufficient concentrations.
- **processing** A process or operation to treat *spent nuclear fuel* to create high-level radioactive waste forms that can be transported and disposed without separating the fissile material for weapons use.
- **reprocessing** A process or operation to extract radioactive isotopes from *spent nuclear fuel* for further use or to separate out various waste streams.

Bret W. Leslie, Ph.D. Senior Professional Staff U.S. Nuclear Waste Technical Review Board 2300 Clarendon Blvd., Suite 1300 Arlington, VA 22201-3367 <u>www.nwtrb.gov</u> Tel. 703-235-9132 Fax 703-235-4495 <u>leslie@nwtrb.gov</u>

From: Sent: To: Subject: Leslie, Bret Tuesday, January 05, 2016 10:57 AM Ogg, Daniel RE: here is where it is located

Unfortunately yes 🛞

From: Ogg, Daniel Sent: Tuesday, January 05, 2016 10:13 AM To: Leslie, Bret Subject: RE: here is where it is located

Bret,

Thanks. This shows that it was last updated 9/12/15 . . . is that the latest version?

Dan

From: Leslie, Bret Sent: Tuesday, January 05, 2016 10:11 AM To: Ogg, Daniel Subject: here is where it is located

Please save a copy to your local drive and don't revise the file in I drive. thanks I:\Staff\Leslie\SNF Report_bwl002\bwl002v13_Management & Disposal DOE SNF redline

Bret W. Leslie, Ph.D. Senior Professional Staff U.S. Nuclear Waste Technical Review Board 2300 Clarendon Blvd., Suite 1300 Arlington, VA 22201-3367 <u>www.nwtrb.gov</u> Tel. 703-235-9132 Fax 703-235-4495 <u>leslie@nwtrb.gov</u>

From: Sent: To: Cc: Subject: Attachments: Leslie, Bret Tuesday, January 19, 2016 12:30 PM Ogg, Daniel; Pabalan, Roberto Mote, Nigel revised figure for fact sheet on DOE SNF Figure A2_5B.jpg

Bobby and Dan,

The fact sheet that the summer intern put together for DOE SNF incorporated an error I had in Figure A2-5B of the DOE SNF report (thanks to you both for pointing it out). I corrected the error (Group 15 had 192 instead of 0.34 MTHM) in my report and the attached jpeg should replace the graphic for the DOE SNF factsheet.

Bret

Bret W. Leslie, Ph.D. Senior Professional Staff U.S. Nuclear Waste Technical Review Board 2300 Clarendon Blvd., Suite 1300 Arlington, VA 22201-3367 <u>www.nwtrb.gov</u> Tel. 703-235-9132 Fax 703-235-4495 leslie@nwtrb.gov

From:	Pabalan, Roberto
Sent:	Wednesday, January 20, 2016 9:41 AM
То:	Leslie, Bret
Subject:	RE: revised figure for fact sheet on DOE

Bret,

Does the figure exclude the 10 MTHM of DOE-managed SNF that is located at locations other than the Hanford Site, INL, Fort St. Vrain, and SRS? The total MTHM in the figure is 2,500, but in your report, the total is 2,510.

SNF

--Bobby

From: Leslie, Bret
Sent: Tuesday, January 19, 2016 12:30 PM
To: Ogg, Daniel; Pabalan, Roberto
Cc: Mote, Nigel
Subject: revised figure for fact sheet on DOE SNF

Bobby and Dan,

The fact sheet that the summer intern put together for DOE SNF incorporated an error I had in Figure A2-5B of the DOE SNF report (thanks to you both for pointing it out). I corrected the error (Group 15 had 192 instead of 0.34 MTHM) in my report and the attached jpeg should replace the graphic for the DOE SNF factsheet.

Bret

Bret W. Leslie, Ph.D. Senior Professional Staff U.S. Nuclear Waste Technical Review Board 2300 Clarendon Blvd., Suite 1300 Arlington, VA 22201-3367 <u>www.nwtrb.gov</u> Tel. 703-235-9132 Fax 703-235-4495 <u>leslie@nwtrb.gov</u>

From:	Leslie, Bret
Sent:	Monday, February 08, 2016 2:51 PM
То:	Barnes, Davonya
Cc:	Severson, Karyn; Mote, Nigel; Dickson, Debra
Subject:	Tab 7 my last input is attached
Attachments:	Tab 7_ Discussion of Report on Management and Disposal of DOE SNF.pdf

Thanks for your patience

Bret W. Leslie, Ph.D. Senior Professional Staff U.S. Nuclear Waste Technical Review Board 2300 Clarendon Blvd., Suite 1300 Arlington, VA 22201-3367 <u>www.nwtrb.gov</u> Tel. 703-235-9132 Fax 703-235-4495 <u>leslie@nwtrb.gov</u>

From:	Leslie, Bret
Sent:	Thursday, February 11, 2016 4:45 PM
То:	Pabalan, Roberto
Subject:	RE: revised figure for factsheet needs to reflect an error that Collette found

Bobby,

What is the Carter et al 2013 reference you cite below? I am looking at Appendix 2 in the SNF report and updating the figure and want to make sure we are consistent with the overview factsheet. Can you send me the latest version of the factsheet. thanks

Bret

From: Pabalan, Roberto Sent: Thursday, September 24, 2015 4:26 PM To: Leslie, Bret Subject: RE: revised figure for factsheet needs to reflect an error that Collette found

Bret,

The attached is a revised pie chart that I will use for the Overview of SNF and HLW Fact Sheet. The changed (i) DOE SNF to 191 million Ci, (ii) German glass to 8.2 million Ci, and (iii) total HLW and DOE SNF radioactivity to 822 million Ci, then revised the percentages. In the notes, I changed Carter et al. reference to 2013 and the commercial SNF year to 2012. I also changed "electrochemical" to "electrometallurgical" and "Sandia" to "SNL".

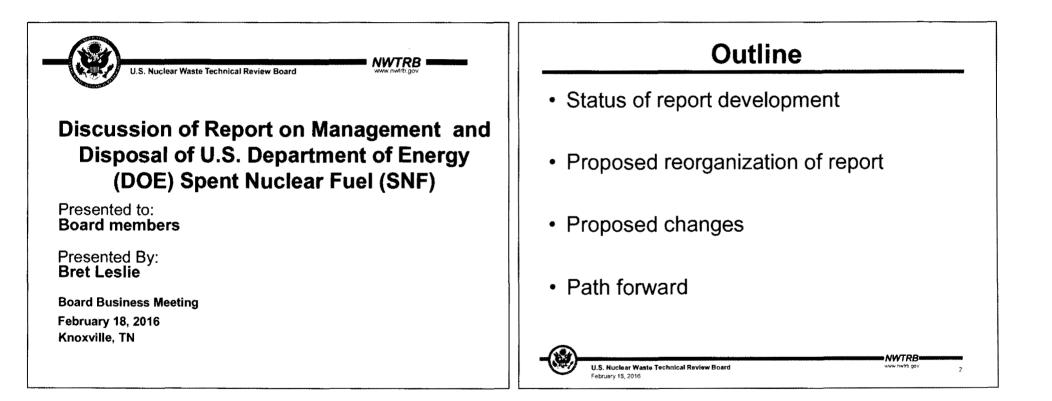
--Bobby

From: Leslie, Bret
Sent: Thursday, September 24, 2015 2:24 PM
To: Pabalan, Roberto
Subject: revised figure for factsheet needs to reflect an error that Collette found

Bobby,

I had to correct the figure for Calcine waste to 2017. In the Board's report I indicated that all the HLW was for the year 2017. The word document indicates why I revised the figure. The Figure that you use or revise in the factsheet is in the attached powerpoint. Thanks, Bret

Bret W. Leslie, Ph.D. Senior Professional Staff U.S. Nuclear Waste Technical Review Board 2300 Clarendon Blvd., Suite 1300 Arlington, VA 22201-3367 <u>www.nwtrb.gov</u> Tel. 703-235-9132 Fax 703-235-4495 leslie@nwtrb.gov



Status of Report Development

- A complete draft of report reviewed by Rod, Allen, Gerry, Paul, Dan Ogg, Bob, and Karyn
 - Draft report includes executive summary, introduction, four site sections, analysis and recommendations, references, glossary, DOE SNF inventory (Appendix A), and comparison of commercial and DOE SNF (Appendix B)
 - Lots of detailed comments, no showstoppers, but report needs to better organized

U.S. Nuclear Waste Technical Review Board

ebruary 18, 2016

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Status of Report Development (cont.)

- Editorial reviews (external and internal)
 - Site sections and sections that follow the analysis and recommendations section
- Addressed comments

U.S. Nuclear Waste Technical Review Board

February 18, 2016

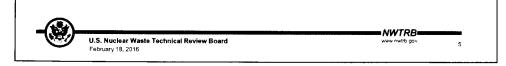
- All editorial comments; and nonorganizational comments in site sections
- Dan Ogg began developing fact sheets on DOE sites storing SNF

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Proposed Reorganization of Report

- Reorganization on two levels
 - At a report level, and within the report
 - Two reports (consistent with siting report approach)
 - Overview and summary (based on executive summary of detailed analysis report)
 - Detailed analysis



Proposed Reorganization of Report (cont.)

- Reorganization of detailed analysis report
 - More closely reflect Board's legislative mandate (packaging, transportation, and disposal)
 - Present a more coherent story
 - Packaging, transportation and disposal need to be considered together to facilitate disposal

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U.S. Nuclear Waste Technical Review Board

Proposed Changes

- Update to reflect DOE's current program
 - Separate repository effort

U.S. Nuclear Waste Technical Review Boar

February 18, 2016

- Restart of DOE SNF database
- Update to reflect recent Board reports
 - Separate repository and siting reports (*e.g.*, description of disposal concepts)
- Add technical information on DOE SNF degradation and how much DOE knows or does not know

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Proposed Changes (cont.)

- Implement reorganization
 - Add a preface (one paragraph story of the report)
 - Split introduction into two sections
 - Purpose, scope, content of report and description of DOE strategy
 - Characteristics of DOE SNF, its degradation, and its management (packaging, transportation, and disposal)

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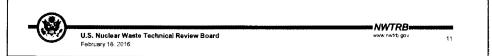


U.S. Nuclear Waste Technical Review Board February 18, 2016

Path Forward Proposed Changes (cont.) • Implement proposed changes, reflecting Implement reorganization outcomes from this discussion (Bret) - Remove text boxes (e.g., packaging) from site sections Concurrently develop overview and - Separate sections for analysis, and for summary report (Dan Ogg) findings and recommendations Provide both reports to Board and staff review team NWTRB NWTRB U.S. Nuclear Waste Technical Review Board U.S. Nuclear Waste Technical Review Board www.mwtrb.gor 10 ebruary 18, 2016 February 18, 2016

Path Forward (cont.)

- Incorporate changes to both reports and provide to full Board for their review
- Resolve full Board comments and obtain Board approval
- · Finish site fact sheets
- Develop report fact sheet



From: Sent: To: Subject: Mote, Nigel Tuesday, March 15, 2016 10:01 AM Leslie, Bret Updates for Rod.

Bret,

I thought I should give you a heads up that Rod will want to discuss with you the current status of the DOE-SNF report while he is in the office tomorrow and Thursday. Don't really want to drop this on you while you are on vacation but thought it better to let you have some time to get your thoughts together.

See you tomorrow.

Nigel

From:	Leslie, Bret
Sent:	Thursday, March 31, 2016 10:31 AM
To:	'Nigam, Hitesh'
Cc:	Mote, Nigel; Ogg, Daniel
Subject:	Discuss NWTRB Questions to DOE/EM on SNF activities at Hanford and INL

Hitesh,

Sorry I wasn't on the call with Dan Ogg and Nigel Mote earlier this month. I believe Dan mentioned to you that I would likely follow up with you on SNF activities at INL and Hanford. Is there a good time we could talk about SNF activities that have occurred since the Board's August 2014 meeting where SNF activities at INL were discussed.

For example, I know that Sandy Birk, INL, is <u>resurrecting and updating the SNF database</u>. I understood that in late 2014, or in 2015, Roger McCormack, Hanford, was completing some reports on the monitoring results of the SNF in CSB. It would be helpful to get a copy of any reports, as one of the Board's focus has been to better understand degradation of SNF in dry storage (see recommendation from Board letter below). Also, Barbara Beller had indicated at the Board's meeting that the West Valley Casks were going to be moved to CPP-2707. For example in the Board's DOE SNF report that I am wrapping up, we write, "As described in its proposed budget for fiscal year 2014, DOE plans to transport the two West Valley SNF casks (totaling approximately 26.3 MTHM) from the railroad siding to the dry cask storage pad at CPP-2707 prior to September 30, 2015." I would like to be able say that it has, or has not happened, as one of the Board member's comment on my report is that it needs to better reflect DOE's successes.

Let me know a good time to call you. We can talk then about whether we need to pull in INL and Hanford staff into a call in the next few weeks to go thru DOE's progress since August 2014, the Board's recommendations (see link to letter below), and any DOE activities taken in response.

Thanks for your assistance, Bret

Bret W. Leslie, Ph.D. Senior Professional Staff U.S. Nuclear Waste Technical Review Board 2300 Clarendon Blvd., Suite 1300 Arlington, VA 22201-3367 <u>www.nwtrb.gov</u> Tel. 703-235-9132 Fax 703-235-4495 leslie@nwtrb.gov

The Board recommends that DOE collect additional empirical data in order to develop an understanding of the important processes that can occur during drying and afterwards in a sealed container with SNF that may not have been effectively dried. [Concerning Technical Basis for Drying SNF]. In <u>Board letter to DOE-EM on the August 2014 Board meeting</u>.

-----Original Appointment-----From: Nigam, Hitesh [mailto:Hitesh.Nigam@em.doe.gov] Sent: Monday, March 14, 2016 11:52 AM To: Mote, Nigel; Ogg, Daniel; Leslie, Bret; Senderling, Mark; Gomberg, Steve; Shultz, John; Mallick, Pramod; Kula, Deborah; Deleon, Edgardo; Maxine Maxted
Cc: Schneider, Steve; Picha, Kenneth
Subject: Discuss NWTRB Questions to DOE/EM
When: Tuesday, March 15, 2016 11:00 AM-12:00 PM (UTC-05:00) Eastern Time (US & Canada).
Where: Conference Call # 301-903-0756

<< File: NWTRB Questions for DOE-EM.DOCX >>

From:	Leslie, Bret
Sent:	Monday, April 18, 2016 8:20 AM
То:	Campbell, Daniel
Subject:	ACTION: Can you please do an editorial reivew of the attached chapter of the DOE SNF report. Thanks
Attachments:	Chapter 1_bwl002v14_Management & Disposal DOE SNF.docx

Dan,

I should be able to get you another chapter to review by the end of the week. Thanks for going thru this chapter. Bret

Bret W. Leslie, Ph.D. Senior Professional Staff U.S. Nuclear Waste Technical Review Board 2300 Clarendon Blvd., Suite 1300 Arlington, VA 22201-3367 <u>www.nwtrb.gov</u> Tel. 703-235-9132 Fax 703-235-4495 leslie@nwtrb.gov

From:	Leslie, Bret
Sent:	Tuesday, April 19, 2016 5:01 PM
То:	Campbell, Daniel
Subject:	Emailing: Combined Chapter 5 SRS Marika and v13 redline_to be pasted back into redlineV14, Combined Chapter 6 FSV Marika and v13 redline_to be pasted back into redlineV14, Combined Chapter 4 INL Marika and v13 redline_to be pasted back into redlineV14, Co
Attachments:	Combined Chapter 5 SRS Marika and v13 redline_to be pasted back into redlineV14.docx; Combined Chapter 6 FSV Marika and v13 redline_to be pasted back into redlineV14.docx; Combined Chapter 4 INL Marika and v13 redline_to be pasted back into redlineV14.docx; Combined Chapter 3 Hanford Marika and v13 redline_to be pasted back into redlineV14.docx

Dan,

Each of these chapters have already been edited by Marika and I have implemented her changes as well as all the Board members suggested changes (many of them editorial). I also applied the editorial directions you provided me for the references, glossary and appendices that were different than those that Marika had provided. Please do an editorial review of them so that I can have all the chapters of the report have the same editorial voice.

Thanks,

Bret

PS I will be sending you another chapter (Chapter 2), probably early next week, which will be the highest priority for your review as that chapter will not had any editorial review.

Your message is ready to be sent with the following file or link attachments:

Combined Chapter 5 SRS Marika and v13 redline_to be pasted back into redlineV14 Combined Chapter 6 FSV Marika and v13 redline_to be pasted back into redlineV14 Combined Chapter 4 INL Marika and v13 redline_to be pasted back into redlineV14 Combined Chapter 3 Hanford Marika and v13 redline_to be pasted back into redlineV14

Note: To protect against computer viruses, e-mail programs may prevent sending or receiving certain types of file attachments. Check your e-mail security settings to determine how attachments are handled.



UNITED STATES NUCLEAR WASTE TECHNICAL REVIEW BOARD 2300 Clarendon Boulevard, Suite 1300 Arlington, VA 22201

Minutes of Board Business Meeting

October 22, 2015 Embassy Suites Hotel 1250 22nd Street, NW Washington, DC

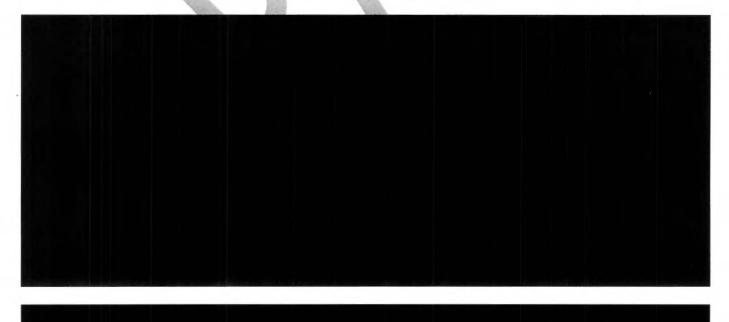
Board members attending on October 22, 2015

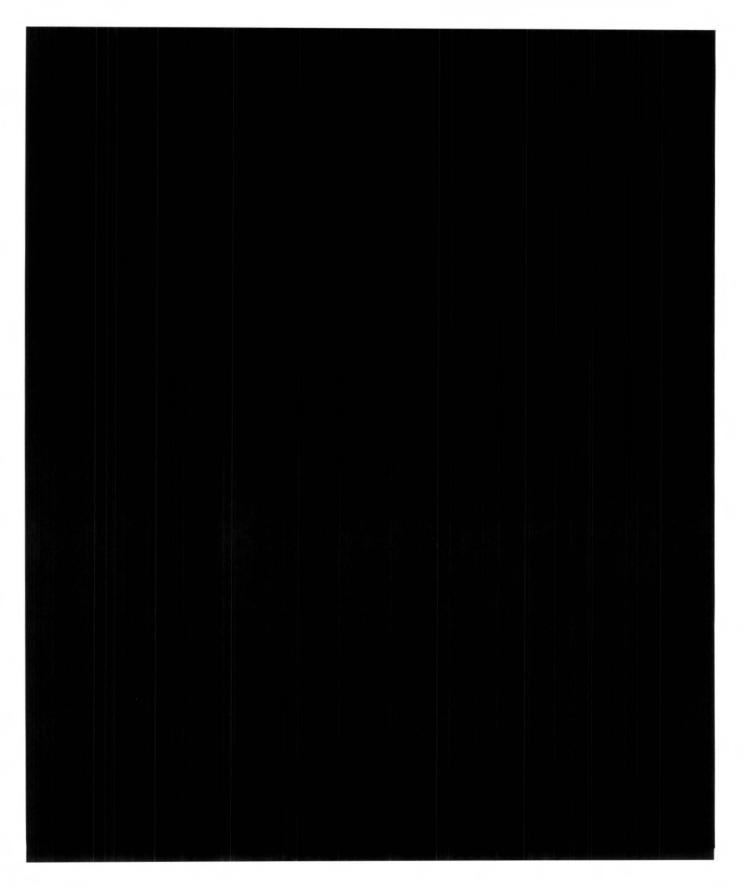
Rodney Ewing, Chairman Steven Becker Allen Croff Gerald Frankel Kenneth Peddicord Mary Lou Zoback Jean Bahr Susan Brantley Efi Foufoula-Georgiou Linda Nozick Paul Turinsky

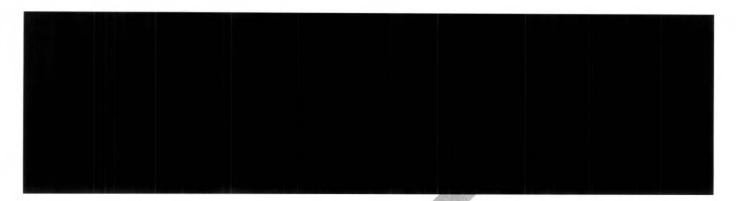
Staff members attending on October 22, 2015

Nigel Mote, Executive Director Daniel Campbell, Technical Editor Debra Dickson, Director of Administration Daniel Metlay, Senior Professional Staff Daniel Ogg, Senior Professional Staff Karyn Severson, Senior Professional Staff Jayson Bright, IT Systems Administrator Linda Coultry, Meeting Planner Bret Leslie, Senior Professional Staff Eva Moore, Meeting Planner Roberto Pabalan, Senior Professional Staff

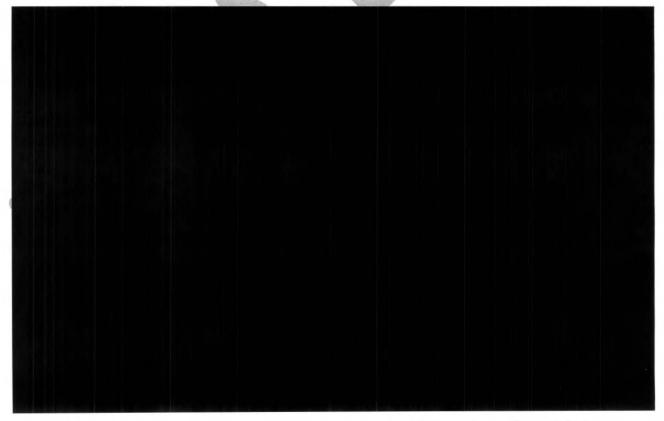
Robert Einziger, Senior Professional Staff, was on official travel and did not attend the meeting.





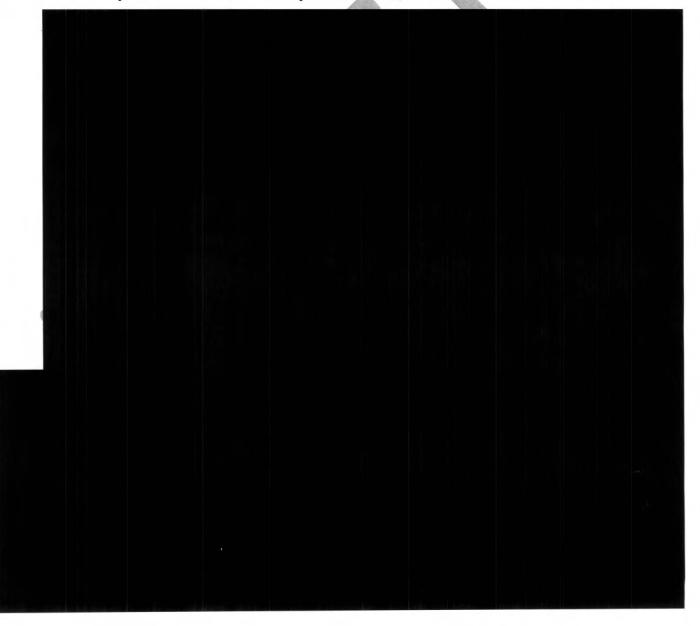


- 7. Discussion of Reports and other related matters:
 - a. Report on Management and Disposal of DOE Spent Nuclear Fuel (SNF) Dr. Bret Leslie provided an update on the status of the draft *Report on Management and Disposal of DOE SNF*. He noted that he is completing the findings and recommendations sections of the report and will forward the revised findings and recommendations to the review team by mid-November. The report reviewers are Drs. Paul Turinsky, Rod Ewing, Gerald Frankel and Allen Croff.



d. Factsheets on SNF and High-level Radioactive Waste (HLW) – Dr. Roberto Pabalan discussed six fact sheets that were drafted and/or updated, by Nicolette Brannon, the Stanford in Government Intern that worked with the Board during the 2015 summer months. Dr. Pabalan indicated that fact sheets had been reviewed and edited by the senior professional staff

members. He noted that, with the Board members' approval, the fact sheets were ready for public release. The Chairman commended the staff for completing the factsheets and encouraged the senior professional staff to consider additional factsheets that could be prepared on relevant topics, including from issues addressed in the Board's past reports, as well as Board reports currently in preparation. Dr. Steven Becker suggested that it would be beneficial to add a closing paragraph to each factsheet to indicate that the factsheet was a Board-produced document accompanied by a brief summary of the Board's mission. The Board and Staff members agreed that Dr. Becker's suggestion was a good one. The Chairman asked Mr. Daniel Campbell to standardize the format of the Board's factsheets to include the suggested closing paragraph. The Chairman petitioned the Board members for volunteers to review the fact sheets prior to final release. Drs. Jean Bahr and Paul Turinsky volunteered to review the documents. Dr. Pabalan was asked to forward the final draft factsheets to Drs. Bahr and Turinsky for review and comment by November 27, 2015.



Action Items from Board Meeting held on October 22, 2015

No	Action Item	Responsible Person(s)	Due Date
	Actions from Board Business Meeting Held on Octob	per 22, 2015	
2	Determine the activity represented by cesium and strontium capsules in 2048 as a percentage of the total activity in DOE-managed SNF and HLW for inclusion in Board letter to DOE, and clarify whether the activity includes daughter products from decay of Cs and Sr isotopes	BW Leslie	Nov 12, 2015

Phone Record from Call Identified Below

Attendees: Nigel, Dan O, Bret, Hitesh Nigam, Sandy Birk (INL), Ron Ramsey (DOE-ID), Answers to questions are in *italics red text*

Subject:	DOE-EM SNF activities at INL and Hanford
Location:	Teleconference call
Start:	Mon 4/4/2016 2:00 PM
End:	Mon 4/4/2016 2:30 PM
Recurrence:	(none)
Meeting Status:	Meeting organizer
Organizer:	Leslie, Bret
Required Attendees:	Leslie, Bret; Nigam, Hitesh; Ogg, Daniel; Mote, Nigel
Optional Attendees:	Farabee, Oliver A (Al)

Hitesh,

Since you indicated you are free Monday I have set up a time and logistics for a call (Nigel and Dan might join me)

Toll-free dial-in number (U.S. and Canada): (866) 678-2585

Conference code: 9827136670

To guide our call here are some specific topics and questions:

1) INL SNF storage

Have the two Nu-Pac 125B storage casks that were in CPP-666 been moved to CPP-603? *No*

Have the two West Valley casks been moved to CPP-2707? *They were moved in 2015 to the CPP-2707 concrete pad and are stored horizontally.*

2) INL ISF status

Is DOE still paying a licensing fee to the NRC license for this storage facility, which has not been built? At one point the licensing fee was several hundred thousand dollars, but it might have been waived in the last year or so.

DOE stopped paying NRC the licensing fee (\$55k/quarter 220,000 /year) in fiscal year 2015.

Is DOE still planning to proceed on CD0/1 activities for the Idaho Spent Fuel Facility Project beginning in 2017?

No. The project is in suspension and DOE did not request funding for this project for fiscal year 2017.

3) SNF database and National Spent Nuclear Fuel Program

I know that Sandy Birk, INL, is resurrecting and updating the SNF database. Is that activity a separately funded item or is part of the funding for the National Spent Nuclear Fuel Program? What activities is the National Spent Nuclear Fuel Program conducting?

The only activity that the National Spent Nuclear Fuel Program is conducting is updating the database. Not trying to recreate or reacquire the data, rather focusing on transferring the data into a quality assurance (QARD) compliant software. They are seeking to get the software/database qualified.

4) Impacts from the change in policy and implementing the administration's strategy on INL SNF management

How has planned SNF management (described in 2013 and 2014) at INL changed in response to separate repository decision? Consent-based siting approach? Deep borehole efforts? *There has been no change in response to the separate repository, consent-based siting, and deep borehole efforts.*

5) Hanford SNF monitoring results

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I understood that in late 2014, or in 2015, Roger McCormack, Hanford, was completing some reports on the monitoring results of the SNF in CSB. Can you please provide me a copy of any report in the last few years that document the monitoring results of the stored SNF in the Canister Storage Building?

Sandy Birk has reached out to Roger McCormack on this issue and has not heard back. We noted that the Board does not need to have the report to be public available. Hitesh promised to follow-up on the Board's request.

Thanks for your assistance and I look forward to a productive call, Bret Bret W. Leslie, Ph.D. Senior Professional Staff U.S. Nuclear Waste Technical Review Board 2300 Clarendon Blvd., Suite 1300 Arlington, VA 22201-3367 <u>www.nwtrb.gov</u> Tel. 703-235-9132 Fax 703-235-4495 <u>leslie@nwtrb.gov</u>