

From: [Soneda, Naoki](#)
To: [Tregoning, Robert](#); [Hiser, Matthew](#)
Cc: [Rosseel, Thomas M.](#); [Sokolov, Mikhail A.](#); [Arai, Taku](#); [坂本 一信](#)
Subject: [External_Sender] Re: Harvesting Workshop Announcement
Date: Tuesday, January 3, 2017 7:01:04 PM

Rob,

Thank you for the information. The end of January is a good target because I will have time to discuss several people who are interested in working on harvesting activities. Let's keep in touch.

Best regards,
Naoki

Tregoning, Robert wrote on 2017/01/03 21:23:

> Naoki:

>

> Thank you for your reply and interest in the workshop. We would certainly like CRIEPI to attend and hopefully participate in the workshop. We're just now starting to planning the talks for the individual sessions so there is certainly time for you to discuss with your colleagues the contribution that you would like to propose. I am hoping that we can have the titles and speakers for all the talks confirmed by the end of January. We will certainly be in contact with you during this planning period. Please let me know if you have any other questions in the interim.

>

> Warm regards,

>

> Rob

>

> -----Original Message-----

> From: Soneda, Naoki [<mailto:soneda@criepi.denken.or.jp>]

> Sent: Monday, December 26, 2016 1:49 AM

> To: Tregoning, Robert <Robert.Tregoning@nrc.gov>; Hiser, Matthew <Matthew.Hiser@nrc.gov>

> Cc: Rosseel, Thomas M. <rosseeltm@ornl.gov>; Sokolov, Mikhail A. <sokolovm@ornl.gov>; Arai, Taku <arait@criepi.denken.or.jp>; [坂本 一信](#) <kazunobu_sakamoto@nsr.go.jp>

> Subject: [External_Sender] Re: Harvesting Workshop Announcement

>

> Dear Rob,

>

> Thank you very much for your response. We am now discussing with our Japanese colleagues on the session where we can make a contribution. I would appreciate if you could allow us some more time. In any case, CRIEPI would like to participate the workshop if it is acceptable with you.

>

> At this moment, I have no idea about the organizations, other than NRA, which are interested in participating.

>

> Best regards,

> Naoki

>

> Tregoning, Robert wrote on 2016/12/20 23:47:

>> Dear Dr. Sonada:

>>

>> Thank you so much for your email and your inquiry about the harvesting workshop. I apologize for not responding to you sooner, but last week was very busy for me. I've attached a workshop announcement as well as a condensed workshop agenda for your information. You can see that we are planning five unique sessions as part of the workshop. Each session has a specific theme, or objective, as outlined below (and in the attached agenda).

>> 1. Session 1 will consist of short presentations and a panel discussion on the motivation for harvesting.

>> 2. Session 2 will discuss data needs best met through harvesting.
>> 3. Session 3 will discuss sources of materials for harvesting
>> programs 4. Session 4 will discuss lessons-learned from past harvesting programs and practical aspects associated with harvesting.
>> 5. Session 5 will attempt to summarize the workshop and planning a
>> harvesting program, as well as discuss actions and next steps
>>
>> Do you have a particular session in mind where you would like to make a presentation? If so, can you please send me a proposed title?
>>
>> Also, we are trying to keep the workshop participation fairly small to make sure that we can have meaningful discussion. I've been in contact with Kazu Sakamoto from NRAJ and want to make sure that we work together to get the right organizations from Japan to participate. Can you tell me what other organizations are interested in participating?
>>
>> Thank you again for your interest. I'm hoping that the workshop will be successful for all participants. I hope you and your family have a Happy Holidays and a prosperous New Year as well.
>>
>> Regards,
>>
>> Rob
>>
>> Robert Tregoning
>> Technical Advisor for Materials
>> US Nuclear Regulatory Commission
>> Two White Flint North, M/S T-10 A36
>> 11545 Rockville Pike
>> Rockville, MD 20852-2738
>> ph: 301-415-2324
>> fax: 301-415-6671
>>
>>
>> -----Original Message-----
>> From: Soneda, Naoki [<mailto:soneda@criepi.denken.or.jp>]
>> Sent: Wednesday, December 14, 2016 4:18 AM
>> To: Tregoning, Robert <Robert.Tregoning@nrc.gov>; Hiser, Matthew
>> <Matthew.Hiser@nrc.gov>
>> Cc: Rosseel, Thomas M. <rosseeltm@ornl.gov>; Sokolov, Mikhail A.
>> <sokolovm@ornl.gov>; Arai, Taku <arait@criepi.denken.or.jp>
>> Subject: [External_Sender] Harvesting Workshop Announcement
>>
>> Dear Dr. Tregoning and Dr. Hiser,
>>
>> Dr. Rosseel of ORNL kindly let me know that the USNRC is organizing a material harvesting workshop in March, and I am writing you to ask if there is any chance for us to participate and contribute, somehow, to the workshop.
>>
>> We, CRIEPI, are working with Tom and Dr. Sokolov of ORNL on the characterization of RPV materials from Zion Unit 1 under the US-Japan collaboration. We also have some discussions in Japan about materials harvesting from decommissioned Japanese LWRs because some of the Japanese utilities decided permanent shutdown of some of the old LWRs. So, materials harvesting is becoming a hot topic in Japan, and we are very much interested in participating in the workshop.
>>
>> I would appreciate if our participation in the workshop is acceptable with the USNRC, and if so, please let me know your current idea about the scope of the workshop so that we can discuss how we can contribute to the workshop.
>>

>> I would like to send at least one researcher from CRIEPI, but some people from other organizations in Japan may also like to participate.

>>

>> I look forward to hearing from you.

>>

>> Best regards,

>> Naoki

>>

>> --

>> ---

>> Naoki Soneda, Dr.

>> Director, Materials Science Research Laboratory CRIEPI

>> 2-6-1 Nagasaka, Yokosuka-shi, Kanagawa 240-0196

>> Phone: 070-6568-9287

>> Fax: 046-856-5571

>> E-mail: soneda@criepi.denken.or.jp

>>

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> --

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> Naoki Soneda, Dr.

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Fax: 046-856-5571

E-mail: soneda@criepi.denken.or.jp

From: [Tregoning, Robert](#)
To: "坂本 一信"
Cc: [Hiser, Matthew](#); [Purtscher, Patrick](#)
Subject: RE: Participation in the harvesting workshop
Date: Tuesday, January 3, 2017 7:29:14 AM

Kazu:

I am glad you will be able to attend. We will of course add you to the participant list. Are there specific sessions that you would propose to provide a talk? We're just now starting to plan for the individual talks and would like to have the titles and speakers finalized by the end of January, at the latest. Please let me know if you have any questions as we continue to plan for the workshop.

Warm regards,

Rob

-----Original Message-----

From: 坂本 一信 [mailto:kazunobu_sakamoto@nsr.go.jp]
Sent: Monday, December 26, 2016 6:13 PM
To: Tregoning, Robert <Robert.Tregoning@nrc.gov>; Tregoning, Robert <Robert.Tregoning@nrc.gov>
Cc: Hiser, Matthew <Matthew.Hiser@nrc.gov>; Purtscher, Patrick <Patrick.Purtscher@nrc.gov>
Subject: [External_Sender] Participation in the harvesting workshop

Dear Rob,

I would like to attend the harvesting workshop in March, 2017.
So please add me to the participant list.
Thank you for your cooperation in advance.

I hope you'll have a happy new year!

Kazu

From: [Bernhoft, Sherry](#)
To: [Dyle, Robin](#); [Tregoning, Robert](#)
Cc: [Hiser, Matthew](#)
Subject: [External_Sender] RE: RE: [External] RE: Final agenda for Harvesting workshop
Date: Monday, January 9, 2017 10:17:35 AM

Thanks – I will be attending from EPRI for the cable and concrete harvesting
Our cable researcher will be at an IAEA meeting and our concrete folks will be at an NEI civil working group meeting.

Sherry Bernhoft

Electric Power Research Institute

EPRI, Senior Program Manager
1300 West WT Harris Boulevard | Charlotte, NC 28262
704.595.2740 (office)

(b)(6) [redacted] (cell)

Email: sbernhoft@epri.com

www.epri.com

Together...Shaping the Future of Electricity

From: Dyle, Robin

Sent: Monday, January 09, 2017 9:12 AM

To: Tregoning, Robert <Robert.Tregoning@nrc.gov>; Bernhoft, Sherry <sbernhoft@epri.com>

Cc: Hiser, Matthew <Matthew.Hiser@nrc.gov>

Subject: RE: RE: [External] RE: Final agenda for Harvesting workshop

Rob:

Headed to airport but a quick note. Al Ahluwalia and Jean Smith plan to attend as do I.

Robin Dyle

EPRI Nuclear Sector

Office: 205-426-5371

Cell: [redacted] (b)(6)

From: Tregoning, Robert [<mailto:Robert.Tregoning@nrc.gov>]

Sent: Monday, January 9, 2017 7:14 AM

To: Bernhoft, Sherry <sbernhoft@epri.com>

Cc: Dyle, Robin <rdyle@epri.com>; Hiser, Matthew <Matthew.Hiser@nrc.gov>

Subject: RE: RE: [External] RE: Final agenda for Harvesting workshop

Sherry:

Since this is a closed meeting and we're inviting people to attend, we hadn't planned on having a pre-registration. I agree that it would be good, however, to put together a list of planned attendees to circulate in advance of the meeting. We'll make sure to do this.

Cheers,

Rob

Robert Tregoning

Technical Advisor for Materials

US Nuclear Regulatory Commission

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From: Bernhoft, Sherry [<mailto:sbernhoft@epri.com>]

Sent: Monday, January 09, 2017 8:09 AM

To: Tregoning, Robert <Robert.Tregoning@nrc.gov>

Cc: Dyle, Robin <rdyle@epri.com>; Hiser, Matthew <Matthew.Hiser@nrc.gov>

Subject: [External_Sender] RE: [External] RE: Final agenda for Harvesting workshop

Sounds good and thanks

Will there be some type of pre-registration? Not a necessary but I am curious who all may be attending. I talked with some folks at Westinghouse (on concrete aging) right before the holiday break and mentioned this upcoming workshop. I am not sure if they contacted you since they are interested.

Sherry Bernhoft

Electric Power Research Institute

EPRI, Senior Program Manager

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704.595.2740 (office)

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Email: sbernhoft@epri.com

www.epri.com

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From: Tregoning, Robert [<mailto:Robert.Tregoning@nrc.gov>]

Sent: Monday, January 09, 2017 6:00 AM

To: Bernhoft, Sherry <sbernhoft@epri.com>

Cc: Dyle, Robin <rdyle@epri.com>; Hiser, Matthew <Matthew.Hiser@nrc.gov>

Subject: [External] RE: Final agenda for Harvesting workshop

Sherry:

The announcement and agenda that I sent you previously are the latest ones. I've attached both again FYI. The announcement won't change further. The final agenda is still evolving. We won't have a final agenda until we identify all the speakers and titles of talks. I'm shooting for the end of January to pin down most of these details.

Cheers,

Rob

Robert Tregoning

Technical Advisor for Materials

US Nuclear Regulatory Commission

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ph: 301-415-2324

fax: 301-415-6671

From: Bernhoft, Sherry [<mailto:sbernhoft@epri.com>]

Sent: Sunday, January 08, 2017 9:55 AM

To: Tregoning, Robert <Robert.Tregoning@nrc.gov>

Cc: Dyle, Robin <rdyle@epri.com>

Subject: [External_Sender] Final agenda for Harvesting workshop

Rob

Hope you are off to a good start for the New Year

Do you have the final announcement and agenda for the Harvesting Workshop?

Sherry Bernhoft

Electric Power Research Institute

EPRI, Senior Program Manager

1300 West WT Harris Boulevard | Charlotte, NC 28262

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From: [Tregoning, Robert](#)
To: [Chaouadi Rachid](#)
Cc: [van Walle Eric](#); [Purtscher, Patrick](#); [Rosseel, Thomas M.](#); [Hiser, Matthew](#)
Subject: RE: RE: RE: RE: [External] FW: Harvesting Workshop Announcement
Date: Monday, January 9, 2017 7:42:27 AM

Rachid:
Thanks, we'll continue to work with you moving forward.
Cheers,
Rob
Robert Tregoning
Technical Advisor for Materials
US Nuclear Regulatory Commission
Two White Flint North, M/S T-10 A36
11545 Rockville Pike
Rockville, MD 20852-2738
ph: 301-415-2324
fax: 301-415-6671

From: Chaouadi Rachid [<mailto:rachid.chaouadi@sckcen.be>]
Sent: Monday, January 09, 2017 3:18 AM
To: Tregoning, Robert <Robert.Tregoning@nrc.gov>
Cc: van Walle Eric <eric.van.walle@sckcen.be>; Purtscher, Patrick <Patrick.Purtscher@nrc.gov>;
Rosseel, Thomas M. <rosseeltm@ornl.gov>; Hiser, Matthew <Matthew.Hiser@nrc.gov>
Subject: [External_Sender] RE: RE: RE: [External] FW: Harvesting Workshop Announcement
Thank you very much Rob, my best wishes to all of you and your families.
Thanks for your clarification. Yes sure, we can combine the past work with some insight on future investigations in one single talk.
Best regards
Rachid

From: Tregoning, Robert [<mailto:Robert.Tregoning@nrc.gov>]
Sent: dinsdag 3 januari 2017 13:02
To: Chaouadi Rachid
Cc: van Walle Eric; Purtscher, Patrick; Rosseel, Thomas M.; Hiser, Matthew
Subject: RE: RE: RE: [External] FW: Harvesting Workshop Announcement
Rachid:

I'm hoping that you have had a good start to the New Year. Thank you for your reply and your offer to provide two presentations to the workshop. I want to first clarify the intent of Session IV to our upcoming workshop. Session IV is not intended to be a retrospective session summarizing what harvesting programs have been conducted in the past. It's intended to be a session to discuss the practical aspects of harvesting (i.e., the mechanics and challenges of obtaining and testing materials or components from nuclear plants) and the related knowledge that has been gained that can be used to guide any future such efforts (e.g., it's important to obtain material pedigree information during the initial phases of the project and ideally before the plant transitions to active decommissioning). This is why it is not the first session in the workshop. Therefore, your proposed talk summarizing the work that has been done on RPV materials (while certainly very important and interesting) may not fit perfectly within this session unless it focused on the practical aspects of these

past programs. Your proposed talk on topics that require attention for future investigations certainly could fit well in either Session 1 or Session 2. Maybe we can figure out a way to combine both talks as part of either Session 1 or Session 2. Your thoughts?

We're just now starting to plan the individual talks for the sessions. I'm hoping that the list of talks will be finalized by the end of January, if not sooner. We'll continue to be in contact with you as the planning evolves.

Warm regards,
Rob

From: Chaouadi Rachid [<mailto:rachid.chaouadi@sckcen.be>]

Sent: Thursday, December 29, 2016 7:49 AM

To: Tregoning, Robert <Robert.Tregoning@nrc.gov>

Cc: van Walle Eric <eric.van.walle@sckcen.be>; Purtscher, Patrick <Patrick.Purtscher@nrc.gov>; Rosseel, Thomas M. <rosseeltm@ornl.gov>; Hiser, Matthew <Matthew.Hiser@nrc.gov>

Subject: [External_Sender] RE: RE: [External] FW: Harvesting Workshop Announcement

Thank you Rob, my best wishes to you and your family.

We started discussing with the Belgian safety authorities (FANC/AFCN) and we agreed to first document what was done on the subject. To our knowledge, very limited efforts were spent on tests and evaluation of materials from decommissioned vessels. A review paper is in preparation (will be ready in Jan-Feb 2017) on the 5 or 6 reactor vessels that were used for post-mortem tests. Then, it will be interesting to list in a first phase all what could possibly be done in the future followed in a second phase by a priority ranking of the various topics. We have already some ideas on what should be done that could be presented and discussed at the meeting. So, we can propose two talks, one reviewing the past programs with the main outcomes (session 4) and a second one proposing some topics that require attention for future investigations (session 1).

For the sessions order, maybe it is preferable to put Session 4 on lessons from past harvesting programs as a starting session then go through the other sessions because then we know where we are (starting point). The other following sessions will deal with the motivations for harvesting, what are the needs, what are the materials available, and how the work can be shared and discuss the actions and next steps.

Enjoy the last remaining days of 2016 and have a very good new year.

Best regards
Rachid

From: Tregoning, Robert [Robert.Tregoning@nrc.gov]

Sent: Tuesday, December 20, 2016 4:05 PM

To: Chaouadi Rachid; Hiser, Matthew

Cc: van Walle Eric; Purtscher, Patrick; Rosseel, Thomas M.

Subject: RE: RE: [External] FW: Harvesting Workshop Announcement

Dear Rachid:

Thank you so much for your email last week and your inquiry about the harvesting workshop. I apologize for not responding to you sooner, but last week was very busy for me. Unfortunately, the dates have been set for March 7 and 8th, 2016 and we can't change them at this point, but hopefully this doesn't preclude participation. I've attached a workshop announcement as well as a condensed workshop agenda for your information.

You can see that we are planning five unique sessions as part of the workshop. Each session has a specific theme, or objective, as outlined below (and in the attached agenda).

1. Session 1 will consist of short presentations and a panel discussion on the

motivation for harvesting.

2. Session 2 will discuss data needs best met through harvesting.

3. Session 3 will discuss sources of materials for harvesting programs

4. Session 4 will discuss lessons-learned from past harvesting programs and practical aspects associated with harvesting.

5. Session 5 will attempt to summarize the workshop and planning a harvesting program, as well as discuss actions and next steps

We are interested in having a talk or two to summarize past harvesting efforts and your proposed talk is consistent with this. However my only concern is that a talk just focused on past RPV efforts is narrower than we were initially planning for.

Do you think this talk could be part of a broader talk on past harvesting programs?

Or, now that you have a bit more information on the workshop sessions and what we hope to achieve with each session, do you think that a slightly different presentation topic would fit within one of the sessions above?

Thank you again for your interest. I'm looking forward to working with you on the workshop. I'm hoping that the workshop will be successful for all participants. I hope you and your family have a Happy Holidays and a prosperous New Year as well.

Regards,

Rob

Robert Tregoning

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US Nuclear Regulatory Commission

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ph: 301-415-2324

fax: 301-415-6671

From: Chaouadi Rachid [<mailto:rachid.chaouadi@sckcen.be>]

Sent: Wednesday, December 14, 2016 4:36 AM

To: Tregoning, Robert <Robert.Tregoning@nrc.gov>; Hiser, Matthew <Matthew.Hiser@nrc.gov>

Cc: van Walle Eric <eric.van.walle@sckcen.be>

Subject: [External_Sender] RE: [External] FW: Harvesting Workshop Announcement

Dear Bob, dear Matt

As you probably know, SCK•CEN is willing to attend the harvesting workshop USNRC is preparing and that would take place in the US in March 2017. If the workshop can be scheduled week 13 (27 to 31 March), that would be great because Eric and myself will be in the US. If case another date is selected, I will be able to attend but not Eric (other commitments). We are preparing a presentation that overviews what was already done worldwide in the field of post-mortem tests on decommissioned vessel materials. Please let us know as soon as possible the final planning that we can start with the necessary arrangements.

Looking forward to see you and discuss future actions for a fruitful international collaboration.

Best regards

Rachid

From: Rosseel, Thomas M. [<mailto:rosseeltm@ornl.gov>]

Sent: dinsdag 13 december 2016 23:23

To: Naoki Soneda; van Walle Eric; Chaouadi Rachid

Cc: Jan.BENS@FANC.FGOV.BE; Sokolov, Mikhail A.; Leonard, Keith J.

Subject: FW: [External] FW: Harvesting Workshop Announcement

Importance: High

Dear Naoki, Eric and Rachid,

As noted below, Rob Tregoning has requested that you contact him (Robert.Tregoning@nrc.gov) and Matt Hiser (Matthew.Hiser@nrc.gov) directly concerning the latest workshop planning information and possible speaking opportunities.

Kind regards and best wishes for happy holidays,

Tom

Thomas M. Rosseel, Ph. D.

Past Chair, International Committee on Irradiated Concrete and
Materials Aging and Degradation, Deputy Pathway Lead

Light Water Reactor Sustainability Program

Materials, Science and Technology Division

Oak Ridge National Laboratory

4500S MS 6132

PO Box 2008

Oak Ridge, TN 37831

TEL: 1-865-574-5380

rosseeltm@ornl.gov

From: "Tregoning, Robert" <Robert.Tregoning@nrc.gov>

Date: Tuesday, December 13, 2016 at 1:24 PM

To: "T. M. Rosseel" <rosseeltm@ornl.gov>, "Hiser, Matthew"

<Matthew.Hiser@nrc.gov>

Cc: Mikhail Sokolov <sokolovm@ornl.gov>, "Leonard, Keith J." <leonardk@ornl.gov>,

Kathryn McCarthy <kathryn.mccarthy@inl.gov>, Richard Reister

<Richard.Reister@nuclear.energy.gov>

Subject: RE: FW: [External] FW: Harvesting Workshop Announcement

Tom:

Thanks for the email letting us know about the inquiries you've received. We actually want foreign participation.

Could you put Eric and Naoki in touch with me or Matt? We'll then share the latest workshop planning information with them and see if there's a good fit for them to come and speak or possibly attend. We've been working with Rich and Sherry from EPRI to develop a preliminary agenda, which we're hoping will be mature enough to share with you shortly so that you can start planning as well. Let me know if you have any other questions.

Regards,

Rob

Robert Tregoning

Technical Advisor for Materials

US Nuclear Regulatory Commission

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Rockville, MD 20852-2738

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From: [Tregoning, Robert](#)
To: [Purtscher, Patrick](#); [Hiser, Matthew](#)
Subject: FW: RE: Harvesting Workshop
Date: Friday, January 13, 2017 7:42:56 AM

FYI, from TG Lian. We'll see what happens with MAI.....

Robert Tregoning
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fax: 301-415-6671

From: Lian, Tiangan [mailto:tliau@epri.com]
Sent: Thursday, January 12, 2017 4:19 PM
To: Tregoning, Robert <Robert.Tregoning@nrc.gov>
Subject: [External_Sender] RE: Harvesting Workshop

Dear Rob: Happy New Year!

First I want to apologize for not seeing your previous email. I was in [REDACTED] (b)(6)

(b)(6) [REDACTED] at the time of your email. Without bringing my computer (only an EPRI phone), it must have escaped my attention while I was in [REDACTED] (b)(6)

I am happy to pass this information to MAI director, Regis Nhili, who I work with on a daily basis. Let me touch base with him first and then get back to you with more information.

Best regards,

TG

From: Tregoning, Robert [<mailto:Robert.Tregoning@nrc.gov>]

Sent: Thursday, January 12, 2017 12:51 PM

To: Lian, Tiangan <tliau@epri.com>

Subject: [EXTERNAL] RE: Harvesting Workshop

*** Exercise caution. This is an EXTERNAL email. DO NOT open attachments or click links from unknown senders or unexpected email. ***.

T.G.:

I sent you the email below just before the holidays. I wanted to follow up to make sure you received it and also if you could help me identify the correct contact(s) at MAI for discussing possible participation in this workshop on harvesting.

Thanks in advance for your help,

Warm regards,

Rob

Robert Tregoning
Technical Advisor for Materials
US Nuclear Regulatory Commission
Two White Flint North, M/S T-10 A36
11545 Rockville Pike
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fax: 301-415-6671

From: Tregoning, Robert

Sent: Tuesday, December 20, 2016 10:56 AM

To: 'tlian@epri.com' <tlian@epri.com>

Subject: Harvesting Workshop

T.G.:

I hope that this email finds you well and that you and your family are now settled in [REDACTED] (b)(6)

I'm writing for a favor from you. In early March, we're hosting a materials harvesting workshop. I've attached the workshop announcement and the condensed agenda.

You can see that we are planning five unique sessions as part of the workshop. Each session has a specific theme, or objective, as outlined below (and in the attached agenda).

1. Session 1 will consist of short presentations and a panel discussion on the motivation for harvesting.

2. Session 2 will discuss data needs best met through harvesting.

3. Session 3 will discuss sources of materials for harvesting programs

4. Session 4 will discuss lessons-learned from past harvesting programs and practical aspects associated with harvesting.

5. Session 5 will attempt to summarize the workshop and planning a harvesting program, as well as discuss actions and next steps

Robin Dyle and Sherry Bernhoft are participating from EPRI and will provide that perspective. However, we are also looking for some targeted international participation. We were therefore thinking that someone from MAI might be good to participate in Session 2 (or possibly another session).

What are your thoughts on this idea and, if you think MAI may be able to contribute to the workshop, do you have a POC that you can provide me so that I can see if they're interested?

I hope you and your family have a Happy Holidays and a prosperous New Year.

Regards,

Rob

Robert Tregoning

Technical Advisor for Materials

US Nuclear Regulatory Commission

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From: [Bernhoft, Sherry](#)
To: [Hiser, Matthew](#); [Rosseel, Thomas M.](#); [Demma, Anne](#)
Cc: [Dyle, Robin](#)
Subject: [External_Sender] RE: RE: Re: [External] Harvesting Workshop Sessions 3 & 4
Date: Sunday, January 15, 2017 10:52:14 AM

Matt

If possible I would also like to include Anne Demma on the call. I am central time and see is on the west coast.

Looking at our outlooks I would suggest 1 pm eastern time for the call.

Sherry Bernhoft
Electric Power Research Institute
EPRI, Senior Program Manager
1300 West WT Harris Boulevard | Charlotte, NC 28262
704.595.2740 (office)

(b)(6) [REDACTED] (cell)

Email: sbernhoft@epri.com
www.epri.com
Together...Shaping the Future of Electricity

-----Original Message-----

From: Hiser, Matthew [<mailto:Matthew.Hiser@nrc.gov>]
Sent: Saturday, January 14, 2017 12:55 PM
To: Rosseel, Thomas M. <rosseeltm@ornl.gov>
Cc: Bernhoft, Sherry <sbernhoft@epri.com>; Dyle, Robin <rdyle@epri.com>
Subject: RE: RE: Re: [External] Harvesting Workshop Sessions 3 & 4

Glad to hear :)

Sherry, are you on the west coast? If so, how early on Tuesday afternoon can you do?

Thanks!
Matt

From: Rosseel, Thomas M. [rosseeltm@ornl.gov]
Sent: Saturday, January 14, 2017 10:31 AM
To: Hiser, Matthew
Cc: Bernhoft, Sherry; Dyle, Robin
Subject: [External_Sender] RE: Re: [External] Harvesting Workshop Sessions 3 & 4

Thanks Matt; this helped.

Regards,

Tom

-----Original Message-----

From: Hiser, Matthew [<mailto:Matthew.Hiser@nrc.gov>]
Sent: Saturday, January 14, 2017 8:59 AM
To: Rosseel, Thomas M. <rosseeltm@ornl.gov>
Cc: Bernhoft, Sherry <sbernhoft@epri.com>; Dyle, Robin <rdyle@epri.com>
Subject: RE: Re: [External] Harvesting Workshop Sessions 3 & 4

Hi Tom,

I apologize for the confusing wording of my first email. There have been previous discussions between NRC, DOE, and EPRI on the workshop agenda overall to discuss what the workshop is trying to accomplish and the best way to do so. Those conversations did not dig down into each session and make a final decision on exactly who will be the presenters and topics in each session.

Internally here at NRC, we've worked to lay that out in the attached documents from my previous email. The purpose of this call is to discuss all the specifics of sessions 3 and 4 to identify the right presenters for each slot. This discussion could also lead to adding, eliminating or changing some of the planned presentations if you all have other ideas or suggestions.

Our main goal is to have a well-balanced, comprehensive discussion of harvesting that will benefit all participants. We think working with you all up front to help plan and make decisions will give us a better workshop in the end. So please come with ideas and suggestions for sessions 3 and 4 on sources of materials and lessons learned/practical aspects of harvesting.

I hope that made things a little clearer. I'll send a scheduler for Tuesday afternoon based on the response from Sherry and Tom.

Thanks!
Matt

From: Rosseel, Thomas M. [rosseeltm@ornl.gov]
Sent: Friday, January 13, 2017 12:35 PM
To: Hiser, Matthew
Cc: Bernhoft, Sherry; Dyle, Robin
Subject: [External_Sender] Re: [External] Harvesting Workshop Sessions 3 & 4

Matt,

I'm available Tuesday and Wednesday next week as well as Tuesday and Wednesday of the week of the 23rd. However, I'm not sure I know what you mean by "agree and align on the primary focus and objective of these sessions as well as the appropriate presenters (organization/individual)."

Regards,

Tom

Thomas M. Rosseel, Ph. D.
Past Chair, International Committee on Irradiated Concrete and Materials Aging and Degradation, Deputy Pathway
Lead Light Water Reactor Sustainability Program

Materials, Science and Technology Division Oak Ridge National Laboratory 4500S MS 6132 PO Box 2008 Oak Ridge, TN 37831

TEL: 1-865-574-5380
rosseeltm@ornl.gov<<mailto:rosseeltm@ornl.gov>>

From: Sherry Bernhoft <sbernhof@epri.com<<mailto:sbernhof@epri.com>>>
Date: Friday, January 13, 2017 at 8:07 AM
To: "Matthew.Hiser@nrc.gov<<mailto:Matthew.Hiser@nrc.gov>>"
<Matthew.Hiser@nrc.gov<<mailto:Matthew.Hiser@nrc.gov>>>, "T. M. Rosseel"

<rosseeltm@ornl.gov<<mailto:rosseeltm@ornl.gov>>>, Robin Dyle <rdyle@epri.com<<mailto:rdyle@epri.com>>>
Subject: RE: [External] Harvesting Workshop Sessions 3 & 4

Matt

Hope all is going well. I have some time next week either Monday or Tuesday afternoon to talk if that works for you.

Sherry Bernhoft
Electric Power Research Institute
EPRI, Senior Program Manager
1300 West WT Harris Boulevard | Charlotte, NC 28262
704.595.2740 (office)

(b)(6) [REDACTED] (cell)

Email: sbernhof@epri.com<<mailto:sbernhof@epri.com>>
www.epri.com<<http://www.epri.com>>
Together...Shaping the Future of Electricity

From: Hiser, Matthew [<mailto:Matthew.Hiser@nrc.gov>]
Sent: Thursday, January 12, 2017 1:01 PM
To: Rosseel, Thomas M. <rosseeltm@ornl.gov<<mailto:rosseeltm@ornl.gov>>>; Dyle, Robin <rdyle@epri.com<<mailto:rdyle@epri.com>>>; Bernhoft, Sherry <sbernhof@epri.com<<mailto:sbernhof@epri.com>>>
Subject: [External] Harvesting Workshop Sessions 3 & 4

Hi Tom, Sherry, and Robin,

I hope all is well with you all in the new year!

As Rob had indicated in previous emails, we would like to work with DOE and EPRI to plan the workshop and hopefully achieve the best outcome for all parties. I have the lead for the NRC for planning sessions 3 and 4 of the March harvesting workshop and would like to set up a call with you all to discuss sessions 3 and 4. The objective of this call is to agree and align on the primary focus and objective of these sessions as well as the appropriate presenters (organization/individual).

I've attached the latest version of the workshop agenda along with a table showing the current planned topics and speakers for sessions 3 and 4.

Please let me know your availability in the next week or two to have a call to discuss.

Thanks!
Matt

Matthew Hiser
Materials Engineer
US Nuclear Regulatory Commission | Office of Nuclear Regulatory Research Division of Engineering | Corrosion and Metallurgy Branch
Phone: 301-415-2454 | Office: TWFN 10D62 Matthew.Hiser@nrc.gov<<mailto:Matthew.Hiser@nrc.gov>>

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From: [Tregoning, Robert](#)
To: Oliver.MARTIN@ec.europa.eu
Cc: [Purtscher, Patrick](#); [Hiser, Matthew](#)
Subject: RE: RE: RE: Harvesting Workshop
Date: Tuesday, January 17, 2017 8:08:28 AM
Attachments: [image001.gif](#)

Oliver:

Thank you for checking with your colleagues about the workshop. I know that it's a busy time with other commitments. While I certainly think it would be valuable for you or one of your colleagues to attend and participate in the workshop, I certainly understand if this will not be possible. Please just let me know your other colleague's response after you've had a chance to talk to him.

All the best,

Rob

Robert Tregoning

Technical Advisor for Materials

US Nuclear Regulatory Commission

Two White Flint North, M/S T-10 A36

11545 Rockville Pike

Rockville, MD 20852-2738

ph: 301-415-2324

fax: 301-415-6671

From: Oliver.MARTIN@ec.europa.eu [mailto:Oliver.MARTIN@ec.europa.eu]

Sent: Monday, January 16, 2017 10:50 AM

To: Tregoning, Robert <Robert.Tregoning@nrc.gov>

Subject: [External_Sender] RE: RE: Harvesting Workshop

Dear Rob,

Many thanks for your email.

I tried to convince a colleague of mine to attend the workshop, but without success. I will meet up with another one later this week and ask him if he is interested. I cannot attend, because I have another commitment the same week. The same applies to this year's RIC.

Best regards,

Oliver

OLIVER MARTIN

Project Leader Integrity & Ageing of Light Water Reactors



European Commission

DG Joint Research Centre (JRC)

Directorate G - Nuclear Safety & Security

Unit G.I.4 - Nuclear Reactor Safety & Emergency Preparedness

P325 01/108

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Tel: +31 224-56-5375

oliver.martin@ec.europa.eu

<https://ec.europa.eu/jrc>

From: Tregoning, Robert [mailto:Robert.Tregoning@nrc.gov]

Sent: Thursday, January 12, 2017 9:46 PM
To: MARTIN Oliver (JRC-PETTEN)
Subject: RE: RE: Harvesting Workshop
Oliver:

I just want to follow-up with you about the harvesting workshop we are holding in mid-March. We would be particularly interested if you, or someone from JRC, will attend and possibly make a presentation in one or more of the following sessions:

- Session 1 will consist of short presentations and a panel discussion on the motivation for harvesting.
- Session 2 will discuss data needs best met through harvesting.
- Session 5 short presentations that will attempt to summarize the workshop and planning a harvesting program, as well as discuss actions and next steps

We plan on working closely with all presenters so that we all have similar ideas about the objectives of the workshop as a whole and then the objectives of each session. I'm hopeful that JRC will be able to participate.

Let me know if you've had any more discussions or thoughts about this within JRC. Also, let me know if you would like me to give you a call to discuss further.

All the best,

Rob

Robert Tregoning
Technical Advisor for Materials
US Nuclear Regulatory Commission
Two White Flint North, M/S T-10 A36
11545 Rockville Pike
Rockville, MD 20852-2738
ph: 301-415-2324
fax: 301-415-6671

From: Oliver.MARTIN@ec.europa.eu [<mailto:Oliver.MARTIN@ec.europa.eu>]

Sent: Tuesday, December 20, 2016 11:14 AM

To: Tregoning, Robert <Robert.Tregoning@nrc.gov>

Subject: [External_Sender] RE: Harvesting Workshop

Dear Rob,

Good to hear from you and hope you & your family are well, too.

Yes, I received the announcement of the workshop already from Olli and have forwarded it already to all colleagues in my unit involved in material testing. When everybody is back in the new year we will sort out if & who from JRC can attend. I will come back to you in this matter.

In the meantime Merry Christmas and happy new year to you and your family,

Oliver

OLIVER MARTIN

Project Leader Integrity & Ageing of Light Water Reactors



European Commission

DG Joint Research Centre (JRC)

Directorate G - Nuclear Safety & Security

Unit G.I.4 - Nuclear Reactor Safety & Emergency Preparedness

P325 01/108

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oliver.martin@ec.europa.eu
<https://ec.europa.eu/jrc>

From: Tregoning, Robert [<mailto:Robert.Tregoning@nrc.gov>]

Sent: Tuesday, December 20, 2016 4:52 PM

To: MARTIN Oliver (JRC-PETTEN)

Subject: Harvesting Workshop

Oliver:

I hope that this email finds you and your family well. I just want to follow-up on an email that Olli sent out for me this week. In early March, we're hosting a materials harvesting workshop. I've attached the workshop announcement and the condensed agenda for your information.

You can see that we are planning five unique sessions as part of the workshop. Each session has a specific theme, or objective, as outlined below (and in the attached agenda).

1. Session 1 will consist of short presentations and a panel discussion on the motivation for harvesting.
2. Session 2 will discuss data needs best met through harvesting.
3. Session 3 will discuss sources of materials for harvesting programs
4. Session 4 will discuss lessons-learned from past harvesting programs and practical aspects associated with harvesting.
5. Session 5 will attempt to summarize the workshop and planning a harvesting program, as well as discuss actions and next steps

I would welcome JRC participation in the workshop. I would also welcome a presentation from JRC in one or more of the sessions outlined above.

Do you, or someone else from JRC, have interest in participating and perhaps making a presentation or two? If so, please just respond and we can start working out the arrangements.

I hope you and your family have a Happy Holidays and a prosperous New Year.

Regards,

Rob

Robert Tregoning

Technical Advisor for Materials

US Nuclear Regulatory Commission

Two White Flint North, M/S T-10 A36

11545 Rockville Pike

Rockville, MD 20852-2738

ph: 301-415-2324

fax: 301-415-6671

From: [NHILI Regis](#)
To: [Tregoning, Robert](#)
Cc: [Hiser, Matthew](#); [Purtscher, Patrick](#); tlian@epri.com
Subject: [External_Sender] RE: RE: [External] RE: Harvesting Workshop
Date: Wednesday, January 18, 2017 11:26:28 AM
Attachments: [image001.png](#)

Dear Rob,

Thank you for your email.

We will consider sending someone to this interesting workshop and come back to you asap.

Kind regards,

Regis



Regis NHILI

MAI Director

EDF – R&D

Materials Ageing Institute (MAI)

EDF LAB Les Renardières - ECUELLES

77818 Moret-sur-Loing Cedex

regis.nhili@edf.fr

Landline : +33 (0) 1 60 73 68 47

Mobile : (b)(6)

De : Robert.Tregoning@nrc.gov [mailto:Robert.Tregoning@nrc.gov]

Envoyé : mercredi 18 janvier 2017 13:00

À : tlian@epri.com; NHILI Regis

Cc : Matthew.Hiser@nrc.gov; Patrick.Purtscher@nrc.gov

Objet : RE: RE: [External] RE: Harvesting Workshop

Dr. Nhili:

Thank you for expressing interest in the workshop. I'm not sure how much information TG has shared with you, so I wanted to start by sending you the workshop announcement and the condensed workshop agenda along with a brief summary of the sessions. Each session has a specific theme, or objective, as outlined below (and in the attached agenda).

1. Session 1 will consist of short presentations and a panel discussion on the motivation for harvesting.
2. Session 2 will discuss data needs best met through harvesting.
3. Session 3 will discuss sources of materials for harvesting programs
4. Session 4 will discuss lessons-learned from past harvesting programs and practical aspects associated with harvesting.
5. Session 5 will attempt to summarize the workshop and planning a harvesting program, as well as discuss actions and next steps

Session 1 and 5 will be more panel discussions with only short prepared presentations. The other sessions will have longer technical presentations along with discussion.

We are planning to have both U.S. and international presentations during each session. We are hoping to get both an Asian and European perspective on the issues. From Japan, JNRA, CRIEPI, and possibly representatives from power companies will be participating. From Europe, we will have participation from SCK and possibly JRC and GRS. I'd be very interested if someone from MAI could possibly participate to provide a broader European perspective. I would welcome contributions from MAI in any of the above sessions, but I'm most interested in your participation in Sessions 1, 2, and/or 5. These sessions are intended to be discuss broader interests that I think MAI may be well-suited to address. Please let me know if you would like more information or would like to discuss the

workshop in more detail. I'm available to call you at your convenience. We are trying to finalize the agenda with speakers and titles by the end of January.

Thank you for your consideration.

Regards,

Rob

Robert Tregoning

Technical Advisor for Materials

US Nuclear Regulatory Commission

Two White Flint North, M/S T-10 A36

11545 Rockville Pike

Rockville, MD 20852-2738

ph: 301-415-2324

fax: 301-415-6671

From: Lian, Tiangan [<mailto:tliau@epri.com>]

Sent: Wednesday, January 18, 2017 5:38 AM

To: Tregoning, Robert <Robert.Tregoning@nrc.gov>

Cc: Regis NHILI <regis.nhili@edf.fr>

Subject: [External_Sender] RE: [External] RE: Harvesting Workshop

Hi Rob:

I talked to MAI director, Regis Nhili briefly about the workshop. Please contact Regis directly and he is happy to discuss with you on this matter. I have copied Regis here for your convenience.

Let me know if you have any questions.

Best regards,

TG

From: Tregoning, Robert [<mailto:Robert.Tregoning@nrc.gov>]

Sent: Thursday, January 12, 2017 12:51 PM

To: Lian, Tiangan <tliau@epri.com>

Subject: [EXTERNAL] RE: Harvesting Workshop

*** Exercise caution. This is an EXTERNAL email. DO NOT open attachments or click links from unknown senders or unexpected email. ***.

T.G.:

I sent you the email below just before the holidays. I wanted to follow up to make sure you received it and also if you could help me identify the correct contact(s) at MAI for discussing possible participation in this workshop on harvesting.

Thanks in advance for your help,

Warm regards,

Rob

Robert Tregoning

Technical Advisor for Materials

US Nuclear Regulatory Commission

Two White Flint North, M/S T-10 A36

11545 Rockville Pike

Rockville, MD 20852-2738

ph: 301-415-2324

fax: 301-415-6671

From: Tregoning, Robert

Sent: Tuesday, December 20, 2016 10:56 AM

To: 'tlian@epri.com' <tlian@epri.com>

Subject: Harvesting Workshop

T.G.:

(b)(6)

I hope that this email finds you well and that you and your family are now settled in [REDACTED] I'm writing for a favor from you. In early March, we're hosting a materials harvesting workshop. I've attached the workshop announcement and the condensed agenda.

You can see that we are planning five unique sessions as part of the workshop. Each session has a specific theme, or objective, as outlined below (and in the attached agenda).

1. Session 1 will consist of short presentations and a panel discussion on the motivation for harvesting.
2. Session 2 will discuss data needs best met through harvesting.
3. Session 3 will discuss sources of materials for harvesting programs
4. Session 4 will discuss lessons-learned from past harvesting programs and practical aspects associated with harvesting.
5. Session 5 will attempt to summarize the workshop and planning a harvesting program, as well as discuss actions and next steps

Robin Dyle and Sherry Bernhoft are participating from EPRI and will provide that perspective. However, we are also looking for some targeted international participation. We were therefore thinking that someone from MAI might be good to participate in Session 2 (or possibly another session).

What are your thoughts on this idea and, if you think MAI may be able to contribute to the workshop, do you have a POC that you can provide me so that I can see if they're interested?

I hope you and your family have a Happy Holidays and a prosperous New Year.

Regards,

Rob

Robert Tregoning

Technical Advisor for Materials

US Nuclear Regulatory Commission

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From: Hiser, Matthew
Sent: Thu, 19 Jan 2017 19:30:18 +0000
To: 'Rosseel, Thomas M.'
Cc: Tregoning, Robert;Purtscher, Patrick;Bernhoft, Sherry;Richard Reister;Leonard, Keith J.
Subject: RE: Re: Harvesting Workshop Sessions 3 & 4

Hi Tom,

Thank you for sharing that information. Rob Tregoning at NRC has been in contact with Dr. Seneda at CRIEPI as well as Dr. Kazu Sakamoto at JNRA to coordinate Japanese participation in the workshop. It is good to know that Dr. Seneda is well connected and aware of activities in Japanese industry.

We're hoping to have the workshop speakers finalized by the end of January and will work with Dr. Seneda and Dr. Sakamoto to ensure Japanese participation is well-coordinated.

Thanks!
Matt

From: Rosseel, Thomas M. [mailto:rosseeltm@ornl.gov]
Sent: Thursday, January 19, 2017 1:41 PM
To: Hiser, Matthew <Matthew.Hiser@nrc.gov>
Cc: Tregoning, Robert <Robert.Tregoning@nrc.gov>; Purtscher, Patrick <Patrick.Purtscher@nrc.gov>; Bernhoft, Sherry <sbernhoft@epri.com>; Richard Reister <Richard.Reister@nuclear.energy.gov>; Leonard, Keith J. <leonardk@ornl.gov>
Subject: [External_Sender] Re: Harvesting Workshop Sessions 3 & 4

Matt,

Japanese colleagues involved in NPP concrete studies have informed me that Chubu Electric Power Company (CEPCO) has designated Naoki Senada, CRIEPI, to represent the Hamaoka decommission effort at the Harvesting Workshop if he is invited.

As you know, Naoki is well connected throughout the Japanese nuclear industry and would also be a valuable panelist.

Regards,

Tom

Thomas M. Rosseel, Ph. D.
Past Chair, International Committee on Irradiated Concrete and
Materials Aging and Degradation, Deputy Pathway Lead
Light Water Reactor Sustainability Program

Materials, Science and Technology Division
Oak Ridge National Laboratory

4500S MS 6132

PO Box 2008
Oak Ridge, TN 37831

TEL: 1-865-574-5380
rosseeltm@ornl.gov

From: "Matthew.Hiser@nrc.gov" <Matthew.Hiser@nrc.gov>
Date: Tuesday, January 17, 2017 at 3:36 PM
To: Sherry Bernhoft <sbernhof@epri.com>, "T. M. Rosseel" <rosseeltm@ornl.gov>, Robin Dyle <rdyle@epri.com>, "Demma, Anne" <ademma@epri.com>
Cc: "Tregoning, Robert" <Robert.Tregoning@nrc.gov>, "Purtscher, Patrick" <Patrick.Purtscher@nrc.gov>
Subject: RE: Harvesting Workshop Sessions 3 & 4

Thanks everyone for participating today. I appreciate all the comments and suggestions and we'll adjust the agenda accordingly.

One follow-up: could DOE and EPRI identify who they expect their presenter to be for each of the 5 sessions?

Notes from today's call:

- Matt H. described general plans for workshop:
- Non-public, keep participation to around 30 individuals for more focused interactive discussion
- Goal is to have well-balanced discussion of harvesting, not sales pitches for specific projects or programs
- Sherry B. suggested fewer presentations with more panel discussion time
- Plan is for roughly 50-60% presentations and remaining time for discussion
- Sessions 1 and 5 should be primarily panel discussion
- Session 2:
 - Question raised about covering metals, cables, and concrete
 - Agreed that all presenters can cover all three types materials, hopefully just a few slides
 - Suggest presenters focus on high-priority data needs from their organization's perspective
 - Perhaps some background on what informs their priorities
- Session 3:
 - Suggestions to include EnergySolutions, PWROG, Korea, Japan, and French presentation slots
 - Emphasize to presenters to avoid "sales pitch," but please provide information on sources of materials
 - Short ~10 min presentations on sources of materials with remaining time for discussion
 - Hopefully use presented information as starting point for previously harvested materials database
- Session 4:
 - Longer (20-30 min) presentations focused on forward-looking lessons learned
 - Suggestion to reach out to Exelon (Zion experience plus many operating facilities) if Dominion can't support
 - Also consider Japan and France for international presentations

Actions:

- Brian Bergos provide Matt with PWROG contact
- Matt look into if affidavit would be needed for any proprietary information from EPRI/industry
- Matt update agenda for sessions 3 and 4 and finalize speakers

Thanks!

Matt

Matthew Hiser

Materials Engineer

US Nuclear Regulatory Commission | Office of Nuclear Regulatory Research

Division of Engineering | Corrosion and Metallurgy Branch

Phone: 301-415-2454 | Office: TWFN 10D62

Matthew.Hiser@nrc.gov

-----Original Appointment-----

From: Hiser, Matthew

Sent: Monday, January 16, 2017 9:48 AM

To: Hiser, Matthew; Bernhoft, Sherry; Rosseel, Thomas M.; Dyle, Robin; Demma, Anne

Subject: Harvesting Workshop Sessions 3 & 4

When: Tuesday, January 17, 2017 1:00 PM-2:00 PM (UTC-05:00) Eastern Time (US & Canada).

Where: Telecon: 888-677-8615 passcode: [REDACTED] (b)(6)

888-677-8615 passcode: [REDACTED] (b)(6)

<< File: Sessions 3 & 4.docx >> << File: Harvesting Workshop Agenda 1-12-17.docx >>

There have been previous discussions between NRC, DOE, and EPRI on the workshop agenda overall to discuss what the workshop is trying to accomplish and the best way to do so. Those conversations did not dig down into each session and make a final decision on exactly who will be the presenters and topics in each session. Internally here at NRC, we've worked to lay that out in the attached documents.

The purpose of this call is to discuss all the specifics of sessions 3 and 4 to identify the right presenters for each slot. This discussion could also lead to adding, eliminating or changing some of the planned presentations if you all have other ideas or suggestions. Our main goal is to have a well-balanced, comprehensive discussion of harvesting that will benefit all participants. We think working with you all up front to help plan and make decisions will give us a better workshop in the end. So please come with ideas and suggestions for sessions 3 and 4 on sources of materials and lessons learned/practical aspects of harvesting.

From: [Hiser, Matthew](#)
To: ["William F Zipp \(Generation - 4\)"](#)
Subject: RE: RE: RE: Harvesting Workshop March 7 & 8
Date: Wednesday, January 25, 2017 7:17:30 AM

Bill,

I'll give you a call on the number below around 10:00 this morning.

Thanks!
Matt

-----Original Message-----

From: William F Zipp (Generation - 4) [<mailto:william.f.zipp@dom.com>]
Sent: Tuesday, January 24, 2017 5:17 PM
To: Hiser, Matthew <Matthew.Hiser@nrc.gov>
Subject: [External_Sender] RE: RE: Harvesting Workshop March 7 & 8

Matt,

10am Eastern or 1pm Eastern are a couple times that would work for me tomorrow (Wednesday). Or other times later in the day. Just let me know.

Thanks,

Bill

-----Original Message-----

From: Hiser, Matthew [<mailto:Matthew.Hiser@nrc.gov>]
Sent: Tuesday, January 24, 2017 4:03 PM
To: William F Zipp (Generation - 4)
Subject: [External] RE: RE: Harvesting Workshop March 7 & 8

Hi Bill,

Absolutely, what time would be good for me to give you a call tomorrow?

Thanks!
Matt

Matthew Hiser
Materials Engineer
US Nuclear Regulatory Commission | Office of Nuclear Regulatory Research Division of Engineering | Corrosion and Metallurgy Branch
Phone: 301-415-2454 | Office: TWFN 10D62 Matthew.Hiser@nrc.gov

From: William F Zipp (Generation - 4) [william.f.zipp@dom.com]
Sent: Tuesday, January 24, 2017 3:07 PM
To: Charles A Tomes (Generation - 6)
Cc: Hiser, Matthew; Stewart J Yuen (Generation - 4); Paul Aitken (Generation - 6)
Subject: [External_Sender] RE: Harvesting Workshop March 7 & 8

Chuck,

I can participate if NRC would like our insights from Kewaunee.

Matt, if you are looking for slides or a presentation from us I will need to have a discussion with you as to what you're looking for to make sure I hit the mark.

Thanks,

Bill Zipp
Kewaunee Decommissioning Project Mgr
920-388-8842

From: Charles A Tomes (Generation - 6)
Sent: Tuesday, January 24, 2017 10:07 AM
To: William F Zipp (Generation - 4)
Cc: 'Hiser, Matthew'; Stewart J Yuen (Generation - 4); Paul Aitken (Generation - 6)
Subject: Harvesting Workshop March 7 & 8

Bill

I spoke to Stew last week about the possibility of your participation in the upcoming NRC workshop on harvesting of materials.

The workshop is scheduled for March 7 & 8.

Since it is getting closer I wanted to confirm if you will be able to support the NRC request for Dominion to develop slides to share an industry perspective on harvesting of materials.

If you can support this effort it is my understanding that the NRC would like to receive the slides by the end of February.

If you can support this request your contact at the NRC will be Matt Hiser.

Please give me a call or shoot me an email on your availability.

Thank you,

Chuck Tomes
804-273-4384 office

(b)(6) cell

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From: [Mailänder Reiner](#)
To: [Hiser, Matthew](#)
Subject: [External_Sender] AW: Materials Harvesting Workshop at USNRC
Date: Wednesday, January 25, 2017 3:53:10 AM

Dear Mr. Hiser

Thank you for informing us about the planned workshop. I will not be able to attend the workshop nor the RIC this year, but I have passed on your message to our experts in the relevant fields.

Kind regards

Reiner Mailänder

Ph.D., GeoEcologist

ENSI Research Coordinator, Deputy Section Head

Swiss Federal Nuclear Safety Inspectorate ENSI
International Affairs Section
Industriestrasse 19
CH-5200 Brugg

Phone +41 56 460 86 19

E-Mail reiner.mailaender@ensi.ch

Website www.ensi.ch/en

Von: Hiser, Matthew [mailto:Matthew.Hiser@nrc.gov]

Gesendet: Dienstag, 24. Januar 2017 17:46

An: Mailänder Reiner

Betreff: Materials Harvesting Workshop at USNRC

Dear Mr. Mailander:

I am a materials engineer in the NRC's Office of Research and was present for your visit to the NRC last year to discuss plans in Switzerland for harvesting from the Muhleberg plant that will be shutting down in 2019.

I am coordinating a 2-day workshop on ex-plant materials harvesting. This workshop will be held on March 7-8 (one week before NRC's Regulatory Information Conference) here at NRC headquarters. I wanted to make you aware of the workshop and have attached the workshop announcement and session topics for your information.

We are currently working to finalize the agenda. If you have any questions or would like further information, please feel free to contact me.

Sincerely,

Matthew Hiser

Materials Engineer

US Nuclear Regulatory Commission | Office of Nuclear Regulatory Research

Division of Engineering | Corrosion and Metallurgy Branch

Phone: 301-415-2454 | Office: TWFN 10D62

Matthew.Hiser@nrc.gov

From: [Hiser, Matthew](#)
To: ["Ahluwalia, Kawaljit"](#)
Subject: RE: Re: [External] Ex-Plant Harvesting
Date: Wednesday, January 25, 2017 1:00:15 PM

Thanks Al! I'll plan to call at 10 AM on Friday.

Matt

From: Ahluwalia, Kawaljit [mailto:kahluwal@epri.com]
Sent: Wednesday, January 25, 2017 12:41 PM
To: Hiser, Matthew <Matthew.Hiser@nrc.gov>
Subject: [External_Sender] Re: [External] Ex-Plant Harvesting

Hi Matt,

Anytime between 10am and noon (eastern) on Friday would be good for me. I can be reached at 973-396-2777.

Al

On Jan 25, 2017, at 12:52 AM, Hiser, Matthew <Matthew.Hiser@nrc.gov> wrote:

Hi Al,

I hope all is well with you!

I understand from your EPRI colleagues that you are planning to attend the harvesting workshop we are planning here at NRC in early March. We had a call last week with DOE and EPRI to discuss in detail plans for a couple of the sessions. One suggestion was to consider input from Korea in the session on sources of materials and you are EPRI's main contact with the Koreans on their harvesting plans.

Would you have time this week for a very quick call to discuss involving the Korean harvesting plans in this workshop? If so, please let me know a good time and number to reach you.

Thanks!

Matt

Matthew Hiser

Materials Engineer

US Nuclear Regulatory Commission | Office of Nuclear Regulatory Research

Division of Engineering | Corrosion and Metallurgy Branch

Phone: 301-415-2454 | Office: TWFN 10D62

Matthew.Hiser@nrc.gov

From: Hiser, Matthew
Sent: Tuesday, October 04, 2016 9:44 AM
To: 'Ahluwalia, Kawaljit' <kahluwal@epri.com>
Subject: RE: RE: [External] Ex-Plant Harvesting

Hi Al,

Sounds good! We are certainly interested in learning more about what is available from this plant and in general opportunities for harvesting materials from LWR service.

Based on my experience, I'd be very interested at first to learn as much as possible about the materials themselves (at least which alloys, if not composition/ferrite info) and their environmental exposure (temperature and

fluence estimates). This information may not be trivial to find, but I think it is essential to knowing how valuable harvesting from this plant might be. Any information you or your Korean contacts have about the materials and environment would be very interesting to us.

Thanks!

Matt

Matthew Hiser

Materials Engineer

US Nuclear Regulatory Commission | Office of Nuclear Regulatory Research

Division of Engineering | Corrosion and Metallurgy Branch

Phone: 301-415-2454 | Office: TWFN 10D62

Matthew.Hiser@nrc.gov

From: Ahluwalia, Kawaljit [<mailto:kahluwal@epri.com>]

Sent: Tuesday, October 04, 2016 7:58 AM

To: Hiser, Matthew <Matthew.Hiser@nrc.gov>

Subject: [External_Sender] RE: [External] Ex-Plant Harvesting

Hi Matt,

We are not too far along on discussions with the Koreans on this but they indeed are very interested. I am having further discussions within EPRI and will get back to you once we have something pertinent to share with you. Your interest in the project would be very helpful as we do further planning. Thanks.

Al

From: Hiser, Matthew [<mailto:Matthew.Hiser@nrc.gov>]

Sent: Monday, October 03, 2016 9:13 AM

To: Ahluwalia, Kawaljit <kahluwal@epri.com>

Subject: [External] Ex-Plant Harvesting

Hi Al,

I hope you are doing well! I heard a little while back from Greg Oberson and last week from Jean Smith about a proposed harvesting project at the Kori plant in South Korea. My understanding is that you are leading the efforts for EPRI on this project.

At NRC, we have an ongoing project to look into opportunities for harvesting ex-plant materials from operating and decommissioning plants as appropriate to help address technical gaps for SLR, so we would certainly be interested in the potential for harvesting from this plant in Korea.

Do you have information on the harvesting plans that you could share with me? Any information gathering on the fluences, temps, and specs for different components that are being considered would also be very helpful for our decision-making.

Thanks!

Matt

Matthew Hiser

Materials Engineer

US Nuclear Regulatory Commission | Office of Nuclear Regulatory Research

Division of Engineering | Corrosion and Metallurgy Branch

Phone: 301-415-2454 | Office: TWFN 10D62

Matthew.Hiser@nrc.gov

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Note to requester: The attached email record is immediately following.

From: [Hiser, Matthew](#)
To: "Bernhoft, Sherry"; Richard Reister (Richard.Reister@nuclear.energy.gov); "Rosseel, Thomas M."; Dyle, Robin
Cc: [Tregoning, Robert](#); [Purtscher, Patrick](#)
Subject: RE: RE: Harvesting Workshop
Date: Wednesday, January 25, 2017 4:54:26 PM
Attachments: [RE Harvesting Workshop Sessions 3 4.msg](#)

Hi Sherry,

I think we concluded the discussion last week agreeing that each organization would give one talk covering all 3 areas (metals, cables, and concrete) for each session. (My summary email from our call is attached.) This comment was raised about session 2 and Anne I believe suggested to focus presentations on listing high-priority data needs for harvesting. Everyone generally agreed that they could reasonably pull together high-priority data needs lists for all 3 areas into one presentation. It's a balance of not wanting the workshop too cluttered with presentations that there's not time for discussion, especially when we're really hoping to foster discussion. Maybe EPRI could have a tag-team on certain presentations where you feel it necessary? I'd really rather not add slots to the agenda and eat up the discussion time.

Thanks!

Matt

From: Bernhoft, Sherry [<mailto:sbernhoft@epri.com>]
Sent: Wednesday, January 25, 2017 4:33 PM
To: Hiser, Matthew <Matthew.Hiser@nrc.gov>; Richard Reister (Richard.Reister@nuclear.energy.gov) <Richard.Reister@nuclear.energy.gov>; 'Rosseel, Thomas M.' <rosseeltm@ornl.gov>; Dyle, Robin <rdyle@epri.com>
Cc: Tregoning, Robert <Robert.Tregoning@nrc.gov>; Purtscher, Patrick <Patrick.Purtscher@nrc.gov>
Subject: [External_Sender] RE: Harvesting Workshop

Matt

With regard to the agenda have you broken some of the presentations down by metals, concrete and cables as we discussed during our call? This will impact who the presenter will be –

Sherry Bernhoft

Electric Power Research Institute

EPRI, Senior Program Manager

1300 West WT Harris Boulevard | Charlotte, NC 28262

704.595.2740 (office)

(b)(6) (cell)

Email: sbernhoft@epri.com

www.epri.com

Together...Shaping the Future of Electricity

From: Hiser, Matthew [<mailto:Matthew.Hiser@nrc.gov>]
Sent: Wednesday, January 25, 2017 2:39 PM
To: Richard Reister (Richard.Reister@nuclear.energy.gov) <Richard.Reister@nuclear.energy.gov>; 'Rosseel, Thomas M.' <rosseeltm@ornl.gov>; Bernhoft, Sherry <sbernhoft@epri.com>; Dyle, Robin <rdyle@epri.com>
Cc: Tregoning, Robert <Robert.Tregoning@nrc.gov>; Purtscher, Patrick <Patrick.Purtscher@nrc.gov>
Subject: [EXTERNAL] Harvesting Workshop

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DOE and EPRI Colleagues,

Thank you for participating in the discussion last week on the harvesting workshop sessions 3 and 4. We are making good progress on identifying speakers for the workshop. I wanted to bring a couple items to your attention and request your feedback:

1. We were thinking of doing a video recording of the workshop, simply to capture the discussion and action items to help with the meeting summary. We didn't have any other purpose other than to maximize documentation of the discussion for the benefit of the participants. When I reached out to the NRC A/V folks, I was advised that all speakers would need to sign the NRC multimedia consent form (attached). Please take a look at this form and let us know if your speakers are comfortable with it. If not, we may not be able to take advantage of recording the workshop.
2. Could DOE and EPRI identify their planned speakers for each session? We're hoping to have the agenda and speakers firmed up by next week. As you know, there are slots for DOE and EPRI in each session.

Thanks and please let me know if you have any questions.

Matt

Matthew Hiser

Materials Engineer

US Nuclear Regulatory Commission | Office of Nuclear Regulatory Research

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Phone: 301-415-2454 | Office: TWFN 10D62

Matthew.Hiser@nrc.gov

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From: Hiser, Matthew
Sent: Tue, 17 Jan 2017 20:36:18 +0000
To: Bernhoft, Sherry;Rosseel, Thomas M.;Dyle, Robin;Demma, Anne
Cc: Tregoning, Robert;Purtscher, Patrick
Subject: RE: Harvesting Workshop Sessions 3 & 4

Thanks everyone for participating today. I appreciate all the comments and suggestions and we'll adjust the agenda accordingly.

One follow-up: could DOE and EPRI identify who they expect their presenter to be for each of the 5 sessions?

Notes from today's call:

- Matt H. described general plans for workshop:
 - o Non-public, keep participation to around 30 individuals for more focused interactive discussion
 - o Goal is to have well-balanced discussion of harvesting, not sales pitches for specific projects or programs
- Sherry B. suggested fewer presentations with more panel discussion time
 - o Plan is for roughly 50-60% presentations and remaining time for discussion
 - o Sessions 1 and 5 should be primarily panel discussion
- Session 2:
 - o Question raised about covering metals, cables, and concrete
 - Agreed that all presenters can cover all three types materials, hopefully just a few slides
 - Suggest presenters focus on high-priority data needs from their organization's perspective
 - Perhaps some background on what informs their priorities
- Session 3:
 - o Suggestions to include EnergySolutions, PWROG, Korea, Japan, and French presentation slots
 - Emphasize to presenters to avoid "sales pitch," but please provide information on sources of materials
 - Short ~10 min presentations on sources of materials with remaining time for discussion
 - o Hopefully use presented information as starting point for previously harvested materials database
- Session 4:
 - o Longer (20-30 min) presentations focused on forward-looking lessons learned
 - o Suggestion to reach out to Exelon (Zion experience plus many operating facilities) if Dominion can't support

- o Also consider Japan and France for international presentations

Actions:

- Brian Bergos provide Matt with PWROG contact
- Matt look into if affidavit would be needed for any proprietary information from EPRI/industry
- Matt update agenda for sessions 3 and 4 and finalize speakers

Thanks!

Matt

Matthew Hiser

Materials Engineer

US Nuclear Regulatory Commission | Office of Nuclear Regulatory Research

Division of Engineering | Corrosion and Metallurgy Branch

Phone: 301-415-2454 | Office: TWFN 10D62

Matthew.Hiser@nrc.gov

-----Original Appointment-----

From: Hiser, Matthew

Sent: Monday, January 16, 2017 9:48 AM

To: Hiser, Matthew; Bernhoft, Sherry; Rosseel, Thomas M.; Dyle, Robin; Demma, Anne

Subject: Harvesting Workshop Sessions 3 & 4

When: Tuesday, January 17, 2017 1:00 PM-2:00 PM (UTC-05:00) Eastern Time (US & Canada).

Where: Telecon: 888-677-8615 passcode: [REDACTED] (b)(6)

888-677-8615 passcode: [REDACTED] (b)(6)

<< File: Sessions 3 & 4.docx >> << File: Harvesting Workshop Agenda 1-12-17.docx >>

There have been previous discussions between NRC, DOE, and EPRI on the workshop agenda overall to discuss what the workshop is trying to accomplish and the best way to do so. Those conversations did not dig down into each session and make a final decision on exactly who will be the presenters and topics in each session. Internally here at NRC, we've worked to lay that out in the attached documents.

The purpose of this call is to discuss all the specifics of sessions 3 and 4 to identify the right presenters for each slot. This discussion could also lead to adding, eliminating or changing some of the planned presentations if you all have other ideas or suggestions. Our main goal is to have a well-balanced, comprehensive discussion of harvesting that will benefit all participants. We think working with you all up front to help plan and make decisions will give us a better workshop in the end. So please come with ideas and suggestions for sessions 3 and 4 on sources of materials and lessons learned/practical aspects of harvesting.

From: [Hiser, Matthew](#)
To: [Richard Reister \(Richard.Reister@nuclear.energy.gov\)](#); ["Rosseel, Thomas M."](#); [Bernhoft, Sherry \(sbernhoft@epri.com\)](#); ["Dyle, Robin"](#)
Cc: [Tregoning, Robert](#); [Purtscher, Patrick](#)
Subject: Harvesting Workshop
Date: Wednesday, January 25, 2017 3:38:57 PM
Attachments: [NRC Multimedia Consent Form.pdf](#)

DOE and EPRI Colleagues,

Thank you for participating in the discussion last week on the harvesting workshop sessions 3 and 4. We are making good progress on identifying speakers for the workshop. I wanted to bring a couple items to your attention and request your feedback:

1. We were thinking of doing a video recording of the workshop, simply to capture the discussion and action items to help with the meeting summary. We didn't have any other purpose other than to maximize documentation of the discussion for the benefit of the participants. When I reached out to the NRC A/V folks, I was advised that all speakers would need to sign the NRC multimedia consent form (attached). Please take a look at this form and let us know if your speakers are comfortable with it. If not, we may not be able to take advantage of recording the workshop.
2. Could DOE and EPRI identify their planned speakers for each session? We're hoping to have the agenda and speakers firmed up by next week. As you know, there are slots for DOE and EPRI in each session.

Thanks and please let me know if you have any questions.

Matt

Matthew Hiser

Materials Engineer

US Nuclear Regulatory Commission | Office of Nuclear Regulatory Research

Division of Engineering | Corrosion and Metallurgy Branch

Phone: 301-415-2454 | Office: TWFN 10D62

Matthew.Hiser@nrc.gov

NRC Multimedia Consent Form

Title: _____

Contract No.: _____

Contact Person: _____

Phone Number: _____ Office: _____

Presenter: _____

Location: _____

Time: _____

Recording: Audio: _____ Video: _____

Duplication: VHS: _____ DVD/CD: _____

Broadcast: Training: _____ Webcast: _____

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I understand and agree that I will not receive specific compensation, now nor in the future, in connection with the NRC's exercise of the rights granted hereunder.

I understand that the agency may be required to release such recordings to the public if requested under the Freedom of Information Act.

Signature: _____ Date: _____

From: Malikowski, Heather M:(GenCo-Nuc)
Sent: Fri, 27 Jan 2017 23:16:44 +0000
To: Hiser, Matthew
Subject: [External_Sender] RE: RE: RE: Harvesting Workshop Sessions 3 & 4

Hi Matt,

Sorry for the delay getting back to you. We'll get back to you early next week. I was swamped with site issues last weekend through this week. I think we'll provide input to another presentation, but I want to confirm that with our technical team and EPRI.

Thanks,
Heather

From: Hiser, Matthew [mailto:Matthew.Hiser@nrc.gov]
Sent: Friday, January 27, 2017 8:03 AM
To: Malikowski, Heather M:(GenCo-Nuc); 'Molkenthin, Jim'
Cc: 'Burgos, Brian'; Tregoning, Robert; Purtscher, Patrick
Subject: RE: RE: RE: Harvesting Workshop Sessions 3 & 4

Hi Heather,

Just wanted to touch base on what your plans are looking like for the harvesting workshop. Are you expecting someone from PWROG to attend and present? Or perhaps provide input to another presentation?

Thanks!
Matt

From: Hiser, Matthew
Sent: Thursday, January 19, 2017 8:26 AM
To: 'Malikowski, Heather M:(GenCo-Nuc)' <Heather.Malikowski@exeloncorp.com>; Molkenthin, Jim <molkenjp@westinghouse.com>
Cc: 'Burgos, Brian' <bburgos@epri.com>; Tregoning, Robert <Robert.Tregoning@nrc.gov>; Purtscher, Patrick <Patrick.Purtscher@nrc.gov>
Subject: RE: RE: RE: Harvesting Workshop Sessions 3 & 4

Hi Heather,

Thanks for the quick reply!

To answer your first question, unirradiated materials would also be of interest if that information can be easily pulled together and shared. The scope of this workshop in terms of materials is broad, including metals, cables and concrete (any materials aging issues relevant for extended plant operation where harvesting could be beneficial). Irradiated components such as vessel and internals are certainly of high interest for harvesting, but we're not limiting our discussion in terms of harvesting to just those applications.

For your second question, we are planning to finalize speakers by the end of January. So if you are planning to attend and present, then ideally end of January is when we'd like to have a commitment. If you won't present and will just feed info into another presentation, that could come later.

Does that make sense? Please feel free to reach out with any more questions or information that would be helpful to you.

Thanks!
Matt

From: Malikowski, Heather M:(GenCo-Nuc) [<mailto:Heather.Malikowski@exeloncorp.com>]
Sent: Wednesday, January 18, 2017 6:04 PM
To: Hiser, Matthew <Matthew.Hiser@nrc.gov>; Molkenthin, Jim <molkenjp@westinghouse.com>
Cc: 'Burgos, Brian' <bburgos@epri.com>; Tregoning, Robert <Robert.Tregoning@nrc.gov>; Purtscher, Patrick <Patrick.Purtscher@nrc.gov>
Subject: [External_Sender] RE: RE: Harvesting Workshop Sessions 3 & 4

Hi Matt,
Thanks very much for the information on this workshop. Let me confer with our folks, but I think we can provide some information on archived in-plant irradiated materials. Just to confirm, you are not looking for any unirradiated archive material information, correct? When I read the term "boneyard" in the meeting announcement I immediately think of the unirradiated archive material I know we do have Westinghouse storing for us licensees, but by the rest of the announcement I believe this is not what you are looking for.

Also, when would you need a final commitment by?

Thanks,
Heather

Heather M. Malikowski

Exelon Nuclear
Corporate Engineering Programs - Asset Management
PWR Owners Group Materials Committee Chair
200 Exelon Way, MC KSA/2N, Kennett Square, PA 19348
Office: 610 765 5864 | Fax: 610 765 5651

From: Hiser, Matthew [<mailto:Matthew.Hiser@nrc.gov>]
Sent: Wednesday, January 18, 2017 12:25 PM
To: Molkenthin, Jim; Malikowski, Heather M:(GenCo-Nuc)
Cc: 'Burgos, Brian'; Tregoning, Robert; Purtscher, Patrick
Subject: [EXTERNAL] RE: RE: Harvesting Workshop Sessions 3 & 4

Hi Jim and Heather:

NRC is working with EPRI and DOE to host a workshop on ex-plant materials harvesting in early March at NRC HQ in Rockville, MD. I have attached an announcement and condensed workshop agenda for your information and background.

One of the sessions we have planned is on Sources of Materials, which includes archived materials from past harvesting programs as well as future harvesting opportunities. Brian suggested the PWROG may have information related to archive materials held by vendors that could be relevant to this discussion. For this session, we are looking at short presentations (maybe 2-3 slides, 5-10 min) providing information on sources of harvested materials.

We would certainly appreciate any information on sources of harvested materials that the PWROG can provide or help compile. If you would like to attend the workshop and present, that could work or, if you're unable to attend, you could provide input to myself or EPRI that could be incorporated into our slides.

Thanks!
Matt Hiser

Matthew Hiser

Materials Engineer

US Nuclear Regulatory Commission | Office of Nuclear Regulatory Research

Division of Engineering | Corrosion and Metallurgy Branch

Phone: 301-415-2454 | Office: TWFN 10D62

Matthew.Hiser@nrc.gov

From: Burgos, Brian [<mailto:bburgos@epri.com>]
Sent: Wednesday, January 18, 2017 9:37 AM
To: Hiser, Matthew <Matthew.Hiser@nrc.gov>
Cc: Molkenthin, Jim <molkenjp@westinghouse.com>; Heather Malikowski <Heather.Malikowski@exeloncorp.com>
Subject: [External_Sender] RE: Harvesting Workshop Sessions 3 & 4

Matt,

Per our discussions yesterday regarding the potential that the PWROG may have information related to materials stored in archives at vendors (e.g., surveillance specimens, flux thimble tubes, etc...), please reach out to Jim Molkenthin (WEC Program Manager) and Heather Malikowski (Materials Subcommittee Chairman). As I mentioned, they would be a good starting point to help with information for archived materials to support your harvesting workshop. They are copied on the email.

Brian

From: Demma, Anne
Sent: Tuesday, January 17, 2017 3:15 PM
To: Hiser, Matthew <Matthew.Hiser@nrc.gov>; Burgos, Brian <bburgos@epri.com>

Cc: Bernhoft, Sherry <sbernhoft@epri.com>; Dyle, Robin <rdyle@epri.com>

Subject: RE: Harvesting Workshop Sessions 3 & 4

Matt,

I am forwarding your notes to Brian for his information.

Thank you,

Anne

From: Hiser, Matthew [<mailto:Matthew.Hiser@nrc.gov>]

Sent: Tuesday, January 17, 2017 12:36 PM

To: Bernhoft, Sherry <sbernhoft@epri.com>; Rosseel, Thomas M. <rosseeltm@ornl.gov>; Dyle, Robin <rdyle@epri.com>; Demma, Anne <ademma@epri.com>

Cc: Tregoning, Robert <Robert.Tregoning@nrc.gov>; Purtscher, Patrick <Patrick.Purtscher@nrc.gov>

Subject: [EXTERNAL] RE: Harvesting Workshop Sessions 3 & 4

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Thanks everyone for participating today. I appreciate all the comments and suggestions and we'll adjust the agenda accordingly.

One follow-up: could DOE and EPRI identify who they expect their presenter to be for each of the 5 sessions?

Notes from today's call:

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- Longer (20-30 min) presentations focused on forward-looking lessons learned
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- Also consider Japan and France for international presentations

Actions:

- Brian Bergos provide Matt with PWROG contact
- Matt look into if affidavit would be needed for any proprietary information from EPRI/industry
- Matt update agenda for sessions 3 and 4 and finalize speakers

Thanks!

Matt

Matthew Hiser

Materials Engineer

US Nuclear Regulatory Commission | Office of Nuclear Regulatory Research

Division of Engineering | Corrosion and Metallurgy Branch

Phone: 301-415-2454 | Office: TWFN 10D62

Matthew.Hiser@nrc.gov

-----Original Appointment-----

From: Hiser, Matthew

Sent: Monday, January 16, 2017 9:48 AM

To: Hiser, Matthew; Bernhoft, Sherry; Rosseel, Thomas M.; Dyle, Robin; Demma, Anne

Subject: Harvesting Workshop Sessions 3 & 4

When: Tuesday, January 17, 2017 1:00 PM-2:00 PM (UTC-05:00) Eastern Time (US & Canada).

Where: Telecon: 888-677-8615 passcode: [REDACTED] (b)(6)

888-677-8615 passcode: [REDACTED] (b)(6)

<< File: Sessions 3 & 4.docx >> << File: Harvesting Workshop Agenda 1-12-17.docx >>

There have been previous discussions between NRC, DOE, and EPRI on the workshop agenda overall to discuss what the workshop is trying to accomplish and the best way to do so. Those conversations did not dig down into each session and make a final decision on exactly who will be the presenters and topics in each session. Internally here at NRC, we've worked to lay that out in the attached documents.

The purpose of this call is to discuss all the specifics of sessions 3 and 4 to identify the right presenters for each slot. This discussion could also lead to adding, eliminating or changing some of the planned presentations if you all have other ideas or suggestions. Our main goal is to have a well-balanced, comprehensive discussion of harvesting that will benefit all participants. We think working with you all up front to help plan and make decisions will give us a better workshop in the end. So please come with ideas and suggestions for sessions 3 and 4 on sources of materials and lessons learned/practical aspects of harvesting.

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From: [Hiser, Matthew](#)
To: [Rosseel, Thomas M.](#)
Subject: RE: Re: Harvesting Workshop
Date: Monday, January 30, 2017 2:50:00 PM

Hi Tom,

Thank you for your feedback. I had a feeling some of the language in there might not be agreeable to everyone.

We are looking at doing a GoToMeeting for the workshop (to allow others to at least observe, since there won't be room for all the interested parties). It appears the GoToMeeting software can record the discussion, so we may try that if everyone is agreeable. It would not require NRC A/V to be involved, so the consent form should not need be required. We're just wanting to make sure we don't miss valuable insights from the discussion due to incomplete note-taking during the meeting.

Thanks!

Matt

Matthew Hiser

Materials Engineer

US Nuclear Regulatory Commission | Office of Nuclear Regulatory Research

Division of Engineering | Corrosion and Metallurgy Branch

Phone: 301-415-2454 | Office: TWFN 10D62

Matthew.Hiser@nrc.gov

From: Rosseel, Thomas M. [mailto:rosseeltm@ornl.gov]

Sent: Thursday, January 26, 2017 10:19 AM

To: Hiser, Matthew <Matthew.Hiser@nrc.gov>

Subject: [External_Sender] Re: Harvesting Workshop

Hi Matt,

I am not inclined to sign the consent form.

Tom

From: "Matthew.Hiser@nrc.gov" <Matthew.Hiser@nrc.gov>

Date: Wednesday, January 25, 2017 at 3:38 PM

To: Richard Reister <Richard.Reister@nuclear.energy.gov>, "T. M. Rosseel" <rosseeltm@ornl.gov>, Sherry Bernhoft <sbernhof@epri.com>, Robin Dyle <rdyle@epri.com>

Cc: "Tregoning, Robert" <Robert.Tregoning@nrc.gov>, "Purtscher, Patrick" <Patrick.Purtscher@nrc.gov>

Subject: Harvesting Workshop

DOE and EPRI Colleagues,

Thank you for participating in the discussion last week on the harvesting workshop sessions 3 and 4. We are making good progress on identifying speakers for the workshop. I wanted to bring a couple items to your attention and request your feedback:

1. We were thinking of doing a video recording of the workshop, simply to capture the discussion and action items to help with the meeting summary. We didn't have any other purpose other than to maximize documentation of the discussion for the benefit of the participants. When I reached out to the NRC A/V folks, I was advised that all speakers would need to sign the NRC multimedia consent form (attached). Please take a look at this form and let us know if your speakers are comfortable with it. If not, we may not be able to take advantage of recording the workshop.
2. Could DOE and EPRI identify their planned speakers for each session? We're hoping to have

the agenda and speakers firmed up by next week. As you know, there are slots for DOE and EPRI in each session.

Thanks and please let me know if you have any questions.

Matt

Matthew Hiser

Materials Engineer

US Nuclear Regulatory Commission | Office of Nuclear Regulatory Research

Division of Engineering | Corrosion and Metallurgy Branch

Phone: 301-415-2454 | Office: TWFN 10D62

Matthew.Hiser@nrc.gov

From: [Hiser, Matthew](#)
To: [Richard Reister \(Richard.Reister@nuclear.energy.gov\)](#); ["Rosseel, Thomas M."](#); [Bernhoft, Sherry \(sbernhoft@epri.com\)](#); ["Dyle, Robin"](#)
Cc: [Tregoning, Robert](#); [Purtscher, Patrick](#)
Subject: RE: Harvesting Workshop
Date: Monday, January 30, 2017 3:25:00 PM
Attachments: [Ex-Plant Materials Harvesting Workshop.pptx](#)

Note to requester: The attachment to this email (immediately following) was also released in full in a previous interim response, as an attachment to a different email record.

DOE and EPRI Colleagues,

We have pulled together a few slides here within NRC to cover the motivation and approach for the workshop as well as session expectations. The goal of these slides is to communicate our vision for the workshop; please feel free to review and provide comments if you have any.

To update on item #1 below, we are looking into the option of using GoToMeeting to allow additional participants (probably some NRC staff) to observe with very limited participation. If so, the GoToMeeting software allows recording of the slides and discussion without the involvement of NRC A/V, so the NRC multimedia consent form should not be needed. Just to remind, our purpose is simply to capture the discussion and action items to help with the meeting summary. As long as all meeting participants are comfortable with this and it is technically doable, we will plan to use GoToMeeting and record the discussion through the software to aid in capturing valuable discussion insights in the meeting summary.

Thanks!

Matt

Matthew Hiser

Materials Engineer

US Nuclear Regulatory Commission | Office of Nuclear Regulatory Research

Division of Engineering | Corrosion and Metallurgy Branch

Phone: 301-415-2454 | Office: TWFN 10D62

Matthew.Hiser@nrc.gov

From: Hiser, Matthew

Sent: Wednesday, January 25, 2017 3:39 PM

To: Richard Reister (Richard.Reister@nuclear.energy.gov) <Richard.Reister@nuclear.energy.gov>; 'Rosseel, Thomas M.' <rosseeltm@ornl.gov>; Bernhoft, Sherry (sbernhoft@epri.com) <sbernhoft@epri.com>; 'Dyle, Robin' <rdyle@epri.com>

Cc: Tregoning, Robert <Robert.Tregoning@nrc.gov>; Purtscher, Patrick <Patrick.Purtscher@nrc.gov>

Subject: Harvesting Workshop

DOE and EPRI Colleagues,

Thank you for participating in the discussion last week on the harvesting workshop sessions 3 and 4. We are making good progress on identifying speakers for the workshop. I wanted to bring a couple items to your attention and request your feedback:

1. We were thinking of doing a video recording of the workshop, simply to capture the discussion and action items to help with the meeting summary. We didn't have any other purpose other than to maximize documentation of the discussion for the benefit of the participants. When I reached out to the NRC A/V folks, I was advised that all speakers would need to sign the NRC multimedia consent form (attached). Please take a look at this form and let us know if your speakers are comfortable with it. If not, we may not be able to take advantage of recording the workshop.
2. Could DOE and EPRI identify their planned speakers for each session? We're hoping to have the agenda and speakers firmed up by next week. As you know, there are slots for DOE and

EPRI in each session.

Thanks and please let me know if you have any questions.

Matt

Matthew Hiser

Materials Engineer

US Nuclear Regulatory Commission | Office of Nuclear Regulatory Research

Division of Engineering | Corrosion and Metallurgy Branch

Phone: 301-415-2454 | Office: TWFN 10D62

Matthew.Hiser@nrc.gov

Ex-Plant Materials Harvesting Workshop

March 7-8, 2017

USNRC HQ

Rockville, MD, USA

Meeting Logistics

- Workshop will be held at NRC's Three White Flint North building
 - Directly adjacent to the White Flint Metro station
 - Nearest hotel within walking distance: Bethesda North Marriott Hotel & Conference Center
- Workshop is a non-public meeting to encourage open discussion
 - Presentations and meeting summary will be distributed among meeting participants only
- GoToMeeting webinar will be available to support additional attendees
 - Webinar attendees will be primarily observers
 - Limited opportunities for webinar attendee participation in discussion if time allows
 - Discussion will be recorded through GoToMeeting software to aid capturing discussion in meeting summary

Motivation

- With plants shutting down both in the U.S. and internationally, there are increasing opportunities to harvest components from decommissioning plants
 - Past harvesting efforts generally more reactive as opportunities arose, rather than proactively planned
- Ex-plant materials may be valuable because they have been exposed to actual in-service plant operating conditions
 - Can reduce the uncertainty associated with the applicability of the aging conditions
- Insights from research on harvested materials can address technical data needs identified for extended plant operation
- Lessons learned from past harvesting programs can help improve future harvesting efforts
 - Challenges encountered in previous programs can be shared and mitigated or avoided in future programs

Approach

- Domestic and international researchers, industry, regulators, and decommissioning companies' discuss benefits and challenges with ex-plant harvesting
 - Encourage sharing of lessons learned as well as areas of common interest
- Workshop consists of topical sessions with short presentations and significant time for open discussion
 - Goal is to maximize engagement among meeting participants
- Scope includes any materials aging issue that could benefit from harvesting, including metals, cables, and concrete

Expected Outcome

- Participants become better informed and aware of the benefits and challenges associated with ex-plant harvesting
- Discussions help identify areas of common interest for harvesting to address technical data needs
- Presentations and discussions provide the starting point for a “database” of harvested materials and future harvesting opportunities
- Contacts are made among research organizations to allow for further discussion of specific harvesting projects
- Workshop summary documenting discussion will be distributed among participants

Session Expectations

- Session 1 Motivation for Harvesting
 - Perspective from panel participants on their organizations' interest in and motivation for harvesting
 - Brief (5-10 minute) presentation from each panel member followed by general discussion
- Session 2 Technical Data Needs for Harvesting
 - Presenters share high-priority data needs that may be best addressed by harvesting
 - Where does harvesting hold particular value compared to other sources of technical data
 - 15-20 minute presentations followed by open discussion of technical data needs for harvesting

Session Expectations

- Session 3 Sources of Materials
 - Information on previously harvested materials and future harvesting opportunities
 - Materials located at research and vendor facilities
 - Decommissioning plants that may allow for future harvesting
 - Short 5-10 minute presentations followed by open discussion
 - Starting point for potential database of previously harvested materials and future harvesting opportunities
- Session 4 Harvesting Experience: Lessons Learned and Practical Aspects
 - Improving future efforts with lessons learned from past programs
 - Pitfalls to avoid and strategies to improve likelihood of success
 - Practical perspective from non-researchers on how harvesting interfaces with the decommissioning process
 - International decommissioning and harvesting experience
 - 20-30 minute presentations followed by open discussion

Session Expectations

- Session 5 Future Harvesting Program Planning
 - Technical and logistical information needed when planning a specific harvesting program
 - Perspective from panel participants on the workshop
 - Next steps and actions from workshop
 - Potential areas of common interest for future harvesting programs
 - Brief (5-10 minute) presentation from each panel member followed by general discussion

From: [Tregoning, Robert](#)
To: [Hiser, Matthew](#)
Subject: FW: Re: Harvesting Workshop
Date: Monday, January 30, 2017 1:32:20 PM
Attachments: [ATT00001.txt](#)
[ATT00002.htm](#)

Matt:

Could you help me out here? Could you draft an email for MAI with the areas that we would like their participation in the workshop and provide guidance as well? I'll message it before I send it.

Thanks for your help,

Rob

Robert Tregoning

Technical Advisor for Materials

US Nuclear Regulatory Commission

Two White Flint North, M/S T-10 A36

11545 Rockville Pike

Rockville, MD 20852-2738

ph: 301-415-2324

fax: 301-415-6671

From: NHILI Regis [mailto:regis.nhili@edf.fr]

Sent: Monday, January 30, 2017 1:22 PM

To: Tregoning, Robert <Robert.Tregoning@nrc.gov>

Cc: tlian@epri.com; SOULACROIX Julian <julian.soulacroix@edf.fr>; RAPENNE Sophie <sophie.rapenne@edf.fr>; LECLERCQ Sylvain <sylvain.leclercq@edf.fr>

Subject: [External_Sender] Re: Harvesting Workshop

Robert,

I can confirm Julian Soulacroix (copied in) will be attending this workshop.

I am currently in the US and had not the opportunity to talk directly to him.

Please could you give him all the details to participate and your expectations for his presentation.

Kind regards,

Regis

Le 30 janv. 2017 à 07:24, "Robert.Tregoning@nrc.gov" <Robert.Tregoning@nrc.gov> a écrit :

Regis:

I just want to follow up on my earlier invitation to have someone from MAI attend (and hopefully participate) in the Harvesting Workshop that we are holding on March 7 – 8, 2017 at NRC Headquarters in Rockville, MD USA. You mentioned earlier that you would discuss this among your colleagues and then let me know who the MAI representative will be.

Thank you so much for your consideration and support of the workshop.

All the best,

Rob

Robert Tregoning

Technical Advisor for Materials

US Nuclear Regulatory Commission

Two White Flint North, M/S T-10 A36
11545 Rockville Pike
Rockville, MD 20852-2738
ph: 301-415-2324
fax: 301-415-6671

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Note to requester:
The attachment is
immediately following.

From: [Hiser, Matthew](#)
To: [William F Zipp \(Generation - 4\)](#)
Subject: RE: RE: RE: Harvesting Workshop March 7 & 8
Date: Tuesday, January 31, 2017 11:18:00 AM
Attachments: [Ex-Plant Materials Harvesting Workshop.pptx](#)

Hi Bill,

Thanks for your willingness to participate and the opportunity to discuss the workshop last week. I have you down to present the utility-owner perspective to decommissioning/harvesting in Session 4. As you plan your presentation more, feel free to send me a title to include in the agenda.

I have attached the slides we've pulled together here to describe the workshop as a whole and the expectations for each session.

Thanks and let me know if you have any questions!

Matt

Matthew Hiser
Materials Engineer
US Nuclear Regulatory Commission | Office of Nuclear Regulatory Research
Division of Engineering | Corrosion and Metallurgy Branch
Phone: 301-415-2454 | Office: TWFN 10D62
Matthew.Hiser@nrc.gov

-----Original Message-----

From: William F Zipp (Generation - 4) [<mailto:william.f.zipp@dom.com>]
Sent: Tuesday, January 24, 2017 5:17 PM
To: Hiser, Matthew <Matthew.Hiser@nrc.gov>
Subject: [External_Sender] RE: RE: Harvesting Workshop March 7 & 8

Matt,

10am Eastern or 1pm Eastern are a couple times that would work for me tomorrow (Wednesday). Or other times later in the day. Just let me know.

Thanks,

Bill

-----Original Message-----

From: Hiser, Matthew [<mailto:Matthew.Hiser@nrc.gov>]
Sent: Tuesday, January 24, 2017 4:03 PM
To: William F Zipp (Generation - 4)
Subject: [External] RE: RE: Harvesting Workshop March 7 & 8

Hi Bill,

Absolutely, what time would be good for me to give you a call tomorrow?

Thanks!
Matt

Matthew Hiser
Materials Engineer
US Nuclear Regulatory Commission | Office of Nuclear Regulatory Research Division of Engineering | Corrosion
and Metallurgy Branch
Phone: 301-415-2454 | Office: TWFN 10D62 Matthew.Hiser@nrc.gov

From: William F Zipp (Generation - 4) [william.f.zipp@dom.com]
Sent: Tuesday, January 24, 2017 3:07 PM
To: Charles A Tomes (Generation - 6)
Cc: Hiser, Matthew; Stewart J Yuen (Generation - 4); Paul Aitken (Generation - 6)
Subject: [External_Sender] RE: Harvesting Workshop March 7 & 8

Chuck,

I can participate if NRC would like our insights from Kewaunee.

Matt, if you are looking for slides or a presentation from us I will need to have a discussion with you as to what you're looking for to make sure I hit the mark.

Thanks,

Bill Zipp
Kewaunee Decommissioning Project Mgr
920-388-8842

From: Charles A Tomes (Generation - 6)
Sent: Tuesday, January 24, 2017 10:07 AM
To: William F Zipp (Generation - 4)
Cc: 'Hiser, Matthew'; Stewart J Yuen (Generation - 4); Paul Aitken (Generation - 6)
Subject: Harvesting Workshop March 7 & 8

Bill

I spoke to Stew last week about the possibility of your participation in the upcoming NRC workshop on harvesting of materials.

The workshop is scheduled for March 7 & 8.

Since it is getting closer I wanted to confirm if you will be able to support the NRC request for Dominion to develop slides to share an industry perspective on harvesting of materials.

If you can support this effort it is my understanding that the NRC would like to receive the slides by the end of February.

If you can support this request your contact at the NRC will be Matt Hiser.

Please give me a call or shoot me an email on your availability.

Thank you,

Chuck Tomes
804-273-4384 office

(b)(6) cell

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Ex-Plant Materials Harvesting Workshop

March 7-8, 2017

USNRC HQ

Rockville, MD, USA

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- Workshop will be held at NRC's Three White Flint North building
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Motivation

- With plants shutting down both in the U.S. and internationally, there are increasing opportunities to harvest components from decommissioning plants
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 - Potential areas of common interest for future harvesting programs
 - Brief (5-10 minute) presentation from each panel member followed by general discussion

Note to requester: The attachment is immediately following.

From: [Hiser, Matthew](#)
To: [Gerard P. Van Noordennen](#)
Subject: RE: RE: Harvesting Workshop at NRC HQ
Date: Tuesday, January 31, 2017 11:23:00 AM
Attachments: [Ex-Plant Materials Harvesting Workshop.pptx](#)

Hi Gerry,

Thanks for your willingness to participate and the opportunity to discuss the workshop with you last week. I have you down to present in Session 3 on Sources of Materials (upcoming decommissioning sites and plans) as well as in Session 4 the decommissioning company perspective on decommissioning/harvesting. As you plan your presentations, feel free to send me titles to include in the agenda.

I have attached the slides we've pulled together here to describe the workshop as a whole and the expectations for each session. For session 3, we are looking for brief 5-10 presentations. For session 4, longer 20-30 minute presentations are anticipated.

Thanks and let me know if you have any questions!

Matt

Matthew Hiser

Materials Engineer

US Nuclear Regulatory Commission | Office of Nuclear Regulatory Research

Division of Engineering | Corrosion and Metallurgy Branch

Phone: 301-415-2454 | Office: TWFN 10D62

Matthew.Hiser@nrc.gov

From: Hiser, Matthew

Sent: Thursday, January 26, 2017 8:20 AM

To: 'Gerard P. Van Noordennen' <gpvannoordennen@energysolutions.com>

Subject: RE: RE: Harvesting Workshop at NRC HQ

Hi Gerry,

Sounds good – I will call your cell around 12:30 today.

Thanks!

Matt

Matthew Hiser

Materials Engineer

US Nuclear Regulatory Commission | Office of Nuclear Regulatory Research

Division of Engineering | Corrosion and Metallurgy Branch

Phone: 301-415-2454 | Office: TWFN 10D62

Matthew.Hiser@nrc.gov

From: Gerard P. Van Noordennen [<mailto:gpvannoordennen@energysolutions.com>]

Sent: Thursday, January 26, 2017 7:33 AM

To: Hiser, Matthew <Matthew.Hiser@nrc.gov>

Subject: [External_Sender] RE: Harvesting Workshop at NRC HQ

Hello Matthew,

I am available from 12:30 to 1:30 pm Eastern time today. Please call my cell phone shown below. I would be happy to attend and speak at the workshop.

On a related topic, please let me know if NRC Research and ORNL are interested in harvesting some components from San Onofre during decommissioning. EnergySolutions will be performing the decommissioning for the licensee Southern Cal Edison.

Gerry van Noordennen

Vice President Regulatory Affairs

EnergySolutions

151 Lafayette Drive, Suite 201

Oak Ridge, TN 37830

Office: 865-481-6319

Cell: (b)(6)

ZionSolutions

101 Shiloh Boulevard

Zion, IL 60099

Office: 224-789-4025

gpvannoordennen@energysolutions.com

From: Hiser, Matthew [<mailto:Matthew.Hiser@nrc.gov>]

Sent: Wednesday, January 25, 2017 9:59 AM

To: Gerard P. Van Noordennen

Subject: Harvesting Workshop at NRC HQ

Dear Mr. van Noordennen:

The NRC is working with DOE and EPRI to organize a workshop on ex-plant materials harvesting on March 7-8 in Rockville, MD. I understand through Tom Rosseel at ORNL that you are willing to present for EnergySolutions. I've attached the workshop announcement and session topics to this email.

Would you have some time this week for a brief phone call to discuss the workshop and the session we're hoping you can present in? If so, please let me know your availability and a good contact number.

Thanks!

Matt

Matthew Hiser

Materials Engineer

US Nuclear Regulatory Commission | Office of Nuclear Regulatory Research

Division of Engineering | Corrosion and Metallurgy Branch

Phone: 301-415-2454 | Office: TWFN 10D62

Matthew.Hiser@nrc.gov

Ex-Plant Materials Harvesting Workshop

March 7-8, 2017

USNRC HQ

Rockville, MD, USA

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- Ex-plant materials may be valuable because they have been exposed to actual in-service plant operating conditions
 - Can reduce the uncertainty associated with the applicability of the aging conditions
- Insights from research on harvested materials can address technical data needs identified for extended plant operation
- Lessons learned from past harvesting programs can help improve future harvesting efforts
 - Challenges encountered in previous programs can be shared and mitigated or avoided in future programs

Approach

- Domestic and international researchers, industry, regulators, and decommissioning companies' discuss benefits and challenges with ex-plant harvesting
 - Encourage sharing of lessons learned as well as areas of common interest
- Workshop consists of topical sessions with short presentations and significant time for open discussion
 - Goal is to maximize engagement among meeting participants
- Scope includes any materials aging issue that could benefit from harvesting, including metals, cables, and concrete

Expected Outcome

- Participants become better informed and aware of the benefits and challenges associated with ex-plant harvesting
- Discussions help identify areas of common interest for harvesting to address technical data needs
- Presentations and discussions provide the starting point for a “database” of harvested materials and future harvesting opportunities
- Contacts are made among research organizations to allow for further discussion of specific harvesting projects
- Workshop summary documenting discussion will be distributed among participants

Session Expectations

- Session 1 Motivation for Harvesting
 - Perspective from panel participants on their organizations' interest in and motivation for harvesting
 - Brief (5-10 minute) presentation from each panel member followed by general discussion
- Session 2 Technical Data Needs for Harvesting
 - Presenters share high-priority data needs that may be best addressed by harvesting
 - Where does harvesting hold particular value compared to other sources of technical data
 - 15-20 minute presentations followed by open discussion of technical data needs for harvesting

Session Expectations

- Session 3 Sources of Materials
 - Information on previously harvested materials and future harvesting opportunities
 - Materials located at research and vendor facilities
 - Decommissioning plants that may allow for future harvesting
 - Short 5-10 minute presentations followed by open discussion
 - Starting point for potential database of previously harvested materials and future harvesting opportunities
- Session 4 Harvesting Experience: Lessons Learned and Practical Aspects
 - Improving future efforts with lessons learned from past programs
 - Pitfalls to avoid and strategies to improve likelihood of success
 - Practical perspective from non-researchers on how harvesting interfaces with the decommissioning process
 - International decommissioning and harvesting experience
 - 20-30 minute presentations followed by open discussion

Session Expectations

- Session 5 Future Harvesting Program Planning
 - Technical and logistical information needed when planning a specific harvesting program
 - Perspective from panel participants on the workshop
 - Next steps and actions from workshop
 - Potential areas of common interest for future harvesting programs
 - Brief (5-10 minute) presentation from each panel member followed by general discussion

From: [Tregoning, Robert](#)
To: [Hiser, Matthew](#); [Purtscher, Patrick](#)
Subject: FW: RE: JRC Participation in Harvesting Workshop?
Date: Tuesday, January 31, 2017 9:02:05 AM
Attachments: [image001.gif](#)

Okay, we can officially scratch JRC off the list....

Robert Tregoning

Technical Advisor for Materials

US Nuclear Regulatory Commission

Two White Flint North, M/S T-10 A36

11545 Rockville Pike

Rockville, MD 20852-2738

ph: 301-415-2324

fax: 301-415-6671

From: Oliver.MARTIN@ec.europa.eu [mailto:Oliver.MARTIN@ec.europa.eu]

Sent: Tuesday, January 31, 2017 8:58 AM

To: Tregoning, Robert <Robert.Tregoning@nrc.gov>

Subject: [External_Sender] RE: JRC Participation in Harvesting Workshop?

Dear Rob,

Sorry for the late answer. I spoke with another JRC colleague last week, but he is also available. So unfortunately we cannot send anybody for the workshop. Please keep me informed about the outcomes of the workshop as we are generally interested in the topic.

Warm regards,

Oliver

OLIVER MARTIN

Project Leader Integrity & Ageing of Light Water Reactors



European Commission

DG Joint Research Centre (JRC)

Directorate G - Nuclear Safety & Security

Unit G.1.4 - Nuclear Reactor Safety & Emergency Preparedness

P325 01/108

Westerduinweg 3, NL-1755LE Petten

P.O. Box 2, NL1755ZG Petten

Tel: +31 224-56-5375

oliver.martin@ec.europa.eu

<https://ec.europa.eu/jrc>

Note to requester: The .gif file attached to this email (the picture in Oliver Martin's email signature file) did not translate in our processing software. The .gif image is a symbol of the European Commission.

From: Tregoning, Robert [<mailto:Robert.Tregoning@nrc.gov>]

Sent: Monday, January 30, 2017 1:21 PM

To: MARTIN Oliver (JRC-PETTEN)

Subject: JRC Participation in Harvesting Workshop?

Oliver:

I just want to get the final word on JRC participation. A few weeks ago you indicated that you would speak to a colleague about possibly attending. Will someone attend from JRC or not?

Thanks so much for your help with this.

Warm regards,

Rob

Robert Tregoning
Technical Advisor for Materials
US Nuclear Regulatory Commission
Two White Flint North, M/S T-10 A36
11545 Rockville Pike
Rockville, MD 20852-2738
ph: 301-415-2324
fax: 301-415-6671

From: [Tregoning, Robert](#)
To: [SOULACROIX, Julian](#)
Cc: [Hiser, Matthew](#); [Purtscher, Patrick](#)
Subject: Harvesting Workshop
Date: Tuesday, January 31, 2017 6:38:07 AM
Attachments: [Ex-Plant Materials Harvesting Workshop.pptx](#)
[Harvesting Workshop Announcement.docx](#)

Note to requester: The attachments are immediately following.

Dr. Soulacroix:

Thank you for your interest and willingness to participate in the workshop. I have attached the workshop announcement along with a few slides describing the motivation for the workshop and the expectations for each session. The workshop is divided into 5 sessions, each with a combination of presentations and discussion:

1. Session 1 will consist of short presentations and a panel discussion on the motivation for harvesting.
2. Session 2 will discuss data needs best met through harvesting.
3. Session 3 will discuss sources of materials for harvesting programs
4. Session 4 will discuss lessons-learned from past harvesting programs and practical aspects associated with harvesting.
5. Session 5 will attempt to summarize the workshop and planning a harvesting program, as well as discuss actions and next steps

We would like to invite you to present in any of these sessions. We are most interested in MAI participation in sessions 1, 3, and 5 but we would also welcome participation in sessions 2 and 4. For sessions 1, 3, and 5, we are looking for brief 5-10 minute presentations, so just a few slides at most on motivation for harvesting, sources of materials, and any future harvesting plans. For sessions 2 and 4, the presentations are anticipated to be longer, perhaps 20-30 minutes, covering lessons learned from previous harvesting experience (session 4) and data needs best addressed through harvesting (session 2).

Please let me know if you would be able to participate and which sessions you would be willing to support. We will look forward to your participation and contribution to the workshop!

Rob

Robert Tregoning

Technical Advisor for Materials

US Nuclear Regulatory Commission

Two White Flint North, M/S T-10 A36

11545 Rockville Pike

Rockville, MD 20852-2738

ph: 301-415-2324

fax: 301-415-6671

Ex-Plant Materials Harvesting Workshop

March 7-8, 2017

USNRC HQ

Rockville, MD, USA

Meeting Logistics

- Workshop will be held at NRC's Three White Flint North building
 - Directly adjacent to the White Flint Metro station
 - Nearest hotel within walking distance: Bethesda North Marriott Hotel & Conference Center
- Workshop is a non-public meeting to encourage open discussion
 - Presentations and meeting summary will be distributed among meeting participants only
- GoToMeeting webinar will be available to support additional attendees
 - Webinar attendees will be primarily observers
 - Limited opportunities for webinar attendee participation in discussion if time allows
 - Discussion will be recorded through GoToMeeting software to aid capturing discussion in meeting summary

Motivation

- With plants shutting down both in the U.S. and internationally, there are increasing opportunities to harvest components from decommissioning plants
 - Past harvesting efforts generally more reactive as opportunities arose, rather than proactively planned
- Ex-plant materials may be valuable because they have been exposed to actual in-service plant operating conditions
 - Can reduce the uncertainty associated with the applicability of the aging conditions
- Insights from research on harvested materials can address technical data needs identified for extended plant operation
- Lessons learned from past harvesting programs can help improve future harvesting efforts
 - Challenges encountered in previous programs can be shared and mitigated or avoided in future programs

Approach

- Domestic and international researchers, industry, regulators, and decommissioning companies' discuss benefits and challenges with ex-plant harvesting
 - Encourage sharing of lessons learned as well as areas of common interest
- Workshop consists of topical sessions with short presentations and significant time for open discussion
 - Goal is to maximize engagement among meeting participants
- Scope includes any materials aging issue that could benefit from harvesting, including metals, cables, and concrete

Expected Outcome

- Participants become better informed and aware of the benefits and challenges associated with ex-plant harvesting
- Discussions help identify areas of common interest for harvesting to address technical data needs
- Presentations and discussions provide the starting point for a “database” of harvested materials and future harvesting opportunities
- Contacts are made among research organizations to allow for further discussion of specific harvesting projects
- Workshop summary documenting discussion will be distributed among participants

Session Expectations

- Session 1 Motivation for Harvesting
 - Perspective from panel participants on their organizations' interest in and motivation for harvesting
 - Brief (5-10 minute) presentation from each panel member followed by general discussion
- Session 2 Technical Data Needs for Harvesting
 - Presenters share high-priority data needs that may be best addressed by harvesting
 - Where does harvesting hold particular value compared to other sources of technical data
 - 15-20 minute presentations followed by open discussion of technical data needs for harvesting

Session Expectations

- Session 3 Sources of Materials
 - Information on previously harvested materials and future harvesting opportunities
 - Materials located at research and vendor facilities
 - Decommissioning plants that may allow for future harvesting
 - Short 5-10 minute presentations followed by open discussion
 - Starting point for potential database of previously harvested materials and future harvesting opportunities
- Session 4 Harvesting Experience: Lessons Learned and Practical Aspects
 - Improving future efforts with lessons learned from past programs
 - Pitfalls to avoid and strategies to improve likelihood of success
 - Practical perspective from non-researchers on how harvesting interfaces with the decommissioning process
 - International decommissioning and harvesting experience
 - 20-30 minute presentations followed by open discussion

Session Expectations

- Session 5 Future Harvesting Program Planning
 - Technical and logistical information needed when planning a specific harvesting program
 - Perspective from panel participants on the workshop
 - Next steps and actions from workshop
 - Potential areas of common interest for future harvesting programs
 - Brief (5-10 minute) presentation from each panel member followed by general discussion

Ex-Plant Materials Harvesting Workshop

Location: NRC Headquarters in Rockville, MD, USA

Dates: March 7-8, 2017

Motivation:

- There are increasing opportunities to harvest the safety-critical components from decommissioning plants, both domestic and international.
- The harvested materials are valuable because they have been exposed to actual in-service plant operating conditions (temperature, irradiation, coolant, etc.), unlike virgin materials tested under simulated conditions in the lab.
- Data from ex-plant materials should help address technical gaps identified for extended operation of nuclear power plants due to highly relevant aging conditions.

Purpose and Objective:

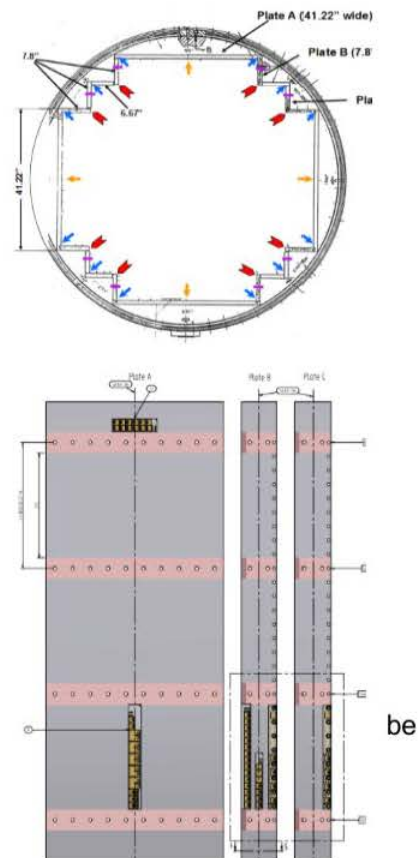
- For NRC staff and interested stakeholders to have greater awareness and knowledge of the benefits and challenges associated with ex-plant harvesting.
- Facilitate contacts and communication to enable specific cooperative ex-plant harvesting programs to be initiated.

Workshop Topics:

- Harvesting decision-making and prioritization
 - Technical data needs best addressed by harvesting
 - Technical information needed in advance of harvesting
- Sources of materials:
 - Decommissioning reactors
 - Operating reactors – replaced components
 - Previous harvesting programs – “boneyards”
 - Tracking available materials
- Harvesting process
 - Lessons learned from harvesting experience
 - Perspective of utility-owner and decommissioning contractor on harvesting
 - Communication and coordination between decommissioning and researchers
- International collaborative programs on specific components at specific plants

Workshop will consist of solicited presentations followed by discussion periods. If interested in attending or learning more about the workshop, please reach out to the contacts below.

Contacts: Robert Tregoning, Robert.Tregoning@nrc.gov
Matthew Hiser, Matthew.Hiser@nrc.gov
Patrick Purtscher, Patrick.Purtscher@nrc.gov



From: [Tregoning, Robert](#)
To: [Yasuhiro Chimi](#)
Cc: [Hiser, Matthew](#); [Purtscher, Patrick](#)
Subject: Participation in Harvesting workshop from JAEA
Date: Tuesday, January 31, 2017 9:03:14 AM
Attachments: [Ex-Plant Materials Harvesting Workshop.pptx](#)
[Harvesting Workshop Announcement.docx](#)
[Condensed Workshop Agenda.docx](#)

Note to requester: The attachments are immediately following.

Dr. Chimi:

Thank you for your interest in the workshop. I have attached the workshop announcement and condensed agenda along with a few slides describing the motivation for the workshop and the expectations for each session. The workshop is divided into 5 sessions, each with a combination of presentations and discussion:

1. Session 1 will consist of short presentations and a panel discussion on the motivation for harvesting.
2. Session 2 will discuss data needs best met through harvesting.
3. Session 3 will discuss sources of materials for harvesting programs
4. Session 4 will discuss lessons-learned from past harvesting programs and practical aspects associated with harvesting.
5. Session 5 will attempt to summarize the workshop and planning a harvesting program, as well as discuss actions and next steps

We would like to invite you to present in any of these sessions. For sessions 1, 3, and 5, we are looking for brief 5-10 minute presentations, so just a few slides at most on motivation for harvesting, sources of materials, and any future harvesting plans. For sessions 2 and 4, the presentations are anticipated to be longer, perhaps 20-30 minutes, covering data needs best addressed through harvesting (session 2) and lessons learned from previous harvesting experience (session 4).

For logistics, the workshop will be held at NRC's headquarters, which is at the White Flint Metro station:

Three White Flint North
11601 Landsdown Street
North Bethesda, MD 20852

The nearest hotel is across the street: <http://www.marriott.com/hotels/travel/wasbn-bethesda-north-marriott-hotel-and-conference-center/>. Please let me know if you need any other information regarding location or accommodations.

Please also let me know if you would be able to participate and which sessions you would be willing to support. I look forward to your participation and contributions to the workshop!

Regards,

Rob

Robert Tregoning
Technical Advisor for Materials
US Nuclear Regulatory Commission
Two White Flint North, M/S T-10 A36
11545 Rockville Pike
Rockville, MD 20852-2738
ph: 301-415-2324
fax: 301-415-6671

-----Original Message-----

From: Yasuhiro Chimi [<mailto:chimi.yasuhiro@jaea.go.jp>]
Sent: Tuesday, January 31, 2017 2:05 AM
To: Tregoning, Robert <Robert.Tregoning@nrc.gov>
Subject: [External_Sender] RE: Participation in Harvesting workshop from JAEA

Dear Mr. Robert Tregoning,

My name is Yasuhiro Chimi. I'm a member of Nuclear Safety Research Center, Japan Atomic Energy Agency (JAEA), and in charge of IASCC study of stainless steels.

As Mr. Kazunobu Sakamoto told you, I would like to attend the harvesting workshop. Could you give me some more information on the workshop, such as registration, venue, accommodation, how to get there, etc.?

I'm looking forward to hearing from you.

Sincerely yours,

Yasuhiro Chimi

Yasuhiro Chimi, Ph.D.

Materials and Water Chemistry Research Group Materials and Structural Integrity Research Division Nuclear Safety Research Center Sector of Nuclear Safety Research and Emergency Preparedness Japan Atomic Energy Agency (JAEA)

Phone: +81-29-282-6473 , Fax: +81-29-282-5406
E-mail: chimi.yasuhiro@jaea.go.jp

-----Original Message-----

From: Tregoning, Robert [<mailto:Robert.Tregoning@nrc.gov>]
Sent: Monday, January 23, 2017 11:01 PM
To: 坂本 一信 <kazunobu_sakamoto@nsr.go.jp>
Cc: chimi.yasuhiro@jaea.go.jp; Yutaka Nishiyama (nishiyama.yutaka93@jaea.go.jp) <nishiyama.yutaka93@jaea.go.jp>; 高倉 賢一 <kenichi_takakura01@nsr.go.jp>; 田口 清貴 <kiyotaka_taguchi@nsr.go.jp>; Purtscher, Patrick <Patrick.Purtscher@nrc.gov>; Hiser, Matthew <Matthew.Hiser@nrc.gov>
Subject: RE: Participation in Harvesting workshop from JAEA

Kazu:

It's always so good to hear from you. I look forward to hearing from your colleague at JAEA about participation in the harvesting workshop. I also will be in touch with you shortly to coordinate and finalize the contributions from Japan so that we can finalize the agenda.

Warm regards,

Rob

Robert Tregoning

Technical Advisor for Materials

US Nuclear Regulatory Commission

Two White Flint North, M/S T-10 A36
11545 Rockville Pike
Rockville, MD 20852-2738

ph: 301-415-2324

fax: 301-415-6671

From: 坂本 一信 [mailto:kazunobu_sakamoto@nsr.go.jp]

Sent: Thursday, January 19, 2017 9:19 PM

To: Tregoning, Robert <Robert.Tregoning@nrc.gov>

Cc: chimi.yasuhiro@jaea.go.jp; Yutaka Nishiyama (nishiyama.yutaka93@jaea.go.jp)
<nishiyama.yutaka93@jaea.go.jp>; 高倉 賢一 <kenichi_takakura01@nsr.go.jp>; 田口
清貴 <kiyotaka_taguchi@nsr.go.jp>

Subject: [External_Sender] Participation in Harvesting workshop from JAEA

Hi Rob,

A staff of our technical support organization JAEA wants to participate in the workshop and will contact you soon.

So I would appreciate if you could accept his participation.

Thanks for your cooperation in advance.

Best regards,

Kazu

Ex-Plant Materials Harvesting Workshop

March 7-8, 2017

USNRC HQ

Rockville, MD, USA

Meeting Logistics

- Workshop will be held at NRC's Three White Flint North building
 - Directly adjacent to the White Flint Metro station
 - Nearest hotel within walking distance: Bethesda North Marriott Hotel & Conference Center
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 - Webinar attendees will be primarily observers
 - Limited opportunities for webinar attendee participation in discussion if time allows
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- With plants shutting down both in the U.S. and internationally, there are increasing opportunities to harvest components from decommissioning plants
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Session Expectations

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 - Technical and logistical information needed when planning a specific harvesting program
 - Perspective from panel participants on the workshop
 - Next steps and actions from workshop
 - Potential areas of common interest for future harvesting programs
 - Brief (5-10 minute) presentation from each panel member followed by general discussion

Ex-Plant Materials Harvesting Workshop

Location: NRC Headquarters in Rockville, MD, USA

Dates: March 7-8, 2017

Motivation:

- There are increasing opportunities to harvest the safety-critical components from decommissioning plants, both domestic and international.
- The harvested materials are valuable because they have been exposed to actual in-service plant operating conditions (temperature, irradiation, coolant, etc.), unlike virgin materials tested under simulated conditions in the lab.
- Data from ex-plant materials should help address technical gaps identified for extended operation of nuclear power plants due to highly relevant aging conditions.

Purpose and Objective:

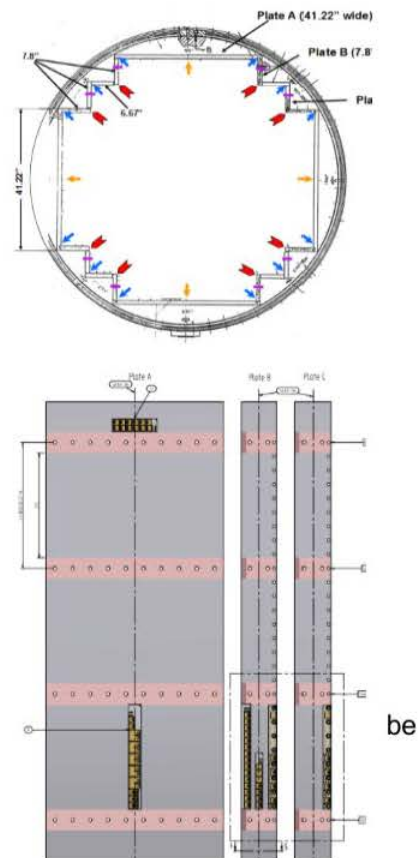
- For NRC staff and interested stakeholders to have greater awareness and knowledge of the benefits and challenges associated with ex-plant harvesting.
- Facilitate contacts and communication to enable specific cooperative ex-plant harvesting programs to be initiated.

Workshop Topics:

- Harvesting decision-making and prioritization
 - Technical data needs best addressed by harvesting
 - Technical information needed in advance of harvesting
- Sources of materials:
 - Decommissioning reactors
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 - Lessons learned from harvesting experience
 - Perspective of utility-owner and decommissioning contractor on harvesting
 - Communication and coordination between decommissioning and researchers
- International collaborative programs on specific components at specific plants

Workshop will consist of solicited presentations followed by discussion periods. If interested in attending or learning more about the workshop, please reach out to the contacts below.

Contacts: Robert Tregoning, Robert.Tregoning@nrc.gov
Matthew Hiser, Matthew.Hiser@nrc.gov
Patrick Purtscher, Patrick.Purtscher@nrc.gov



Draft Agenda – March 7-8, 2017 Harvesting Workshop

Tuesday, March 7, 2017

Introduction

- Overview of workshop purpose and objectives

Session 1: Motivation for Harvesting

- Solicited presentations from EPRI, DOE, NRC, and international organizations followed by panel discussion

Session 2: Technical data needs best addressed by harvesting

- Solicited presentations from EPRI, DOE, NRC, and international organizations followed by open discussion

Session 3: Sources of Materials

- Solicited presentations from EPRI, DOE, NRC, and international organizations followed by open discussion

Wednesday, March 8, 2017

Session 4: Harvesting Experience: Lessons learned and practical aspects

- Solicited presentations from EPRI, DOE, NRC, U.S. utility, decommissioning companies, and international organizations followed by open discussion

Session 5: Future Harvesting Program Planning

- Solicited presentations from EPRI, DOE, NRC, and international organizations followed by open and panel discussion

From: [Tregoning, Robert](#)
To: [坂本 一信](#)
Cc: [Hiser, Matthew](#); [Purtscher, Patrick](#)
Subject: RE: RE: Harvesting workshop
Date: Tuesday, January 31, 2017 6:54:43 AM

Kazu:

I am following up with both JAEA and CRIEPI on their participation in the workshop. I would still very much like JNRA to be a participant in sessions 1 and 5. As I mentioned below,

- Session 1 will consist of short presentations (a few slides) and a panel discussion on why you may be interested in harvesting; what you hope to get out of the workshop.
- Session 5 will consist of short presentations (a few slides) or summary statements that will attempt to summarize the workshop and planning a harvesting program, as well as discuss actions and next steps

The talk you gave in August at the NRC is perfect for Session 1. Session 5 is really meant to summarize the workshop from your perspective. You could put together a slide or two during the meeting or just make some remarks. I know that you are hesitant to be a participant because you haven't decided on your harvesting plans. This is perfectly fine; the U.S. NRC hasn't settled on any future harvesting plans either. I would, however, prefer to have JNRA be on the panel for these sessions instead of JAEA or CRIEPI. However, during the open discussion, both JAEA and CRIEPI will still be able to participate. Please let me know if you agree to be a panelist for these sessions.

Thank you for your consideration.

Warm regards,

Rob

Robert Tregoning

Technical Advisor for Materials

US Nuclear Regulatory Commission

Two White Flint North, M/S T-10 A36

11545 Rockville Pike

Rockville, MD 20852-2738

ph: 301-415-2324

fax: 301-415-6671

From: 坂本 一信 [mailto:kazunobu_sakamoto@nsr.go.jp]

Sent: Thursday, January 12, 2017 7:12 PM

To: Tregoning, Robert <Robert.Tregoning@nrc.gov>

Cc: 田口 清貴 <kiyotaka_taguchi@nsr.go.jp>; 小山 正邦 <masakuni_koyama01@nsr.go.jp>; 小澤 正義 <masayoshi_ozawa@nsr.go.jp>

Subject: [External_Sender] RE: Harvesting workshop

Rob,

I hope you and your family members had a restful and wonderful holidays.

As for the workshop, the discussion between regulatory side and industries/METI(having similar function with DOE in the U.S.) has not started in Japan. So, our motivation may be different from the one of the industry side.

Under such circumstance, I will be able to touch on our interest/motivation for the harvesting as a really short presentation. However, our organization has not established concrete plans at all. So my presentation may be almost identical (within 10 minutes) to the one I did at bilateral meeting with you in last August.

Anyway, please understand that the objective of NRA's participation this time is not take initiative of the

discussion as a panelist but correct international members' perspective on this matter.
Best,
Kazu

From: Tregoning, Robert [<mailto:Robert.Tregoning@nrc.gov>]

Sent: Friday, January 13, 2017 6:17 AM

To: 坂本 一信 <kazunobu_sakamoto@nsr.go.jp>

Subject: Harvesting workshop

Kazu:

I hope that the New Year is treating you and your family well. I just want to reach out to you again about the our harvesting workshop in early March. I know that you are working on CRIEPI and other organizations in Japan to discuss your participation in the workshop. I would be particularly interested if the Japanese perspective can be provided with a presentation in one or more of the following five workshop sessions: Session 1, 2, and/or 5. As mentioned in an earlier email, here's a summary of the approach and format for these sessions:

- Session 1 will consist of short presentations and a panel discussion on the motivation for harvesting.
- Session 2 will discuss data needs best met through harvesting.
- Session 5 will consist of short presentations that will attempt to summarize the workshop and planning a harvesting program, as well as discuss actions and next steps

We plan on working closely with all presenters so that we all have similar ideas about the objectives of the workshop as a whole and then the objectives of each session. I'm hopeful that there will be Japanese representation within one or more of these sessions.

Please let me know if you have any questions about the workshop or the sessions that you would like more information on to help with your discussions among the various Japanese organizations.

Thank you for your help, and I wish you all the best,

Rob

Robert Tregoning

Technical Advisor for Materials

US Nuclear Regulatory Commission

Two White Flint North, M/S T-10 A36

11545 Rockville Pike

Rockville, MD 20852-2738

ph: 301-415-2324

fax: 301-415-6671

From: [Tregoning, Robert](#)
To: [Hiser, Matthew](#)
Subject: RE: Re: Harvesting Workshop Announcement
Date: Tuesday, January 31, 2017 8:20:19 AM

Thanks for your help with the emails.....

Robert Tregoning
Technical Advisor for Materials
US Nuclear Regulatory Commission
Two White Flint North, M/S T-10 A36
11545 Rockville Pike
Rockville, MD 20852-2738
ph: 301-415-2324
fax: 301-415-6671

-----Original Message-----

From: Hiser, Matthew
Sent: Tuesday, January 31, 2017 8:07 AM
To: Tregoning, Robert <Robert.Tregoning@nrc.gov>
Subject: RE: Re: Harvesting Workshop Announcement

Here you go Rob! Glad these seem to be falling into place...

Dr. Arai and Dr. Higuchi:

Thank you for your interest and willingness to participate in the workshop. I have attached the workshop announcement and condensed agenda along with a few slides describing the motivation for the workshop and the expectations for each session. The workshop is divided into 5 sessions, each with a combination of presentations and discussion:

1. Session 1 will consist of short presentations and a panel discussion on the motivation for harvesting.
2. Session 2 will discuss data needs best met through harvesting.
3. Session 3 will discuss sources of materials for harvesting programs
4. Session 4 will discuss lessons-learned from past harvesting programs and practical aspects associated with harvesting.
5. Session 5 will attempt to summarize the workshop and planning a harvesting program, as well as discuss actions and next steps

We would like to invite you to present in any of Sessions 2, 3, or 4. For session 3, we are looking for brief 5-10 minute presentations, so just a few slides at most on sources of materials. For sessions 2 and 4, the presentations are anticipated to be longer, perhaps 20-30 minutes, covering data needs best addressed through harvesting (session 2) and lessons learned from previous harvesting experience (session 4).

Please let me know if you would be able to participate and which sessions you would be willing to support, along with presentation titles. We will look forward to your participation and contribution to the workshop!

Rob

Matthew Hiser
Materials Engineer
US Nuclear Regulatory Commission | Office of Nuclear Regulatory Research Division of Engineering | Corrosion and Metallurgy Branch

Phone: 301-415-2454 | Office: TWFN 10D62 Matthew.Hiser@nrc.gov

-----Original Message-----

From: Tregoning, Robert
Sent: Tuesday, January 31, 2017 6:44 AM
To: Hiser, Matthew <Matthew.Hiser@nrc.gov>
Subject: FW: Re: Harvesting Workshop Announcement

Matt:

Okay, I need your help with this one as well. Could you draft an email, similar to the MAI one and attach the announcement, condensed agenda, and the workshop slides. Let's ask them what sessions they want to participate in and ask for presentation titles. It looks like they may best go in sessions 2 - 4. I would like to get JNRA to do session 1 and 5...

Rob

Robert Tregoning
Technical Advisor for Materials
US Nuclear Regulatory Commission
Two White Flint North, M/S T-10 A36
11545 Rockville Pike
Rockville, MD 20852-2738
ph: 301-415-2324
fax: 301-415-6671

-----Original Message-----

From: Soneda, Naoki [<mailto:soneda@criepi.denken.or.jp>]
Sent: Monday, January 30, 2017 8:38 AM
To: Tregoning, Robert <Robert.Tregoning@nrc.gov>
Cc: Arai, Taku <arait@criepi.denken.or.jp>; Sadao Higuchi <higuchi@criepi.denken.or.jp>
Subject: [External_Sender] Re: Harvesting Workshop Announcement

Dear Rob,

Sorry for my late response. I talked to several stakeholders about our presentation at the workshop. At this point of time, it looks we should make a presentation in Session I on the motivation for harvesting. CRIEPI has a lot of experiences on characterizing materials from nuclear reactors. We would like to talk about our motivation for harvesting in light of such experiences.

I learned that I need to stay within Japan during that week, and Dr. Taku Arai and Dr. Sadao Higuchi will participate the workshop from CRIEPI. These two people are deeply involved in the discussions on future possible researches of decommissioned materials in Japan, even though such discussions are still in a very early stage. So I think they can contribute to discussions in other sessions as well.

I would appreciate if you could provide me with any new information about the workshop so that my colleagues can start preparing for the workshop. You can find their e-mail addresses in the Cc: fields of this message.

Best regards,
Naoki

Tregoning, Robert wrote on 2017/01/04 20:40:

> Naoki:

>

> That sounds great. I look forward to hearing from you.

>

> Regards,
>
> Rob
>
> -----Original Message-----
> From: Soneda, Naoki [<mailto:soneda@criepi.denken.or.jp>]
> Sent: Tuesday, January 03, 2017 7:01 PM
> To: Tregoning, Robert <Robert.Tregoning@nrc.gov>; Hiser, Matthew
> <Matthew.Hiser@nrc.gov>
> Cc: Rosseel, Thomas M. <rosseeltm@ornl.gov>; Sokolov, Mikhail A.
> <sokolovm@ornl.gov>; Arai, Taku <arait@criepi.denken.or.jp>; 坂本 一信
> <kazunobu_sakamoto@nsr.go.jp>
> Subject: [External_Sender] Re: Harvesting Workshop Announcement
>
> Rob,
>
> Thank you for the information. The end of January is a good target because I will have time to discuss several
people who are interested in working on harvesting activities. Let's keep in touch.
>
> Best regards,
> Naoki
>
> Tregoning, Robert wrote on 2017/01/03 21:23:
>> Naoki:
>>
>> Thank you for your reply and interest in the workshop. We would certainly like CRIEPI to attend and hopefully
participate in the workshop. We're just now starting to planning the talks for the individual sessions so there is
certainly time for you to discuss with your colleagues the contribution that you would like to propose. I am hoping
that we can have the titles and speakers for all the talks confirmed by the end of January. We will certainly be in
contact with you during this planning period. Please let me know if you have any other questions in the interim.
>>
>> Warm regards,
>>
>> Rob
>>
>> -----Original Message-----
>> From: Soneda, Naoki [<mailto:soneda@criepi.denken.or.jp>]
>> Sent: Monday, December 26, 2016 1:49 AM
>> To: Tregoning, Robert <Robert.Tregoning@nrc.gov>; Hiser, Matthew
>> <Matthew.Hiser@nrc.gov>
>> Cc: Rosseel, Thomas M. <rosseeltm@ornl.gov>; Sokolov, Mikhail A.
>> <sokolovm@ornl.gov>; Arai, Taku <arait@criepi.denken.or.jp>; 坂本 一信
>> <kazunobu_sakamoto@nsr.go.jp>
>> Subject: [External_Sender] Re: Harvesting Workshop Announcement
>>
>> Dear Rob,
>>
>> Thank you very much for your response. We am now discussing with our Japanese colleagues on the session
where we can make a contribution. I would appreciate if you could allow us some more time. In any case, CRIEPI
would like to participate the workshop if it is acceptable with you.
>>
>> At this moment, I have no idea about the organizations, other than NRA, which are interested in participating.
>>
>> Best regards,
>> Naoki
>>
>> Tregoning, Robert wrote on 2016/12/20 23:47:

>>> Dear Dr. Sonada:

>>>

>>> Thank you so much for your email and your inquiry about the harvesting workshop. I apologize for not responding to you sooner, but last week was very busy for me. I've attached a workshop announcement as well as a condensed workshop agenda for your information. You can see that we are planning five unique sessions as part of the workshop. Each session has a specific theme, or objective, as outlined below (and in the attached agenda).

>>> 1. Session 1 will consist of short presentations and a panel discussion on the motivation for harvesting.

>>> 2. Session 2 will discuss data needs best met through harvesting.

>>> 3. Session 3 will discuss sources of materials for harvesting

>>> programs 4. Session 4 will discuss lessons-learned from past harvesting programs and practical aspects associated with harvesting.

>>> 5. Session 5 will attempt to summarize the workshop and planning a

>>> harvesting program, as well as discuss actions and next steps

>>>

>>> Do you have a particular session in mind where you would like to make a presentation? If so, can you please send me a proposed title?

>>>

>>> Also, we are trying to keep the workshop participation fairly small to make sure that we can have meaningful discussion. I've been in contact with Kazu Sakamoto from NRAJ and want to make sure that we work together to get the right organizations from Japan to participate. Can you tell me what other organizations are interested in participating?

>>>

>>> Thank you again for your interest. I'm hoping that the workshop will be successful for all participants. I hope you and your family have a Happy Holidays and a prosperous New Year as well.

>>>

>>> Regards,

>>>

>>> Rob

>>>

>>> Robert Tregoning

>>> Technical Advisor for Materials

>>> US Nuclear Regulatory Commission

>>> Two White Flint North, M/S T-10 A36

>>> 11545 Rockville Pike

>>> Rockville, MD 20852-2738

>>> ph: 301-415-2324

>>> fax: 301-415-6671

>>>

>>>

>>> -----Original Message-----

>>> From: Soneda, Naoki [<mailto:soneda@criepi.denken.or.jp>]

>>> Sent: Wednesday, December 14, 2016 4:18 AM

>>> To: Tregoning, Robert <Robert.Tregoning@nrc.gov>; Hiser, Matthew

>>> <Matthew.Hiser@nrc.gov>

>>> Cc: Rosseel, Thomas M. <rosseeltm@ornl.gov>; Sokolov, Mikhail A.

>>> <sokolovm@ornl.gov>; Arai, Taku <arait@criepi.denken.or.jp>

>>> Subject: [External_Sender] Harvesting Workshop Announcement

>>>

>>> Dear Dr. Tregoning and Dr. Hiser,

>>>

>>> Dr. Rosseel of ORNL kindly let me know that the USNRC is organizing a material harvesting workshop in March, and I am writing you to ask if there is any chance for us to participate and contribute, somehow, to the workshop.

>>>

>>> We, CRIEPI, are working with Tom and Dr. Sokolov of ORNL on the characterization of RPV materials from Zion Unit 1 under the US-Japan collaboration. We also have some discussions in Japan about materials harvesting from decommissioned Japanese LWRs because some of the Japanese utilities decided permanent shutdown of some of

the old LWRs. So, materials harvesting is becoming a hot topic in Japan, and we are very much interested in participating in the workshop.

>>>

>>> I would appreciate if our participation in the workshop is acceptable with the USNRC, and if so, please let me know your current idea about the scope of the workshop so that we can discuss how we can contribute to the workshop.

>>>

>>> I would like to send at least one researcher from CRIEPI, but some people from other organizations in Japan may also like to participate.

>>>

>>> I look forward to hearing from you.

>>>

>>> Best regards,

>>> Naoki

>>>

>>> --

>>> ---

>>> Naoki Soneda, Dr.

>>> Director, Materials Science Research Laboratory CRIEPI

>>> 2-6-1 Nagasaka, Yokosuka-shi, Kanagawa 240-0196

>>> Phone: 070-6568-9287

>>> Fax: 046-856-5571

>>> E-mail: soneda@criepi.denken.or.jp

>>>

>> --

>> ---

>> Naoki Soneda, Dr.

>> Materials Science Research Laboratory CRIEPI

>> 2-6-1 Nagasaka, Yokosuka-shi, Kanagawa 240-0196

>> Phone: 070-6568-9287

>> Fax: 046-856-5571

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>>

>>

>

> --

> ---

> Naoki Soneda, Dr.

> Materials Science Research Laboratory

> CRIEPI

> 2-6-1 Nagasaka, Yokosuka-shi, Kanagawa 240-0196

> Phone: 070-6568-9287

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> E-mail: soneda@criepi.denken.or.jp

>

>

--

Naoki Soneda, Dr.

Materials Science Research Laboratory

CRIEPI

2-6-1 Nagasaka, Yokosuka-shi, Kanagawa 240-0196

Phone: 070-6568-9287

Fax: 046-856-5571

E-mail: soneda@criepi.denken.or.jp

From: [Tregoning, Robert](#)
To: [Hiser, Matthew](#); [Purtscher, Patrick](#)
Subject: RE: Re: Harvesting Workshop Announcement
Date: Tuesday, January 31, 2017 9:27:13 AM

Kill the subbullets on FOIA and proprietary information. I don't think we need to alarm people about FOIA. If they decide to present something proprietary to this audience without marking it thus, that's their fault :). You might also add the meeting location and the Marriot as the closest hotel (within walking distance) to the NRC. You could also mention that we're right at the White Flint Metro stop....

Robert Tregoning
Technical Advisor for Materials
US Nuclear Regulatory Commission
Two White Flint North, M/S T-10 A36
11545 Rockville Pike
Rockville, MD 20852-2738
ph: 301-415-2324
fax: 301-415-6671

-----Original Message-----

From: Hiser, Matthew
Sent: Tuesday, January 31, 2017 9:23 AM
To: Tregoning, Robert <Robert.Tregoning@nrc.gov>; Purtscher, Patrick <Patrick.Purtscher@nrc.gov>
Subject: RE: Re: Harvesting Workshop Announcement

That's a good idea - I added a slide on meeting logistics and also mention the GoToMeeting / recording... Any thoughts or comments?

Matthew Hiser
Materials Engineer
US Nuclear Regulatory Commission | Office of Nuclear Regulatory Research Division of Engineering | Corrosion and Metallurgy Branch
Phone: 301-415-2454 | Office: TWFN 10D62 Matthew.Hiser@nrc.gov

-----Original Message-----

From: Tregoning, Robert
Sent: Tuesday, January 31, 2017 8:30 AM
To: Purtscher, Patrick <Patrick.Purtscher@nrc.gov>; Hiser, Matthew <Matthew.Hiser@nrc.gov>
Subject: RE: Re: Harvesting Workshop Announcement

Maybe we can add this to the slides...

Robert Tregoning
Technical Advisor for Materials
US Nuclear Regulatory Commission
Two White Flint North, M/S T-10 A36
11545 Rockville Pike
Rockville, MD 20852-2738
ph: 301-415-2324
fax: 301-415-6671

-----Original Message-----

From: Purtscher, Patrick
Sent: Tuesday, January 31, 2017 8:24 AM
To: Tregoning, Robert <Robert.Tregoning@nrc.gov>
Subject: RE: Re: Harvesting Workshop Announcement

Should we emphasis that this is a closed meeting?

Pat

-----Original Message-----

From: Tregoning, Robert
Sent: Tuesday, January 31, 2017 8:20 AM
To: Arai, Taku <arait@criepi.denken.or.jp>; Sadao Higuchi <higuchi@criepi.denken.or.jp>
Cc: Soneda, Naoki <soneda@criepi.denken.or.jp>; Hiser, Matthew <Matthew.Hiser@nrc.gov>; Purtscher, Patrick <Patrick.Purtscher@nrc.gov>
Subject: FW: Re: Harvesting Workshop Announcement

Dr. Arai and Dr. Higuchi:

Thank you for your interest and willingness to participate in the workshop. I have attached the workshop announcement and condensed agenda along with a few slides describing the motivation for the workshop and the expectations for each session. The workshop is divided into 5 sessions, each with a combination of presentations and discussion:

1. Session 1 will consist of short presentations and a panel discussion on the motivation for harvesting.
2. Session 2 will discuss data needs best met through harvesting.
3. Session 3 will discuss sources of materials for harvesting programs
4. Session 4 will discuss lessons-learned from past harvesting programs and practical aspects associated with harvesting.
5. Session 5 will attempt to summarize the workshop and planning a harvesting program, as well as discuss actions and next steps

We would like to invite you to present in any of Sessions 2, 3, or 4. For session 3, we are looking for brief 5-10 minute presentations, so just a few slides at most on sources of materials. For sessions 2 and 4, the presentations are anticipated to be longer, perhaps 20-30 minutes, covering data needs best addressed through harvesting (session 2) and lessons learned from previous harvesting experience (session 4).

Please let me know if you would be able to participate and which sessions you would be willing to support, along with presentation titles. We will look forward to your participation and contribution to the workshop!

Warm regards,

Rob

Robert Tregoning
Technical Advisor for Materials
US Nuclear Regulatory Commission
Two White Flint North, M/S T-10 A36
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ph: 301-415-2324
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From: Soneda, Naoki [<mailto:soneda@criepi.denken.or.jp>]
Sent: Monday, January 30, 2017 8:38 AM
To: Tregoning, Robert <Robert.Tregoning@nrc.gov>

Cc: Arai, Taku <arait@criepi.denken.or.jp>; Sadao Higuchi <higuchi@criepi.denken.or.jp>
Subject: [External_Sender] Re: Harvesting Workshop Announcement

Dear Rob,

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I would appreciate if you could provide me with any new information about the workshop so that my colleagues can start preparing for the workshop. You can find their e-mail addresses in the Cc: fields of this message.

Best regards,
Naoki

Tregoning, Robert wrote on 2017/01/04 20:40:

> Naoki:

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> That sounds great. I look forward to hearing from you.

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> Regards,

>

> Rob

>

> -----Original Message-----

> From: Soneda, Naoki [<mailto:soneda@criepi.denken.or.jp>]

> Sent: Tuesday, January 03, 2017 7:01 PM

> To: Tregoning, Robert <Robert.Tregoning@nrc.gov>; Hiser, Matthew

> <Matthew.Hiser@nrc.gov>

> Cc: Rosseel, Thomas M. <rosseeltm@ornl.gov>; Sokolov, Mikhail A.

> <sokolovm@ornl.gov>; Arai, Taku <arait@criepi.denken.or.jp>; 坂本 一信

> <kazunobu_sakamoto@nsr.go.jp>

> Subject: [External_Sender] Re: Harvesting Workshop Announcement

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> Naoki

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> Tregoning, Robert wrote on 2017/01/03 21:23:

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>>

>> Warm regards,

>>

>> Rob

>>

>> -----Original Message-----

>> From: Soneda, Naoki [<mailto:soneda@criepi.denken.or.jp>]

>> Sent: Monday, December 26, 2016 1:49 AM

>> To: Tregoning, Robert <Robert.Tregoning@nrc.gov>; Hiser, Matthew

>> <Matthew.Hiser@nrc.gov>

>> Cc: Rosseel, Thomas M. <rosseeltm@ornl.gov>; Sokolov, Mikhail A.

>> <sokolovm@ornl.gov>; Arai, Taku <arait@criepi.denken.or.jp>; 坂本 一信

>> <kazunobu_sakamoto@nsr.go.jp>

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>> Dear Rob,

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>> At this moment, I have no idea about the organizations, other than NRA, which are interested in participating.

>>

>> Best regards,

>> Naoki

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>> Tregoning, Robert wrote on 2016/12/20 23:47:

>>> Dear Dr. Sonada:

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>>> Regards,

>>>

>>> Rob

>>>

>>> Robert Tregoning

>>> Technical Advisor for Materials

>>> US Nuclear Regulatory Commission
>>> Two White Flint North, M/S T-10 A36
>>> 11545 Rockville Pike
>>> Rockville, MD 20852-2738
>>> ph: 301-415-2324
>>> fax: 301-415-6671
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>>>
>>> -----Original Message-----
>>> From: Soneda, Naoki [<mailto:soneda@criepi.denken.or.jp>]
>>> Sent: Wednesday, December 14, 2016 4:18 AM
>>> To: Tregoning, Robert <Robert.Tregoning@nrc.gov>; Hiser, Matthew
>>> <Matthew.Hiser@nrc.gov>
>>> Cc: Rosseel, Thomas M. <rosseeltm@ornl.gov>; Sokolov, Mikhail A.
>>> <sokolovm@ornl.gov>; Arai, Taku <arait@criepi.denken.or.jp>
>>> Subject: [External_Sender] Harvesting Workshop Announcement
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>>> Dear Dr. Tregoning and Dr. Hiser,
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>>> Dr. Rosseel of ORNL kindly let me know that the USNRC is organizing a material harvesting workshop in March, and I am writing you to ask if there is any chance for us to participate and contribute, somehow, to the workshop.
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>>> We, CRIEPI, are working with Tom and Dr. Sokolov of ORNL on the characterization of RPV materials from Zion Unit 1 under the US-Japan collaboration. We also have some discussions in Japan about materials harvesting from decommissioned Japanese LWRs because some of the Japanese utilities decided permanent shutdown of some of the old LWRs. So, materials harvesting is becoming a hot topic in Japan, and we are very much interested in participating in the workshop.
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>>> I look forward to hearing from you.
>>>
>>> Best regards,
>>> Naoki
>>>
>>> --
>>> ---
>>> Naoki Soneda, Dr.
>>> Director, Materials Science Research Laboratory CRIEPI
>>> 2-6-1 Nagasaka, Yokosuka-shi, Kanagawa 240-0196
>>> Phone: 070-6568-9287
>>> Fax: 046-856-5571
>>> E-mail: soneda@criepi.denken.or.jp
>>>
>> --
>> ---
>> Naoki Soneda, Dr.
>> Materials Science Research Laboratory CRIEPI
>> 2-6-1 Nagasaka, Yokosuka-shi, Kanagawa 240-0196
>> Phone: 070-6568-9287
>> Fax: 046-856-5571

>> E-mail: soneda@criepi.denken.or.jp
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> CRIEPI
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>
>

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Naoki Soneda, Dr.
Materials Science Research Laboratory
CRIEPI
2-6-1 Nagasaka, Yokosuka-shi, Kanagawa 240-0196
Phone: 070-6568-9287
Fax: 046-856-5571
E-mail: soneda@criepi.denken.or.jp

From: [Hiser, Matthew](#)
To: "Gerard P. Van Noordennen"
Subject: RE: RE: RE: Harvesting Workshop at NRC HQ
Date: Wednesday, February 1, 2017 9:03:32 AM

Thanks Gerry! Feel free to email it or if it's too big for email, I've set up a Google Drive folder that can be accessed here where you can upload it:

<https://drive.google.com/drive/folders/0B5DWMLch5YSXcnpZZ0JOS055QUU?usp=sharing>

From: Gerard P. Van Noordennen [mailto:gpvan Noordennen@energysolutions.com]

Sent: Wednesday, February 01, 2017 8:57 AM

To: Hiser, Matthew <Matthew.Hiser@nrc.gov>

Subject: [External_Sender] RE: RE: Harvesting Workshop at NRC HQ

Thanks Matt. I'll start working on my presentations. Will send you a draft in February.

Gerry van Noordennen

Vice President Regulatory Affairs

EnergySolutions

151 Lafayette Drive, Suite 201

Oak Ridge, TN 37830

Office: 865-481-6319

Cell: [REDACTED] (b)(6)

ZionSolutions

101 Shiloh Boulevard

Zion, IL 60099

Office: 224-789-4025

gpvan Noordennen@energysolutions.com

From: Hiser, Matthew [mailto:Matthew.Hiser@nrc.gov]

Sent: Tuesday, January 31, 2017 11:24 AM

To: Gerard P. Van Noordennen

Subject: RE: RE: Harvesting Workshop at NRC HQ

Hi Gerry,

Thanks for your willingness to participate and the opportunity to discuss the workshop with you last week. I have you down to present in Session 3 on Sources of Materials (upcoming decommissioning sites and plans) as well as in Session 4 the decommissioning company perspective on decommissioning/harvesting. As you plan your presentations, feel free to send me titles to include in the agenda.

I have attached the slides we've pulled together here to describe the workshop as a whole and the expectations for each session. For session 3, we are looking for brief 5-10 presentations. For session 4, longer 20-30 minute presentations are anticipated.

Thanks and let me know if you have any questions!

Matt

Matthew Hiser

Materials Engineer

US Nuclear Regulatory Commission | Office of Nuclear Regulatory Research

Division of Engineering | Corrosion and Metallurgy Branch

Phone: 301-415-2454 | Office: TWFN 10D62

Matthew.Hiser@nrc.gov

From: Hiser, Matthew

Sent: Thursday, January 26, 2017 8:20 AM

To: 'Gerard P. Van Noordennen' <gpvannoordennen@energysolutions.com>

Subject: RE: RE: Harvesting Workshop at NRC HQ

Hi Gerry,

Sounds good – I will call your cell around 12:30 today.

Thanks!

Matt

Matthew Hiser

Materials Engineer

US Nuclear Regulatory Commission | Office of Nuclear Regulatory Research

Division of Engineering | Corrosion and Metallurgy Branch

Phone: 301-415-2454 | Office: TWFN 10D62

Matthew.Hiser@nrc.gov

From: Gerard P. Van Noordennen [<mailto:gpvannoordennen@energysolutions.com>]

Sent: Thursday, January 26, 2017 7:33 AM

To: Hiser, Matthew <Matthew.Hiser@nrc.gov>

Subject: [External_Sender] RE: Harvesting Workshop at NRC HQ

Hello Matthew,

I am available from 12:30 to 1:30 pm Eastern time today. Please call my cell phone shown below. I would be happy to attend and speak at the workshop.

On a related topic, please let me know if NRC Research and ORNL are interested in harvesting some components from San Onofre during decommissioning. EnergySolutions will be performing the decommissioning for the licensee Southern Cal Edison.

Gerry van Noordennen

Vice President Regulatory Affairs

EnergySolutions

151 Lafayette Drive, Suite 201

Oak Ridge, TN 37830

Office: 865-481-6319

Cell: (b)(6)

ZionSolutions

101 Shiloh Boulevard

Zion, IL 60099

Office: 224-789-4025

gpvannoordennen@energysolutions.com

From: Hiser, Matthew [<mailto:Matthew.Hiser@nrc.gov>]

Sent: Wednesday, January 25, 2017 9:59 AM

To: Gerard P. Van Noordennen

Subject: Harvesting Workshop at NRC HQ

Dear Mr. van Noordennen:

The NRC is working with DOE and EPRI to organize a workshop on ex-plant materials harvesting on March 7-8 in Rockville, MD. I understand through Tom Rosseel at ORNL that you are willing to present for EnergySolutions. I've attached the workshop announcement and session topics to this email.

Would you have some time this week for a brief phone call to discuss the workshop and the session we're hoping you can present in? If so, please let me know your availability and a good contact number.

Thanks!

Matt

Matthew Hiser

Materials Engineer

US Nuclear Regulatory Commission | Office of Nuclear Regulatory Research

Division of Engineering | Corrosion and Metallurgy Branch

Phone: 301-415-2454 | Office: TWFN 10D62

Matthew.Hiser@nrc.gov

From: [Hiser, Matthew](#)
To: "Malikowski, Heather M:(GenCo-Nuc)"
Cc: [Molkenthin, Jim](#); [Burgos, Brian](#); [Tregoning, Robert](#); [Purtscher, Patrick](#)
Subject: RE: Re: Harvesting Workshop Sessions 3 & 4
Date: Wednesday, February 1, 2017 7:42:28 AM

Hi Heather,

Sounds good! I will update the agenda accordingly.

We appreciate PWROG's support for this effort. Hopefully this workshop will lead to better understanding of harvesting opportunities that benefit all parties.

Thanks!

Matt

From: Malikowski, Heather M:(GenCo-Nuc) [mailto:Heather.Malikowski@exeloncorp.com]
Sent: Tuesday, January 31, 2017 10:38 PM
To: Hiser, Matthew <Matthew.Hiser@nrc.gov>
Cc: Molkenthin, Jim <molkenjp@westinghouse.com>; Burgos, Brian <bburgos@epri.com>; Tregoning, Robert <Robert.Tregoning@nrc.gov>; Purtscher, Patrick <Patrick.Purtscher@nrc.gov>
Subject: [External_Sender] Re: Harvesting Workshop Sessions 3 & 4

Hi Matt,

I checked with Jim Molkenthin and Brian Burgos and we will provide Brian input to the EPRI presentation for available harvesting materials we are aware of. Please let me know if you need any other information. Thanks again for the opportunity to support this discussion.

Thanks,

Heather Malikowski

On Jan 27, 2017, at 8:02 AM, Hiser, Matthew <Matthew.Hiser@nrc.gov> wrote:

Hi Heather,

Just wanted to touch base on what your plans are looking like for the harvesting workshop. Are you expecting someone from PWROG to attend and present? Or perhaps provide input to another presentation?

Thanks!

Matt

From: Hiser, Matthew
Sent: Thursday, January 19, 2017 8:26 AM
To: 'Malikowski, Heather M:(GenCo-Nuc)' <Heather.Malikowski@exeloncorp.com>; Molkenthin, Jim <molkenjp@westinghouse.com>
Cc: 'Burgos, Brian' <bburgos@epri.com>; Tregoning, Robert <Robert.Tregoning@nrc.gov>; Purtscher, Patrick <Patrick.Purtscher@nrc.gov>
Subject: RE: RE: RE: Harvesting Workshop Sessions 3 & 4

Hi Heather,

Thanks for the quick reply!

To answer your first question, unirradiated materials would also be of interest if that information can be easily pulled together and shared. The scope of this workshop in terms of materials is broad, including metals, cables and concrete (any materials aging issues relevant for extended plant operation where harvesting could be beneficial).

Irradiated components such as vessel and internals are certainly of high interest for harvesting, but we're not limiting our discussion in terms of harvesting to just those applications.

For your second question, we are planning to finalize speakers by the end of January. So if you are planning to attend and present, then ideally end of January is when we'd like to have a commitment. If you won't present and will just feed info into another presentation, that could come later.

Does that make sense? Please feel free to reach out with any more questions or information that would be helpful to you.

Thanks!

Matt

From: Malikowski, Heather M:(GenCo-Nuc)

[<mailto:Heather.Malikowski@exeloncorp.com>]

Sent: Wednesday, January 18, 2017 6:04 PM

To: Hiser, Matthew <Matthew.Hiser@nrc.gov>; Molkenthin, Jim <molkenjp@westinghouse.com>

Cc: 'Burgos, Brian' <bburgos@epri.com>; Tregoning, Robert <Robert.Tregoning@nrc.gov>; Purtscher, Patrick <Patrick.Purtscher@nrc.gov>

Subject: [External_Sender] RE: RE: Harvesting Workshop Sessions 3 & 4

Hi Matt,

Thanks very much for the information on this workshop. Let me confer with our folks, but I think we can provide some information on archived in-plant irradiated materials. Just to confirm, you are not looking for any unirradiated archive material information, correct? When I read the term "boneyard" in the meeting announcement I immediately think of the unirradiated archive material I know we do have Westinghouse storing for us licensees, but by the rest of the announcement I believe this is not what you are looking for.

Also, when would you need a final commitment by?

Thanks,

Heather

Heather M. Malikowski

Exelon Nuclear

Corporate Engineering Programs - Asset Management

PWR Owners Group Materials Committee Chair

200 Exelon Way, MC KSA/2N, Kennett Square, PA 19348

Office: 610 765 5864 | Fax: 610 765 5651

From: Hiser, Matthew [<mailto:Matthew.Hiser@nrc.gov>]

Sent: Wednesday, January 18, 2017 12:25 PM

To: Molkenthin, Jim; Malikowski, Heather M:(GenCo-Nuc)

Cc: 'Burgos, Brian'; Tregoning, Robert; Purtscher, Patrick

Subject: [EXTERNAL] RE: RE: Harvesting Workshop Sessions 3 & 4

Hi Jim and Heather:

NRC is working with EPRI and DOE to host a workshop on ex-plant materials harvesting in early March at NRC HQ in Rockville, MD. I have attached an announcement and condensed workshop agenda for your information and background.

One of the sessions we have planned is on Sources of Materials, which includes archived materials from past harvesting programs as well as future harvesting opportunities. Brian suggested the PWROG may have information related to archive

materials held by vendors that could be relevant to this discussion. For this session, we are looking at short presentations (maybe 2-3 slides, 5-10 min) providing information on sources of harvested materials.

We would certainly appreciate any information on sources of harvested materials that the PWROG can provide or help compile. If you would like to attend the workshop and present, that could work or, if you're unable to attend, you could provide input to myself or EPRI that could be incorporated into our slides.

Thanks!

Matt Hiser

Matthew Hiser

Materials Engineer

US Nuclear Regulatory Commission | Office of Nuclear Regulatory Research

Division of Engineering | Corrosion and Metallurgy Branch

Phone: 301-415-2454 | Office: TWFN 10D62

Matthew.Hiser@nrc.gov

From: Burgos, Brian [<mailto:bburgos@epri.com>]

Sent: Wednesday, January 18, 2017 9:37 AM

To: Hiser, Matthew <Matthew.Hiser@nrc.gov>

Cc: Molkenthin, Jim <molkenjp@westinghouse.com>; Heather Malikowski <Heather.Malikowski@exeloncorp.com>

Subject: [External_Sender] RE: Harvesting Workshop Sessions 3 & 4

Matt,

Per our discussions yesterday regarding the potential that the PWROG may have information related to materials stored in archives at vendors (e.g., surveillance specimens, flux thimble tubes, etc...), please reach out to Jim Molkenthin (WEC Program Manager) and Heather Malikowski (Materials Subcommittee Chairman). As I mentioned, they would be a good starting point to help with information for archived materials to support your harvesting workshop. They are copied on the email.

Brian

From: Demma, Anne

Sent: Tuesday, January 17, 2017 3:15 PM

To: Hiser, Matthew <Matthew.Hiser@nrc.gov>; Burgos, Brian <bburgos@epri.com>

Cc: Bernhoft, Sherry <sbernhoft@epri.com>; Dyle, Robin <rdyle@epri.com>

Subject: RE: Harvesting Workshop Sessions 3 & 4

Matt,

I am forwarding your notes to Brian for his information.

Thank you,

Anne

From: Hiser, Matthew [<mailto:Matthew.Hiser@nrc.gov>]

Sent: Tuesday, January 17, 2017 12:36 PM

To: Bernhoft, Sherry <sbernhoft@epri.com>; Rosseel, Thomas M.

<rosseeltm@ornl.gov>; Dyle, Robin <rdyle@epri.com>; Demma, Anne

<ademma@epri.com>

Cc: Tregoning, Robert <Robert.Tregoning@nrc.gov>; Purtscher, Patrick

<Patrick.Purtscher@nrc.gov>

Subject: [EXTERNAL] RE: Harvesting Workshop Sessions 3 & 4

*** Exercise caution. This is an EXTERNAL email. DO NOT open attachments or click links from unknown senders or unexpected email. ***.

Thanks everyone for participating today. I appreciate all the comments and suggestions and we'll adjust the agenda accordingly.

One follow-up: could DOE and EPRI identify who they expect their presenter to be for each of the 5 sessions?

Notes from today's call:

- Matt H. described general plans for workshop:
 - Non-public, keep participation to around 30 individuals for more focused interactive discussion
 - Goal is to have well-balanced discussion of harvesting, not sales pitches for specific projects or programs
 - Sherry B. suggested fewer presentations with more panel discussion time
 - Plan is for roughly 50-60% presentations and remaining time for discussion
 - Sessions 1 and 5 should be primarily panel discussion
 - Session 2:
 - Question raised about covering metals, cables, and concrete
 - Agreed that all presenters can cover all three types materials, hopefully just a few slides
 - Suggest presenters focus on high-priority data needs from their organization's perspective
 - Perhaps some background on what informs their priorities
 - Session 3:
 - Suggestions to include EnergySolutions, PWROG, Korea, Japan, and French presentation slots
 - Emphasize to presenters to avoid "sales pitch," but please provide information on sources of materials
 - Short ~10 min presentations on sources of materials with remaining time for discussion
 - Hopefully use presented information as starting point for previously harvested materials database
 - Session 4:
 - Longer (20-30 min) presentations focused on forward-looking lessons learned
 - Suggestion to reach out to Exelon (Zion experience plus many operating facilities) if Dominion can't support
 - Also consider Japan and France for international presentations
- Actions:
- Brian Bergos provide Matt with PWROG contact
 - Matt look into if affidavit would be needed for any proprietary information from EPRI/industry
 - Matt update agenda for sessions 3 and 4 and finalize speakers

Thanks!

Matt

Matthew Hiser

Materials Engineer

US Nuclear Regulatory Commission | Office of Nuclear Regulatory Research

Division of Engineering | Corrosion and Metallurgy Branch

Phone: 301-415-2454 | Office: TWFN 10D62

Matthew.Hiser@nrc.gov

-----Original Appointment-----

From: Hiser, Matthew

Sent: Monday, January 16, 2017 9:48 AM

To: Hiser, Matthew; Bernhoft, Sherry; Rosseel, Thomas M.; Dyle, Robin; Demma, Anne

Subject: Harvesting Workshop Sessions 3 & 4

When: Tuesday, January 17, 2017 1:00 PM-2:00 PM (UTC-05:00) Eastern Time (US & Canada).

Where: Telecon: 888-677-8615 passcode: [REDACTED] (b)(6)

888-677-8615 passcode: [REDACTED] (b)(6)

<< File: Sessions 3 & 4.docx >> << File: Harvesting Workshop Agenda 1-12-17.docx >>

There have been previous discussions between NRC, DOE, and EPRI on the workshop agenda overall to discuss what the workshop is trying to accomplish and the best way to do so. Those conversations did not dig down into each session and make a final decision on exactly who will be the presenters and topics in each session. Internally here at NRC, we've worked to lay that out in the attached documents.

The purpose of this call is to discuss all the specifics of sessions 3 and 4 to identify the right presenters for each slot. This discussion could also lead to adding, eliminating or changing some of the planned presentations if you all have other ideas or suggestions. Our main goal is to have a well-balanced, comprehensive discussion of harvesting that will benefit all participants. We think working with you all up front to help plan and make decisions will give us a better workshop in the end. So please come with ideas and suggestions for sessions 3 and 4 on sources of materials and lessons learned/practical aspects of harvesting.

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From: [Hiser, Matthew](#)
To: ["Richard Reister \(Richard.Reister@nuclear.energy.gov\)"; "Rosseel, Thomas M."; "Bernhoft, Sherry \(sbernhoft@epri.com\)"; "Dyle, Robin"](#)
Cc: [Tregoning, Robert; Purtscher, Patrick](#)
Subject: RE: Harvesting Workshop
Date: Wednesday, February 1, 2017 9:01:58 AM
Attachments: [Ex-Plant Materials Harvesting Workshop.pptx](#)

Note to requester: The attachment is immediately following.

We added one additional slide on meeting logistics. Just wanted to share with this group for awareness.

From: Hiser, Matthew

Sent: Monday, January 30, 2017 3:25 PM

To: Richard Reister (Richard.Reister@nuclear.energy.gov) <Richard.Reister@nuclear.energy.gov>; 'Rosseel, Thomas M.' <rosseeltm@ornl.gov>; Bernhoft, Sherry (sbernhoft@epri.com) <sbernhoft@epri.com>; 'Dyle, Robin' <rdyle@epri.com>

Cc: Tregoning, Robert <Robert.Tregoning@nrc.gov>; Purtscher, Patrick <Patrick.Purtscher@nrc.gov>

Subject: RE: Harvesting Workshop

DOE and EPRI Colleagues,

We have pulled together a few slides here within NRC to cover the motivation and approach for the workshop as well as session expectations. The goal of these slides is to communicate our vision for the workshop; please feel free to review and provide comments if you have any.

To update on item #1 below, we are looking into the option of using GoToMeeting to allow additional participants (probably some NRC staff) to observe with very limited participation. If so, the GoToMeeting software allows recording of the slides and discussion without the involvement of NRC A/V, so the NRC multimedia consent form should not be needed. Just to remind, our purpose is simply to capture the discussion and action items to help with the meeting summary. As long as all meeting participants are comfortable with this and it is technically doable, we will plan to use GoToMeeting and record the discussion through the software to aid in capturing valuable discussion insights in the meeting summary.

Thanks!

Matt

Matthew Hiser

Materials Engineer

US Nuclear Regulatory Commission | Office of Nuclear Regulatory Research

Division of Engineering | Corrosion and Metallurgy Branch

Phone: 301-415-2454 | Office: TWFN 10D62

Matthew.Hiser@nrc.gov

From: Hiser, Matthew

Sent: Wednesday, January 25, 2017 3:39 PM

To: Richard Reister (Richard.Reister@nuclear.energy.gov) <Richard.Reister@nuclear.energy.gov>; 'Rosseel, Thomas M.' <rosseeltm@ornl.gov>; Bernhoft, Sherry (sbernhoft@epri.com) <sbernhoft@epri.com>; 'Dyle, Robin' <rdyle@epri.com>

Cc: Tregoning, Robert <Robert.Tregoning@nrc.gov>; Purtscher, Patrick <Patrick.Purtscher@nrc.gov>

Subject: Harvesting Workshop

DOE and EPRI Colleagues,

Thank you for participating in the discussion last week on the harvesting workshop sessions 3 and 4. We are making good progress on identifying speakers for the workshop. I wanted to bring a couple items to your attention and request your feedback:

1. We were thinking of doing a video recording of the workshop, simply to capture the discussion and action items to help with the meeting summary. We didn't have any other purpose other than to maximize documentation of the discussion for the benefit of the participants. When I reached out to the NRC A/V folks, I was advised that all speakers would need to sign the NRC multimedia consent form (attached). Please take a look at this form and let us know if your speakers are comfortable with it. If not, we may not be able to take advantage of recording the workshop.
2. Could DOE and EPRI identify their planned speakers for each session? We're hoping to have the agenda and speakers firmed up by next week. As you know, there are slots for DOE and EPRI in each session.

Thanks and please let me know if you have any questions.

Matt

Matthew Hiser

Materials Engineer

US Nuclear Regulatory Commission | Office of Nuclear Regulatory Research

Division of Engineering | Corrosion and Metallurgy Branch

Phone: 301-415-2454 | Office: TWFN 10D62

Matthew.Hiser@nrc.gov

Ex-Plant Materials Harvesting Workshop

March 7-8, 2017

USNRC HQ

Rockville, MD, USA

Meeting Logistics

- Workshop will be held at NRC's Three White Flint North building
 - Directly adjacent to the White Flint Metro station
 - Nearest hotel within walking distance: Bethesda North Marriott Hotel & Conference Center
- Workshop is a non-public meeting to encourage open discussion
 - Presentations and meeting summary will be distributed among meeting participants only
- GoToMeeting webinar will be available to support additional attendees
 - Webinar attendees will be primarily observers
 - Limited opportunities for webinar attendee participation in discussion if time allows
 - Discussion will be recorded through GoToMeeting software to aid capturing discussion in meeting summary

Motivation

- With plants shutting down both in the U.S. and internationally, there are increasing opportunities to harvest components from decommissioning plants
 - Past harvesting efforts generally more reactive as opportunities arose, rather than proactively planned
- Ex-plant materials may be valuable because they have been exposed to actual in-service plant operating conditions
 - Can reduce the uncertainty associated with the applicability of the aging conditions
- Insights from research on harvested materials can address technical data needs identified for extended plant operation
- Lessons learned from past harvesting programs can help improve future harvesting efforts
 - Challenges encountered in previous programs can be shared and mitigated or avoided in future programs

Approach

- Domestic and international researchers, industry, regulators, and decommissioning companies' discuss benefits and challenges with ex-plant harvesting
 - Encourage sharing of lessons learned as well as areas of common interest
- Workshop consists of topical sessions with short presentations and significant time for open discussion
 - Goal is to maximize engagement among meeting participants
- Scope includes any materials aging issue that could benefit from harvesting, including metals, cables, and concrete

Expected Outcome

- Participants become better informed and aware of the benefits and challenges associated with ex-plant harvesting
- Discussions help identify areas of common interest for harvesting to address technical data needs
- Presentations and discussions provide the starting point for a “database” of harvested materials and future harvesting opportunities
- Contacts are made among research organizations to allow for further discussion of specific harvesting projects
- Workshop summary documenting discussion will be distributed among participants

Session Expectations

- Session 1 Motivation for Harvesting
 - Perspective from panel participants on their organizations' interest in and motivation for harvesting
 - Brief (5-10 minute) presentation from each panel member followed by general discussion
- Session 2 Technical Data Needs for Harvesting
 - Presenters share high-priority data needs that may be best addressed by harvesting
 - Where does harvesting hold particular value compared to other sources of technical data
 - 15-20 minute presentations followed by open discussion of technical data needs for harvesting

Session Expectations

- Session 3 Sources of Materials
 - Information on previously harvested materials and future harvesting opportunities
 - Materials located at research and vendor facilities
 - Decommissioning plants that may allow for future harvesting
 - Short 5-10 minute presentations followed by open discussion
 - Starting point for potential database of previously harvested materials and future harvesting opportunities
- Session 4 Harvesting Experience: Lessons Learned and Practical Aspects
 - Improving future efforts with lessons learned from past programs
 - Pitfalls to avoid and strategies to improve likelihood of success
 - Practical perspective from non-researchers on how harvesting interfaces with the decommissioning process
 - International decommissioning and harvesting experience
 - 20-30 minute presentations followed by open discussion

Session Expectations

- Session 5 Future Harvesting Program Planning
 - Technical and logistical information needed when planning a specific harvesting program
 - Perspective from panel participants on the workshop
 - Next steps and actions from workshop
 - Potential areas of common interest for future harvesting programs
 - Brief (5-10 minute) presentation from each panel member followed by general discussion

From: [Tregoning, Robert](#)
To: [SOULACROIX, Julian](#)
Cc: [Hiser, Matthew](#); [Purtscher, Patrick](#)
Subject: RE: RE: Harvesting Workshop
Date: Thursday, February 2, 2017 4:16:19 PM
Attachments: [Ex-Plant Materials Harvesting Workshop.pptx](#)
[image001.jpg](#)

Note to requester: The attachment is immediately following.

Dear M. Soulacroix:

Thank you for replying to my email. I've attached some slides that provide logistical information along with descriptions of the objectives and format for each of the workshop sessions. Please use these slides as guidance when developing your talk. As you can see by the slides and the other information I've communicated, the principal objective of the workshop is to develop a more effective, better informed process for conducting harvesting programs with not a large focus on what technical information has been obtained from harvesting programs. I think that the topics you proposed below can meet this objective but please let me suggest the following ways to focus the topics you proposed below to align with the workshop objectives.

1. Your topic of "...the contributions of a few studies that we recently carried out on harvested materials to the EDF" could fit really well within Session 4 if it focuses more on the harvesting process used in these studies and the lessons that could be applied for future harvesting programs. While the technical knowledge gained from the program is certainly interesting, it is not the focus of this particular workshop.
2. Your plans for the decommissioned steam generator project could fit well within session 2 if it focuses on the important data/technical needs that will be achieved as part of that program.
3. The description of the new EDF hot laboratory will certainly be interesting to many of the workshop attendees but discussing capabilities at laboratory facilities is not an objective of this particular workshop. I'm wondering if you have a brochure or other literature that could be handed out. Also, this could be part of your presentation. We wouldn't spend time during the meeting discussing it, but all the participants could take this home electronically.

In summary, I'm proposing that you give two separate, shorter talks (instead of a single longer talk): your talk on recent studies (item 1 above) would be in Session 4 and your talk on plans for the decommissioned steam generator project (item 2 above) would be in Session 2.

What are your thoughts about this proposal? Are the workshop objectives, scope, and format clear to you, especially after reviewing the attached slides? Please let me know if you would like to have a phone call to discuss further.

I'm very excited about MAI's participation in the workshop and I'm hoping that it will be a productive two-days for everyone. I'm especially looking forward to meeting you. You will need to bring your passport. I'll be in touch as the meeting gets closer with additional details.

Warm regards,

Rob

Robert Tregoning

Technical Advisor for Materials

US Nuclear Regulatory Commission

Two White Flint North, M/S T-10 A36

11545 Rockville Pike

Rockville, MD 20852-2738

ph: 301-415-2324
fax: 301-415-6671

From: SOULACROIX Julian [mailto:julian.soulacroix@edf.fr]

Sent: Thursday, February 02, 2017 11:25 AM

To: Tregoning, Robert <Robert.Tregoning@nrc.gov>

Cc: Hiser, Matthew <Matthew.Hiser@nrc.gov>; Purtscher, Patrick <Patrick.Purtscher@nrc.gov>

Subject: [External_Sender] RE: Harvesting Workshop

Dear M. Tregoning,

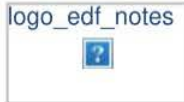
I can confirm that I will be able to participate to the workshop.

I can propose a 30 minutes presentation describing the new EDF hot laboratory, the contribution of a few studies that we recently carried out on harvested material to the EDF strategy, and lastly the Sherlock project (examination program planned on a decommissioned Steam Generator).

Does it sound appropriate to you ?

Furthermore, do you need any complementary information for accessing NRC site (passport...) ?

With kind regards



Julian SOULACROIX

CEIDRE – DLAB – MEM

Tél. : 02.47.98.67.14

Tél portable : [redacted] (b)(6)

De : Robert.Tregoning@nrc.gov [mailto:Robert.Tregoning@nrc.gov]

Envoyé : mardi 31 janvier 2017 12:38

À : SOULACROIX Julian

Cc : Matthew.Hiser@nrc.gov; Patrick.Purtscher@nrc.gov

Objet : Harvesting Workshop

Dr. Soulacroix:

Thank you for your interest and willingness to participate in the workshop. I have attached the workshop announcement along with a few slides describing the motivation for the workshop and the expectations for each session. The workshop is divided into 5 sessions, each with a combination of presentations and discussion:

1. Session 1 will consist of short presentations and a panel discussion on the motivation for harvesting.
2. Session 2 will discuss data needs best met through harvesting.
3. Session 3 will discuss sources of materials for harvesting programs
4. Session 4 will discuss lessons-learned from past harvesting programs and practical aspects associated with harvesting.
5. Session 5 will attempt to summarize the workshop and planning a harvesting program, as well as discuss actions and next steps

We would like to invite you to present in any of these sessions. We are most interested in MAI participation in sessions 1, 3, and 5 but we would also welcome participation in sessions 2 and 4. For sessions 1, 3, and 5, we are looking for brief 5-10 minute presentations, so just a few slides at most on motivation for harvesting, sources of materials, and any future harvesting plans. For sessions 2 and 4, the presentations are anticipated to be longer, perhaps 20-30 minutes, covering lessons learned from previous harvesting experience (session 4) and data needs best addressed through harvesting (session 2).

Please let me know if you would be able to participate and which sessions you would be willing to support. We will look forward to your participation and contribution to the workshop!

Rob

Robert Tregoning
Technical Advisor for Materials
US Nuclear Regulatory Commission
Two White Flint North, M/S T-10 A36
11545 Rockville Pike
Rockville, MD 20852-2738
ph: 301-415-2324
fax: 301-415-6671

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March 7-8, 2017

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 - Perspective from panel participants on the workshop
 - Next steps and actions from workshop
 - Potential areas of common interest for future harvesting programs
 - Brief (5-10 minute) presentation from each panel member followed by general discussion

From: [Tregoning, Robert](#)
To: [Chaouadi Rachid](#)
Cc: [Hiser, Matthew](#); [Purtscher, Patrick](#)
Subject: RE: RE: RE: RE: [External] FW: Harvesting Workshop Announcement
Date: Thursday, February 2, 2017 3:53:21 PM
Attachments: [Ex-Plant Materials Harvesting Workshop.pptx](#)

Rachid:

I hope you and your family are well and that the new year is off to a good start for you. We are in the process of finalizing the agenda and other details for the workshop. I've attached some slides that provide logistics information along with descriptions of the objectives and format for each of the workshop sessions. Please use this when developing your talk.

When last we communicated via email, you were proposing to review past programs with the main outcomes and proposing some topics for future investigation related to RPV issues. We think this topic fits best within session 2 which is intended to be a discussion of data needs best addressed by harvesting. I just want to confirm that these are the topics you will be addressing and ***ask you to provide a presentation title so that we can finalize the agenda.***

In keeping with the objectives for session 2, I would just ask that you emphasize current and future data needs using the review of past programs as the basis for the current needs that you've identified.

I'm really looking forward to your talk and your participation in the workshop as we discuss more informed practices for conducting harvesting programs in the future.

All the best,

Rob

Robert Tregoning
Technical Advisor for Materials
US Nuclear Regulatory Commission
Two White Flint North, M/S T-10 A36
11545 Rockville Pike
Rockville, MD 20852-2738
ph: 301-415-2324
fax: 301-415-6671

From: Chaouadi Rachid [<mailto:rachid.chaouadi@sckcen.be>]

Sent: Monday, January 09, 2017 3:18 AM

To: Tregoning, Robert <Robert.Tregoning@nrc.gov>

Cc: van Walle Eric <eric.van.walle@sckcen.be>; Purtscher, Patrick <Patrick.Purtscher@nrc.gov>;

Rosseel, Thomas M. <rosseeltm@ornl.gov>; Hiser, Matthew <Matthew.Hiser@nrc.gov>

Subject: [External_Sender] RE: RE: RE: [External] FW: Harvesting Workshop Announcement

Thank you very much Rob, my best wishes to all of you and your families.

Thanks for your clarification. Yes sure, we can combine the past work with some insight on future investigations in one single talk.

Best regards

Rachid

From: Tregoning, Robert [<mailto:Robert.Tregoning@nrc.gov>]

Sent: dinsdag 3 januari 2017 13:02

To: Chaouadi Rachid

Cc: van Walle Eric; Purtscher, Patrick; Rosseel, Thomas M.; Hiser, Matthew

Subject: RE: RE: RE: [External] FW: Harvesting Workshop Announcement

Rachid:

I'm hoping that you have had a good start to the New Year. Thank you for your reply and your offer to provide two presentations to the workshop. I want to first clarify the intent of Session IV to our upcoming workshop. Session IV is not intended to be a retrospective session summarizing what harvesting programs have been conducted in the past. It's intended to be a session to discuss the practical aspects of harvesting (i.e., the mechanics and challenges of obtaining and testing materials or components from nuclear plants) and the related knowledge that has been gained that can be used to guide any future such efforts (e.g., it's important to obtain material pedigree information during the initial phases of the project and ideally before the plant transitions to active decommissioning). This is why it is not the first session in the workshop. Therefore, your proposed talk summarizing the work that has been done on RPV materials (while certainly very important and interesting) may not fit perfectly within this session unless it focused on the practical aspects of these past programs. Your proposed talk on topics that require attention for future investigations certainly could fit well in either Session 1 or Session 2. Maybe we can figure out a way to combine both talks as part of either Session 1 or Session 2. Your thoughts? We're just now starting to plan the individual talks for the sessions. I'm hoping that the list of talks will be finalized by the end of January, if not sooner. We'll continue to be in contact with you as the planning evolves.

Warm regards,
Rob

From: Chaouadi Rachid [<mailto:rachid.chaouadi@sckcen.be>]

Sent: Thursday, December 29, 2016 7:49 AM

To: Tregoning, Robert <Robert.Tregoning@nrc.gov>

Cc: van Walle Eric <eric.van.walle@sckcen.be>; Purtscher, Patrick <Patrick.Purtscher@nrc.gov>; Rosseel, Thomas M. <rosseeltm@ornl.gov>; Hiser, Matthew <Matthew.Hiser@nrc.gov>

Subject: [External_Sender] RE: RE: [External] FW: Harvesting Workshop Announcement

Thank you Rob, my best wishes to you and your family.

We started discussing with the Belgian safety authorities (FANC/AFCN) and we agreed to first document what was done on the subject. To our knowledge, very limited efforts were spent on tests and evaluation of materials from decommissioned vessels. A review paper is in preparation (will be ready in Jan-Feb 2017) on the 5 or 6 reactor vessels that were used for post-mortem tests. Then, it will be interesting to list in a first phase all what could possibly be done in the future followed in a second phase by a priority ranking of the various topics. We have already some ideas on what should be done that could be presented and discussed at the meeting. So, we can propose two talks, one reviewing the past programs with the main outcomes (session 4) and a second one proposing some topics that require attention for future investigations (session 1).

For the sessions order, maybe it is preferable to put Session 4 on lessons from past harvesting programs as a starting session then go through the other sessions because then we know where we are (starting point). The other following sessions will deal with the motivations for harvesting, what are the needs, what are the materials available, and how the work can be shared and discuss the actions and next steps.

Enjoy the last remaining days of 2016 and have a very good new year.

Best regards
Rachid

From: Tregoning, Robert [Robert.Tregoning@nrc.gov]

Sent: Tuesday, December 20, 2016 4:05 PM

To: Chaouadi Rachid; Hiser, Matthew
Cc: van Walle Eric; Purtscher, Patrick; Rosseel, Thomas M.
Subject: RE: RE: [External] FW: Harvesting Workshop Announcement

Dear Rachid:

Thank you so much for your email last week and your inquiry about the harvesting workshop. I apologize for not responding to you sooner, but last week was very busy for me. Unfortunately, the dates have been set for March 7 and 8th, 2016 and we can't change them at this point, but hopefully this doesn't preclude participation. I've attached a workshop announcement as well as a condensed workshop agenda for your information.

You can see that we are planning five unique sessions as part of the workshop. Each session has a specific theme, or objective, as outlined below (and in the attached agenda).

1. Session 1 will consist of short presentations and a panel discussion on the motivation for harvesting.
2. Session 2 will discuss data needs best met through harvesting.
3. Session 3 will discuss sources of materials for harvesting programs
4. Session 4 will discuss lessons-learned from past harvesting programs and practical aspects associated with harvesting.
5. Session 5 will attempt to summarize the workshop and planning a harvesting program, as well as discuss actions and next steps

We are interested in having a talk or two to summarize past harvesting efforts and your proposed talk is consistent with this. However my only concern is that a talk just focused on past RPV efforts is narrower than we were initially planning for.

Do you think this talk could be part of a broader talk on past harvesting programs? Or, now that you have a bit more information on the workshop sessions and what we hope to achieve with each session, do you think that a slightly different presentation topic would fit within one of the sessions above?

Thank you again for your interest. I'm looking forward to working with you on the workshop. I'm hoping that the workshop will be successful for all participants. I hope you and your family have a Happy Holidays and a prosperous New Year as well.

Regards,

Rob

Robert Tregoning
Technical Advisor for Materials
US Nuclear Regulatory Commission
Two White Flint North, M/S T-10 A36
11545 Rockville Pike
Rockville, MD 20852-2738
ph: 301-415-2324
fax: 301-415-6671

From: Chaouadi Rachid [<mailto:rachid.chaouadi@sckcen.be>]

Sent: Wednesday, December 14, 2016 4:36 AM

To: Tregoning, Robert <Robert.Tregoning@nrc.gov>; Hiser, Matthew <Matthew.Hiser@nrc.gov>

Cc: van Walle Eric <eric.van.walle@sckcen.be>

Subject: [External_Sender] RE: [External] FW: Harvesting Workshop Announcement

Dear Bob, dear Matt

As you probably know, SCK•CEN is willing to attend the harvesting workshop USNRC is preparing and that would take place in the US in March 2017. If the workshop can be scheduled week 13 (27 to 31 March), that would be great because Eric and myself will be in the US. If case another date is selected, I will be able to attend but not Eric (other commitments). We are preparing a presentation that overviews what was already done worldwide in the field of post-mortem tests on decommissioned vessel materials. Please let us know as soon as possible the final planning that we can start with the necessary arrangements.

Looking forward to see you and discuss future actions for a fruitful international collaboration.

Best regards

Rachid

From: Rosseel, Thomas M. [<mailto:rosseeltm@ornl.gov>]

Sent: dinsdag 13 december 2016 23:23

To: Naoki Soneda; van Walle Eric; Chaouadi Rachid

Cc: Jan.BENS@FANC.FGOV.BE; Sokolov, Mikhail A.; Leonard, Keith J.

Subject: FW: [External] FW: Harvesting Workshop Announcement

Importance: High

Dear Naoki, Eric and Rachid,

As noted below, Rob Tregoning has requested that you contact him (Robert.Tregoning@nrc.gov) and Matt Hiser (Matthew.Hiser@nrc.gov) directly concerning the latest workshop planning information and possible speaking opportunities.

Kind regards and best wishes for happy holidays,

Tom

Thomas M. Rosseel, Ph. D.

Past Chair, International Committee on Irradiated Concrete and

Materials Aging and Degradation, Deputy Pathway Lead

Light Water Reactor Sustainability Program

Materials, Science and Technology Division

Oak Ridge National Laboratory

4500S MS 6132

PO Box 2008

Oak Ridge, TN 37831

TEL: 1-865-574-5380

rosseeltm@ornl.gov

From: "Tregoning, Robert" <Robert.Tregoning@nrc.gov>

Date: Tuesday, December 13, 2016 at 1:24 PM

To: "T. M. Rosseel" <rosseeltm@ornl.gov>, "Hiser, Matthew"

<Matthew.Hiser@nrc.gov>

Cc: Mikhail Sokolov <sokolovm@ornl.gov>, "Leonard, Keith J." <leonardk@ornl.gov>,

Kathryn McCarthy <kathryn.mccarthy@inl.gov>, Richard Reister

<Richard.Reister@nuclear.energy.gov>

Subject: RE: FW: [External] FW: Harvesting Workshop Announcement

Tom:

Thanks for the email letting us know about the inquiries you've received. We actually want foreign participation.

Could you put Eric and Naoki in touch with me or Matt? We'll then share the latest workshop planning information with them and see if there's a good fit

for them to come and speak or possibly attend. We've been working with Rich and Sherry from EPRI to develop a preliminary agenda, which we're hoping will be mature enough to share with you shortly so that you can start planning as well. Let me know if you have any other questions.

Regards,

Rob

Robert Tregoning

Technical Advisor for Materials

US Nuclear Regulatory Commission

Two White Flint North, M/S T-10 A36

11545 Rockville Pike

Rockville, MD 20852-2738

ph: 301-415-2324

fax: 301-415-6671

Ex-Plant Materials Harvesting Workshop

March 7-8, 2017

USNRC HQ

Rockville, MD, USA

Meeting Logistics

- Workshop will be held at NRC's Three White Flint North building
 - Directly adjacent to the White Flint Metro station
 - Nearest hotel within walking distance: Bethesda North Marriott Hotel & Conference Center
- Workshop is a non-public meeting to encourage open discussion
 - Presentations and meeting summary will be distributed among meeting participants only
- GoToMeeting webinar will be available to support additional attendees
 - Webinar attendees will be primarily observers
 - Limited opportunities for webinar attendee participation in discussion if time allows
 - Discussion will be recorded through GoToMeeting software to aid capturing discussion in meeting summary

Motivation

- With plants shutting down both in the U.S. and internationally, there are increasing opportunities to harvest components from decommissioning plants
 - Past harvesting efforts generally more reactive as opportunities arose, rather than proactively planned
- Ex-plant materials may be valuable because they have been exposed to actual in-service plant operating conditions
 - Can reduce the uncertainty associated with the applicability of the aging conditions
- Insights from research on harvested materials can address technical data needs identified for extended plant operation
- Lessons learned from past harvesting programs can help improve future harvesting efforts
 - Challenges encountered in previous programs can be shared and mitigated or avoided in future programs

Approach

- Domestic and international researchers, industry, regulators, and decommissioning companies' discuss benefits and challenges with ex-plant harvesting
 - Encourage sharing of lessons learned as well as areas of common interest
- Workshop consists of topical sessions with short presentations and significant time for open discussion
 - Goal is to maximize engagement among meeting participants
- Scope includes any materials aging issue that could benefit from harvesting, including metals, cables, and concrete

Expected Outcome

- Participants become better informed and aware of the benefits and challenges associated with ex-plant harvesting
- Discussions help identify areas of common interest for harvesting to address technical data needs
- Presentations and discussions provide the starting point for a “database” of harvested materials and future harvesting opportunities
- Contacts are made among research organizations to allow for further discussion of specific harvesting projects
- Workshop summary documenting discussion will be distributed among participants

Session Expectations

- Session 1 Motivation for Harvesting
 - Perspective from panel participants on their organizations' interest in and motivation for harvesting
 - Brief (5-10 minute) presentation from each panel member followed by general discussion
- Session 2 Technical Data Needs for Harvesting
 - Presenters share high-priority data needs that may be best addressed by harvesting
 - Where does harvesting hold particular value compared to other sources of technical data
 - 15-20 minute presentations followed by open discussion of technical data needs for harvesting

Session Expectations

- Session 3 Sources of Materials
 - Information on previously harvested materials and future harvesting opportunities
 - Materials located at research and vendor facilities
 - Decommissioning plants that may allow for future harvesting
 - Short 5-10 minute presentations followed by open discussion
 - Starting point for potential database of previously harvested materials and future harvesting opportunities
- Session 4 Harvesting Experience: Lessons Learned and Practical Aspects
 - Improving future efforts with lessons learned from past programs
 - Pitfalls to avoid and strategies to improve likelihood of success
 - Practical perspective from non-researchers on how harvesting interfaces with the decommissioning process
 - International decommissioning and harvesting experience
 - 20-30 minute presentations followed by open discussion

Session Expectations

- Session 5 Future Harvesting Program Planning
 - Technical and logistical information needed when planning a specific harvesting program
 - Perspective from panel participants on the workshop
 - Next steps and actions from workshop
 - Potential areas of common interest for future harvesting programs
 - Brief (5-10 minute) presentation from each panel member followed by general discussion

Note to requester:
The attachment is
immediately
following.

From: [Hiser, Matthew](#)
To: "Tello, Daniel (CNSC/CCSN)"
Cc: [Purtscher, Patrick](#); [Ndomba, Désiré \(CNSC/CCSN\)](#); [Karen Huynh \(khuynh@aecl.ca\)](#); [Tregoning, Robert](#)
Subject: RE: Re: Harvesting Workshop
Date: Friday, February 3, 2017 4:44:21 PM
Attachments: [Ex-Plant Materials Harvesting Workshop.pptx](#)

Hi Dan,

Thank you for update on planned attendees from Canada. We appreciate the great interest in harvesting and your participation in the workshop!

I have attached a few slides we're sending to all the meeting participants describing the motivation and expected outcome for the workshop as well as expectations for each session. As we discussed by phone, I have you down to present in Session 3 on Sources of Materials. In general, we are hoping to keep presentations brief to allow for more discussion during the workshop. Please take a look at the attached slides for the expectations for Session 3 and try to tailor your presentation as much as possible to that plan for Session 3. Please don't hesitate if you have any questions.

I am asking presenters to email (or upload to Google Drive if too big:

<https://drive.google.com/drive/folders/0B5DWMLch5YSXcnpZZ0JOS055QUU?usp=sharing>) their slides by the end of February if possible.

Thanks and looking forward to meeting you at the workshop!

Matt

From: Tello, Daniel (CNSC/CCSN) [mailto:daniel.tello@canada.ca]
Sent: Wednesday, February 01, 2017 8:25 AM
To: Hiser, Matthew <Matthew.Hiser@nrc.gov>
Cc: Purtscher, Patrick <Patrick.Purtscher@nrc.gov>; [Ndomba, Désiré \(CNSC/CCSN\)](mailto:Ndomba, Désiré) <desire.ndomba@canada.ca>; [Karen Huynh \(khuynh@aecl.ca\)](mailto:Karen Huynh) <khuynh@aecl.ca>; Tregoning, Robert <Robert.Tregoning@nrc.gov>
Subject: [External_Sender] Re: Harvesting Workshop

Hi Matt,

As discussed, there will now only be 3 of us attending from Canada.

- Daniel Tello, CNSC
- Désiré Ndomba, CNSC
- Karen Huynh, AECL

Regards,

Dan Tello

Sent from my BlackBerry 10 smartphone on the Rogers network.

From: Tello, Daniel (CNSC/CCSN)
Sent: Wednesday, January 25, 2017 4:06 PM
To: Hiser, Matthew
Cc: [Tregoning, Robert](#); [Purtscher, Patrick](#); [Ndomba, Désiré \(CNSC/CCSN\)](#); [Karen Huynh \(khuynh@aecl.ca\)](#)
Subject: RE: Harvesting Workshop

Hi Matt,

As discussed, there will be 3 organizations attending from Canada. Below are the names of the individuals, titles and organizations.

1. Daniel Tello – Senior Research Program Officer, Canadian Nuclear Safety Commission (CNSC)
2. Désiré Ndomba – Technical Specialist, Canadian Nuclear Safety Commission (CNSC)

3. Karen Huynh – Federal Science & Technology Manager, Atomic Energy of Canada Limited (AECL)
4. Gina Strati – Program Director: Energy, Canadian Nuclear Laboratories (CNL)
5. Lori Walters – Mechanical R&D Engineer, Canadian Nuclear Laboratories (CNL)

Regards,

Dan

Daniel Tello

Senior Research Program Officer

Regulatory Research and Evaluation Division

Canadian Nuclear Safety Commission / Government of Canada

daniel.tello@canada.ca / Tel: 613-995-2609

Agent principal du programme de recherche

Division de la recherche en réglementation et de l'évaluation

Commission canadienne de sûreté nucléaire / Gouvernement du Canada

daniel.tello@canada.ca / Tél: 613-995-2609

From: Tello, Daniel (CNSC/CCSN)

Sent: January-18-17 12:04 PM

To: 'Hiser, Matthew'

Cc: Tregoning, Robert; Purtscher, Patrick

Subject: RE: Harvesting Workshop

Hi Matt,

Thank you for the additional information. We would be willing to present what 'harvesting' research we are doing here in Canada.

I'll discuss with my team and we can then discuss further with you.

Regards,

Dan

Daniel Tello

Senior Research Program Officer

Regulatory Research and Evaluation Division

Canadian Nuclear Safety Commission / Government of Canada

daniel.tello@canada.ca / Tel: 613-995-2609

Agent principal du programme de recherche

Division de la recherche en réglementation et de l'évaluation

Commission canadienne de sûreté nucléaire / Gouvernement du Canada

daniel.tello@canada.ca / Tél: 613-995-2609

From: Hiser, Matthew [<mailto:Matthew.Hiser@nrc.gov>]

Sent: January-17-17 11:52 AM

To: Tello, Daniel (CNSC/CCSN)

Cc: Tregoning, Robert; Purtscher, Patrick

Subject: Harvesting Workshop

Hello Daniel:

Thank you for reaching out to me about CNSC's interest in the workshop we are hosting here at NRC. As we discussed, NRC would certainly be interested in attendance and participation by CNSC and other Canadian organizations. We are planning for the workshop to include presentations as well as significant time for open discussion among attendees.

I have attached a condensed version of the agenda which includes the titles of each session. We are hoping to have at least one international presentation in each session. If

CNSC or another Canadian organization is interested in presenting, we will certainly try to include them on the agenda if possible.

Thanks!

Matt

Matthew Hiser

Materials Engineer

US Nuclear Regulatory Commission | Office of Nuclear Regulatory Research

Division of Engineering | Corrosion and Metallurgy Branch

Phone: 301-415-2454 | Office: TWFN 10D62

Matthew.Hiser@nrc.gov

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March 7-8, 2017

USNRC HQ

Rockville, MD, USA

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From: [Hiser, Matthew](#)
To: ["William F Zipp \(Generation - 4\)"](#)
Subject: RE: RE: RE: Harvesting Workshop March 7 & 8
Date: Friday, February 3, 2017 4:46:31 PM

Feel free to email to email (or upload to Google Drive if too big:
<https://drive.google.com/drive/folders/0B5DWMLch5YSXcnPZZ0JOS055QUU?usp=sharing>) slides by the end of February if possible.

-----Original Message-----

From: Hiser, Matthew
Sent: Tuesday, January 31, 2017 11:19 AM
To: William F Zipp (Generation - 4) <william.f.zipp@dom.com>
Subject: RE: RE: RE: Harvesting Workshop March 7 & 8

Hi Bill,

Thanks for your willingness to participate and the opportunity to discuss the workshop last week. I have you down to present the utility-owner perspective to decommissioning/harvesting in Session 4. As you plan your presentation more, feel free to send me a title to include in the agenda.

I have attached the slides we've pulled together here to describe the workshop as a whole and the expectations for each session.

Thanks and let me know if you have any questions!

Matt

Matthew Hiser
Materials Engineer
US Nuclear Regulatory Commission | Office of Nuclear Regulatory Research Division of Engineering | Corrosion and Metallurgy Branch
Phone: 301-415-2454 | Office: TWFN 10D62 Matthew.Hiser@nrc.gov

-----Original Message-----

From: William F Zipp (Generation - 4) [<mailto:william.f.zipp@dom.com>]
Sent: Tuesday, January 24, 2017 5:17 PM
To: Hiser, Matthew <Matthew.Hiser@nrc.gov>
Subject: [External_Sender] RE: RE: Harvesting Workshop March 7 & 8

Matt,

10am Eastern or 1pm Eastern are a couple times that would work for me tomorrow (Wednesday). Or other times later in the day. Just let me know.

Thanks,

Bill

-----Original Message-----

From: Hiser, Matthew [<mailto:Matthew.Hiser@nrc.gov>]
Sent: Tuesday, January 24, 2017 4:03 PM
To: William F Zipp (Generation - 4)
Subject: [External] RE: RE: Harvesting Workshop March 7 & 8

Hi Bill,

Absolutely, what time would be good for me to give you a call tomorrow?

Thanks!

Matt

Matthew Hiser

Materials Engineer

US Nuclear Regulatory Commission | Office of Nuclear Regulatory Research Division of Engineering | Corrosion and Metallurgy Branch

Phone: 301-415-2454 | Office: TWFN 10D62 Matthew.Hiser@nrc.gov

From: William F Zipp (Generation - 4) [william.f.zipp@dom.com]

Sent: Tuesday, January 24, 2017 3:07 PM

To: Charles A Tomes (Generation - 6)

Cc: Hiser, Matthew; Stewart J Yuen (Generation - 4); Paul Aitken (Generation - 6)

Subject: [External_Sender] RE: Harvesting Workshop March 7 & 8

Chuck,

I can participate if NRC would like our insights from Kewaunee.

Matt, if you are looking for slides or a presentation from us I will need to have a discussion with you as to what you're looking for to make sure I hit the mark.

Thanks,

Bill Zipp

Kewaunee Decommissioning Project Mgr

920-388-8842

From: Charles A Tomes (Generation - 6)

Sent: Tuesday, January 24, 2017 10:07 AM

To: William F Zipp (Generation - 4)

Cc: 'Hiser, Matthew'; Stewart J Yuen (Generation - 4); Paul Aitken (Generation - 6)

Subject: Harvesting Workshop March 7 & 8

Bill

I spoke to Stew last week about the possibility of your participation in the upcoming NRC workshop on harvesting of materials.

The workshop is scheduled for March 7 & 8.

Since it is getting closer I wanted to confirm if you will be able to support the NRC request for Dominion to develop slides to share an industry perspective on harvesting of materials.

If you can support this effort it is my understanding that the NRC would like to receive the slides by the end of February.

If you can support this request your contact at the NRC will be Matt Hiser.

Please give me a call or shoot me an email on your availability.

Thank you,

Chuck Tomes
804-273-4384 office

(b)(6) [REDACTED] cell

CONFIDENTIALITY NOTICE: This electronic message contains information which may be legally confidential and or privileged and does not in any case represent a firm ENERGY COMMODITY bid or offer relating thereto which binds the sender without an additional express written confirmation to that effect. The information is intended solely for the individual or entity named above and access by anyone else is unauthorized. If you are not the intended recipient, any disclosure, copying, distribution, or use of the contents of this information is prohibited and may be unlawful. If you have received this electronic transmission in error, please reply immediately to the sender that you have received the message in error, and delete it. Thank you.

CONFIDENTIALITY NOTICE: This electronic message contains information which may be legally confidential and or privileged and does not in any case represent a firm ENERGY COMMODITY bid or offer relating thereto which binds the sender without an additional express written confirmation to that effect. The information is intended solely for the individual or entity named above and access by anyone else is unauthorized. If you are not the intended recipient, any disclosure, copying, distribution, or use of the contents of this information is prohibited and may be unlawful. If you have received this electronic transmission in error, please reply immediately to the sender that you have received the message in error, and delete it. Thank you.

From: [Hiser, Matthew](#)
To: ["Reister, Richard"](#)
Subject: RE: RE: Harvesting Workshop
Date: Friday, February 3, 2017 1:41:02 PM

Hi Rich,

Thank you for your perspective. This is why we are sharing with you, in order to get other perspectives on the workshop. I suggested to Rob that he discuss this recording topic with you and Sherry at the next biweekly call you all have for LWRS/LTO/SLR.

Thanks!

Matt

From: Reister, Richard [mailto:Richard.Reister@nuclear.energy.gov]

Sent: Wednesday, February 01, 2017 1:17 PM

To: Hiser, Matthew <Matthew.Hiser@nrc.gov>

Subject: [External_Sender] RE: Harvesting Workshop

Matt:

Regarding the recording of the meeting, I'm not a big fan of this, although I could probably live with it. We've found that it actually takes more effort to go back through a recording of a meeting than to just capture the important points as the meeting proceeds. Since this is meant to be an open exchange of information and ideas, concerns with recording might actually limit what participants are will to say.

That's my view.

Rich

From: Hiser, Matthew [mailto:Matthew.Hiser@nrc.gov]

Sent: Monday, January 30, 2017 3:25 PM

To: Reister, Richard <Richard.Reister@nuclear.energy.gov>; 'Rosseel, Thomas M.' <rosseeltm@ornl.gov>; Bernhoft, Sherry (sbernhof@epri.com) <sbernhof@epri.com>; 'Dyle, Robin' <rdyle@epri.com>

Cc: Tregoning, Robert <Robert.Tregoning@nrc.gov>; Purtscher, Patrick <Patrick.Purtscher@nrc.gov>

Subject: RE: Harvesting Workshop

DOE and EPRI Colleagues,

We have pulled together a few slides here within NRC to cover the motivation and approach for the workshop as well as session expectations. The goal of these slides is to communicate our vision for the workshop; please feel free to review and provide comments if you have any.

To update on item #1 below, we are looking into the option of using GoToMeeting to allow additional participants (probably some NRC staff) to observe with very limited participation. If so, the GoToMeeting software allows recording of the slides and discussion without the involvement of NRC A/V, so the NRC multimedia consent form should not be needed. Just to remind, our purpose is simply to capture the discussion and action items to help with the meeting summary. As long as all meeting participants are comfortable with this and it is technically doable, we will plan to use GoToMeeting and record the discussion through the software to aid in capturing valuable discussion insights in the meeting summary.

Thanks!

Matt

Matthew Hiser

Materials Engineer

US Nuclear Regulatory Commission | Office of Nuclear Regulatory Research
Division of Engineering | Corrosion and Metallurgy Branch
Phone: 301-415-2454 | Office: TWFN 10D62
Matthew.Hiser@nrc.gov

From: Hiser, Matthew

Sent: Wednesday, January 25, 2017 3:39 PM

To: Richard Reister (Richard.Reister@nuclear.energy.gov) <Richard.Reister@nuclear.energy.gov>;
'Rosseel, Thomas M.' <rosseeltm@ornl.gov>; Bernhoft, Sherry (sbernhoft@epri.com)
<sbernhoft@epri.com>; 'Dyle, Robin' <rdyle@epri.com>

Cc: Tregoning, Robert <Robert.Tregoning@nrc.gov>; Purtscher, Patrick <Patrick.Purtscher@nrc.gov>

Subject: Harvesting Workshop

DOE and EPRI Colleagues,

Thank you for participating in the discussion last week on the harvesting workshop sessions 3 and 4. We are making good progress on identifying speakers for the workshop. I wanted to bring a couple items to your attention and request your feedback:

1. We were thinking of doing a video recording of the workshop, simply to capture the discussion and action items to help with the meeting summary. We didn't have any other purpose other than to maximize documentation of the discussion for the benefit of the participants. When I reached out to the NRC A/V folks, I was advised that all speakers would need to sign the NRC multimedia consent form (attached). Please take a look at this form and let us know if your speakers are comfortable with it. If not, we may not be able to take advantage of recording the workshop.
2. Could DOE and EPRI identify their planned speakers for each session? We're hoping to have the agenda and speakers firmed up by next week. As you know, there are slots for DOE and EPRI in each session.

Thanks and please let me know if you have any questions.

Matt

Matthew Hiser

Materials Engineer

US Nuclear Regulatory Commission | Office of Nuclear Regulatory Research
Division of Engineering | Corrosion and Metallurgy Branch
Phone: 301-415-2454 | Office: TWFN 10D62
Matthew.Hiser@nrc.gov

From: [Rosseel, Thomas M.](#)
To: [Hiser, Matthew](#); [Purtscher, Patrick](#)
Cc: [Leonard, Keith J.](#); [Richard Reister](#)
Subject: [External_Sender] Fw: Harvesting materials from NPPs -- Areva-NorthStar JV offers accelerated decommissioning
Date: Monday, February 6, 2017 2:38:47 PM

Matt and Pat,

Perhaps another vendor to invite to the NRC workshop in addition to Energy Solutions.

Tom

Thomas. M. Rosseel,
Materials Science and Technology Division
Oak Ridge National Laboratory

V: 865-574-5380

From: Fifield, Leo S <leo.fifield@pnnl.gov>
Sent: Monday, February 06, 2017 2:09 PM
To: Ramuhalli, Pradeep; Rosseel, Thomas M.
Subject: Harvesting materials from NPPs -- Areva-NorthStar JV offers accelerated decommissioning
<http://world-nuclear-news.org/WR-Areva-NorthStar-JV-offers-accelerated-decommissioning-0202177.html>

Areva-NorthStar JV offers accelerated decommissioning

02 February 2017

Areva Nuclear Materials and NorthStar have formed a new joint venture, Accelerated Decommissioning Partners (ADP), to acquire and decommission shut-down US nuclear reactors. The joint venture has already begun the process to acquire nuclear facilities, including their used nuclear fuel.

ADP brings together Areva's core competencies in nuclear component dismantling and used fuel management with NorthStar's expertise in demolition and environmental remediation. The joint venture is designed to contain all the management, regulatory, technical and financial qualifications needed to decommission nuclear energy sites in accordance with US Nuclear Regulatory Commission and state requirements.

The new venture is already working with a US power company to assess the decommissioning and dismantling of "multiple nuclear reactor facilities scheduled for shutdown", the companies said. It expects to complete the process, including the negotiation of terms for the post-shutdown transfer of ownership of the sites and their used fuel inventory, by the end of 2017.

"ADP offers the industry an innovative approach to accelerate decommissioning of shutdown nuclear power facilities through a complete and permanent transfer of ownership of the asset, including used nuclear fuel, from utility owners to an entity who is an expert in decommissioning and used fuel management", Sam Shakir, CEO of Areva Nuclear Materials, said.

In November, Entergy announced it had agreed to sell the shut-down Vermont Yankee nuclear power plant and transfer its licences to NorthStar for an undisclosed price in a transaction expected to close by the end of 2018, subject to conditions and regulatory approvals. Under the agreement, NorthStar, would start decontamination and dismantling work at Vermont Yankee, which shut down in 2014, by 2021 and complete decommissioning and site restoration - with the exception of the Independent Spent Fuel Storage Installation (ISFSF) - by 2030. NorthStar would continue to operate the ISFSF until the US government fulfils its statutory responsibility for the final disposal of all used fuel in the USA, after which NorthStar would decommission the ISFSF, terminate the site's licence and complete site restoration. NorthStar CEO Scott State said the combination of Areva and NorthStar's expertise created a "capable partner" for US utilities planning facility closures. "All together, the ADP team members represent the successful licence termination and decommissioning of more than ten NRC-licensed nuclear reactor and laboratory facilities, and have worked on more than 300 nuclear and power facility projects in the past 15 years," he said.

Washington, DC-based Areva Nuclear Materials is the US subsidiary of New Areva, the company being created through the restructuring of France's Areva SA into two separate entities. NorthStar, based in New York, provides comprehensive facility and environmental services, including decommissioning and closure services across the power industry. The company has provided solutions and support to nuclear decommissioning projects in the USA and overseas, including programs to decommission and dismantle five US research reactors.

*Researched and written
by World Nuclear News*

Note to requester: The attachment
is immediately following.

From: [Tregoning, Robert](#)
To: [Yasuhiro Chimi](#)
Cc: [Hiser, Matthew](#); [Purtscher, Patrick](#)
Subject: RE: RE: Participation in Harvesting workshop from JAEA
Date: Monday, February 6, 2017 8:41:06 AM
Attachments: [Ex-Plant Materials Harvesting Workshop.pptx](#)

Dr. Chimi:

Thank you for replying to my email. We look forward to your participation in the workshop. I've attached a slide packet that has some logistical information for your planning. We will also provide more logistical information closer to the workshop. Please let me know if you have any questions in the interim.

Warm regards,

Rob

Robert Tregoning
Technical Advisor for Materials
US Nuclear Regulatory Commission
Two White Flint North, M/S T-10 A36
11545 Rockville Pike
Rockville, MD 20852-2738
ph: 301-415-2324
fax: 301-415-6671

-----Original Message-----

From: Yasuhiro Chimi [<mailto:chimi.yasuhiro@jaea.go.jp>]
Sent: Monday, February 06, 2017 8:19 AM
To: Tregoning, Robert <Robert.Tregoning@nrc.gov>
Cc: Hiser, Matthew <Matthew.Hiser@nrc.gov>; Purtscher, Patrick <Patrick.Purtscher@nrc.gov>
Subject: [External_Sender] RE: Participation in Harvesting workshop from JAEA

Dear Mr. Tregoning,

Thank you very much for the detailed information on the harvesting workshop. I would like to participate in all the sessions.

Unfortunately, we do not have any plans and experience for harvesting programs yet, so I am afraid I cannot contribute to presentations in the sessions this time.

I look forward to participating in the workshop.

Best regards,

Yasuhiro Chimi

Yasuhiro Chimi, Ph.D.

Materials and Water Chemistry Research Group Materials and Structural Integrity Research Division Nuclear Safety
Research Center Sector of Nuclear Safety Research and Emergency Preparedness Japan Atomic Energy Agency
(JAEA)

Phone: +81-29-282-6473 , Fax: +81-29-282-5406
E-mail: chimi.yasuhiro@jaea.go.jp

-----Original Message-----

From: Tregoning, Robert [<mailto:Robert.Tregoning@nrc.gov>]
Sent: Tuesday, January 31, 2017 11:03 PM
To: Yasuhiro Chimi <chimi.yasuhiro@jaea.go.jp>
Cc: Hiser, Matthew <Matthew.Hiser@nrc.gov>; Purtscher, Patrick <Patrick.Purtscher@nrc.gov>
Subject: Participation in Harvesting workshop from JAEA

Dr. Chimi:

Thank you for your interest in the workshop. I have attached the workshop announcement and condensed agenda along with a few slides describing the motivation for the workshop and the expectations for each session. The workshop is divided into 5 sessions, each with a combination of presentations and discussion:

1. Session 1 will consist of short presentations and a panel discussion on the motivation for harvesting.
 2. Session 2 will discuss data needs best met through harvesting.
 3. Session 3 will discuss sources of materials for harvesting programs 4.
- Session 4 will discuss lessons-learned from past harvesting programs and practical aspects associated with harvesting.
5. Session 5 will attempt to summarize the workshop and planning a harvesting program, as well as discuss actions and next steps

We would like to invite you to present in any of these sessions. For sessions 1, 3, and 5, we are looking for brief 5-10 minute presentations, so just a few slides at most on motivation for harvesting, sources of materials, and any future harvesting plans. For sessions 2 and 4, the presentations are anticipated to be longer, perhaps 20-30 minutes, covering data needs best addressed through harvesting (session 2) and lessons learned from previous harvesting experience (session 4).

For logistics, the workshop will be held at NRC's headquarters, which is at the White Flint Metro station:

Three White Flint North
11601 Landsdown Street
North Bethesda, MD 20852

The nearest hotel is across the street:

[http://www.marriott.com/hotels/travel/wasbn-bethesda-north-marriott-hotel-and-co](http://www.marriott.com/hotels/travel/wasbn-bethesda-north-marriott-hotel-and-conference-center/)

nference-center/ . Please let me know if you need any other information regarding location or accommodations.

Please also let me know if you would be able to participate and which sessions you would be willing to support. I look forward to your participation and contributions to the workshop!

Regards,

Rob

Robert Tregoning
Technical Advisor for Materials
US Nuclear Regulatory Commission
Two White Flint North, M/S T-10 A36
11545 Rockville Pike
Rockville, MD 20852-2738
ph: 301-415-2324

fax: 301-415-6671

-----Original Message-----

From: Yasuhiro Chimi [<mailto:chimi.yasuhiro@jaea.go.jp>]
Sent: Tuesday, January 31, 2017 2:05 AM
To: Tregoning, Robert <Robert.Tregoning@nrc.gov>
Subject: [External_Sender] RE: Participation in Harvesting workshop from JAEA

Dear Mr. Robert Tregoning,

My name is Yasuhiro Chimi. I'm a member of Nuclear Safety Research Center, Japan Atomic Energy Agency (JAEA), and in charge of IASCC study of stainless steels.

As Mr. Kazunobu Sakamoto told you, I would like to attend the harvesting workshop. Could you give me some more information on the workshop, such as registration, venue, accommodation, how to get there, etc.?

I'm looking forward to hearing from you.

Sincerely yours,

Yasuhiro Chimi

Yasuhiro Chimi, Ph.D.

Materials and Water Chemistry Research Group Materials and Structural Integrity Research Division Nuclear Safety Research Center Sector of Nuclear Safety Research and Emergency Preparedness Japan Atomic Energy Agency (JAEA)

Phone: +81-29-282-6473 , Fax: +81-29-282-5406
E-mail: chimi.yasuhiro@jaea.go.jp

-----Original Message-----

From: Tregoning, Robert [<mailto:Robert.Tregoning@nrc.gov>]
Sent: Monday, January 23, 2017 11:01 PM
To: 坂本 一信 <kazunobu_sakamoto@nsr.go.jp>
Cc: chimi.yasuhiro@jaea.go.jp; Yutaka Nishiyama (nishiyama.yutaka93@jaea.go.jp)
<nishiyama.yutaka93@jaea.go.jp>; 高倉 賢一 <kenichi_takakura01@nsr.go.jp>; 田口
清貴 <kiyotaka_taguchi@nsr.go.jp>; Purtscher, Patrick <Patrick.Purtscher@nrc.gov>; Hiser, Matthew
<Matthew.Hiser@nrc.gov>
Subject: RE: Participation in Harvesting workshop from JAEA

Kazu:

It's always so good to hear from you. I look forward to hearing from your colleague at JAEA about participation in the harvesting workshop. I also will be in touch with you shortly to coordinate and finalize the contributions from Japan so that we can finalize the agenda.

Warm regards,

Rob

Robert Tregoning

Technical Advisor for Materials

US Nuclear Regulatory Commission

Two White Flint North, M/S T-10 A36
11545 Rockville Pike
Rockville, MD 20852-2738

ph: 301-415-2324

fax: 301-415-6671

From: 坂本 一信 [mailto:kazunobu_sakamoto@nsr.go.jp]

Sent: Thursday, January 19, 2017 9:19 PM

To: Tregoning, Robert <Robert.Tregoning@nrc.gov>

Cc: chimi.yasuhiro@jaea.go.jp; Yutaka Nishiyama (nishiyama.yutaka93@jaea.go.jp)
<nishiyama.yutaka93@jaea.go.jp>; 高倉 賢一 <kenichi_takakura01@nsr.go.jp>; 田口
清貴 <kiyotaka_taguchi@nsr.go.jp>

Subject: [External_Sender] Participation in Harvesting workshop from JAEA

Hi Rob,

A staff of our technical support organization JAEA wants to participate in the workshop and will contact you soon.

So I would appreciate if you could accept his participation.

Thanks for your cooperation in advance.

Best regards,

Kazu

Ex-Plant Materials Harvesting Workshop

March 7-8, 2017

USNRC HQ

Rockville, MD, USA

Meeting Logistics

- Workshop will be held at NRC's Three White Flint North building
 - Directly adjacent to the White Flint Metro station
 - Nearest hotel within walking distance: Bethesda North Marriott Hotel & Conference Center
- Workshop is a non-public meeting to encourage open discussion
 - Presentations and meeting summary will be distributed among meeting participants only
- GoToMeeting webinar will be available to support additional attendees
 - Webinar attendees will be primarily observers
 - Limited opportunities for webinar attendee participation in discussion if time allows
 - Discussion will be recorded through GoToMeeting software to aid capturing discussion in meeting summary

Motivation

- With plants shutting down both in the U.S. and internationally, there are increasing opportunities to harvest components from decommissioning plants
 - Past harvesting efforts generally more reactive as opportunities arose, rather than proactively planned
- Ex-plant materials may be valuable because they have been exposed to actual in-service plant operating conditions
 - Can reduce the uncertainty associated with the applicability of the aging conditions
- Insights from research on harvested materials can address technical data needs identified for extended plant operation
- Lessons learned from past harvesting programs can help improve future harvesting efforts
 - Challenges encountered in previous programs can be shared and mitigated or avoided in future programs

Approach

- Domestic and international researchers, industry, regulators, and decommissioning companies' discuss benefits and challenges with ex-plant harvesting
 - Encourage sharing of lessons learned as well as areas of common interest
- Workshop consists of topical sessions with short presentations and significant time for open discussion
 - Goal is to maximize engagement among meeting participants
- Scope includes any materials aging issue that could benefit from harvesting, including metals, cables, and concrete

Expected Outcome

- Participants become better informed and aware of the benefits and challenges associated with ex-plant harvesting
- Discussions help identify areas of common interest for harvesting to address technical data needs
- Presentations and discussions provide the starting point for a “database” of harvested materials and future harvesting opportunities
- Contacts are made among research organizations to allow for further discussion of specific harvesting projects
- Workshop summary documenting discussion will be distributed among participants

Session Expectations

- Session 1 Motivation for Harvesting
 - Perspective from panel participants on their organizations' interest in and motivation for harvesting
 - Brief (5-10 minute) presentation from each panel member followed by general discussion
- Session 2 Technical Data Needs for Harvesting
 - Presenters share high-priority data needs that may be best addressed by harvesting
 - Where does harvesting hold particular value compared to other sources of technical data
 - 15-20 minute presentations followed by open discussion of technical data needs for harvesting

Session Expectations

- Session 3 Sources of Materials
 - Information on previously harvested materials and future harvesting opportunities
 - Materials located at research and vendor facilities
 - Decommissioning plants that may allow for future harvesting
 - Short 5-10 minute presentations followed by open discussion
 - Starting point for potential database of previously harvested materials and future harvesting opportunities
- Session 4 Harvesting Experience: Lessons Learned and Practical Aspects
 - Improving future efforts with lessons learned from past programs
 - Pitfalls to avoid and strategies to improve likelihood of success
 - Practical perspective from non-researchers on how harvesting interfaces with the decommissioning process
 - International decommissioning and harvesting experience
 - 20-30 minute presentations followed by open discussion

Session Expectations

- Session 5 Future Harvesting Program Planning
 - Technical and logistical information needed when planning a specific harvesting program
 - Perspective from panel participants on the workshop
 - Next steps and actions from workshop
 - Potential areas of common interest for future harvesting programs
 - Brief (5-10 minute) presentation from each panel member followed by general discussion

From: [Tregoning, Robert](mailto:Tregoning.Robert)
To: [坂本 一信](mailto:kazunobu_sakamoto@nsr.go.jp)
Cc: [Hiser, Matthew](mailto:Matthew.Hiser@nrc.gov); [Purtscher, Patrick](mailto:Patrick.Purtscher@nrc.gov); [田口 清貴](mailto:kiyotaka_taguchi@nsr.go.jp)
Subject: RE: RE: RE: Harvesting workshop
Date: Monday, February 6, 2017 7:33:38 AM

Kazu:

Thank you for giving me the final notice on your situation. I look forward to your meeting with CRIEPI. If they will agree to be a panelist for sessions 1 and 5, I think that would be fine...

Rob

Robert Tregoning
Technical Advisor for Materials
US Nuclear Regulatory Commission
Two White Flint North, M/S T-10 A36
11545 Rockville Pike
Rockville, MD 20852-2738
ph: 301-415-2324
fax: 301-415-6671

From: 坂本 一信 [mailto:kazunobu_sakamoto@nsr.go.jp]
Sent: Sunday, February 05, 2017 8:53 PM
To: Tregoning, Robert <Robert.Tregoning@nrc.gov>
Cc: Hiser, Matthew <Matthew.Hiser@nrc.gov>; Purtscher, Patrick <Patrick.Purtscher@nrc.gov>; 田口 清貴 <kiyotaka_taguchi@nsr.go.jp>
Subject: [External_Sender] RE: RE: Harvesting workshop

Rob,

Before we have a meeting with CRIEPI, I discussed your proposal with my boss last weekend. I am very sorry I must decline your kind offer to become a panelist this time as I mentioned last email. Again, please understand our circumstance. I will report the meeting result with CRIEPI to you.
Sincerely,
Kazu

From: Tregoning, Robert [<mailto:Robert.Tregoning@nrc.gov>]
Sent: Thursday, February 2, 2017 8:37 PM
To: 坂本 一信 <kazunobu_sakamoto@nsr.go.jp>
Cc: Hiser, Matthew <Matthew.Hiser@nrc.gov>; Purtscher, Patrick <Patrick.Purtscher@nrc.gov>; 田口 清貴 <kiyotaka_taguchi@nsr.go.jp>
Subject: RE: RE: Harvesting workshop

Kazu:

Thank you for your email and for explaining your situation. I understand your concerns about possibly appearing to be leading the discussion from the Japanese side. We are supportive of whatever decision you make on the matter. Your plan to discuss who should be on the panel with CIERPI is a good one and I'll await your word before we finalize the agenda.

Warm regards,

Rob

Robert Tregoning
Technical Advisor for Materials

US Nuclear Regulatory Commission
Two White Flint North, M/S T-10 A36
11545 Rockville Pike
Rockville, MD 20852-2738
ph: 301-415-2324
fax: 301-415-6671

From: 坂本 一信 [mailto:kazunobu_sakamoto@nsr.go.jp]

Sent: Wednesday, February 01, 2017 7:10 PM

To: Tregoning, Robert <Robert.Tregoning@nrc.gov>

Cc: Hiser, Matthew <Matthew.Hiser@nrc.gov>; Purtscher, Patrick <Patrick.Purtscher@nrc.gov>; 田口 清貴 <kiyotaka_taguchi@nsr.go.jp>

Subject: [External_Sender] RE: Harvesting workshop

Rob,

Let me discuss your request with my boss.

However, please understand that our boss requested me to participate the workshop not to lead the discussion but for the main purpose of obtaining information this time, because Japanese stakeholders may be nervous about what we are going to say.

To be honest, our political position is really complicated. To launch the research program in NRA using ex-plant material, cooperation not only by utilities but also local government and others is essential. And we just started negotiation with Japanese utilities a few weeks ago, and asked them to let us know what might be the obstacles to realize the program.

(Off course, I am not going to hesitate to participate in the discussion during the workshop!)

In addition, we will have a meeting with CRIEPI next Tuesday (Feb. 7th) to discuss the workshop.

I personally think that CRIEPI may be more appropriate to take on panelist since it have concrete research plans.

Under such circumstances, I would like to get back to you officially once the discussion with CRIEPI is finished.

Is it ok with you?

Best regards,

Kazu

From: Tregoning, Robert [<mailto:Robert.Tregoning@nrc.gov>]

Sent: Tuesday, January 31, 2017 8:55 PM

To: 坂本 一信 <kazunobu_sakamoto@nsr.go.jp>

Cc: Hiser, Matthew <Matthew.Hiser@nrc.gov>; Purtscher, Patrick <Patrick.Purtscher@nrc.gov>

Subject: RE: RE: Harvesting workshop

Kazu:

I am following up with both JAEA and CRIEPI on their participation in the workshop. I would still very much like JNRA to be a participant in sessions 1 and 5. As I mentioned below,

- Session 1 will consist of short presentations (a few slides) and a panel discussion on why you may be interested in harvesting; what you hope to get out of the workshop.
- Session 5 will consist of short presentations (a few slides) or summary statements that will attempt to summarize the workshop and planning a harvesting program, as well as discuss actions and next steps

The talk you gave in August at the NRC is perfect for Session 1. Session 5 is really meant to summarize the workshop from your perspective. You could put together a slide or two during the meeting or just make some remarks. I know that you are hesitant to be a participant because you haven't decided on your harvesting plans. This is perfectly fine; the U.S. NRC hasn't settled on any future harvesting plans either. I would, however, prefer to have JNRA be on the panel for these sessions instead of JAEA or CRIEPI. However,

during the open discussion, both JAEA and CRIEPI will still be able to participate.
Please let me know if you agree to be a panelist for these sessions.
Thank you for your consideration.

Warm regards,

Rob

Robert Tregoning

Technical Advisor for Materials

US Nuclear Regulatory Commission

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11545 Rockville Pike

Rockville, MD 20852-2738

ph: 301-415-2324

fax: 301-415-6671

From: 坂本 一信 [mailto:kazunobu_sakamoto@nsr.go.jp]

Sent: Thursday, January 12, 2017 7:12 PM

To: Tregoning, Robert <Robert.Tregoning@nrc.gov>

Cc: 田口 清貴 <kiyotaka_taguchi@nsr.go.jp>; 小山 正邦 <masakuni_koyama01@nsr.go.jp>; 小澤 正義 <masayoshi_ozawa@nsr.go.jp>

Subject: [External_Sender] RE: Harvesting workshop

Rob,

I hope you and your family members had a restful and wonderful holidays.

As for the workshop, the discussion between regulatory side and industries/METI(having similar function with DOE in the U.S.) has not started in Japan. So, our motivation may be different from the one of the industry side.

Under such circumstance, I will be able to touch on our interest/motivation for the harvesting as a really short presentation. However, our organization has not established concrete plans at all. So my presentation may be almost identical (within 10 minutes) to the one I did at bilateral meeting with you in last August.

Anyway, please understand that the objective of NRA's participation this time is not take initiative of the discussion as a panelist but correct international members' perspective on this matter.

Best,

Kazu

From: Tregoning, Robert [<mailto:Robert.Tregoning@nrc.gov>]

Sent: Friday, January 13, 2017 6:17 AM

To: 坂本 一信 <kazunobu_sakamoto@nsr.go.jp>

Subject: Harvesting workshop

Kazu:

I hope that the New Year is treating you and your family well. I just want to reach out to you again about the our harvesting workshop in early March. I know that you are working on CRIEPI and other organizations in Japan to discuss your participation in the workshop. I would be particularly interested if the Japanese perspective can be provided with a presentation in one or more of the following five workshop sessions: Session 1, 2, and/or 5. As mentioned in an earlier email, here's a summary of the approach and format for these sessions:

- Session 1 will consist of short presentations and a panel discussion on the motivation for harvesting.
- Session 2 will discuss data needs best met through harvesting.
- Session 5 will consist of short presentations that will attempt to summarize the workshop and planning a harvesting program, as well as discuss actions and

next steps

We plan on working closely with all presenters so that we all have similar ideas about the objectives of the workshop as a whole and then the objectives of each session. I'm hopeful that there will be Japanese representation within one or more of these sessions.

Please let me know if you have any questions about the workshop or the sessions that you would like more information on to help with your discussions among the various Japanese organizations.

Thank you for your help, and I wish you all the best,

Rob

Robert Tregoning

Technical Advisor for Materials

US Nuclear Regulatory Commission

Two White Flint North, M/S T-10 A36

11545 Rockville Pike

Rockville, MD 20852-2738

ph: 301-415-2324

fax: 301-415-6671

From: [Tregoning, Robert](#)
To: [Chaouadi Rachid](#)
Cc: [Hiser, Matthew](#); [Purtscher, Patrick](#)
Subject: RE: RE: RE: RE: RE: [External] FW: Harvesting Workshop Announcement
Date: Monday, February 6, 2017 8:27:16 AM

Rachid:

Thank you for your provisional title. We will include it in the agenda as part of Session 2. We're initially targeting presentations for this session between 15 – 20 minutes. I hope to have a preliminary agenda completed within the next two weeks which we will send to all participants so that you can use this for the final planning of your talk.

The workshop is planned for two full days and will end no later than 5:00 pm on the 8th. However, if we don't have as much discussion on certain sessions, it's possible that it might end early on the 8th. If you're heading back to Belgium/Europe, most direct flights from D.C. leave after 5:30 pm. You will need to leave the meeting probably at least 3 hours before your flight.

Let me know if I can be of further assistance for your planning.

Warm regards,

Rob

Robert Tregoning

Technical Advisor for Materials

US Nuclear Regulatory Commission

Two White Flint North, M/S T-10 A36

11545 Rockville Pike

Rockville, MD 20852-2738

ph: 301-415-2324

fax: 301-415-6671

From: Chaouadi Rachid [<mailto:rachid.chaouadi@sckcen.be>]

Sent: Monday, February 06, 2017 5:43 AM

To: Tregoning, Robert <Robert.Tregoning@nrc.gov>

Cc: Hiser, Matthew <Matthew.Hiser@nrc.gov>; Purtscher, Patrick <Patrick.Purtscher@nrc.gov>

Subject: [External_Sender] RE: RE: RE: RE: [External] FW: Harvesting Workshop Announcement

Hi Rob

Thanks for your wishes, my very best wishes for you and your family as well.

My presentation will be briefly reviewing the past activities (6 RPVs) followed by some ideas on possible future activities to fill gaps in particular in the LTO perspective. The contents of the talk can be adapted, depending on the available time slot. Ideally, 30 min would be very good but this will depend on the number of other presentations.

Provisional short title : **"Review of past RPV sampling test programs and perspective for long term operation"**.

I am arranging my travel and would like to know at what time the workshop will be ending to see whether I can catch a flight the same day right after the meeting or the day after.

Looking forward to see you

Rachid

From: Tregoning, Robert [<mailto:Robert.Tregoning@nrc.gov>]

Sent: donderdag 2 februari 2017 21:53

To: Chaouadi Rachid <rachid.chaouadi@sckcen.be>

Cc: Hiser, Matthew <Matthew.Hiser@nrc.gov>; Purtscher, Patrick <Patrick.Purtscher@nrc.gov>

Subject: RE: RE: RE: [External] FW: Harvesting Workshop Announcement

Rachid:

I hope you and your family are well and that the new year is off to a good start for you. We are in the process of finalizing the agenda and other details for the workshop. I've attached some slides that provide logistics information along with descriptions of the objectives and format for each of the workshop sessions. Please use this when developing your talk.

When last we communicated via email, you were proposing to review past programs with the main outcomes and proposing some topics for future investigation related to RPV issues. We think this topic fits best within session 2 which is intended to be a discussion of data needs best addressed by harvesting. I just want to confirm that these are the topics you will be addressing and ***ask you to provide a presentation title so that we can finalize the agenda.***

In keeping with the objectives for session 2, I would just ask that you emphasize current and future data needs using the review of past programs as the basis for the current needs that you've identified.

I'm really looking forward to your talk and your participation in the workshop as we discuss more informed practices for conducting harvesting programs in the future.

All the best,

Rob

Robert Tregoning

Technical Advisor for Materials

US Nuclear Regulatory Commission

Two White Flint North, M/S T-10 A36

11545 Rockville Pike

Rockville, MD 20852-2738

ph: 301-415-2324

fax: 301-415-6671

From: Chaouadi Rachid [<mailto:rachid.chaouadi@sckcen.be>]

Sent: Monday, January 09, 2017 3:18 AM

To: Tregoning, Robert <Robert.Tregoning@nrc.gov>

Cc: van Walle Eric <eric.van.walle@sckcen.be>; Purtscher, Patrick

<Patrick.Purtscher@nrc.gov>; Rosseel, Thomas M. <rosseeltm@ornl.gov>; Hiser, Matthew <Matthew.Hiser@nrc.gov>

Subject: [External_Sender] RE: RE: RE: [External] FW: Harvesting Workshop Announcement

Thank you very much Rob, my best wishes to all of you and your families.

Thanks for your clarification. Yes sure, we can combine the past work with some insight on future investigations in one single talk.

Best regards

Rachid

From: Tregoning, Robert [<mailto:Robert.Tregoning@nrc.gov>]

Sent: dinsdag 3 januari 2017 13:02

To: Chaouadi Rachid

Cc: van Walle Eric; Purtscher, Patrick; Rosseel, Thomas M.; Hiser, Matthew

Subject: RE: RE: RE: [External] FW: Harvesting Workshop Announcement
Rachid:

I'm hoping that you have had a good start to the New Year. Thank you for your reply and your offer to provide two presentations to the workshop. I want to first clarify the intent of Session IV to our upcoming workshop. Session IV is not intended to be a retrospective session summarizing what harvesting programs have been conducted in the past. It's intended to be a session to discuss the practical aspects of harvesting (i.e., the mechanics and challenges of obtaining and testing materials or components from nuclear plants) and the related knowledge that has been gained that can be used to guide any future such efforts (e.g., it's important to obtain material pedigree information during the initial phases of the project and ideally before the plant transitions to active decommissioning). This is why it is not the first session in the workshop. Therefore, your proposed talk summarizing the work that has been done on RPV materials (while certainly very important and interesting) may not fit perfectly within this session unless it focused on the practical aspects of these past programs. Your proposed talk on topics that require attention for future investigations certainly could fit well in either Session 1 or Session 2. Maybe we can figure out a way to combine both talks as part of either Session 1 or Session 2. Your thoughts?

We're just now starting to plan the individual talks for the sessions. I'm hoping that the list of talks will be finalized by the end of January, if not sooner. We'll continue to be in contact with you as the planning evolves.

Warm regards,

Rob

From: Chaouadi Rachid [<mailto:rachid.chaouadi@sckcen.be>]

Sent: Thursday, December 29, 2016 7:49 AM

To: Tregoning, Robert <Robert.Tregoning@nrc.gov>

Cc: van Walle Eric <eric.van.walle@sckcen.be>; Purtscher, Patrick <Patrick.Purtscher@nrc.gov>; Rosseel, Thomas M. <rosseeltm@ornl.gov>; Hiser, Matthew <Matthew.Hiser@nrc.gov>

Subject: [External_Sender] RE: RE: [External] FW: Harvesting Workshop Announcement

Thank you Rob, my best wishes to you and your family.

We started discussing with the Belgian safety authorities (FANC/AFCN) and we agreed to first document what was done on the subject. To our knowledge, very limited efforts were spent on tests and evaluation of materials from decommissioned vessels. A review paper is in preparation (will be ready in Jan-Feb 2017) on the 5 or 6 reactor vessels that were used for post-mortem tests. Then, it will be interesting to list in a first phase all what could possibly be done in the future followed in a second phase by a priority ranking of the various topics. We have already some ideas on what should be done that could be presented and discussed at the meeting.

So, we can propose two talks, one reviewing the past programs with the main outcomes (session 4) and a second one proposing some topics that require attention for future investigations (session 1).

For the sessions order, maybe it is preferable to put Session 4 on lessons from past harvesting programs as a starting session then go through the other sessions because then we know where we are (starting point). The other following sessions will deal with the motivations for harvesting, what are the needs, what are the materials available, and how the work can be shared and discuss the actions and next steps.

Enjoy the last remaining days of 2016 and have a very good new year.

Best regards

Rachid

From: Tregoning, Robert [Robert.Tregoning@nrc.gov]
Sent: Tuesday, December 20, 2016 4:05 PM
To: Chaouadi Rachid; Hiser, Matthew
Cc: van Walle Eric; Purtscher, Patrick; Rosseel, Thomas M.
Subject: RE: RE: [External] FW: Harvesting Workshop Announcement

Dear Rachid:

Thank you so much for your email last week and your inquiry about the harvesting workshop. I apologize for not responding to you sooner, but last week was very busy for me. Unfortunately, the dates have been set for March 7 and 8th, 2016 and we can't change them at this point, but hopefully this doesn't preclude participation. I've attached a workshop announcement as well as a condensed workshop agenda for your information. You can see that we are planning five unique sessions as part of the workshop. Each session has a specific theme, or objective, as outlined below (and in the attached agenda).

1. Session 1 will consist of short presentations and a panel discussion on the motivation for harvesting.
2. Session 2 will discuss data needs best met through harvesting.
3. Session 3 will discuss sources of materials for harvesting programs
4. Session 4 will discuss lessons-learned from past harvesting programs and practical aspects associated with harvesting.
5. Session 5 will attempt to summarize the workshop and planning a harvesting program, as well as discuss actions and next steps

We are interested in having a talk or two to summarize past harvesting efforts and your proposed talk is consistent with this. However my only concern is that a talk just focused on past RPV efforts is narrower than we were initially planning for.

Do you think this talk could be part of a broader talk on past harvesting programs?

Or, now that you have a bit more information on the workshop sessions and what we hope to achieve with each session, do you think that a slightly different presentation topic would fit within one of the sessions above?

Thank you again for your interest. I'm looking forward to working with you on the workshop. I'm hoping that the workshop will be successful for all participants. I hope you and your family have a Happy Holidays and a prosperous New Year as well.

Regards,
Rob

Robert Tregoning
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ph: 301-415-2324
fax: 301-415-6671

From: Chaouadi Rachid [<mailto:rachid.chaouadi@sckcen.be>]
Sent: Wednesday, December 14, 2016 4:36 AM

To: Tregoning, Robert <Robert.Tregoning@nrc.gov>; Hiser, Matthew <Matthew.Hiser@nrc.gov>

Cc: van Walle Eric <eric.van.walle@sckcen.be>

Subject: [External_Sender] RE: [External] FW: Harvesting Workshop Announcement

Dear Bob, dear Matt

As you probably know, SCK•CEN is willing to attend the harvesting workshop USNRC is preparing and that would take place in the US in March 2017. If the workshop can be scheduled week 13 (27 to 31 March), that would be great because Eric and myself will be in the US. If case another date is selected, I will be able to attend but not Eric (other commitments). We are preparing a presentation that overviews what was already done worldwide in the field of post-mortem tests on decommissioned vessel materials. Please let us know as soon as possible the final planning that we can start with the necessary arrangements.

Looking forward to see you and discuss future actions for a fruitful international collaboration.

Best regards

Rachid

From: Rosseel, Thomas M. [<mailto:rosseeltm@ornl.gov>]

Sent: dinsdag 13 december 2016 23:23

To: Naoki Soneda; van Walle Eric; Chaouadi Rachid

Cc: Jan.BENS@FANC.FGOV.BE; Sokolov, Mikhail A.; Leonard, Keith J.

Subject: FW: [External] FW: Harvesting Workshop Announcement

Importance: High

Dear Naoki, Eric and Rachid,

As noted below, Rob Tregoning has requested that you contact him (Robert.Tregoning@nrc.gov) and Matt Hiser (Matthew.Hiser@nrc.gov) directly concerning the latest workshop planning information and possible speaking opportunities.

Kind regards and best wishes for happy holidays,

Tom

Thomas M. Rosseel, Ph. D.

Past Chair, International Committee on Irradiated Concrete and

Materials Aging and Degradation, Deputy Pathway Lead

Light Water Reactor Sustainability Program

Materials, Science and Technology Division

Oak Ridge National Laboratory

4500S MS 6132

PO Box 2008

Oak Ridge, TN 37831

TEL: 1-865-574-5380

rosseeltm@ornl.gov

From: "Tregoning, Robert" <Robert.Tregoning@nrc.gov>

Date: Tuesday, December 13, 2016 at 1:24 PM

To: "T. M. Rosseel" <rosseeltm@ornl.gov>, "Hiser, Matthew"

<Matthew.Hiser@nrc.gov>

Cc: Mikhail Sokolov <sokolovm@ornl.gov>, "Leonard, Keith J."

<leonardk@ornl.gov>, Kathryn Mccarthy <kathryn.mccarthy@inl.gov>,

Richard Reister <Richard.Reister@nuclear.energy.gov>

Subject: RE: FW: [External] FW: Harvesting Workshop Announcement

Tom:

Thanks for the email letting us know about the inquiries you've received. We actually want foreign participation.

Could you put Eric and Naoki in touch with me or Matt? We'll then share the latest workshop planning information with them and see if there's a good fit for them to come and speak or possibly attend.

We've been working with Rich and Sherry from EPRI to develop a preliminary agenda, which we're hoping will be mature enough to share with you shortly so that you can start planning as well. Let me know if you have any other questions.

Regards,

Rob

Robert Tregoning

Technical Advisor for Materials

US Nuclear Regulatory Commission

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Rockville, MD 20852-2738

ph: 301-415-2324

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From: [Alpan, F. Arzu](#)
To: [Tregoning, Robert](#)
Cc: [Semmler, Michael G.](#); [Hiser, Matthew](#); [Purtscher, Patrick](#)
Subject: [External_Sender] RE: Harvesting Workshop
Date: Monday, February 6, 2017 4:48:41 PM
Attachments: [Workshop Agenda 12-12-16.docx](#)
[Harvesting Workshop Announcement.docx](#)

Dear Rob,

Thank you for the information you provided to me on the harvesting workshop that will be held at the NRC Headquarters next month.

I would like to attend this workshop, and, if possible, give a short talk. Westinghouse is in the preliminary stages of communicating with Kansai in investigating the possibility of harvesting concrete from Mihama Unit 1 to analyze the irradiation effects on concrete. This topic (irradiation effects on concrete) has been an interest to various organizations particularly for long-term operation of nuclear power plants. The talk would be mainly to inform the attendees why we are interested in this work and why we are interested in the Mihama Unit 1 concrete.

Is there an attendance fee for the workshop? I would appreciate it if you could provide me any further information related to the workshop (I have the attached documents) and the possibility for my attendance and a short talk.

Best regards,

Arzu

Arzu Alpan, Ph.D.

Principal Engineer

Nuclear Operations & Radiation Analysis Group

Primary Systems Design and Repair

[Products and Services](#)

Westinghouse Electric Company

1000 Westinghouse Drive

Suite 332

Cranberry Township, PA 16066, U.S.A.

Phone: +1 (412) 374-4735

Fax: +1 (724) 940-8565

Email: alpanfa@westinghouse.com

Home Page: www.westinghousenuclear.com

From: Tregoning, Robert [mailto:Robert.Tregoning@nrc.gov]

Sent: Tuesday, January 17, 2017 7:37 AM

To: Alpan, F. Arzu

Cc: Semmler, Michael G.; Hiser, Matthew; Purtscher, Patrick

Subject: RE: Harvesting Workshop

Arzu:

Thank you for contacting me about the workshop. The invitation is not open to the public and we are soliciting/inviting both talks and participants so that the workshop stays relatively small and focused. Having said this, it's fine to send the announcement and agenda to Kansai. Please also be aware that we are already in contact with both JNRA (Kazu Sakamoto) and CRIEPI (Naoki Soneda) to coordinate Japanese participation. It would therefore be good for Kansai to coordinate with them if they are interested in attending or participating in the workshop. Kansai should also contact me as well if they are interested in participating or attending.

Thanks for your interest. Please let me know if you have any other questions about the workshop.

Regards,

Rob

Robert Tregoning

Technical Advisor for Materials

US Nuclear Regulatory Commission

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Rockville, MD 20852-2738

ph: 301-415-2324

fax: 301-415-6671

From: Alpan, F. Arzu [<mailto:alpanfa@westinghouse.com>]

Sent: Friday, January 13, 2017 5:44 PM

To: Tregoning, Robert <Robert.Tregoning@nrc.gov>

Cc: Semmler, Michael G. <semmleng@westinghouse.com>

Subject: [External_Sender] Harvesting Workshop

Dear Robert,

Sherry Bernhoft has informed Westinghouse about the harvesting workshop that will be held at the NRC Headquarters in Rockville, MD on March 7-8, 2017. If this is a workshop that is open to the public, I would like to send the announcement and agenda, which are attached to this email, to our colleagues at Kansai Electric Power Company. I would appreciate it if you could let me know if I may forward the attached information to Kansai.

Best regards,

Arzu

Arzu Alpan, Ph.D.

Principal Engineer

Nuclear Operations & Radiation Analysis Group

Primary Systems Design and Repair

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Draft Agenda – March 7-8, 2017 Harvesting Workshop

Tuesday, March 7, 2017

Introduction

- Overview of workshop purpose and objectives 8:00 – 8:15
 - NRC

Session 1: Motivation for Harvesting 8:15 – 9:45

- Why our organization is interested in harvesting (short, 5-10 min presentations)
 - EPRI
 - DOE
 - NRC
 - MAI or JRC
 - JNRA
- PANEL DISCUSSION with prepared questions

BREAK 9:45 - 10:00

Session 2: Technical data needs best addressed by harvesting 10:00 – 12:00

- Overview of data needs best addressed by harvesting
 - NRC/PNNL
- Perspective on detailed data needs from harvesting
 - DOE
 - EPRI
 - MAI or JRC

LUNCH 12:00 – 1:00

- Perspective on harvesting data needs 1:00 – 2:15
 - JNRA
- DISCUSSION

BREAK 2:15 – 2:30

Session 3: Sources of Materials 2:30 – 5:30

- Available materials from decommissioning plants and past harvesting programs
 - NRC
- Available materials from operating reactors and past harvesting programs
 - EPRI
- Available materials at DOE labs from past harvesting programs
 - DOE (ORNL?)
- International sources of materials
 - IAEA?
- DISCUSSION

Wednesday, March 8, 2017

Session 4: Harvesting Experience: Lessons learned and practical aspects 8:00 – 12:00

- Perspective on Harvesting Lessons Learned / Prior Experience
 - EPRI
 - DOE
 - NRC
- Decommissioning process vs. harvesting: schedule, site-specific, timing for different components
 - US decommissioning company (Energy Solutions)
- Decommissioning and harvesting plans and experience
 - International decommissioning company (Germany?)
- Owner perspective on harvesting and decommissioning
 - US utility (Dominion/Kewaunee, other?)
- DISCUSSION

LUNCH 12:00 – 1:00

Session 5: Future Harvesting Program Planning 1:00 – 4:00

- Technical information needed for informed harvesting decisions
 - NRC/PNNL
- DISCUSSION of Next Steps / Actions
- Perspective on future harvesting planning
 - EPRI
 - NRC
 - DOE
 - MAI or JRC
 - JNRA
- PANEL DISCUSSION with prepared questions

Ex-Plant Materials Harvesting Workshop

Location: NRC Headquarters in Rockville, MD, USA

Dates: March 7-8, 2017

Motivation:

- There are increasing opportunities to harvest the safety-critical components from decommissioning plants, both domestic and international.
- The harvested materials are valuable because they have been exposed to actual in-service plant operating conditions (temperature, irradiation, coolant, etc.), unlike virgin materials tested under simulated conditions in the lab.
- Data from ex-plant materials should help address technical gaps identified for extended operation of nuclear power plants due to highly relevant aging conditions.

Purpose and Objective:

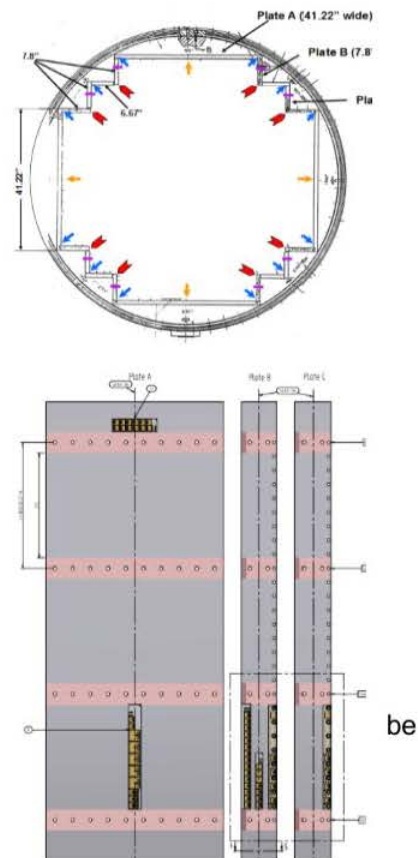
- For NRC staff and interested stakeholders to have greater awareness and knowledge of the benefits and challenges associated with ex-plant harvesting.
- Facilitate contacts and communication to enable specific cooperative ex-plant harvesting programs to be initiated.

Workshop Topics:

- Harvesting decision-making and prioritization
 - Technical data needs best addressed by harvesting
 - Technical information needed in advance of harvesting
- Sources of materials:
 - Decommissioning reactors
 - Operating reactors – replaced components
 - Previous harvesting programs – “boneyards”
 - Tracking available materials
- Harvesting process
 - Lessons learned from harvesting experience
 - Perspective of utility-owner and decommissioning contractor on harvesting
 - Communication and coordination between decommissioning and researchers
- International collaborative programs on specific components at specific plants

Workshop will consist of solicited presentations followed by discussion periods. If interested in attending or learning more about the workshop, please reach out to the contacts below.

Contacts: Robert Tregoning, Robert.Tregoning@nrc.gov
Matthew Hiser, Matthew.Hiser@nrc.gov
Patrick Purtscher, Patrick.Purtscher@nrc.gov



From: [William F Zipp \(Generation - 4\)](#)
To: [Hiser, Matthew](#)
Subject: [External_Sender] RE: [External_Sender] workshop
Date: Tuesday, February 7, 2017 11:08:54 AM

Ok thanks for the info.

From: Hiser, Matthew [mailto:Matthew.Hiser@nrc.gov]
Sent: Tuesday, February 07, 2017 10:08 AM
To: William F Zipp (Generation - 4)
Subject: [External] Re: [External_Sender] workshop
Hi Bill,

We have it scheduled to go until 4:00 the second day, but it could end early. Your speaking session is scheduled for Wednesday morning and the afternoon session is to discuss future harvesting program planning. We'd be happy to have your involvement in that session but you could probably duck out early and catch a flight if you'd like.

Thanks!

Matt

----- Original Message -----

From: "William F Zipp (Generation - 4)" <william.f.zipp@dom.com>
Date: Tue, February 07, 2017 2:17 PM +0100
To: "Hiser, Matthew" <Matthew.Hiser@nrc.gov>
Subject: [External_Sender] workshop

Matt,

What time do you think the workshop will end the second day? I need to know for travel planning purposes, i.e. it will determine whether I fly back here Wednesday or Thursday.

Thanks,

Bill

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From: [Tregoning, Robert](#)
To: [NHILI Regis](#)
Cc: [Hiser, Matthew](#); [Purtscher, Patrick](#); [SZWEDEK Olivier](#); [LECLERCQ Sylvain](#); [SOULACROIX Julian](#)
Subject: RE: RE: RE: RE: Harvesting Workshop
Date: Tuesday, February 7, 2017 1:03:07 PM
Attachments: [Ex-Plant Materials Harvesting Workshop.pptx](#)
[image002.png](#)
[image003.jpg](#)

Note to requester: The attachment is immediately following.

Regis:

Attached are the slides I mentioned to Julian. The slides contain more information on the workshop logistics, overall objectives, and the objectives of each session. I'm certainly available for a call on the 9th. I have another call at 3pm (Paris time), but other than that I'm free. Just let me know what time is most convenient for you.

Warm regards,

Rob

Robert Tregoning

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US Nuclear Regulatory Commission

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From: NHILI Regis [<mailto:regis.nhili@edf.fr>]

Sent: Tuesday, February 07, 2017 11:26 AM

To: Tregoning, Robert <Robert.Tregoning@nrc.gov>

Cc: Hiser, Matthew <Matthew.Hiser@nrc.gov>; Purtscher, Patrick <Patrick.Purtscher@nrc.gov>;

SZWEDEK Olivier <olivier.szwedek@edf.fr>; LECLERCQ Sylvain <sylvain.leclercq@edf.fr>;

SOULACROIX Julian <julian.soulacroix@edf.fr>

Subject: [External_Sender] RE: RE: RE: Harvesting Workshop

Dear Rob,

I might be interested to participate to this workshop to present briefly the MAI R&D activities and the use of data from harvested components (BMN, Cables, SG).

Are you available for a quick call tomorrow (8th) after 5pm Paris Time (i.e. 11am Washington Time)

or anytime Thursday 9th afternoon Paris Time?

In the meantime, do you have more information about the content of the workshop? (you mentioned some slides to Julian).

Kind regards,

Regis



Regis NHILI

MAI Director

EDF – R&D

Materials Ageing Institute (MAI)

EDF LAB Les Renardières - ECUELLES

77818 Moret-sur-Loing Cedex

regis.nhili@edf.fr

Landline : +33 (0) 1 60 73 68 47

Mobile : (b)(6)

De : Robert.Tregoning@nrc.gov [<mailto:Robert.Tregoning@nrc.gov>]

Envoyé : lundi 6 février 2017 19:33

À : SOULACROIX Julian

Cc : Matthew.Hiser@nrc.gov; Patrick.Purtscher@nrc.gov; SZWEDEK Olivier; LECLERCQ Sylvain; NHILI Regis

Objet : RE: RE: RE: Harvesting Workshop

Dear Dr. Soulacroix:

Thank you for clarifying your situation. While I am sorry that you have decided not to participate in the workshop, I recognize that the workshop objectives which focus on future harvesting needs and implementing a more efficient harvesting program are somewhat specialized. For your information, both Oak Ridge National Laboratory and Pacific Northwest National Laboratory will be participating so we will have U.S. laboratory involvement.

I will keep you on the mailing list for the final agenda that will list speakers and talks. This will be developed within the next week or so. Perhaps there is still time to find someone from MAI or EDF who may be interested in participating in the workshop. Please let me know if you have any ideas for a representative that I can contact within the next several days.

Thank you for your help and support.

All the best,

Rob

Robert Tregoning

Technical Advisor for Materials

US Nuclear Regulatory Commission

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Rockville, MD 20852-2738

ph: 301-415-2324

fax: 301-415-6671

From: SOULACROIX Julian [<mailto:julian.soulacroix@edf.fr>]

Sent: Monday, February 06, 2017 11:41 AM

To: Tregoning, Robert <Robert.Tregoning@nrc.gov>

Cc: Hiser, Matthew <Matthew.Hiser@nrc.gov>; Purtscher, Patrick <Patrick.Purtscher@nrc.gov>; SZWEDEK Olivier <olivier.szwedek@edf.fr>; LECLERCQ Sylvain <sylvain.leclercq@edf.fr>; NHILI Regis <regis.nhili@edf.fr>

Subject: [External_Sender] RE: RE: Harvesting Workshop

Dear M. Tregoning,

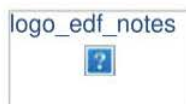
I am sorry to see that there was a misunderstanding on the content of this workshop.

Although this workshop is definitely very interesting for the different harvesting issues, it does not seem appropriate to a laboratory contribution.

Therefore I have to cancel my participation to this workshop. I apologize for the inconvenience.

We have already notified Regis Nhili, and I am sure he will come back to you if a EDF participation is still possible.

Warm regards,



Julian SOULACROIX

CEIDRE – DLAB – MEM

Tél. : 02.47.98.67.14

Tél portable : (b)(6)

De : Robert.Tregoning@nrc.gov [<mailto:Robert.Tregoning@nrc.gov>]

Envoyé : jeudi 2 février 2017 22:16

À : SOULACROIX Julian

Cc : Matthew.Hiser@nrc.gov; Patrick.Purtscher@nrc.gov

Objet : RE: RE: Harvesting Workshop

Dear M. Soulacroix:

Thank you for replying to my email. I've attached some slides that provide logistical information along with descriptions of the objectives and format for each of the workshop sessions. Please use these slides as guidance when developing your talk. As you can see by the slides and the other information I've communicated, the principal objective of the workshop is to develop a more effective, better informed process for conducting harvesting programs with not a large focus on what technical information has been obtained from harvesting programs. I think that the topics you proposed below can meet this objective but please let me suggest the following ways to focus the topics you proposed below to align with the workshop objectives.

1. Your topic of "...the contributions of a few studies that we recently carried out on harvested materials to the EDF" could fit really well within Session 4 if it focuses more on the harvesting process used in these studies and the lessons that could be applied for future harvesting programs. While the technical knowledge gained from the program is certainly interesting, it is not the focus of this particular workshop.
2. Your plans for the decommissioned steam generator project could fit well within session 2 if it focuses on the important data/technical needs that will be achieved as part of that program.
3. The description of the new EDF hot laboratory will certainly be interesting to many of the workshop attendees but discussing capabilities at laboratory facilities is not an objective of this particular workshop. I'm wondering if you have a brochure or other literature that could be handed out. Also, this could be part of your presentation. We wouldn't spend time during the meeting discussing it, but all the participants could take this home electronically.

In summary, I'm proposing that you give two separate, shorter talks (instead of a single longer talk): your talk on recent studies (item 1 above) would be in Session 4 and your talk on plans for the decommissioned steam generator project (item 2 above) would be in Session 2.

What are your thoughts about this proposal? Are the workshop objectives, scope, and format clear to you, especially after reviewing the attached slides? Please let me know if you would like to have a phone call to discuss further.

I'm very excited about MAI's participation in the workshop and I'm hoping that it will be a productive two-days for everyone. I'm especially looking forward to meeting you. You will need to bring your passport. I'll be in touch as the meeting gets closer with additional details.

Warm regards,

Rob

Robert Tregoning

Technical Advisor for Materials

US Nuclear Regulatory Commission

Two White Flint North, M/S T-10 A36

11545 Rockville Pike

Rockville, MD 20852-2738

ph: 301-415-2324

fax: 301-415-6671

From: SOULACROIX Julian [<mailto:julian.soulacroix@edf.fr>]

Sent: Thursday, February 02, 2017 11:25 AM

To: Tregoning, Robert <Robert.Tregoning@nrc.gov>

Cc: Hiser, Matthew <Matthew.Hiser@nrc.gov>; Purtscher, Patrick <Patrick.Purtscher@nrc.gov>

Subject: [External_Sender] RE: Harvesting Workshop

Dear M. Tregoning,

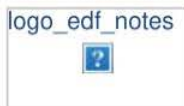
I can confirm that I will be able to participate to the workshop.

I can propose a 30 minutes presentation describing the new EDF hot laboratory, the contribution of a few studies that we recently carried out on harvested material to the EDF strategy, and lastly the Sherlock project (examination program planned on a decommissioned Steam Generator).

Does it sound appropriate to you ?

Furthermore, do you need any complementary information for accessing NRC site (passport...) ?

With kind regards



Julian SOULACROIX

CEIDRE – DLAB – MEM

Tél. : 02.47.98.67.14

Tél portable : [REDACTED] (b)(6)

De : Robert.Tregoning@nrc.gov [<mailto:Robert.Tregoning@nrc.gov>]

Envoyé : mardi 31 janvier 2017 12:38

À : SOULACROIX Julian

Cc : Matthew.Hiser@nrc.gov; Patrick.Purtscher@nrc.gov

Objet : Harvesting Workshop

Dr. Soulacroix:

Thank you for your interest and willingness to participate in the workshop. I have attached the workshop announcement along with a few slides describing the motivation for the workshop and the expectations for each session. The workshop is divided into 5 sessions, each with a combination of presentations and discussion:

1. Session 1 will consist of short presentations and a panel discussion on the motivation for harvesting.
2. Session 2 will discuss data needs best met through harvesting.
3. Session 3 will discuss sources of materials for harvesting programs
4. Session 4 will discuss lessons-learned from past harvesting programs and practical aspects associated with harvesting.
5. Session 5 will attempt to summarize the workshop and planning a harvesting program, as well as discuss actions and next steps

We would like to invite you to present in any of these sessions. We are most interested in MAI participation in sessions 1, 3, and 5 but we would also welcome participation in sessions 2 and 4. For sessions 1, 3, and 5, we are looking for brief 5-10 minute presentations, so just a few slides at most on motivation for harvesting, sources of materials, and any future harvesting plans. For sessions 2 and 4, the presentations are anticipated to be longer, perhaps 20-30 minutes, covering lessons learned from previous harvesting experience (session 4) and data needs best addressed through harvesting (session 2).

Please let me know if you would be able to participate and which sessions you would be willing to support. We will look forward to your participation and contribution to the workshop!

Rob

Robert Tregoning

Technical Advisor for Materials
US Nuclear Regulatory Commission
Two White Flint North, M/S T-10 A36
11545 Rockville Pike
Rockville, MD 20852-2738
ph: 301-415-2324
fax: 301-415-6671

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E-mail communication cannot be guaranteed to be timely secure, error or virus-free.

Ex-Plant Materials Harvesting Workshop

March 7-8, 2017

USNRC HQ

Rockville, MD, USA

Meeting Logistics

- Workshop will be held at NRC's Three White Flint North building
 - Directly adjacent to the White Flint Metro station
 - Nearest hotel within walking distance: Bethesda North Marriott Hotel & Conference Center
- Workshop is a non-public meeting to encourage open discussion
 - Presentations and meeting summary will be distributed among meeting participants only
- GoToMeeting webinar will be available to support additional attendees
 - Webinar attendees will be primarily observers
 - Limited opportunities for webinar attendee participation in discussion if time allows
 - Discussion will be recorded through GoToMeeting software to aid capturing discussion in meeting summary

Motivation

- With plants shutting down both in the U.S. and internationally, there are increasing opportunities to harvest components from decommissioning plants
 - Past harvesting efforts generally more reactive as opportunities arose, rather than proactively planned
- Ex-plant materials may be valuable because they have been exposed to actual in-service plant operating conditions
 - Can reduce the uncertainty associated with the applicability of the aging conditions
- Insights from research on harvested materials can address technical data needs identified for extended plant operation
- Lessons learned from past harvesting programs can help improve future harvesting efforts
 - Challenges encountered in previous programs can be shared and mitigated or avoided in future programs

Approach

- Domestic and international researchers, industry, regulators, and decommissioning companies' discuss benefits and challenges with ex-plant harvesting
 - Encourage sharing of lessons learned as well as areas of common interest
- Workshop consists of topical sessions with short presentations and significant time for open discussion
 - Goal is to maximize engagement among meeting participants
- Scope includes any materials aging issue that could benefit from harvesting, including metals, cables, and concrete

Expected Outcome

- Participants become better informed and aware of the benefits and challenges associated with ex-plant harvesting
- Discussions help identify areas of common interest for harvesting to address technical data needs
- Presentations and discussions provide the starting point for a “database” of harvested materials and future harvesting opportunities
- Contacts are made among research organizations to allow for further discussion of specific harvesting projects
- Workshop summary documenting discussion will be distributed among participants

Session Expectations

- Session 1 Motivation for Harvesting
 - Perspective from panel participants on their organizations' interest in and motivation for harvesting
 - Brief (5-10 minute) presentation from each panel member followed by general discussion
- Session 2 Technical Data Needs for Harvesting
 - Presenters share high-priority data needs that may be best addressed by harvesting
 - Where does harvesting hold particular value compared to other sources of technical data
 - 15-20 minute presentations followed by open discussion of technical data needs for harvesting

Session Expectations

- Session 3 Sources of Materials
 - Information on previously harvested materials and future harvesting opportunities
 - Materials located at research and vendor facilities
 - Decommissioning plants that may allow for future harvesting
 - Short 5-10 minute presentations followed by open discussion
 - Starting point for potential database of previously harvested materials and future harvesting opportunities
- Session 4 Harvesting Experience: Lessons Learned and Practical Aspects
 - Improving future efforts with lessons learned from past programs
 - Pitfalls to avoid and strategies to improve likelihood of success
 - Practical perspective from non-researchers on how harvesting interfaces with the decommissioning process
 - International decommissioning and harvesting experience
 - 20-30 minute presentations followed by open discussion

Session Expectations

- Session 5 Future Harvesting Program Planning
 - Technical and logistical information needed when planning a specific harvesting program
 - Perspective from panel participants on the workshop
 - Next steps and actions from workshop
 - Potential areas of common interest for future harvesting programs
 - Brief (5-10 minute) presentation from each panel member followed by general discussion

From: [Tregoning, Robert](#)
To: [坂本 一信](#)
Cc: [Hiser, Matthew](#); [Purtscher, Patrick](#); [田口 清貴](#)
Subject: RE: RE: Harvesting workshop
Date: Tuesday, February 7, 2017 6:56:32 AM
Attachments: [Ex-Plant Materials Harvesting Workshop.pptx](#)

Note to requester: The attachment is immediately following.

Kazu:

Workshop is at NRC. I've attached a presentation that has some logistical information. Please let me know if you have any other questions.

Regards,

Rob

Robert Tregoning

Technical Advisor for Materials

US Nuclear Regulatory Commission

Two White Flint North, M/S T-10 A36

11545 Rockville Pike

Rockville, MD 20852-2738

ph: 301-415-2324

fax: 301-415-6671

From: 坂本 一信 [mailto:kazunobu_sakamoto@nsr.go.jp]

Sent: Monday, February 06, 2017 7:57 PM

To: Tregoning, Robert <Robert.Tregoning@nrc.gov>

Cc: Hiser, Matthew <Matthew.Hiser@nrc.gov>; Purtscher, Patrick <Patrick.Purtscher@nrc.gov>; 田口 清貴 <kiyotaka_taguchi@nsr.go.jp>

Subject: [External_Sender] RE: Harvesting workshop

Rob,

Thanks for your prompt reply.

Needless to say, I will be able to join the discussion as a participant to the workshop.

To book the hotel and to proceed internal process, please let me know the detail of the workshop once you fix them.

(Is the location of the workshop around White Flint?)

Best,

Kazu

From: Tregoning, Robert [mailto:Robert.Tregoning@nrc.gov]

Sent: Monday, February 6, 2017 9:34 PM

To: 坂本 一信 <kazunobu_sakamoto@nsr.go.jp>

Cc: Hiser, Matthew <Matthew.Hiser@nrc.gov>; Purtscher, Patrick <Patrick.Purtscher@nrc.gov>; 田口 清貴 <kiyotaka_taguchi@nsr.go.jp>

Subject: RE: RE: RE: Harvesting workshop

Kazu:

Thank you for giving me the final notice on your situation. I look forward to your meeting with CRIEPI. If they will agree to be a panelist for sessions 1 and 5, I think that would be fine...

Rob

Robert Tregoning

Technical Advisor for Materials

US Nuclear Regulatory Commission

Two White Flint North, M/S T-10 A36

11545 Rockville Pike
Rockville, MD 20852-2738
ph: 301-415-2324
fax: 301-415-6671

From: 坂本 一信 [mailto:kazunobu_sakamoto@nsr.go.jp]

Sent: Sunday, February 05, 2017 8:53 PM

To: Tregoning, Robert <Robert.Tregoning@nrc.gov>

Cc: Hiser, Matthew <Matthew.Hiser@nrc.gov>; Purtscher, Patrick <Patrick.Purtscher@nrc.gov>; 田口 清貴 <kiyotaka_taguchi@nsr.go.jp>

Subject: [External_Sender] RE: RE: Harvesting workshop

Rob,

Before we have a meeting with CRIEPI, I discussed your proposal with my boss last weekend.

I am very sorry I must decline your kind offer to become a panelist this time as I mentioned last email.

Again, please understand our circumstance.

I will report the meeting result with CRIEPI to you.

Sincerely,

Kazu

From: Tregoning, Robert [<mailto:Robert.Tregoning@nrc.gov>]

Sent: Thursday, February 2, 2017 8:37 PM

To: 坂本 一信 <kazunobu_sakamoto@nsr.go.jp>

Cc: Hiser, Matthew <Matthew.Hiser@nrc.gov>; Purtscher, Patrick <Patrick.Purtscher@nrc.gov>; 田口 清貴 <kiyotaka_taguchi@nsr.go.jp>

Subject: RE: RE: Harvesting workshop

Kazu:

Thank you for your email and for explaining your situation. I understand your concerns about possibly appearing to be leading the discussion from the Japanese side. We are supportive of whatever decision you make on the matter. Your plan to discuss who should be on the panel with CIERPI is a good one and I'll await your word before we finalize the agenda.

Warm regards,

Rob

Robert Tregoning

Technical Advisor for Materials

US Nuclear Regulatory Commission

Two White Flint North, M/S T-10 A36

11545 Rockville Pike

Rockville, MD 20852-2738

ph: 301-415-2324

fax: 301-415-6671

From: 坂本 一信 [mailto:kazunobu_sakamoto@nsr.go.jp]

Sent: Wednesday, February 01, 2017 7:10 PM

To: Tregoning, Robert <Robert.Tregoning@nrc.gov>

Cc: Hiser, Matthew <Matthew.Hiser@nrc.gov>; Purtscher, Patrick <Patrick.Purtscher@nrc.gov>; 田口 清貴 <kiyotaka_taguchi@nsr.go.jp>

Subject: [External_Sender] RE: Harvesting workshop

Rob,

Let me discuss your request with my boss.

However, please understand that our boss requested me to participate the workshop not to lead the discussion but for the main purpose of obtaining information this time, because Japanese stakeholders may be nervous about what we are going to say.

To be honest, our political position is really complicated. To launch the research program in NRA using ex-plant material, cooperation not only by utilities but also local government and others is essential. And we just started negotiation with Japanese utilities a few weeks ago, and asked them to let us know what might be the obstacles to realize the program.

(Off course, I am not going to hesitate to participate in the discussion during the workshop!)

In addition, we will have a meeting with CRIEPI next Tuesday (Feb. 7th) to discuss the workshop.

I personally think that CRIEPI may be more appropriate to take on panelist since it have concrete research plans.

Under such circumstances, I would like to get back to you officially once the discussion with CRIEPI is finished.

Is it ok with you?

Best regards,

Kazu

From: Tregoning, Robert [<mailto:Robert.Tregoning@nrc.gov>]

Sent: Tuesday, January 31, 2017 8:55 PM

To: 坂本 一信 <kazunobu_sakamoto@nsr.go.jp>

Cc: Hiser, Matthew <Matthew.Hiser@nrc.gov>; Purtscher, Patrick <Patrick.Purtscher@nrc.gov>

Subject: RE: RE: Harvesting workshop

Kazu:

I am following up with both JAEA and CRIEPI on their participation in the workshop. I would still very much like JNRA to be a participant in sessions 1 and 5. As I mentioned below,

- Session 1 will consist of short presentations (a few slides) and a panel discussion on why you may be interested in harvesting; what you hope to get out of the workshop.
- Session 5 will consist of short presentations (a few slides) or summary statements that will attempt to summarize the workshop and planning a harvesting program, as well as discuss actions and next steps

The talk you gave in August at the NRC is perfect for Session 1. Session 5 is really meant to summarize the workshop from your perspective. You could put together a slide or two during the meeting or just make some remarks. I know that you are hesitant to be a participant because you haven't decided on your harvesting plans. This is perfectly fine; the U.S. NRC hasn't settled on any future harvesting plans either. I would, however, prefer to have JNRA be on the panel for these sessions instead of JAEA or CRIEPI. However, during the open discussion, both JAEA and CRIEPI will still be able to participate.

Please let me know if you agree to be a panelist for these sessions.

Thank you for your consideration.

Warm regards,

Rob

Robert Tregoning

Technical Advisor for Materials

US Nuclear Regulatory Commission

Two White Flint North, M/S T-10 A36

11545 Rockville Pike

Rockville, MD 20852-2738

ph: 301-415-2324

fax: 301-415-6671

From: 坂本 一信 [mailto:kazunobu_sakamoto@nsr.go.jp]

Sent: Thursday, January 12, 2017 7:12 PM

To: Tregoning, Robert <Robert.Tregoning@nrc.gov>

Cc: 田口 清貴 <kiyotaka_taguchi@nsr.go.jp>; 小山 正邦 <masakuni_koyama01@nsr.go.jp>; 小澤正義 <masayoshi_ozawa@nsr.go.jp>

Subject: [External_Sender] RE: Harvesting workshop

Rob,

I hope you and your family members had a restful and wonderful holidays.

As for the workshop, the discussion between regulatory side and industries/METI(having similar function with DOE in the U.S.) has not started in Japan. So, our motivation may be different from the one of the industry side.

Under such circumstance, I will be able to touch on our interest/motivation for the harvesting as a really short presentation. However, our organization has not established concrete plans at all. So my presentation may be almost identical (within 10 minutes) to the one I did at bilateral meeting with you in last August.

Anyway, please understand that the objective of NRA's participation this time is not take initiative of the discussion as a panelist but correct international members' perspective on this matter.

Best,

Kazu

From: Tregoning, Robert [<mailto:Robert.Tregoning@nrc.gov>]

Sent: Friday, January 13, 2017 6:17 AM

To: 坂本 一信 <kazunobu_sakamoto@nsr.go.jp>

Subject: Harvesting workshop

Kazu:

I hope that the New Year is treating you and your family well. I just want to reach out to you again about the our harvesting workshop in early March. I know that you are working on CRIEPI and other organizations in Japan to discuss your participation in the workshop. I would be particularly interested if the Japanese perspective can be provided with a presentation in one or more of the following five workshop sessions: Session 1, 2, and/or 5. As mentioned in an earlier email, here's a summary of the approach and format for these sessions:

- Session 1 will consist of short presentations and a panel discussion on the motivation for harvesting.
- Session 2 will discuss data needs best met through harvesting.
- Session 5 will consist of short presentations that will attempt to summarize the workshop and planning a harvesting program, as well as discuss actions and next steps

We plan on working closely with all presenters so that we all have similar ideas about the objectives of the workshop as a whole and then the objectives of each session. I'm hopeful that there will be Japanese representation within one or more of these sessions.

Please let me know if you have any questions about the workshop or the sessions that you would like more information on to help with your discussions among the various Japanese organizations.

Thank you for your help, and I wish you all the best,

Rob

Robert Tregoning

Technical Advisor for Materials

US Nuclear Regulatory Commission

Two White Flint North, M/S T-10 A36

11545 Rockville Pike

Rockville, MD 20852-2738

ph: 301-415-2324

fax: 301-415-6671

Ex-Plant Materials Harvesting Workshop

March 7-8, 2017

USNRC HQ

Rockville, MD, USA

Meeting Logistics

- Workshop will be held at NRC's Three White Flint North building
 - Directly adjacent to the White Flint Metro station
 - Nearest hotel within walking distance: Bethesda North Marriott Hotel & Conference Center
- Workshop is a non-public meeting to encourage open discussion
 - Presentations and meeting summary will be distributed among meeting participants only
- GoToMeeting webinar will be available to support additional attendees
 - Webinar attendees will be primarily observers
 - Limited opportunities for webinar attendee participation in discussion if time allows
 - Discussion will be recorded through GoToMeeting software to aid capturing discussion in meeting summary

Motivation

- With plants shutting down both in the U.S. and internationally, there are increasing opportunities to harvest components from decommissioning plants
 - Past harvesting efforts generally more reactive as opportunities arose, rather than proactively planned
- Ex-plant materials may be valuable because they have been exposed to actual in-service plant operating conditions
 - Can reduce the uncertainty associated with the applicability of the aging conditions
- Insights from research on harvested materials can address technical data needs identified for extended plant operation
- Lessons learned from past harvesting programs can help improve future harvesting efforts
 - Challenges encountered in previous programs can be shared and mitigated or avoided in future programs

Approach

- Domestic and international researchers, industry, regulators, and decommissioning companies' discuss benefits and challenges with ex-plant harvesting
 - Encourage sharing of lessons learned as well as areas of common interest
- Workshop consists of topical sessions with short presentations and significant time for open discussion
 - Goal is to maximize engagement among meeting participants
- Scope includes any materials aging issue that could benefit from harvesting, including metals, cables, and concrete

Expected Outcome

- Participants become better informed and aware of the benefits and challenges associated with ex-plant harvesting
- Discussions help identify areas of common interest for harvesting to address technical data needs
- Presentations and discussions provide the starting point for a “database” of harvested materials and future harvesting opportunities
- Contacts are made among research organizations to allow for further discussion of specific harvesting projects
- Workshop summary documenting discussion will be distributed among participants

Session Expectations

- Session 1 Motivation for Harvesting
 - Perspective from panel participants on their organizations' interest in and motivation for harvesting
 - Brief (5-10 minute) presentation from each panel member followed by general discussion
- Session 2 Technical Data Needs for Harvesting
 - Presenters share high-priority data needs that may be best addressed by harvesting
 - Where does harvesting hold particular value compared to other sources of technical data
 - 15-20 minute presentations followed by open discussion of technical data needs for harvesting

Session Expectations

- Session 3 Sources of Materials
 - Information on previously harvested materials and future harvesting opportunities
 - Materials located at research and vendor facilities
 - Decommissioning plants that may allow for future harvesting
 - Short 5-10 minute presentations followed by open discussion
 - Starting point for potential database of previously harvested materials and future harvesting opportunities
- Session 4 Harvesting Experience: Lessons Learned and Practical Aspects
 - Improving future efforts with lessons learned from past programs
 - Pitfalls to avoid and strategies to improve likelihood of success
 - Practical perspective from non-researchers on how harvesting interfaces with the decommissioning process
 - International decommissioning and harvesting experience
 - 20-30 minute presentations followed by open discussion

Session Expectations

- Session 5 Future Harvesting Program Planning
 - Technical and logistical information needed when planning a specific harvesting program
 - Perspective from panel participants on the workshop
 - Next steps and actions from workshop
 - Potential areas of common interest for future harvesting programs
 - Brief (5-10 minute) presentation from each panel member followed by general discussion

From: [Tregoning, Robert](#)
To: [Wei-Wu Chao](#)
Cc: [Purtscher, Patrick](#); [Hiser, Matthew](#)
Subject: RE: 回覆: Ex-Plant Materials Harvesting Workshop
Date: Tuesday, February 7, 2017 6:54:49 AM
Attachments: [Ex-Plant Materials Harvesting Workshop.pptx](#)
[Condensed Workshop Agenda 12-12-16.docx](#)
[Harvesting Workshop Announcement.docx](#)

Note to requester: The attachments are immediately following.

Mr. Chao:

I want to apologize for not responding sooner to your original email. There is no registration for the workshop but it is a closed workshop by invitation only. We're trying have a small number of participants so that it can be a working meeting. I've attached some details about the workshop.

As you can see in the attachments, we are planning five unique sessions as part of the workshop. Each session has a specific theme, or objective, as outlined below (and in the attached agenda).

1. Session 1 will consist of short presentations and a panel discussion on the motivation for harvesting.
2. Session 2 will discuss data needs best met through harvesting.
3. Session 3 will discuss sources of materials for harvesting programs
4. Session 4 will discuss lessons-learned from past harvesting programs and practical aspects associated with harvesting.
5. Session 5 will attempt to summarize the workshop and planning a harvesting program, as well as discuss actions and next steps

Do you have a presentation or several presentations that you think would fit into one or more of these sessions?

Regards,
Rob

Robert Tregoning
Technical Advisor for Materials
US Nuclear Regulatory Commission
Two White Flint North, M/S T-10 A36
11545 Rockville Pike
Rockville, MD 20852-2738
ph: 301-415-2324
fax: 301-415-6671

From: Wei-Wu Chao [mailto:wwchao@aec.gov.tw]
Sent: Monday, February 06, 2017 10:29 AM
To: Tregoning, Robert <Robert.Tregoning@nrc.gov>
Subject: [External_Sender] 回覆: Ex-Plant Materials Harvesting Workshop

Hi Robert,

I was wondering whether you received my previous mail or not. If yes, please instruct me how to register in this workshop. Thanks for you attention.

Best regards,
Wei-Wu Chao

Taiwan Atomic Energy Council Representative in DC
Deputy Director of Science and Technology Division, TECRO

4201 Wisconsin Ave. NW, Washington, DC 20016

Cell: [REDACTED] (b)(6)

Tel: 202-895-1932

從: Wei-Wu Chao

寄件日期: 2017年1月20日 上午 09:46

至: Robert.Tregoning@nrc.gov

主旨: Ex-Plant Materials Harvesting Workshop

Dear Robert,

I am interested in attending the workshop from March 7-8 at NRC headquarters. Please let me know how to register and which room the workshop is held. Thank you for your attention.

Best regards,

Wei-Wu Chao

Taiwan Atomic Energy Council Representative in DC

Deputy Director of Science and Technology Division, TECRO

4201 Wisconsin Ave. NW, Washington, DC 20016

Cell: [REDACTED] (b)(6)

Tel: 202-895-1932

Ex-Plant Materials Harvesting Workshop

March 7-8, 2017

USNRC HQ

Rockville, MD, USA

Meeting Logistics

- Workshop will be held at NRC's Three White Flint North building
 - Directly adjacent to the White Flint Metro station
 - Nearest hotel within walking distance: Bethesda North Marriott Hotel & Conference Center
- Workshop is a non-public meeting to encourage open discussion
 - Presentations and meeting summary will be distributed among meeting participants only
- GoToMeeting webinar will be available to support additional attendees
 - Webinar attendees will be primarily observers
 - Limited opportunities for webinar attendee participation in discussion if time allows
 - Discussion will be recorded through GoToMeeting software to aid capturing discussion in meeting summary

Motivation

- With plants shutting down both in the U.S. and internationally, there are increasing opportunities to harvest components from decommissioning plants
 - Past harvesting efforts generally more reactive as opportunities arose, rather than proactively planned
- Ex-plant materials may be valuable because they have been exposed to actual in-service plant operating conditions
 - Can reduce the uncertainty associated with the applicability of the aging conditions
- Insights from research on harvested materials can address technical data needs identified for extended plant operation
- Lessons learned from past harvesting programs can help improve future harvesting efforts
 - Challenges encountered in previous programs can be shared and mitigated or avoided in future programs

Approach

- Domestic and international researchers, industry, regulators, and decommissioning companies' discuss benefits and challenges with ex-plant harvesting
 - Encourage sharing of lessons learned as well as areas of common interest
- Workshop consists of topical sessions with short presentations and significant time for open discussion
 - Goal is to maximize engagement among meeting participants
- Scope includes any materials aging issue that could benefit from harvesting, including metals, cables, and concrete

Expected Outcome

- Participants become better informed and aware of the benefits and challenges associated with ex-plant harvesting
- Discussions help identify areas of common interest for harvesting to address technical data needs
- Presentations and discussions provide the starting point for a “database” of harvested materials and future harvesting opportunities
- Contacts are made among research organizations to allow for further discussion of specific harvesting projects
- Workshop summary documenting discussion will be distributed among participants

Session Expectations

- Session 1 Motivation for Harvesting
 - Perspective from panel participants on their organizations' interest in and motivation for harvesting
 - Brief (5-10 minute) presentation from each panel member followed by general discussion
- Session 2 Technical Data Needs for Harvesting
 - Presenters share high-priority data needs that may be best addressed by harvesting
 - Where does harvesting hold particular value compared to other sources of technical data
 - 15-20 minute presentations followed by open discussion of technical data needs for harvesting

Session Expectations

- Session 3 Sources of Materials
 - Information on previously harvested materials and future harvesting opportunities
 - Materials located at research and vendor facilities
 - Decommissioning plants that may allow for future harvesting
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 - Starting point for potential database of previously harvested materials and future harvesting opportunities
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 - Improving future efforts with lessons learned from past programs
 - Pitfalls to avoid and strategies to improve likelihood of success
 - Practical perspective from non-researchers on how harvesting interfaces with the decommissioning process
 - International decommissioning and harvesting experience
 - 20-30 minute presentations followed by open discussion

Session Expectations

- Session 5 Future Harvesting Program Planning
 - Technical and logistical information needed when planning a specific harvesting program
 - Perspective from panel participants on the workshop
 - Next steps and actions from workshop
 - Potential areas of common interest for future harvesting programs
 - Brief (5-10 minute) presentation from each panel member followed by general discussion

Draft Agenda – March 7-8, 2017 Harvesting Workshop

Tuesday, March 7, 2017

Introduction

- Overview of workshop purpose and objectives

Session 1: Motivation for Harvesting

- Solicited presentations from EPRI, DOE, NRC, and international organizations followed by panel discussion

Session 2: Technical data needs best addressed by harvesting

- Solicited presentations from EPRI, DOE, NRC, and international organizations followed by open discussion

Session 3: Sources of Materials

- Solicited presentations from EPRI, DOE, NRC, and international organizations followed by open discussion

Wednesday, March 8, 2017

Session 4: Harvesting Experience: Lessons learned and practical aspects

- Solicited presentations from EPRI, DOE, NRC, U.S. utility, decommissioning companies, and international organizations followed by open discussion

Session 5: Future Harvesting Program Planning

- Solicited presentations from EPRI, DOE, NRC, and international organizations followed by open and panel discussion

Ex-Plant Materials Harvesting Workshop

Location: NRC Headquarters in Rockville, MD, USA

Dates: March 7-8, 2017

Motivation:

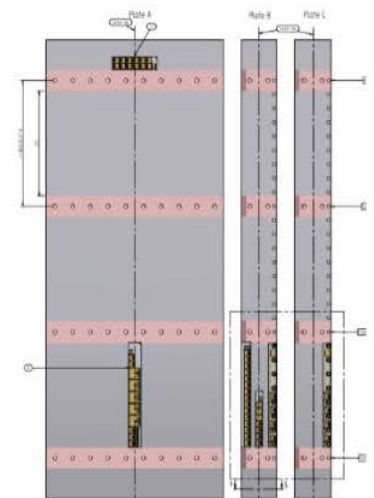
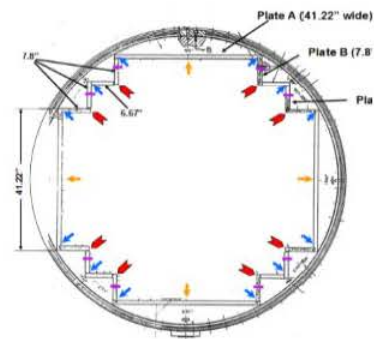
- There are increasing opportunities to harvest the safety-critical components from decommissioning plants, both domestic and international.
- The harvested materials are valuable because they have been exposed to actual in-service plant operating conditions (temperature, irradiation, coolant, etc.), unlike virgin materials tested under simulated conditions in the lab.
- Data from ex-plant materials should help address technical gaps identified for extended operation of nuclear power plants due to highly relevant aging conditions.

Purpose and Objective:

- For NRC staff and interested stakeholders to have greater awareness and knowledge of the benefits and challenges associated with ex-plant harvesting.
- Facilitate contacts and communication to enable specific cooperative ex-plant harvesting programs to be initiated.

Workshop Topics:

- Harvesting decision-making and prioritization
 - Technical data needs best addressed by harvesting
 - Technical information needed in advance of harvesting
- Sources of materials:
 - Decommissioning reactors
 - Operating reactors – replaced components
 - Previous harvesting programs – “boneyards”
 - Tracking available materials
- Harvesting process
 - Lessons learned from harvesting experience
 - Perspective of utility-owner and decommissioning contractor on harvesting
 - Communication and coordination between decommissioning and researchers
- International collaborative programs on specific components at specific plants



Workshop will consist of solicited presentations followed by discussion periods. If interested in attending or learning more about the workshop, please reach out to the contacts below.

Contacts: Robert Tregoning, Robert.Tregoning@nrc.gov
Matthew Hiser, Matthew.Hiser@nrc.gov
Patrick Purtscher, Patrick.Purtscher@nrc.gov

From: [Tregoning, Robert](#)
To: [Alpan, F. Arzu](#)
Cc: [Semmler, Michael G.](#); [Hiser, Matthew](#); [Purtscher, Patrick](#)
Subject: RE: RE: Harvesting Workshop
Date: Tuesday, February 7, 2017 7:05:24 AM
Attachments: [Ex-Plant Materials Harvesting Workshop.pptx](#)

Note to requester: Attachment is immediately following.

Arzu:

Thank you for your email and your interest in the workshop. I've attached a presentation that has logistical information as well as more information on the overall workshop objectives and the format and objectives of each session.

You can see that we are planning five unique sessions as part of the workshop. Each session has a specific theme, or objective, as outlined below (and in more detail in the attachment).

1. Session 1 will consist of short presentations and a panel discussion on the motivation for harvesting.
2. Session 2 will discuss data needs best met through harvesting.
3. Session 3 will discuss sources of materials for harvesting programs
4. Session 4 will discuss lessons-learned from past harvesting programs and practical aspects associated with harvesting.
5. Session 5 will attempt to summarize the workshop and planning a harvesting program, as well as discuss actions and next steps

I think the talk you proposed might fit best in either sessions 2 or 3. Session 2 is focusing on data needs best met through harvesting. Session 3 is focusing on potential sources of materials or components. You can see that the focus is on relatively short talks to allow plenty of time for discussion. You could even split your talk to cover why you want to get irradiated concrete in session 2 and then address the attributes of Mihama in Session 3. Given these options, can you provide me with your preference of one talk or two and provide title(s) so that we can add you to the agenda.

Regards,

Rob

Robert Tregoning

Technical Advisor for Materials

US Nuclear Regulatory Commission

Two White Flint North, M/S T-10 A36

11545 Rockville Pike

Rockville, MD 20852-2738

ph: 301-415-2324

fax: 301-415-6671

From: Alpan, F. Arzu [mailto:alpanfa@westinghouse.com]

Sent: Monday, February 06, 2017 4:48 PM

To: Tregoning, Robert <Robert.Tregoning@nrc.gov>

Cc: Semmler, Michael G. <semmlimg@westinghouse.com>; Hiser, Matthew <Matthew.Hiser@nrc.gov>; Purtscher, Patrick <Patrick.Purtscher@nrc.gov>

Subject: [External_Sender] RE: Harvesting Workshop

Dear Rob,

Thank you for the information you provided to me on the harvesting workshop that will be held at the NRC Headquarters next month.

I would like to attend this workshop, and, if possible, give a short talk. Westinghouse is in the

preliminary stages of communicating with Kansai in investigating the possibility of harvesting concrete from Mihama Unit 1 to analyze the irradiation effects on concrete. This topic (irradiation effects on concrete) has been an interest to various organizations particularly for long-term operation of nuclear power plants. The talk would be mainly to inform the attendees why we are interested in this work and why we are interested in the Mihama Unit 1 concrete.

Is there an attendance fee for the workshop? I would appreciate it if you could provide me any further information related to the workshop (I have the attached documents) and the possibility for my attendance and a short talk.

Best regards,

Arzu

Arzu Alpan, Ph.D.

Principal Engineer

Nuclear Operations & Radiation Analysis Group

Primary Systems Design and Repair

[Products and Services](#)

Westinghouse Electric Company

1000 Westinghouse Drive

Suite 332

Cranberry Township, PA 16066, U.S.A.

Phone: +1 (412) 374-4735

Fax: +1 (724) 940-8565

Email: alpanfa@westinghouse.com

Home Page: www.westinghousenuclear.com

From: Tregoning, Robert [<mailto:Robert.Tregoning@nrc.gov>]

Sent: Tuesday, January 17, 2017 7:37 AM

To: Alpan, F. Arzu

Cc: Semmler, Michael G.; Hiser, Matthew; Purtscher, Patrick

Subject: RE: Harvesting Workshop

Arzu:

Thank you for contacting me about the workshop. The invitation is not open to the public and we are soliciting/inviting both talks and participants so that the workshop stays relatively small and focused. Having said this, it's fine to send the announcement and agenda to Kansai. Please also be aware that we are already in contact with both JNRA (Kazu Sakamoto) and CRIEPI (Naoki Soneda) to coordinate Japanese participation. It would therefore be good for Kansai to coordinate with them if they are interested in attending or participating in the workshop. Kansai should also contact me as well if they are interested in participating or attending.

Thanks for your interest. Please let me know if you have any other questions about the workshop.

Regards,

Rob

Robert Tregoning

Technical Advisor for Materials

US Nuclear Regulatory Commission

Two White Flint North, M/S T-10 A36

11545 Rockville Pike

Rockville, MD 20852-2738

ph: 301-415-2324

fax: 301-415-6671

From: Alpan, F. Arzu [<mailto:alpanfa@westinghouse.com>]
Sent: Friday, January 13, 2017 5:44 PM
To: Tregoning, Robert <Robert.Tregoning@nrc.gov>
Cc: Semmler, Michael G. <semmleng@westinghouse.com>
Subject: [External_Sender] Harvesting Workshop

Dear Robert,

Sherry Bernhoft has informed Westinghouse about the harvesting workshop that will be held at the NRC Headquarters in Rockville, MD on March 7-8, 2017. If this is a workshop that is open to the public, I would like to send the announcement and agenda, which are attached to this email, to our colleagues at Kansai Electric Power Company. I would appreciate it if you could let me know if I may forward the attached information to Kansai.

Best regards,

Arzu

Arzu Alpan, Ph.D.

Principal Engineer

Nuclear Operations & Radiation Analysis Group

Primary Systems Design and Repair

[Products and Services](#)

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1000 Westinghouse Drive

Suite 332

Cranberry Township, PA 16066, U.S.A.

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Home Page: www.westinghousenuclear.com

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From: [Tregoning, Robert](#)
To: [Jendrich, Uwe Dr.](#)
Cc: [Sievers, Jürgen Dr.](#); [Hiser, Matthew](#); [Purtscher, Patrick](#)
Subject: RE: AW: Interest in Harvesting Workshop
Date: Wednesday, February 8, 2017 1:11:55 PM
Attachments: [Ex-Plant Materials Harvesting Workshop.pptx](#)

Note to requester: Attachment is immediately following.

Uwe:

Thanks for your reply. I'm glad you'll be attending the workshop. I've attached a presentation file that has logistical information, the overall workshop objectives, and objectives for individual sessions. Would you be willing to make a presentation in 1 or more of these sessions? In general the presentations should be short (e.g., a few slides at most for sessions 1 and 5; and at most 20 – 30 minutes for one of the other sessions) and the plan is to have everything be informal so that the preparation time is not too great and we leave plenty of time for discussion. Please let me know if you would be amenable to this and if you have any questions about the workshop.

Also, thank you for the contact information at VGB Powertech. We will certainly contact Dr. Mohrbach. Let me know if you have any luck finding any other contacts. We've currently trying to reach someone at EBNW.

Warm regards,

Rob

Robert Tregoning

Technical Advisor for Materials

US Nuclear Regulatory Commission

Two White Flint North, M/S T-10 A36

11545 Rockville Pike

Rockville, MD 20852-2738

ph: 301-415-2324

fax: 301-415-6671

From: Jendrich, Uwe Dr. [mailto:Uwe.Jendrich@grs.de]
Sent: Wednesday, February 08, 2017 12:02 PM
To: Tregoning, Robert <Robert.Tregoning@nrc.gov>
Cc: Sievers, Jürgen Dr. <Juergen.Sievers@grs.de>
Subject: [External_Sender] AW: Interest in Harvesting Workshop

Dear Rob,

Please apologize my late reply due to two weeks of (b)(6)

As answers to your questions:

1. I am planning to participate in the workshop. I just need the traveling permits etc.
2. I try to contact a couple of people to find out persons responsible for decommissioning. These will certainly be different for the plants from different operators. You may also try Mr. Mohrbach at the headquarter of the Association of all power plant operators (VGB Powertech, Dr. Ludger Mohrbach, Tel: +49 201 8128 221, E-Mail: ludger.mohrbach@vgb.org.)

Kind regards

Uwe

Dr. Uwe Jendrich

Gesellschaft für Anlagen- und Reaktorsicherheit (GRS) gGmbH

Abteilung Anlagenkonzepte / Plant Concepts Department

Bereich Reaktorsicherheitsanalysen / Reactor Safety Analyses Division
Schwertnergasse 1
50667 Köln
Germany

Phone: +49 221 2068-879
Fax: +49 221 2068-10879
E-Mail: uwe.jendrich@grs.de

www.grs.de
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facebook.com/GRS.DE

Vorsitzende des Aufsichtsrates: Parl. Staatssekretärin Rita Schwarzelühr-Sutter
Geschäftsführer: Uwe Stoll, Hans J. Steinhauer
Registergericht: Amtsgericht Köln, HRB 7665
Sitz der Gesellschaft: Köln
Disclaimer: www.grs.de/content/email-disclaimer

Von: Tregoning, Robert [<mailto:Robert.Tregoning@nrc.gov>]

Gesendet: Montag, 30. Januar 2017 13:31

An: Jendrich, Uwe Dr.

Cc: Sievers, Jürgen Dr.

Betreff: RE: Interest in Harvesting Workshop

Dr. Jendrich:

I just want to follow up on the information that I sent you on the Harvesting Workshop that will be held on March 7 – 8, 2017 at the U.S. NRC Headquarters in Rockville, MD USA. I have two questions that I'm hoping you can help me with.

1. Will you or a colleague from GRS attend and hopefully participate in the workshop?
2. We would like to invite a participant from a German decommissioning company. We currently have participants representing U.S. decommissioning companies but the German situation is both unique and different compared to the U.S. Is there someone in one of these companies that you can put me in touch with? I'm aware of a few companies but I would prefer not to just randomly contact them.

Thank you so much for your consideration and support of the workshop.

All the best,

Rob

Robert Tregoning
Technical Advisor for Materials
US Nuclear Regulatory Commission
Two White Flint North, M/S T-10 A36
11545 Rockville Pike
Rockville, MD 20852-2738
ph: 301-415-2324
fax: 301-415-6671

From: Tregoning, Robert

Sent: Tuesday, January 17, 2017 4:56 PM

To: Jendrich, Uwe Dr. <Uwe.Jendrich@grs.de>

Cc: Hiser, Matthew <Matthew.Hiser@nrc.gov>; Purtscher, Patrick <Patrick.Purtscher@nrc.gov>

Subject: Interest in Harvesting Workshop

Dear Dr. Jendrich:

Thank you so much for your email and your interest in getting more information about the harvesting workshop. I've attached a workshop announcement as well as a condensed

workshop agenda for your information. You can see that we are planning five unique sessions as part of the workshop. Each session has a specific theme, or objective, as outlined below (and in the attached agenda).

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Please let me know if you have any questions or would like any additional information after reviewing the attachments. Thank you again for your interest.

Regards,

Rob

Robert Tregoning

Technical Advisor for Materials

US Nuclear Regulatory Commission

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11545 Rockville Pike

Rockville, MD 20852-2738

ph: 301-415-2324

fax: 301-415-6671

From: Jendrich, Uwe Dr. [<mailto:Uwe.Jendrich@grs.de>]

Sent: Monday, January 16, 2017 3:38 AM

To: Tregoning, Robert <Robert.Tregoning@nrc.gov>

Subject: [External_Sender] Interest in Harvesting Workshop

Dear Mr. Tregoning,

I am interested in the topic of the Harvesting Workshop.

Can you please provide me with more detailed information.

Thank you.

With kind regards

Uwe Jendrich

Dr. Uwe Jendrich

Gesellschaft für Anlagen- und Reaktorsicherheit (GRS) gGmbH

Abteilung Anlagenkonzepte / Plant Concepts Department

Bereich Reaktorsicherheitsanalysen / Reactor Safety Analyses Division

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50667 Köln

Germany

Phone: +49 221 2068-879

Fax: +49 221 2068-10879

E-Mail: uwe.jendrich@grs.de

www.grs.de

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Vorsitzende des Aufsichtsrates: Parl. Staatssekretärin Rita Schwarzelühr-Sutter

Geschäftsführer: Uwe Stoll, Hans J. Steinhauer

Registergericht: Amtsgericht Köln, HRB 7665
Sitz der Gesellschaft: Köln
Disclaimer: www.grs.de/content/email-disclaimer

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From: [IchiroKOMURA](#)
To: [Prokofiev, Iouri](#)
Cc: [Tregoning, Robert](#); [Iyengar, Raj](#); [Hiser, Matthew](#)
Subject: [External_Sender] RE: Info about NPP Materials Harvesting Workshop
Date: Thursday, February 9, 2017 2:26:04 AM

Dear Iouri,

Thank you for the information about Japanese relation with NRC's Harvesting program.

I was relieved to hear your information and your conversation with Dr. Tregoning, which explain that Kazunobu Sakamoto has participated and would participate to your program.

Personally, I am interested in the material degradation under the actual environment compared with accelerated condition.

In the recent situation of Japan/NRA, such NRA's R&D or information gathering would be conducted with JAEA(JAEA is the government organization). And it would be out of scope of JAPEIC unfortunately.

I will ask to Kazu about the future updated situation and information.

Best regards,

Ichiro

From: Prokofiev, Iouri [mailto:Iouri.Prokofiev@nrc.gov]
Sent: Wednesday, February 8, 2017 7:00 AM
To: IchiroKOMURA
Cc: Tregoning, Robert; Iyengar, Raj; Hiser, Matthew
Subject: Info about NPP Materials Harvesting Workshop

Dear Ichiro,

I sent attachments to you to ask your personal opinion. I hope you received the attachments, if a problem- please let me know.

Please contact with Kazunobu Sakamoto about the Harvesting Workshop. I was (b)(6) and didn't participate in the NRC/NRAJ Bilateral Meeting on Materials Issues that was organized at NRC Headquarters, Rockville, MD, USA, August 8 - 9, 2016

I asked Dr. Rob Tregoning for the updated information related to Harvesting. Please see below our conversation.

Best Regards, Iouri

Iouri:

The update is that we have been working with JNRA (K. Sakamoto) on the Japanese workshop participation. We currently will have participants from JNRA (Sakamoto), CRIEPI (Sonada), and JAEA (Chimi). Only CRIEPI is making formal presentations but it is expected that all will participate in the discussion.

Please let me know if you have any other questions.

Rob

Robert Tregoning

Technical Advisor for Materials

US Nuclear Regulatory Commission

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ph: 301-415-2324

fax: 301-415-6671

From: Prokofiev, Iouri **Sent:** Tuesday, February 07, 2017 9:30 AM
To: Hiser, Matthew <Matthew.Hiser@nrc.gov>; Tregoning, Robert <Robert.Tregoning@nrc.gov>
Cc: Iyengar, Raj <Raj.Iyengar@nrc.gov>
Subject: FW: Query Meeting with NRA in Aug

Good Morning,

I am sorry bother you. I am working with PARENT Follow on project proposal and I sent the attached email "*more thoughts: Reflections on PARENT 13 Meeting*" to Dr. Ichiro Komura, Steering

Committee member from JAPEIC komura-ichirou@japeic.or.jp with the Harvesting info. It surprised me, he asked question related to Harvesting; "Can I distribute the attached document you sent me to the people of NRA, MHI, other electric power company in Japan, and University?" Can you please update the information from NRC/NRAJ Bilateral Meeting on Materials Issues Summary?

From: IchiroKOMURA [<mailto:komura-ichirou@japeic.or.jp>]

Sent: Monday, February 06, 2017 7:26 PM

To: Prokofiev, Iouri <Iouri.Prokofiev@nrc.gov>

Subject: [External_Sender] FW: more thoughts: Reflections on PARENT 13 Meeting

Dear Iouri,

Can I distribute the attached document you sent me to the people of NRA, MHI, other electric power company in Japan, and University ?

Ichiro

From: Prokofiev, Iouri [<mailto:Iouri.Prokofiev@nrc.gov>]

Sent: Thursday, February 2, 2017 9:47 AM

To: IchiroKOMURA

Cc: Lin, Bruce; Iyengar, Raj

Subject: more thoughts: Reflections on PARENT 13 Meeting

Good Morning Dear Ichiro,

Thank you very much for taking the initiative and accelerating the process with the Scope of Work preparation. I am working with topics related to 3) and 2).

I have two personal questions:

1. What do you think about this - will it be interesting for JAPEIC/NRA activity with Harvesting (please see the Attachments)?
2. I read *The Mainichi, 2016-12-20; Japan: Gap emerges between gov't, private sector over Monju reactor* and my question is -- did you or our NDE MHI colleagues have experience with components of Fast Reactors examination?

I have really enjoyed knowing and working with you during these past years. It has been a privilege for me. You mention possible change in your work schedule; I too am starting to think about retirement, maybe at the end of 2017.

Always my Best regards,

Iouri

From: Lin, Bruce

Sent: Wednesday, February 01, 2017 1:39 PM

To: IchiroKOMURA <komura-ichirou@japeic.or.jp>; Prokofiev, Iouri <Iouri.Prokofiev@nrc.gov>

Subject: RE: RE: Reflections on PARENT 13 Meeting

Dear Ichiro,

Ryan and I are working on the draft work scope for the follow on project. We are hoping to get that out to PARENT members for review soon. Based on PARENT 13 meeting, the three potential topic areas are: 1) NDE Modeling and Simulation, 2) Flaw Relevance Evaluation, and 3) Material Degradation Monitoring.

From NRC perspective, there is strong support for tasks 1 and 2. However, at this point, there is no decision on the follow on project yet. We need to finalize the work scope and then present to the management for approval. It is likely there will be a gap between the end of PARENT extension and the start of the follow-on project. If we don't have an agreement in place prior to the end of PARENT extension, we can continue to work on putting the agreement in place.

Regards,

Bruce

From: IchiroKOMURA [<mailto:komura-ichirou@japeic.or.jp>]

Sent: Tuesday, January 31, 2017 3:01 AM

To: Prokofiev, Iouri <Iouri.Prokofiev@nrc.gov>; Lin, Bruce <Bruce.Lin@nrc.gov>

Subject: [External_Sender] RE: Reflections on PARENT 13 Meeting

Dear Iouri and Bruce,

Today, I am sending this e-mail to you for requesting to hear your supposition about the schedule for starting the Follow-on Project.

PARENT Extension is scheduled to finish at the end of July in this year. I think that the Follow-on Pj would not be fixed at that time.

In the PARENT-13 meeting, Iouri said that all the organization would work for discussion and planning about Follow-on Pj under the umbrella agreement with NRC. How do you think/schedule the period between the end of PARENT Extension and the decision or the starting of Follow-on Pj ?

Today, the president of our JAPEIC called me for the discussion about the contract of my employment after the April. I should tell him the supposition of the schedule for starting of Follow-on, and the time of my retirement.

I would like to hear your opinion, if it would be temporary plan.

Best regards,

Ichiro

From: [Tregoning, Robert](#)
To: [NHILI Regis](#)
Cc: [Hiser, Matthew](#); [Purtscher, Patrick](#)
Subject: RE: RE: [External_Sender] RE: RE: RE: RE: RE: Harvesting Workshop
Date: Thursday, February 9, 2017 6:56:44 AM
Attachments: [image001.png](#)
[image002.jpg](#)

Regis:

Thanks for letting me know your situation. While I'm sorry that you won't be able to attend the workshop, I certainly understand. We will be developing a meeting summary. We should be able to provide you with the meeting summary when it's completed.

Please let me know if you have any other questions.

Warm regards,

Rob

Robert Tregoning

Technical Advisor for Materials

US Nuclear Regulatory Commission

Two White Flint North, M/S T-10 A36

11545 Rockville Pike

Rockville, MD 20852-2738

ph: 301-415-2324

fax: 301-415-6671

From: NHILI Regis [mailto:regis.nhili@edf.fr]
Sent: Thursday, February 09, 2017 2:58 AM
To: Tregoning, Robert <Robert.Tregoning@nrc.gov>
Subject: [External_Sender] RE: [External_Sender] RE: RE: RE: RE: RE: Harvesting Workshop

Hi Rob,

I have just been informed I need to attend an important meeting on March 7 in France.

So unfortunately, I am not able to participate to your workshop.

I am afraid I don't see any other colleagues who might be able to participate.

So I don't think it is necessary to have a call today.

Is it possible to be informed about the main outcomes of the workshop?

Thank you for your understanding.

Regards,

Regis

De : Robert.Tregoning@nrc.gov [mailto:Robert.Tregoning@nrc.gov]

Envoyé : mercredi 8 février 2017 17:03

À : NHILI Regis

Objet : Re: [External_Sender] RE: RE: RE: RE: RE: Harvesting Workshop

Regis:

Great, I'm looking forward to it!

Rob

----- Original Message -----

From: NHILI Regis <regis.nhili@edf.fr>

Date: Wed, February 08, 2017 10:46 AM -0500
To: "Tregoning, Robert" <Robert.Tregoning@nrc.gov>
Subject: [External_Sender] RE: RE: RE: RE: RE: Harvesting Workshop

Rob,
I will call you tomorrow at 4pm.
Regards,

Regis

De : Tregoning, Robert [<mailto:Robert.Tregoning@nrc.gov>]

Envoyé : mercredi 8 février 2017 12:42

À : NHILI Regis

Objet : RE: RE: RE: RE: RE: Harvesting Workshop

Regis:

That should be fine. I have another call at 3:00pm Paris time tomorrow, but we should be finished by 4:00pm. Would you like me to call you?

Cheers,

Rob

Robert Tregoning

Technical Advisor for Materials

US Nuclear Regulatory Commission

Two White Flint North, M/S T-10 A36

11545 Rockville Pike

Rockville, MD 20852-2738

ph: 301-415-2324

fax: 301-415-6671

From: NHILI Regis [<mailto:regis.nhili@edf.fr>]

Sent: Wednesday, February 08, 2017 2:37 AM

To: Tregoning, Robert <Robert.Tregoning@nrc.gov>

Subject: [External_Sender] RE: RE: RE: RE: Harvesting Workshop

Rob,

I suggest having the call at 4pm (Paris Time) tomorrow. Otherwise I can make at 5 or 6.

Regards,

Regis



Regis NHILI

MAI Director

EDF – R&D

Materials Ageing Institute (MAI)

EDF LAB Les Renardières - ECUELLES

77818 Moret-sur-Loing Cedex

regis.nhili@edf.fr

Landline : +33 (0) 1 60 73 68 47

Mobile : (b)(6)

De : Robert.Tregoning@nrc.gov [<mailto:Robert.Tregoning@nrc.gov>]

Envoyé : mardi 7 février 2017 19:03

À : NHILI Regis

Cc : Matthew.Hiser@nrc.gov; Patrick.Purtscher@nrc.gov; SZWEDEK Olivier; LECLERCQ Sylvain; SOULACROIX Julian

Objet : RE: RE: RE: RE: Harvesting Workshop

Regis:

Attached are the slides I mentioned to Julian. The slides contain more information on the workshop logistics, overall objectives, and the objectives of each session. I'm certainly available for a call on the 9th. I have another call at 3pm (Paris time), but other than that I'm free. Just let me know what time is most convenient for you.

Warm regards,

Rob

Robert Tregoning

Technical Advisor for Materials

US Nuclear Regulatory Commission

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11545 Rockville Pike

Rockville, MD 20852-2738

ph: 301-415-2324

fax: 301-415-6671

From: NHILI Regis [<mailto:regis.nhili@edf.fr>]

Sent: Tuesday, February 07, 2017 11:26 AM

To: Tregoning, Robert <Robert.Tregoning@nrc.gov>

Cc: Hiser, Matthew <Matthew.Hiser@nrc.gov>; Purtscher, Patrick <Patrick.Purtscher@nrc.gov>;

SZWEDEK Olivier <olivier.szwedek@edf.fr>; LECLERCQ Sylvain <sylvain.leclercq@edf.fr>;

SOULACROIX Julian <julian.soulacroix@edf.fr>

Subject: [External_Sender] RE: RE: RE: Harvesting Workshop

Dear Rob,

I might be interested to participate to this workshop to present briefly the MAI R&D activities and the use of data from harvested components (BMN, Cables, SG).

Are you available for a quick call tomorrow (8th) after 5pm Paris Time (i.e. 11am Washington Time) or anytime Thursday 9th afternoon Paris Time?

In the meantime, do you have more information about the content of the workshop? (you mentioned some slides to Julian).

Kind regards,

Regis



Regis NHILI

MAI Director

EDF – R&D

Materials Ageing Institute (MAI)

EDF LAB Les Renardières - ECUELLES

77818 Moret-sur-Loing Cedex

regis.nhili@edf.fr

Landline : +33 (0) 1 60 73 68 47

Mobile : (b)(6)

De : Robert.Tregoning@nrc.gov [<mailto:Robert.Tregoning@nrc.gov>]

Envoyé : lundi 6 février 2017 19:33

À : SOULACROIX Julian

Cc : Matthew.Hiser@nrc.gov; Patrick.Purtscher@nrc.gov; SZWEDEK Olivier; LECLERCQ Sylvain; NHILI

Regis

Objet : RE: RE: RE: Harvesting Workshop

Dear Dr. Soulacroix:

Thank you for clarifying your situation. While I am sorry that you have decided not to participate in the workshop, I recognize that the workshop objectives which focus on future harvesting needs and implementing a more efficient harvesting program are somewhat specialized. For your information, both Oak Ridge National Laboratory and Pacific Northwest National Laboratory will be participating so we will have U.S. laboratory involvement.

I will keep you on the mailing list for the final agenda that will list speakers and talks. This will be developed within the next week or so. Perhaps there is still time to find someone from MAI or EDF who may be interested in participating in the workshop. Please let me know if you have any ideas for a representative that I can contact within the next several days.

Thank you for your help and support.

All the best,

Rob

Robert Tregoning

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Rockville, MD 20852-2738

ph: 301-415-2324

fax: 301-415-6671

From: SOULACROIX Julian [<mailto:julian.soulacroix@edf.fr>]

Sent: Monday, February 06, 2017 11:41 AM

To: Tregoning, Robert <Robert.Tregoning@nrc.gov>

Cc: Hiser, Matthew <Matthew.Hiser@nrc.gov>; Purtscher, Patrick <Patrick.Purtscher@nrc.gov>; SZWEDEK Olivier <olivier.szwedek@edf.fr>; LECLERCQ Sylvain <sylvain.leclercq@edf.fr>; NHILI Regis <regis.nhili@edf.fr>

Subject: [External_Sender] RE: RE: Harvesting Workshop

Dear M. Tregoning,

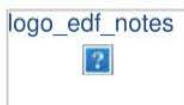
I am sorry to see that there was a misunderstanding on the content of this workshop.

Although this workshop is definitely very interesting for the different harvesting issues, it does not seem appropriate to a laboratory contribution.

Therefore I have to cancel my participation to this workshop. I apologize for the inconvenience.

We have already notified Regis Nhili, and I am sure he will come back to you if a EDF participation is still possible.

Warm regards,



Julian SOULACROIX

CEIDRE – DLAB – MEM

Tél. : 02.47.98.67.14

Tél portable : [redacted] (b)(6)

De : Robert.Tregoning@nrc.gov [<mailto:Robert.Tregoning@nrc.gov>]

Envoyé : jeudi 2 février 2017 22:16

À : SOULACROIX Julian

Cc : Matthew.Hiser@nrc.gov; Patrick.Purtscher@nrc.gov

Objet : RE: RE: Harvesting Workshop

Dear M. Soulacroix:

Thank you for replying to my email. I've attached some slides that provide logistical information along with descriptions of the objectives and format for each of the workshop sessions. Please use these slides as guidance when developing your talk. As you can see by the slides and the other information I've communicated, the principal objective of the workshop is to develop a more effective, better informed process for conducting harvesting programs with not a large focus on what technical information has been obtained from harvesting programs. I think that the topics you proposed below can meet this objective but please let me suggest the following ways to focus the topics you proposed below to align with the workshop objectives.

1. Your topic of "...the contributions of a few studies that we recently carried out on harvested materials to the EDF" could fit really well within Session 4 if it focuses more on the harvesting process used in these studies and the lessons that could be applied for future harvesting programs. While the technical knowledge gained from the program is certainly interesting, it is not the focus of this particular workshop.
2. Your plans for the decommissioned steam generator project could fit well within session 2 if it focuses on the important data/technical needs that will be achieved as part of that program.
3. The description of the new EDF hot laboratory will certainly be interesting to many of the workshop attendees but discussing capabilities at laboratory facilities is not an objective of this particular workshop. I'm wondering if you have a brochure or other literature that could be handed out. Also, this could be part of your presentation. We wouldn't spend time during the meeting discussing it, but all the participants could take this home electronically.

In summary, I'm proposing that you give two separate, shorter talks (instead of a single longer talk): your talk on recent studies (item 1 above) would be in Session 4 and your talk on plans for the decommissioned steam generator project (item 2 above) would be in Session 2.

What are your thoughts about this proposal? Are the workshop objectives, scope, and format clear to you, especially after reviewing the attached slides? Please let me know if you would like to have a phone call to discuss further.

I'm very excited about MAI's participation in the workshop and I'm hoping that it will be a productive two-days for everyone. I'm especially looking forward to meeting you. You will need to bring your passport. I'll be in touch as the meeting gets closer with additional details.

Warm regards,

Rob

Robert Tregoning

Technical Advisor for Materials

US Nuclear Regulatory Commission

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Rockville, MD 20852-2738

ph: 301-415-2324

fax: 301-415-6671

From: SOULACROIX Julian [<mailto:julian.soulacroix@edf.fr>]

Sent: Thursday, February 02, 2017 11:25 AM

To: Tregoning, Robert <Robert.Tregoning@nrc.gov>

Cc: Hiser, Matthew <Matthew.Hiser@nrc.gov>; Purtscher, Patrick <Patrick.Purtscher@nrc.gov>

Subject: [External_Sender] RE: Harvesting Workshop

Dear M. Tregoning,

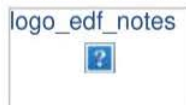
I can confirm that I will be able to participate to the workshop.

I can propose a 30 minutes presentation describing the new EDF hot laboratory, the contribution of a few studies that we recently carried out on harvested material to the EDF strategy, and lastly the Sherlock project (examination program planned on a decommissioned Steam Generator).

Does it sound appropriate to you ?

Furthermore, do you need any complementary information for accessing NRC site (passport...) ?

With kind regards



Julian SOULACROIX

CEIDRE – DLAB – MEM

Tél. : 02.47.98.67.14

Tél portable : [REDACTED] (b)(6)

De : Robert.Tregoning@nrc.gov [<mailto:Robert.Tregoning@nrc.gov>]

Envoyé : mardi 31 janvier 2017 12:38

À : SOULACROIX Julian

Cc : Matthew.Hiser@nrc.gov; Patrick.Purtscher@nrc.gov

Objet : Harvesting Workshop

Dr. Soulacroix:

Thank you for your interest and willingness to participate in the workshop. I have attached the workshop announcement along with a few slides describing the motivation for the workshop and the expectations for each session. The workshop is divided into 5 sessions, each with a combination of presentations and discussion:

1. Session 1 will consist of short presentations and a panel discussion on the motivation for harvesting.
2. Session 2 will discuss data needs best met through harvesting.
3. Session 3 will discuss sources of materials for harvesting programs
4. Session 4 will discuss lessons-learned from past harvesting programs and practical aspects associated with harvesting.
5. Session 5 will attempt to summarize the workshop and planning a harvesting program, as well as discuss actions and next steps

We would like to invite you to present in any of these sessions. We are most interested in MAI participation in sessions 1, 3, and 5 but we would also welcome participation in sessions 2 and 4. For sessions 1, 3, and 5, we are looking for brief 5-10 minute presentations, so just a few slides at most on motivation for harvesting, sources of materials, and any future harvesting plans. For sessions 2 and 4, the presentations are anticipated to be longer, perhaps 20-30 minutes, covering lessons learned from previous harvesting experience (session 4) and data needs best addressed through harvesting (session 2).

Please let me know if you would be able to participate and which sessions you would be willing to support. We will look forward to your participation and contribution to the workshop!

Rob

Robert Tregoning

Technical Advisor for Materials

US Nuclear Regulatory Commission

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From: [Tregoning, Robert](#)
To: [Resident Researcher - Naito, Keita](#)
Cc: [Hiser, Matthew](#); [Purtscher, Patrick](#)
Subject: RE: About Ex-Plant Materials Harvesting Workshop
Date: Thursday, February 9, 2017 9:42:27 AM
Attachments: [Ex-Plant Materials Harvesting Workshop.pptx](#)
[Condensed Workshop Agenda 12-12-16.docx](#)
[Harvesting Workshop Announcement.docx](#)

Note to requester: Attachments are immediately following.

Dear Mr. Naito:

There is no registration for the workshop but it is a closed workshop by invitation only. We're trying to have a small number of participants so that it can be a working meeting. We also have a limited sized meeting room. Therefore, we're limiting the number of people in the room to those that are actually presenting during one of the sessions. I've attached some additional details about the workshop for your information. As you can see in the attachments, we are planning five unique sessions as part of the workshop. Each session has a specific theme, or objective, as outlined below (and in the attached agenda).

1. Session 1 will consist of short presentations and a panel discussion on the motivation for harvesting.
2. Session 2 will discuss data needs best met through harvesting.
3. Session 3 will discuss sources of materials for harvesting programs
4. Session 4 will discuss lessons-learned from past harvesting programs and practical aspects associated with harvesting.
5. Session 5 will attempt to summarize the workshop and planning a harvesting program, as well as discuss actions and next steps

Do you have a presentation or several presentations that you think would fit into one or more of these sessions? If not, you can still observe the workshop by participating in the webinar that we will be setting up for the meeting.

Regards,

Rob

Robert Tregoning
Technical Advisor for Materials
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ph: 301-415-2324
fax: 301-415-6671

From: Resident Researcher - Naito, Keita [mailto:knaito@guestresearcher.epri.com]

Sent: Wednesday, February 08, 2017 3:23 PM

To: Tregoning, Robert <Robert.Tregoning@nrc.gov>

Subject: [External_Sender] About Ex-Plant Materials Harvesting Workshop

Dear Robert Tregoning

I'm Keita Naito from Chugoku Electric Power, a Japanese Utility, also I'm EPRI Resident Researcher. I got the information about Ex-Plant Materials Harvesting Workshop from NRA.

I'm considering attending the workshop because I am interested in Ex-Plant materials harvesting in the US, but when is the deadline for application?

Also could you tell me the starting time and ending time of the workshop?

Best Regards,

Keita Naito
The Chugoku Electric Power Co., Inc.
EPRI Resident Researcher
1300 West W.T. Harris BLVD, Charlotte, NC 28262
PHONE: +1-704-595-2876
E-mail: knaito@guestresearcher.epri.com

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Ex-Plant Materials Harvesting Workshop

March 7-8, 2017

USNRC HQ

Rockville, MD, USA

Meeting Logistics

- Workshop will be held at NRC's Three White Flint North building
 - Directly adjacent to the White Flint Metro station
 - Nearest hotel within walking distance: Bethesda North Marriott Hotel & Conference Center
- Workshop is a non-public meeting to encourage open discussion
 - Presentations and meeting summary will be distributed among meeting participants only
- GoToMeeting webinar will be available to support additional attendees
 - Webinar attendees will be primarily observers
 - Limited opportunities for webinar attendee participation in discussion if time allows
 - Discussion will be recorded through GoToMeeting software to aid capturing discussion in meeting summary

Motivation

- With plants shutting down both in the U.S. and internationally, there are increasing opportunities to harvest components from decommissioning plants
 - Past harvesting efforts generally more reactive as opportunities arose, rather than proactively planned
- Ex-plant materials may be valuable because they have been exposed to actual in-service plant operating conditions
 - Can reduce the uncertainty associated with the applicability of the aging conditions
- Insights from research on harvested materials can address technical data needs identified for extended plant operation
- Lessons learned from past harvesting programs can help improve future harvesting efforts
 - Challenges encountered in previous programs can be shared and mitigated or avoided in future programs

Approach

- Domestic and international researchers, industry, regulators, and decommissioning companies' discuss benefits and challenges with ex-plant harvesting
 - Encourage sharing of lessons learned as well as areas of common interest
- Workshop consists of topical sessions with short presentations and significant time for open discussion
 - Goal is to maximize engagement among meeting participants
- Scope includes any materials aging issue that could benefit from harvesting, including metals, cables, and concrete

Expected Outcome

- Participants become better informed and aware of the benefits and challenges associated with ex-plant harvesting
- Discussions help identify areas of common interest for harvesting to address technical data needs
- Presentations and discussions provide the starting point for a “database” of harvested materials and future harvesting opportunities
- Contacts are made among research organizations to allow for further discussion of specific harvesting projects
- Workshop summary documenting discussion will be distributed among participants

Session Expectations

- Session 1 Motivation for Harvesting
 - Perspective from panel participants on their organizations' interest in and motivation for harvesting
 - Brief (5-10 minute) presentation from each panel member followed by general discussion
- Session 2 Technical Data Needs for Harvesting
 - Presenters share high-priority data needs that may be best addressed by harvesting
 - Where does harvesting hold particular value compared to other sources of technical data
 - 15-20 minute presentations followed by open discussion of technical data needs for harvesting

Session Expectations

- Session 3 Sources of Materials
 - Information on previously harvested materials and future harvesting opportunities
 - Materials located at research and vendor facilities
 - Decommissioning plants that may allow for future harvesting
 - Short 5-10 minute presentations followed by open discussion
 - Starting point for potential database of previously harvested materials and future harvesting opportunities
- Session 4 Harvesting Experience: Lessons Learned and Practical Aspects
 - Improving future efforts with lessons learned from past programs
 - Pitfalls to avoid and strategies to improve likelihood of success
 - Practical perspective from non-researchers on how harvesting interfaces with the decommissioning process
 - International decommissioning and harvesting experience
 - 20-30 minute presentations followed by open discussion

Session Expectations

- Session 5 Future Harvesting Program Planning
 - Technical and logistical information needed when planning a specific harvesting program
 - Perspective from panel participants on the workshop
 - Next steps and actions from workshop
 - Potential areas of common interest for future harvesting programs
 - Brief (5-10 minute) presentation from each panel member followed by general discussion

Draft Agenda – March 7-8, 2017 Harvesting Workshop

Tuesday, March 7, 2017

Introduction

- Overview of workshop purpose and objectives

Session 1: Motivation for Harvesting

- Solicited presentations from EPRI, DOE, NRC, and international organizations followed by panel discussion

Session 2: Technical data needs best addressed by harvesting

- Solicited presentations from EPRI, DOE, NRC, and international organizations followed by open discussion

Session 3: Sources of Materials

- Solicited presentations from EPRI, DOE, NRC, and international organizations followed by open discussion

Wednesday, March 8, 2017

Session 4: Harvesting Experience: Lessons learned and practical aspects

- Solicited presentations from EPRI, DOE, NRC, U.S. utility, decommissioning companies, and international organizations followed by open discussion

Session 5: Future Harvesting Program Planning

- Solicited presentations from EPRI, DOE, NRC, and international organizations followed by open and panel discussion

Ex-Plant Materials Harvesting Workshop

Location: NRC Headquarters in Rockville, MD, USA

Dates: March 7-8, 2017

Motivation:

- There are increasing opportunities to harvest the safety-critical components from decommissioning plants, both domestic and international.
- The harvested materials are valuable because they have been exposed to actual in-service plant operating conditions (temperature, irradiation, coolant, etc.), unlike virgin materials tested under simulated conditions in the lab.
- Data from ex-plant materials should help address technical gaps identified for extended operation of nuclear power plants due to highly relevant aging conditions.

Purpose and Objective:

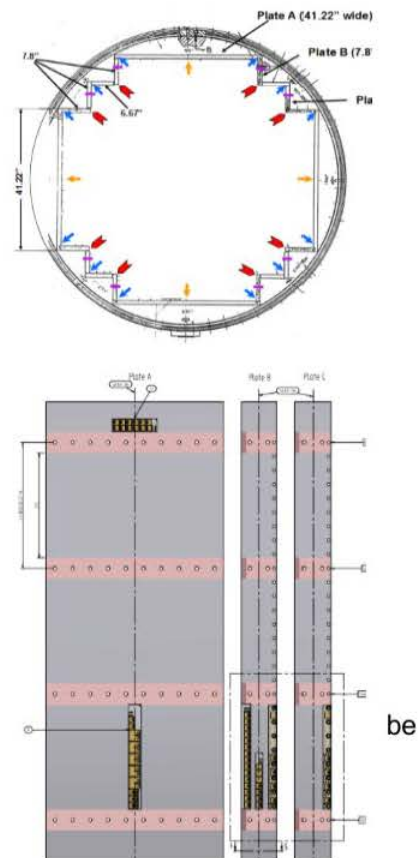
- For NRC staff and interested stakeholders to have greater awareness and knowledge of the benefits and challenges associated with ex-plant harvesting.
- Facilitate contacts and communication to enable specific cooperative ex-plant harvesting programs to be initiated.

Workshop Topics:

- Harvesting decision-making and prioritization
 - Technical data needs best addressed by harvesting
 - Technical information needed in advance of harvesting
- Sources of materials:
 - Decommissioning reactors
 - Operating reactors – replaced components
 - Previous harvesting programs – “boneyards”
 - Tracking available materials
- Harvesting process
 - Lessons learned from harvesting experience
 - Perspective of utility-owner and decommissioning contractor on harvesting
 - Communication and coordination between decommissioning and researchers
- International collaborative programs on specific components at specific plants

Workshop will consist of solicited presentations followed by discussion periods. If interested in attending or learning more about the workshop, please reach out to the contacts below.

Contacts: Robert Tregoning, Robert.Tregoning@nrc.gov
Matthew Hiser, Matthew.Hiser@nrc.gov
Patrick Purtscher, Patrick.Purtscher@nrc.gov



From: [Tregoning, Robert](#)
To: [Resident Researcher - Naito, Keita](#)
Cc: [Hiser, Matthew](#); [Purtscher, Patrick](#)
Subject: RE: RE: [External] RE: About Ex-Plant Materials Harvesting Workshop
Date: Thursday, February 9, 2017 2:48:12 PM

Keita:

Thanks, we'll provide you all the information you need for the webinar closer to the actual meeting date.

Regards,

Rob

Robert Tregoning

Technical Advisor for Materials

US Nuclear Regulatory Commission

Two White Flint North, M/S T-10 A36

11545 Rockville Pike

Rockville, MD 20852-2738

ph: 301-415-2324

fax: 301-415-6671

From: Resident Researcher - Naito, Keita [<mailto:knaito@guestresearcher.epri.com>]

Sent: Thursday, February 09, 2017 1:49 PM

To: Tregoning, Robert <Robert.Tregoning@nrc.gov>

Cc: Hiser, Matthew <Matthew.Hiser@nrc.gov>; Purtscher, Patrick <Patrick.Purtscher@nrc.gov>

Subject: [External_Sender] RE: [External] RE: About Ex-Plant Materials Harvesting Workshop

Dear Rob

Thank you for your response.

I could understand about this workshop, and I also didn't know observing this workshop by the webinar is possible.

We decided decommissioning of our plant, Shimane unit1, in 2015, and we just started considering about the materials harvesting.

Therefore, I don't have a presentation at this time so that I'll observe this workshop by participating in the webinar.

Best Regards,

Keita Naito

From: Tregoning, Robert [<mailto:Robert.Tregoning@nrc.gov>]

Sent: Thursday, February 9, 2017 9:42 AM

To: Resident Researcher - Naito, Keita <knaito@guestresearcher.epri.com>

Cc: Hiser, Matthew <Matthew.Hiser@nrc.gov>; Purtscher, Patrick <Patrick.Purtscher@nrc.gov>

Subject: [External] RE: About Ex-Plant Materials Harvesting Workshop

Dear Mr. Naito:

There is no registration for the workshop but it is a closed workshop by invitation only.

We're trying have a small number of participants so that it can be a working meeting. We also have a limited sized meeting room. Therefore, we're limiting the number of people in the room to those that are actually presenting during one of the sessions.

I've attached some additional details about the workshop for your information. As you can see in the attachments, we are planning five unique sessions as part of the workshop. Each session has a specific theme, or objective, as outlined below (and in the attached agenda).

1. Session 1 will consist of short presentations and a panel discussion on the motivation for harvesting.
2. Session 2 will discuss data needs best met through harvesting.
3. Session 3 will discuss sources of materials for harvesting programs
4. Session 4 will discuss lessons-learned from past harvesting programs and practical aspects associated with harvesting.
5. Session 5 will attempt to summarize the workshop and planning a harvesting program, as well as discuss actions and next steps

Do you have a presentation or several presentations that you think would fit into one or more of these sessions? If not, you can still observe the workshop by participating in the webinar that we will be setting up for the meeting.

Regards,
Rob

Robert Tregoning
Technical Advisor for Materials
US Nuclear Regulatory Commission
Two White Flint North, M/S T-10 A36
11545 Rockville Pike
Rockville, MD 20852-2738
ph: 301-415-2324
fax: 301-415-6671

From: Resident Researcher - Naito, Keita [<mailto:knaito@guestresearcher.epri.com>]

Sent: Wednesday, February 08, 2017 3:23 PM

To: Tregoning, Robert <Robert.Tregoning@nrc.gov>

Subject: [External_Sender] About Ex-Plant Materials Harvesting Workshop

Dear Robert Tregoning

I'm Keita Naito from Chugoku Electric Power, a Japanese Utility, also I'm EPRI Resident Researcher. I got the information about Ex-Plant Materials Harvesting Workshop from NRA.

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Also could you tell me the starting time and ending time of the workshop?

Best Regards,

Keita Naito

The Chugoku Electric Power Co., Inc.
EPRI Resident Researcher
1300 West W.T. Harris BLVD, Charlotte, NC 28262
PHONE: +1-704-595-2876

E-mail: knaito@guestresearcher.epri.com

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administrator and/or provider. ***

From: [Tregoning, Robert](#)
To: [Taku Arai](#); "坂本 一信"
Cc: [Hiser, Matthew](#); [Purtscher, Patrick](#); "田口 清貴"; soneda@criepi.denken.or.jp; "HIGUCHI, Sadao"
Subject: RE: RE: RE: Harvesting workshop
Date: Thursday, February 9, 2017 6:41:40 AM

Dear:

Dr. Arai:

Thank you so much for your response. I'm happy that you will be a panelist for Session 1 and provide a presentation for Session 4. Thank you for clarifying why you can't be a panelist in Session 5. Can you provide a title for your presentation in Session 4? I also am very much looking forward to meeting you in March.

Warm regards,

Rob

Robert Tregoning

Technical Advisor for Materials

US Nuclear Regulatory Commission

Two White Flint North, M/S T-10 A36

11545 Rockville Pike

Rockville, MD 20852-2738

ph: 301-415-2324

fax: 301-415-6671

From: Taku Arai [<mailto:arait@criepi.denken.or.jp>]

Sent: Wednesday, February 08, 2017 8:10 PM

To: Tregoning, Robert <Robert.Tregoning@nrc.gov>; '坂本 一信' <kazunobu_sakamoto@nsr.go.jp>

Cc: Hiser, Matthew <Matthew.Hiser@nrc.gov>; Purtscher, Patrick <Patrick.Purtscher@nrc.gov>; '田口 清貴' <kiyotaka_taguchi@nsr.go.jp>; soneda@criepi.denken.or.jp; 'HIGUCHI, Sadao' <higuchi@criepi.denken.or.jp>

Subject: [External_Sender] RE: RE: Harvesting workshop

Dear D. Tregoning

CRIEPI would like to make presentations in session 1 and 4.

I'm ready to accept a panelist during session 1.

But, I would like to decline to be a panelist during session 5.

Because, my situation is complex.

CRIEPI have two situations as a research organization and a member of an utility group which discuss material aging research using harvested materials.

I can talk as a research organization, but can't talk as an representative of Japanese utilities at the present time.

I'm looking forward to meet you at the workshop.

Best regards,

Taku Arai

Dr. Taku Arai

Deputy Associate Vice President

Structural Materials Sector

Materials Science Research Laboratory

Deputy Director,

NPP Maintenance Research Team

Central Research Institute of Electric Power Industry
(CRIEPI)

2-11-1, Iwado Kita, Komae-shi, Tokyo 201-8511 JAPAN

E-mail: arait@criepi.denken.or.jp
<http://criepi.denken.or.jp>

From: Tregoning, Robert [<mailto:Robert.Tregoning@nrc.gov>]

Sent: Wednesday, February 08, 2017 8:40 PM

To: 坂本 一信

Cc: Hiser, Matthew; Purtscher, Patrick; 田口 清貴; soneda@criepi.denken.or.jp; arait@criepi.denken.or.jp

Subject: RE: RE: Harvesting workshop

Kazu:

Thank you for the update. I'll look forward to getting an email from Dr. Arai with his ability to be a panelist during sessions 1 and 5. I look forward to seeing everyone from JNRA, CRIEPI, and JAEA next month at the workshop.

Warm regards,

Rob

Robert Tregoning

Technical Advisor for Materials

US Nuclear Regulatory Commission

Two White Flint North, M/S T-10 A36

11545 Rockville Pike

Rockville, MD 20852-2738

ph: 301-415-2324

fax: 301-415-6671

From: 坂本 一信 [mailto:kazunobu_sakamoto@nsr.go.jp]

Sent: Tuesday, February 07, 2017 5:39 PM

To: Tregoning, Robert <Robert.Tregoning@nrc.gov>

Cc: Hiser, Matthew <Matthew.Hiser@nrc.gov>; Purtscher, Patrick <Patrick.Purtscher@nrc.gov>; 田口 清貴 <kiyotaka_taguchi@nsr.go.jp>; soneda@criepi.denken.or.jp; arait@criepi.denken.or.jp

Subject: [External_Sender] RE: Harvesting workshop

Rob,

I had a meeting with Dr. Soneda and Dr. Arai of CRIEPI yesterday.

I conveyed your expectation that CRIEPI guy take on panelist at session 1 or 5, and asked them to contact you directly.

However, I am not sure about that CRIEPI will be able to take on panelist since their situation is also complex.

Anyway, please confer with Dr. Arai who will participate in the workshop.

Sincerely,

Kazu

From: [Wei-Wu Chao](#)
To: [Tregoning, Robert](#)
Cc: [Hiser, Matthew](#); [Purtscher, Patrick](#)
Subject: [External_Sender] 回覆: 回覆: 回覆: Ex-Plant Materials Harvesting Workshop
Date: Thursday, February 9, 2017 9:36:44 AM

Thank you so much.

Wei-Wu Chao

Taiwan Atomic Energy Council Representative in DC
Deputy Director of Science and Technology Division, TECRO
4201 Wisconsin Ave. NW, Washington, DC 20016

Cell: (b)(6)

Tel: 202-895-1932

從: Tregoning, Robert <Robert.Tregoning@nrc.gov>

寄件日期: 2017年2月9日 上午 09:33

至: Wei-Wu Chao

副本: Hiser, Matthew; Purtscher, Patrick

主旨: RE: 回覆: 回覆: 回覆: Ex-Plant Materials Harvesting Workshop

Dear Wei-Wu:

Yes, we will make sure that you have the webinar details so that you can observe the workshop and at least participate remotely. More details on this will follow.

Regards,

Rob

Robert Tregoning

Technical Advisor for Materials

US Nuclear Regulatory Commission

Two White Flint North, M/S T-10 A36

11545 Rockville Pike

Rockville, MD 20852-2738

ph: 301-415-2324

fax: 301-415-6671

From: Wei-Wu Chao [mailto:wwchao@aec.gov.tw]

Sent: Thursday, February 09, 2017 9:10 AM

To: Tregoning, Robert <Robert.Tregoning@nrc.gov>

Subject: [External_Sender] 回覆: 回覆: 回覆: Ex-Plant Materials Harvesting Workshop

Dear Rob,

I got some words from Taipei. Looks like we don't have any presentations for the workshop.

The ex-plant materials harvesting is new to us. With that said, can I use the GoToMeeting

Webinar to be an observer for this workshop?

Wei-Wu Chao

Taiwan Atomic Energy Council Representative in DC

Deputy Director of Science and Technology Division, TECRO

4201 Wisconsin Ave. NW, Washington, DC 20016

Cell: (b)(6)

Tel: 202-895-1932

從: Tregoning, Robert <Robert.Tregoning@nrc.gov>

寄件日期: 2017年2月7日 上午 07:19

至: Wei-Wu Chao

主旨: RE: 回覆: 回覆: Ex-Plant Materials Harvesting Workshop

Dear Wei-Wu:

Please let me know if you have any questions about the workshop in the interim.

Warm regards,

Rob

Robert Tregoning

Technical Advisor for Materials

US Nuclear Regulatory Commission

Two White Flint North, M/S T-10 A36

11545 Rockville Pike

Rockville, MD 20852-2738

ph: 301-415-2324

fax: 301-415-6671

From: Wei-Wu Chao [<mailto:wwchao@aec.gov.tw>]

Sent: Tuesday, February 07, 2017 7:07 AM

To: Tregoning, Robert <Robert.Tregoning@nrc.gov>

Cc: Purtscher, Patrick <Patrick.Purtscher@nrc.gov>; Hiser, Matthew <Matthew.Hiser@nrc.gov>

Subject: [External_Sender] 回覆: 回覆: Ex-Plant Materials Harvesting Workshop

Dear Rob,

Thank you for your reply. Let me check with my colleagues in Taipei who asked me to participate this workshop. I am a local representative for Atomic Energy Council which is Taiwan's nuclear regulator. Thanks.

With warm regards,

Wei-Wu Chao

Taiwan Atomic Energy Council Representative in DC

Deputy Director of Science and Technology Division, TECRO

4201 Wisconsin Ave. NW, Washington, DC 20016

Cell: (b)(6)

Tel: 202-895-1932

從: Tregoning, Robert <Robert.Tregoning@nrc.gov>

寄件日期: 2017年2月7日 上午 06:54

至: Wei-Wu Chao

副本: Purtscher, Patrick; Hiser, Matthew

主旨: RE: 回覆: Ex-Plant Materials Harvesting Workshop

Mr. Chao:

I want to apologize for not responding sooner to your original email. There is no registration for the workshop but it is a closed workshop by invitation only. We're trying to have a small number of participants so that it can be a working meeting. I've attached some details about the workshop. As you can see in the attachments, we are planning five unique sessions as part of the workshop. Each session has a specific theme, or objective, as outlined below (and in the attached agenda).

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Do you have a presentation or several presentations that you think would fit into one or more of these sessions?

Regards,

Rob

Robert Tregoning

Technical Advisor for Materials

US Nuclear Regulatory Commission

Two White Flint North, M/S T-10 A36

11545 Rockville Pike

Rockville, MD 20852-2738

ph: 301-415-2324

fax: 301-415-6671

From: Wei-Wu Chao [<mailto:wwchao@aec.gov.tw>]

Sent: Monday, February 06, 2017 10:29 AM

To: Tregoning, Robert <Robert.Tregoning@nrc.gov>

Subject: [External_Sender] 回覆: Ex-Plant Materials Harvesting Workshop

Hi Robert,

I was wondering whether you received my previous mail or not. If yes, please instruct me how to register in this workshop. Thanks for your attention.

Best regards,

Wei-Wu Chao

Taiwan Atomic Energy Council Representative in DC

Deputy Director of Science and Technology Division, TECRO

4201 Wisconsin Ave. NW, Washington, DC 20016

Cell: (b)(6)

Tel: 202-895-1932

從: Wei-Wu Chao

寄件日期: 2017年1月20日 上午 09:46

至: Robert.Tregoning@nrc.gov

主旨: Ex-Plant Materials Harvesting Workshop

Dear Robert,

I am interested in attending the workshop from March 7-8 at NRC headquarters. Please let me know how to register and which room the workshop is held. Thank you for your attention.

Best regards,

Wei-Wu Chao

Taiwan Atomic Energy Council Representative in DC

Deputy Director of Science and Technology Division, TECRO

4201 Wisconsin Ave. NW, Washington, DC 20016

Cell: (b)(6)

Tel: 202-895-1932

From: [Hiser, Matthew](#)
To: henry.cordes@ewn-gmbh.de
Cc: [Tregoning, Robert](#)
Subject: Ex-Plant Materials Harvesting Workshop
Date: Friday, February 10, 2017 3:02:40 PM
Attachments: [Ex-Plant Materials Harvesting Workshop.pptx](#)
[Condensed Workshop Agenda.docx](#)
[Harvesting Workshop Announcement.docx](#)

Note to requester: Attachments are immediately following.

Dear Mr. Cordes:

I am a materials engineer in the Office of Research at the US Nuclear Regulatory Commission (NRC). NRC is hosting a workshop on March 7-8, 2017 on the topic of harvesting materials from decommissioning nuclear plants. Participants will primarily be from nuclear materials research organizations from around the world, including Europe and Asia. Dr. Uwe Jendrich from GRS will be attending the workshop.

One of the workshop sessions is focused on the practical aspects of a harvesting program and the decommissioning process. We were interested in getting the international perspective on the practical aspects of harvesting and decommissioning. When we inquired about contacts involved with decommissioning activities in Germany, Dr. Jendrich provided your name and contact information. We would like to invite a representative from EWN to participate and present on the decommissioning process in Germany and how harvesting may interface with the decommissioning process.

I have attached a workshop announcement, high-level agenda, and other information about the workshop. We are in the process of finalizing the agenda and speakers currently. Please feel free to contact me for additional information and if EWN would be able to participate.

Sincerely,

Matthew Hiser

Materials Engineer

US Nuclear Regulatory Commission | Office of Nuclear Regulatory Research

Division of Engineering | Corrosion and Metallurgy Branch

Phone: 301-415-2454 | Office: TWFN 10D62

Matthew.Hiser@nrc.gov

Ex-Plant Materials Harvesting Workshop

March 7-8, 2017

USNRC HQ

Rockville, MD, USA

Meeting Logistics

- Workshop will be held at NRC's Three White Flint North building
 - Directly adjacent to the White Flint Metro station
 - Nearest hotel within walking distance: Bethesda North Marriott Hotel & Conference Center
- Workshop is a non-public meeting to encourage open discussion
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Motivation

- With plants shutting down both in the U.S. and internationally, there are increasing opportunities to harvest components from decommissioning plants
 - Past harvesting efforts generally more reactive as opportunities arose, rather than proactively planned
- Ex-plant materials may be valuable because they have been exposed to actual in-service plant operating conditions
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- Domestic and international researchers, industry, regulators, and decommissioning companies' discuss benefits and challenges with ex-plant harvesting
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- Workshop consists of topical sessions with short presentations and significant time for open discussion
 - Goal is to maximize engagement among meeting participants
- Scope includes any materials aging issue that could benefit from harvesting, including metals, cables, and concrete

Expected Outcome

- Participants become better informed and aware of the benefits and challenges associated with ex-plant harvesting
- Discussions help identify areas of common interest for harvesting to address technical data needs
- Presentations and discussions provide the starting point for a “database” of harvested materials and future harvesting opportunities
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Session Expectations

- Session 3 Sources of Materials
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 - Materials located at research and vendor facilities
 - Decommissioning plants that may allow for future harvesting
 - Short 5-10 minute presentations followed by open discussion
 - Starting point for potential database of previously harvested materials and future harvesting opportunities
- Session 4 Harvesting Experience: Lessons Learned and Practical Aspects
 - Improving future efforts with lessons learned from past programs
 - Pitfalls to avoid and strategies to improve likelihood of success
 - Practical perspective from non-researchers on how harvesting interfaces with the decommissioning process
 - International decommissioning and harvesting experience
 - 20-30 minute presentations followed by open discussion

Session Expectations

- Session 5 Future Harvesting Program Planning
 - Technical and logistical information needed when planning a specific harvesting program
 - Perspective from panel participants on the workshop
 - Next steps and actions from workshop
 - Potential areas of common interest for future harvesting programs
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Draft Agenda – March 7-8, 2017 Harvesting Workshop

Tuesday, March 7, 2017

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- Solicited presentations from EPRI, DOE, NRC, and international organizations followed by panel discussion

Session 2: Technical data needs best addressed by harvesting

- Solicited presentations from EPRI, DOE, NRC, and international organizations followed by open discussion

Session 3: Sources of Materials

- Solicited presentations from EPRI, DOE, NRC, and international organizations followed by open discussion

Wednesday, March 8, 2017

Session 4: Harvesting Experience: Lessons learned and practical aspects

- Solicited presentations from EPRI, DOE, NRC, U.S. utility, decommissioning companies, and international organizations followed by open discussion

Session 5: Future Harvesting Program Planning

- Solicited presentations from EPRI, DOE, NRC, and international organizations followed by open and panel discussion

Ex-Plant Materials Harvesting Workshop

Location: NRC Headquarters in Rockville, MD, USA

Dates: March 7-8, 2017

Motivation:

- There are increasing opportunities to harvest the safety-critical components from decommissioning plants, both domestic and international.
- The harvested materials are valuable because they have been exposed to actual in-service plant operating conditions (temperature, irradiation, coolant, etc.), unlike virgin materials tested under simulated conditions in the lab.
- Data from ex-plant materials should help address technical gaps identified for extended operation of nuclear power plants due to highly relevant aging conditions.

Purpose and Objective:

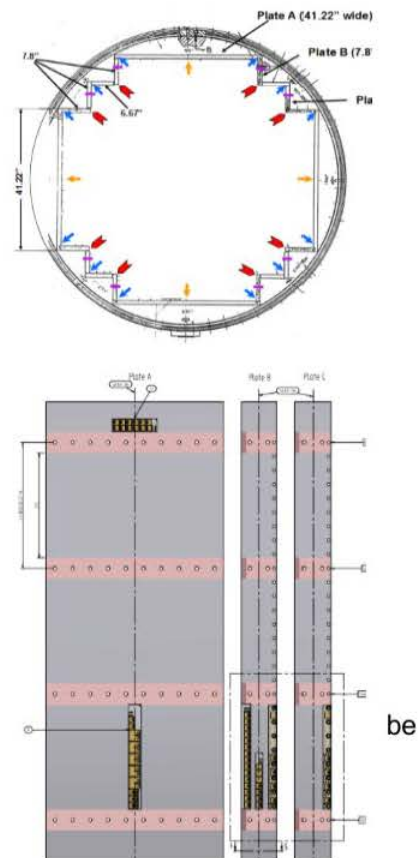
- For NRC staff and interested stakeholders to have greater awareness and knowledge of the benefits and challenges associated with ex-plant harvesting.
- Facilitate contacts and communication to enable specific cooperative ex-plant harvesting programs to be initiated.

Workshop Topics:

- Harvesting decision-making and prioritization
 - Technical data needs best addressed by harvesting
 - Technical information needed in advance of harvesting
- Sources of materials:
 - Decommissioning reactors
 - Operating reactors – replaced components
 - Previous harvesting programs – “boneyards”
 - Tracking available materials
- Harvesting process
 - Lessons learned from harvesting experience
 - Perspective of utility-owner and decommissioning contractor on harvesting
 - Communication and coordination between decommissioning and researchers
- International collaborative programs on specific components at specific plants

Workshop will consist of solicited presentations followed by discussion periods. If interested in attending or learning more about the workshop, please reach out to the contacts below.

Contacts: Robert Tregoning, Robert.Tregoning@nrc.gov
Matthew Hiser, Matthew.Hiser@nrc.gov
Patrick Purtscher, Patrick.Purtscher@nrc.gov



From: [Hiser, Matthew](#)
To: ludger.mohrbach@vgb.org
Cc: [Tregoning, Robert](#)
Subject: Ex-Plant Materials Harvesting Workshop
Date: Friday, February 10, 2017 2:56:54 PM
Attachments: [Ex-Plant Materials Harvesting Workshop.pptx](#)
[Condensed Workshop Agenda.docx](#)
[Harvesting Workshop Announcement.docx](#)

Note to requester: Attachments are immediately following.

Dear Dr. Mohrbach:

I am a materials engineer in the Office of Research at the US Nuclear Regulatory Commission (NRC). NRC is hosting a workshop on March 7-8, 2017 on the topic of harvesting materials from decommissioning nuclear plants. Participants will primarily be from nuclear materials research organizations from around the world, including Europe and Asia. Dr. Uwe Jendrich from GRS will be attending the workshop.

One of the workshop sessions is focused on the practical aspects of a harvesting program and the decommissioning process. We were interested in getting the international perspective on the practical aspects of harvesting and decommissioning. When we inquired about contacts involved with decommissioning activities in Germany, Dr. Jendrich provided your name and contact information. We would like to invite a representative from VGB to participate and present on the decommissioning process in Germany and how harvesting may interface with the decommissioning process.

I have attached a workshop announcement, high-level agenda, and other information about the workshop. We are in the process of finalizing the agenda and speakers currently. Please feel free to contact me for additional information and if VGB would be able to participate.

Sincerely,

Matthew Hiser

Materials Engineer

US Nuclear Regulatory Commission | Office of Nuclear Regulatory Research

Division of Engineering | Corrosion and Metallurgy Branch

Phone: 301-415-2454 | Office: TWFN 10D62

Matthew.Hiser@nrc.gov

Ex-Plant Materials Harvesting Workshop

March 7-8, 2017

USNRC HQ

Rockville, MD, USA

Meeting Logistics

- Workshop will be held at NRC's Three White Flint North building
 - Directly adjacent to the White Flint Metro station
 - Nearest hotel within walking distance: Bethesda North Marriott Hotel & Conference Center
- Workshop is a non-public meeting to encourage open discussion
 - Presentations and meeting summary will be distributed among meeting participants only
- GoToMeeting webinar will be available to support additional attendees
 - Webinar attendees will be primarily observers
 - Limited opportunities for webinar attendee participation in discussion if time allows
 - Discussion will be recorded through GoToMeeting software to aid capturing discussion in meeting summary

Motivation

- With plants shutting down both in the U.S. and internationally, there are increasing opportunities to harvest components from decommissioning plants
 - Past harvesting efforts generally more reactive as opportunities arose, rather than proactively planned
- Ex-plant materials may be valuable because they have been exposed to actual in-service plant operating conditions
 - Can reduce the uncertainty associated with the applicability of the aging conditions
- Insights from research on harvested materials can address technical data needs identified for extended plant operation
- Lessons learned from past harvesting programs can help improve future harvesting efforts
 - Challenges encountered in previous programs can be shared and mitigated or avoided in future programs

Approach

- Domestic and international researchers, industry, regulators, and decommissioning companies' discuss benefits and challenges with ex-plant harvesting
 - Encourage sharing of lessons learned as well as areas of common interest
- Workshop consists of topical sessions with short presentations and significant time for open discussion
 - Goal is to maximize engagement among meeting participants
- Scope includes any materials aging issue that could benefit from harvesting, including metals, cables, and concrete

Expected Outcome

- Participants become better informed and aware of the benefits and challenges associated with ex-plant harvesting
- Discussions help identify areas of common interest for harvesting to address technical data needs
- Presentations and discussions provide the starting point for a “database” of harvested materials and future harvesting opportunities
- Contacts are made among research organizations to allow for further discussion of specific harvesting projects
- Workshop summary documenting discussion will be distributed among participants

Session Expectations

- Session 1 Motivation for Harvesting
 - Perspective from panel participants on their organizations' interest in and motivation for harvesting
 - Brief (5-10 minute) presentation from each panel member followed by general discussion
- Session 2 Technical Data Needs for Harvesting
 - Presenters share high-priority data needs that may be best addressed by harvesting
 - Where does harvesting hold particular value compared to other sources of technical data
 - 15-20 minute presentations followed by open discussion of technical data needs for harvesting

Session Expectations

- Session 3 Sources of Materials
 - Information on previously harvested materials and future harvesting opportunities
 - Materials located at research and vendor facilities
 - Decommissioning plants that may allow for future harvesting
 - Short 5-10 minute presentations followed by open discussion
 - Starting point for potential database of previously harvested materials and future harvesting opportunities
- Session 4 Harvesting Experience: Lessons Learned and Practical Aspects
 - Improving future efforts with lessons learned from past programs
 - Pitfalls to avoid and strategies to improve likelihood of success
 - Practical perspective from non-researchers on how harvesting interfaces with the decommissioning process
 - International decommissioning and harvesting experience
 - 20-30 minute presentations followed by open discussion

Session Expectations

- Session 5 Future Harvesting Program Planning
 - Technical and logistical information needed when planning a specific harvesting program
 - Perspective from panel participants on the workshop
 - Next steps and actions from workshop
 - Potential areas of common interest for future harvesting programs
 - Brief (5-10 minute) presentation from each panel member followed by general discussion

Draft Agenda – March 7-8, 2017 Harvesting Workshop

Tuesday, March 7, 2017

Introduction

- Overview of workshop purpose and objectives

Session 1: Motivation for Harvesting

- Solicited presentations from EPRI, DOE, NRC, and international organizations followed by panel discussion

Session 2: Technical data needs best addressed by harvesting

- Solicited presentations from EPRI, DOE, NRC, and international organizations followed by open discussion

Session 3: Sources of Materials

- Solicited presentations from EPRI, DOE, NRC, and international organizations followed by open discussion

Wednesday, March 8, 2017

Session 4: Harvesting Experience: Lessons learned and practical aspects

- Solicited presentations from EPRI, DOE, NRC, U.S. utility, decommissioning companies, and international organizations followed by open discussion

Session 5: Future Harvesting Program Planning

- Solicited presentations from EPRI, DOE, NRC, and international organizations followed by open and panel discussion

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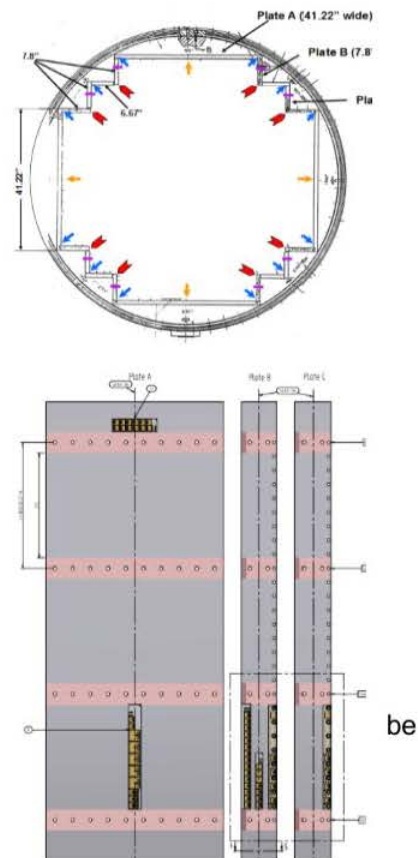
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Contacts: Robert Tregoning, Robert.Tregoning@nrc.gov
Matthew Hiser, Matthew.Hiser@nrc.gov
Patrick Purtscher, Patrick.Purtscher@nrc.gov



From: [Bernhoft, Sherry](#)
To: [Hiser, Matthew](#)
Cc: [Tregoning, Robert](#); [Dyle, Robin](#); [Demma, Anne](#); [Ahluwalia, Kawaljit](#); [Burgos, Brian](#)
Subject: [External_Sender] Re: [External] RE: Harvesting Workshop
Date: Friday, February 10, 2017 3:55:09 PM

Ok

Thanks and have a good weekend

Sherry

Sent from my iPad

On Feb 10, 2017, at 8:49 AM, Hiser, Matthew <Matthew.Hiser@nrc.gov> wrote:

Thanks Sherry! I will update the agenda accordingly. For sessions 1 and 5, slides are not necessarily needed and if you have them, definitely just a few would be best.

From: Bernhoft, Sherry [<mailto:sbernhoft@epri.com>]
Sent: Monday, February 06, 2017 12:50 PM
To: Hiser, Matthew <Matthew.Hiser@nrc.gov>; Tregoning, Robert <Robert.Tregoning@nrc.gov>
Cc: Dyle, Robin <rdyle@epri.com>; Demma, Anne <ademma@epri.com>; Ahluwalia, Kawaljit <kahluwal@epri.com>; Smith, Jean <jmsmith@epri.com>; Burgos, Brian <bburgos@epri.com>
Subject: [External_Sender] RE: Re: [External] RE: Harvesting Workshop

Matt

A little more information to help with your planning.

Talked within EPRI:

Session 1 – I will cover this, for right now I am not planning any overheads. I will discuss EPRI's role is enabling applied research based on member needs to ensure safe, long term operations. We currently do this with the living research programs and implementation of I&E reports. Any harvesting opportunities would need to be carefully considered on a case-by-case basis to ensure they truly add value.

Session 2 – no presentation from EPRI

Session 3 & 4 – Jean and Al

Session 5 – we are still discussing this internally but I don't think we would plan any overheads or presentation, just comment at the end on the results of the workshop

Do you have the meeting room assigned?

As I mentioned Robin and I may only be available the first day due to an NEI being that is being scheduled.

Sherry Bernhoft
Electric Power Research Institute
EPRI, Senior Program Manager

1300 West WT Harris Boulevard | Charlotte, NC 28262
704.595.2740 (office)

(b)(6) [REDACTED] (cell)
Email: sbernhoft@epri.com

www.epri.com

Together...Shaping the Future of Electricity

From: Hiser, Matthew [<mailto:Matthew.Hiser@nrc.gov>]
Sent: Friday, February 03, 2017 12:58 PM
To: Bernhoft, Sherry <sbernhoft@epri.com>
Subject: RE: Re: [External] RE: Harvesting Workshop

Hi Sherry,

Oh, I'm sorry for any confusion. Nominally Rob is leading sessions 1 and 5 and Pat Purtscher is leading session 2. However, I've been tracking the presenters for all sessions, so my email was just intended to identify names/POCs for each session.

Session expectations are laid out below – sessions 1 and 5 are expected to be mostly discussion with very short presentations, while session 2 is looking for a bit more technical discussion on data needs for harvesting.

- Session 1 Motivation for Harvesting

- Perspective from panel participants on their organizations' interest in and motivation for harvesting
- Brief (5-10 minute) presentation from each panel member followed by general discussion

- Session 2 Technical Data Needs for Harvesting

- Presenters share high-priority data needs that may be best addressed by harvesting
 - Where does harvesting hold particular value compared to other sources of technical data

[REDACTED]

- 15-20 minute presentations followed by open discussion of technical data needs for harvesting

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 - Materials located at research and vendor facilities
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- Short 5-10 minute presentations followed by open discussion
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- Improving future efforts with lessons learned from past programs
 - Pitfalls to avoid and strategies to improve likelihood of success
- Practical perspective from non-researchers on how harvesting interfaces with the decommissioning process
- International decommissioning and harvesting experience
- 20-30 minute presentations followed by open discussion

- Session 5 Future Harvesting Program Planning

- Technical and logistical information needed when planning a specific harvesting program
- Perspective from panel participants on the workshop
- Next steps and actions from workshop
- Potential areas of common interest for future harvesting programs
- Brief (5-10 minute) presentation from each panel member followed by general discussion

(b)(6)

Does that make sense? Feel free to give me a call at [REDACTED] today if that'd behlp.

Thanks!

Matt

From: Bernhoft, Sherry [<mailto:sbernhof@epri.com>]
Sent: Friday, February 03, 2017 1:44 PM
To: Hiser, Matthew <Matthew.Hiser@nrc.gov>
Subject: [External_Sender] Re: [External] RE: Harvesting Workshop

I was responding to your request for session 3 & 4, who is coordinating 1, 2 and 5?

Sorry I am a little confused

Sherry

Sent from my iPad

On Feb 3, 2017, at 1:40 PM, Hiser, Matthew <Matthew.Hiser@nrc.gov> wrote:

Thanks Sherry! I'll be in touch with Jean and Al on sessions 3 and 4 and wait to hear more on who will be speaking for EPRI in sessions 1, 2, and 5.

We appreciate EPRI's support and input on this workshop and hope you and Robin will be able to participate both days.

Thanks!

Matt

From: Bernhoft, Sherry [<mailto:sbernhof@epri.com>]
Sent: Friday, February 03, 2017 8:25 AM
To: Hiser, Matthew <Matthew.Hiser@nrc.gov>; 'Richard Reister' (Richard.Reister@nuclear.energy.gov)' <Richard.Reister@nuclear.energy.gov>; 'Rosseel, Thomas M.' <rosseeltm@ornl.gov>; Dyle, Robin <rdyle@epri.com>; Smith, Jean <jmsmith@epri.com>; Ahluwalia, Kawaljit <kahluwal@epri.com>; Burgos, Brian <bburgos@epri.com>; Demma, Anne <ademma@epri.com>
Cc: Tregoning, Robert <Robert.Tregoning@nrc.gov>; Purtscher, Patrick <Patrick.Purtscher@nrc.gov>
Subject: [External_Sender] RE: [External] RE: Harvesting Workshop

Matt –

We have not forgotten about you and the Harvesting Workshop. We just finished NPC week with over 600 industry advisors in Charlotte.

In response to your request for EPRI presenters - I understand you have been talking with Jean and Al. For sessions 3 & 4 work with Jean and Al. I have gathered lessons learned from recent cable and

concrete harvesting projects which Jean will include in her presentation(s).

There is a possibility Robin Dyle and I will only be able to attend the first day of the workshop. There is another meeting NEI is scheduling on March 8th that we may need to attend.

Have a good weekend,

Sherry Bernhoft
Electric Power Research Institute
EPRI, Senior Program Manager

1300 West WT Harris Boulevard | Charlotte, NC 28262
704.595.2740 (office)

(b)(6) [REDACTED] (cell)
Email: sbernhoft@epri.com

www.epri.com

Together...Shaping the Future of Electricity

From: Hiser, Matthew [<mailto:Matthew.Hiser@nrc.gov>]
Sent: Wednesday, February 01, 2017 8:02 AM
To: 'Richard Reister' (Richard.Reister@nuclear.energy.gov) <Richard.Reister@nuclear.energy.gov>; 'Rosseel, Thomas M.' <rosseeltm@ornl.gov>; Bernhoft, Sherry <sbernhoft@epri.com>; Dyle, Robin <rdyle@epri.com>
Cc: Tregoning, Robert <Robert.Tregoning@nrc.gov>; Purtscher, Patrick <Patrick.Purtscher@nrc.gov>
Subject: [External] RE: Harvesting Workshop

We added one additional slide on meeting logistics. Just wanted to share with this group for awareness.

From: Hiser, Matthew
Sent: Monday, January 30, 2017 3:25 PM
To: Richard Reister (Richard.Reister@nuclear.energy.gov) <Richard.Reister@nuclear.energy.gov>; 'Rosseel, Thomas M.' <rosseeltm@ornl.gov>; Bernhoft, Sherry (sbernhoft@epri.com) <sbernhoft@epri.com>; 'Dyle, Robin' <rdyle@epri.com>
Cc: Tregoning, Robert <Robert.Tregoning@nrc.gov>; Purtscher, Patrick <Patrick.Purtscher@nrc.gov>
Subject: RE: Harvesting Workshop

DOE and EPRI Colleagues,

We have pulled together a few slides here within NRC to cover the

motivation and approach for the workshop as well as session expectations. The goal of these slides is to communicate our vision for the workshop; please feel free to review and provide comments if you have any.

To update on item #1 below, we are looking into the option of using GoToMeeting to allow additional participants (probably some NRC staff) to observe with very limited participation. If so, the GoToMeeting software allows recording of the slides and discussion without the involvement of NRC A/V, so the NRC multimedia consent form should not be needed. Just to remind, our purpose is simply to capture the discussion and action items to help with the meeting summary. As long as all meeting participants are comfortable with this and it is technically doable, we will plan to use GoToMeeting and record the discussion through the software to aid in capturing valuable discussion insights in the meeting summary.

Thanks!

Matt

Matthew Hiser

Materials Engineer

US Nuclear Regulatory Commission | Office of Nuclear Regulatory Research

Division of Engineering | Corrosion and Metallurgy Branch

Phone: 301-415-2454 | Office: TWFN 10D62

Matthew.Hiser@nrc.gov

From: Hiser, Matthew

Sent: Wednesday, January 25, 2017 3:39 PM

To: Richard Reister (Richard.Reister@nuclear.energy.gov)

<Richard.Reister@nuclear.energy.gov>; 'Rosseel, Thomas M.'

<rosseeltm@ornl.gov>; Bernhoft, Sherry (sbernhoft@epri.com)

<sbernhoft@epri.com>; 'Dyle, Robin' <rdyle@epri.com>

Cc: Tregoning, Robert <Robert.Tregoning@nrc.gov>; Purtscher,

Patrick <Patrick.Purtscher@nrc.gov>

Subject: Harvesting Workshop

DOE and EPRI Colleagues,

Thank you for participating in the discussion last week on the harvesting workshop sessions 3 and 4. We are making good progress on identifying speakers for the workshop. I wanted to bring a couple items to your attention and request your feedback:

1. We were thinking of doing a video recording of the workshop, simply to capture the discussion and action items to help with the meeting summary. We didn't have any other purpose other than to maximize documentation of the discussion for the benefit of the participants. When I reached out to the NRC A/V folks, I was advised that all speakers would need to sign the NRC multimedia consent form (attached). Please take a look at this form and let us know if your speakers are comfortable with it. If not, we may not be able to take advantage of recording the workshop.
2. Could DOE and EPRI identify their planned speakers for each session? We're hoping to have the agenda and speakers firmed up by next week. As you know, there are slots for DOE and EPRI in each session.

Thanks and please let me know if you have any questions.

Matt

Matthew Hiser

Materials Engineer

US Nuclear Regulatory Commission | Office of Nuclear Regulatory Research

Division of Engineering | Corrosion and Metallurgy Branch

Phone: 301-415-2454 | Office: TWFN 10D62

Matthew.Hiser@nrc.gov

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From: [Hiser, Matthew](#)
To: [Anders Jenssen \(anders.jenssen@studsvik.se\)](#); [Pal.Efsing@vattenfall.com](#)
Subject: Harvesting Workshop
Date: Friday, February 10, 2017 10:10:26 AM
Attachments: [Ex-Plant Materials Harvesting Workshop.pptx](#)
[Condensed Workshop Agenda.docx](#)
[Harvesting Workshop Announcement.docx](#)

Note to requester: All the attachments are immediately following.

Hi Pal and Anders,

It was good to see you at the ZIRP meeting this week. I apologize for not getting this email out to you sooner; I was unable to find a good internet connection in Brussels.

I have attached a few documents that we are sharing for those interested in the workshop. The PP slides cover the meeting logistics, motivation, expected outcome, and session expectations. Please take a look and let me know your in attending and/or presenting at the workshop. Jean Smith and Al Ahluwalia at EPRI are planning presentations for sessions 3 and 4, so you could try to work input into their talks or we may be able to provide a separate slot.

Thanks!

Matt

Matthew Hiser

Materials Engineer

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Phone: 301-415-2454 | Office: TWFN 10D62

Matthew.Hiser@nrc.gov

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Draft Agenda – March 7-8, 2017 Harvesting Workshop

Tuesday, March 7, 2017

Introduction

- Overview of workshop purpose and objectives

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- Solicited presentations from EPRI, DOE, NRC, and international organizations followed by panel discussion

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Wednesday, March 8, 2017

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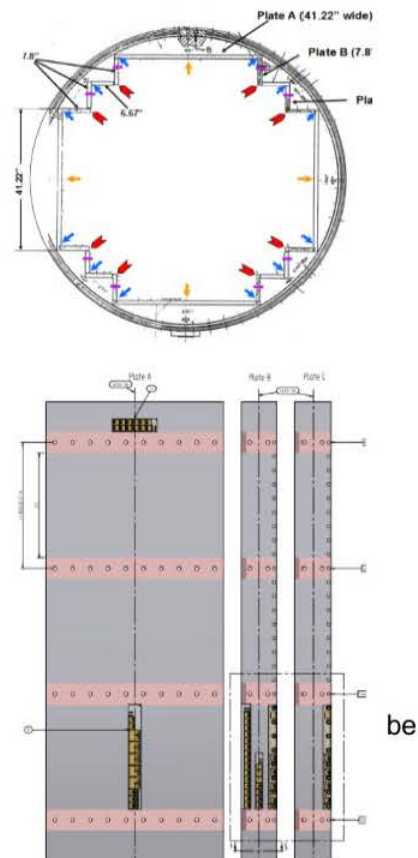
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Matthew Hiser, Matthew.Hiser@nrc.gov
Patrick Purtscher, Patrick.Purtscher@nrc.gov



From: [Tregoning, Robert](#)
To: [Alpan, F. Arzu](#)
Cc: [Hiser, Matthew](#); [Purtscher, Patrick](#)
Subject: RE: RE: RE: Harvesting Workshop
Date: Friday, February 10, 2017 6:52:34 AM

Arzu:

The NRC is located at the White Flint Metro stop. If you don't have a car and are okay using metro, there are several hotels within a metro stop away. If you have a car, that opens up your options. Do you also want to stay as close as possible to NRC?

Robert Tregoning

Technical Advisor for Materials

US Nuclear Regulatory Commission

Two White Flint North, M/S T-10 A36

11545 Rockville Pike

Rockville, MD 20852-2738

ph: 301-415-2324

fax: 301-415-6671

From: Alpan, F. Arzu [mailto:alpanfa@westinghouse.com]

Sent: Thursday, February 09, 2017 9:08 PM

To: Tregoning, Robert <Robert.Tregoning@nrc.gov>

Cc: Hiser, Matthew <Matthew.Hiser@nrc.gov>; Purtscher, Patrick <Patrick.Purtscher@nrc.gov>

Subject: [External_Sender] RE: RE: Harvesting Workshop

Dear Rob,

I tried to make a reservation at Bethesda North Marriott Hotel, but it is sold out on March 6th. I will be arriving at Washington, D.C. on March 6th and departing on March 9th. Is there another nearby hotel that you could recommend?

Best regards,

Arzu

From: Tregoning, Robert [mailto:Robert.Tregoning@nrc.gov]

Sent: Tuesday, February 07, 2017 7:05 AM

To: Alpan, F. Arzu

Cc: Semmler, Michael G.; Hiser, Matthew; Purtscher, Patrick

Subject: RE: RE: Harvesting Workshop

Arzu:

Thank you for your email and your interest in the workshop. I've attached a presentation that has logistical information as well as more information on the overall workshop objectives and the format and objectives of each session.

You can see that we are planning five unique sessions as part of the workshop. Each session has a specific theme, or objective, as outlined below (and in more detail in the attachment).

1. Session 1 will consist of short presentations and a panel discussion on the motivation for harvesting.
2. Session 2 will discuss data needs best met through harvesting.
3. Session 3 will discuss sources of materials for harvesting programs
4. Session 4 will discuss lessons-learned from past harvesting programs and practical aspects associated with harvesting.
5. Session 5 will attempt to summarize the workshop and planning a harvesting

program, as well as discuss actions and next steps

I think the talk you proposed might fit best in either sessions 2 or 3. Session 2 is focusing on data needs best met through harvesting. Session 3 is focusing on potential sources of materials or components. You can see that the focus is on relatively short talks to allow plenty of time for discussion. You could even split your talk to cover why you want to get irradiated concrete in session 2 and then address the attributes of Mihama in Session 3. Given these options, can you provide me with your preference of one talk or two and provide title(s) so that we can add you to the agenda.

Regards,

Rob

Robert Tregoning

Technical Advisor for Materials

US Nuclear Regulatory Commission

Two White Flint North, M/S T-10 A36

11545 Rockville Pike

Rockville, MD 20852-2738

ph: 301-415-2324

fax: 301-415-6671

From: Alpan, F. Arzu [<mailto:alpanfa@westinghouse.com>]

Sent: Monday, February 06, 2017 4:48 PM

To: Tregoning, Robert <Robert.Tregoning@nrc.gov>

Cc: Semmler, Michael G. <semmlimg@westinghouse.com>; Hiser, Matthew <Matthew.Hiser@nrc.gov>; Purtscher, Patrick <Patrick.Purtscher@nrc.gov>

Subject: [External_Sender] RE: Harvesting Workshop

Dear Rob,

Thank you for the information you provided to me on the harvesting workshop that will be held at the NRC Headquarters next month.

I would like to attend this workshop, and, if possible, give a short talk. Westinghouse is in the preliminary stages of communicating with Kansai in investigating the possibility of harvesting concrete from Mihama Unit 1 to analyze the irradiation effects on concrete. This topic (irradiation effects on concrete) has been an interest to various organizations particularly for long-term operation of nuclear power plants. The talk would be mainly to inform the attendees why we are interested in this work and why we are interested in the Mihama Unit 1 concrete.

Is there an attendance fee for the workshop? I would appreciate it if you could provide me any further information related to the workshop (I have the attached documents) and the possibility for my attendance and a short talk.

Best regards,

Arzu

Arzu Alpan, Ph.D.

Principal Engineer

Nuclear Operations & Radiation Analysis Group

Primary Systems Design and Repair

[Products and Services](#)

Westinghouse Electric Company

1000 Westinghouse Drive

Suite 332

Cranberry Township, PA 16066, U.S.A.

Phone: +1 (412) 374-4735

Fax: +1 (724) 940-8565

Email: alpanfa@westinghouse.com

Home Page: www.westinghousenuclear.com

From: Tregoning, Robert [<mailto:Robert.Tregoning@nrc.gov>]

Sent: Tuesday, January 17, 2017 7:37 AM

To: Alpan, F. Arzu

Cc: Semmler, Michael G.; Hiser, Matthew; Purtscher, Patrick

Subject: RE: Harvesting Workshop

Arzu:

Thank you for contacting me about the workshop. The invitation is not open to the public and we are soliciting/inviting both talks and participants so that the workshop stays relatively small and focused. Having said this, it's fine to send the announcement and agenda to Kansai. Please also be aware that we are already in contact with both JNRA (Kazu Sakamoto) and CRIEPI (Naoki Soneda) to coordinate Japanese participation. It would therefore be good for Kansai to coordinate with them if they are interested in attending or participating in the workshop. Kansai should also contact me as well if they are interested in participating or attending.

Thanks for your interest. Please let me know if you have any other questions about the workshop.

Regards,

Rob

Robert Tregoning

Technical Advisor for Materials

US Nuclear Regulatory Commission

Two White Flint North, M/S T-10 A36

11545 Rockville Pike

Rockville, MD 20852-2738

ph: 301-415-2324

fax: 301-415-6671

From: Alpan, F. Arzu [<mailto:alpanfa@westinghouse.com>]

Sent: Friday, January 13, 2017 5:44 PM

To: Tregoning, Robert <Robert.Tregoning@nrc.gov>

Cc: Semmler, Michael G. <semmleng@westinghouse.com>

Subject: [External_Sender] Harvesting Workshop

Dear Robert,

Sherry Bernhoft has informed Westinghouse about the harvesting workshop that will be held at the NRC Headquarters in Rockville, MD on March 7-8, 2017. If this is a workshop that is open to the public, I would like to send the announcement and agenda, which are attached to this email, to our colleagues at Kansai Electric Power Company. I would appreciate it if you could let me know if I may forward the attached information to Kansai.

Best regards,

Arzu

Arzu Alpan, Ph.D.

Principal Engineer

Nuclear Operations & Radiation Analysis Group

Primary Systems Design and Repair

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From: [Tregoning, Robert](#)
To: [Alpan, F. Arzu](#)
Cc: [Semmler, Michael G.](#); [Hiser, Matthew](#); [Purtscher, Patrick](#)
Subject: RE: RE: RE: Harvesting Workshop
Date: Friday, February 10, 2017 6:48:02 AM

Arzu:

For planning purposes, how long do you propose for each of these talks?

Thanks,

Rob

Robert Tregoning

Technical Advisor for Materials

US Nuclear Regulatory Commission

Two White Flint North, M/S T-10 A36

11545 Rockville Pike

Rockville, MD 20852-2738

ph: 301-415-2324

fax: 301-415-6671

From: Alpan, F. Arzu [mailto:alpanfa@westinghouse.com]

Sent: Thursday, February 09, 2017 6:40 PM

To: Tregoning, Robert <Robert.Tregoning@nrc.gov>

Cc: Semmler, Michael G. <semmlmg@westinghouse.com>; Hiser, Matthew
<Matthew.Hiser@nrc.gov>; Purtscher, Patrick <Patrick.Purtscher@nrc.gov>

Subject: [External_Sender] RE: RE: Harvesting Workshop

Dear Rob,

Thank you for giving me the opportunity to present. I would like to propose to give two talks:

- (1) Under Session 2, titled "Importance of Harvesting to Evaluate Radiation Effects on Concrete Properties"
- (2) Under Session 3, titled "Potential Harvesting of Concrete from Mihama Unit 1"

Please note that the talk in Session 2 will be focused on irradiation effects on the compressive strength of concrete. I am not sure if there would be a similar talk in Session 2 that would make mine redundant.

Please let me know the deadline for submitting presentations.

Best regards,

Arzu

From: Tregoning, Robert [<mailto:Robert.Tregoning@nrc.gov>]

Sent: Tuesday, February 07, 2017 7:05 AM

To: Alpan, F. Arzu

Cc: Semmler, Michael G.; Hiser, Matthew; Purtscher, Patrick

Subject: RE: RE: Harvesting Workshop

Arzu:

Thank you for your email and your interest in the workshop. I've attached a presentation that has logistical information as well as more information on the overall workshop objectives and the format and objectives of each session.

You can see that we are planning five unique sessions as part of the workshop. Each session has a specific theme, or objective, as outlined below (and in more detail in the attachment).

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Regards,

Rob

Robert Tregoning

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ph: 301-415-2324

fax: 301-415-6671

From: Alpan, F. Arzu [<mailto:alpanfa@westinghouse.com>]

Sent: Monday, February 06, 2017 4:48 PM

To: Tregoning, Robert <Robert.Tregoning@nrc.gov>

Cc: Semmler, Michael G. <semmlmg@westinghouse.com>; Hiser, Matthew <Matthew.Hiser@nrc.gov>; Purtscher, Patrick <Patrick.Purtscher@nrc.gov>

Subject: [External_Sender] RE: Harvesting Workshop

Dear Rob,

Thank you for the information you provided to me on the harvesting workshop that will be held at the NRC Headquarters next month.

I would like to attend this workshop, and, if possible, give a short talk. Westinghouse is in the preliminary stages of communicating with Kansai in investigating the possibility of harvesting concrete from Mihama Unit 1 to analyze the irradiation effects on concrete. This topic (irradiation effects on concrete) has been an interest to various organizations particularly for long-term operation of nuclear power plants. The talk would be mainly to inform the attendees why we are interested in this work and why we are interested in the Mihama Unit 1 concrete.

Is there an attendance fee for the workshop? I would appreciate it if you could provide me any further information related to the workshop (I have the attached documents) and the possibility for my attendance and a short talk.

Best regards,

Arzu

Arzu Alpan, Ph.D.

Principal Engineer

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Email: alpanfa@westinghouse.com

Home Page: www.westinghousenuclear.com

From: Tregoning, Robert [<mailto:Robert.Tregoning@nrc.gov>]

Sent: Tuesday, January 17, 2017 7:37 AM

To: Alpan, F. Arzu

Cc: Semmler, Michael G.; Hiser, Matthew; Purtscher, Patrick

Subject: RE: Harvesting Workshop

Arzu:

Thank you for contacting me about the workshop. The invitation is not open to the public and we are soliciting/inviting both talks and participants so that the workshop stays relatively small and focused. Having said this, it's fine to send the announcement and agenda to Kansai. Please also be aware that we are already in contact with both JNRA (Kazu Sakamoto) and CRIEPI (Naoki Soneda) to coordinate Japanese participation. It would therefore be good for Kansai to coordinate with them if they are interested in attending or participating in the workshop. Kansai should also contact me as well if they are interested in participating or attending.

Thanks for your interest. Please let me know if you have any other questions about the workshop.

Regards,

Rob

Robert Tregoning

Technical Advisor for Materials

US Nuclear Regulatory Commission

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11545 Rockville Pike

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ph: 301-415-2324

fax: 301-415-6671

From: Alpan, F. Arzu [<mailto:alpanfa@westinghouse.com>]

Sent: Friday, January 13, 2017 5:44 PM

To: Tregoning, Robert <Robert.Tregoning@nrc.gov>

Cc: Semmler, Michael G. <semmleng@westinghouse.com>

Subject: [External_Sender] Harvesting Workshop

Dear Robert,

Sherry Bernhoft has informed Westinghouse about the harvesting workshop that will be held at the NRC Headquarters in Rockville, MD on March 7-8, 2017. If this is a workshop that is open to the public, I would like to send the announcement and agenda, which are attached to this email, to our colleagues at Kansai Electric Power Company. I would appreciate it if you could let me know if I may forward the attached information to Kansai.

Best regards,

Arzu

Arzu Alpan, Ph.D.

Principal Engineer

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From: [Hiser, Matthew](#)
To: "Storz Timo"
Subject: RE: AW: Materials Harvesting Workshop at USNRC
Date: Wednesday, February 15, 2017 8:16:40 AM

Dear Timo,

Thank you for your quick response. We look forward to hearing back from you later this week. Please let me know if you have any questions or need more information.

Thanks!

Matt

From: Storz Timo [mailto:t.storz@enbw.com]
Sent: Wednesday, February 15, 2017 4:05 AM
To: Hiser, Matthew <Matthew.Hiser@nrc.gov>
Subject: [External_Sender] AW: Materials Harvesting Workshop at USNRC

Dear Matthew,

thank you for forwarding the e-mail.

(b)(6)

I already checked if I can participate but unfortunately I am [REDACTED] that time.

I talked to my boss and we will check if we can send somebody to the workshop.

We will reply by the end of the week.

Best regards,

Timo

Timo Storz
Project Manager
Nuclear Decommissioning Services
EnBW Kernkraft GmbH
Kernkraftwerk Neckarwestheim
Im Steinbruch
74382 Neckarwestheim
Phone: +49 7133 13-23255

Cell: [REDACTED] (b)(6)

<mailto:t.storz@enbw.com>

www.enbw.com/decommissioning_service

EnBW Kernkraft GmbH; Sitz der Gesellschaft: Obrigheim; Registergericht Mannheim; HRB Nr. 441806
Vorsitzender des Aufsichtsrats: Dr. Bernhard Beck
Geschäftsführer: Jörg Michels (Vorsitzender), Dr. Wolfgang Eckert, Christoph Heil, Volker Reinhard

Von: Hiser, Matthew [<mailto:Matthew.Hiser@nrc.gov>]

Gesendet: Dienstag, 14. Februar 2017 17:02

An: Storz Timo

Betreff: FW: Materials Harvesting Workshop at USNRC

Dear Timo:

Thank you for the phone conversation today. I am forwarding the email that was previously sent to EnBW customer service.

We hope that EnBW may be able to participate in the workshop.

Sincerely,

Matthew Hiser

Materials Engineer

US Nuclear Regulatory Commission | Office of Nuclear Regulatory Research

Division of Engineering | Corrosion and Metallurgy Branch

Phone: 301-415-2454 | Office: TWFN 10D62

Matthew.Hiser@nrc.gov

From: Hiser, Matthew

Sent: Thursday, February 02, 2017 10:40 AM

To: 'rueckbauservice@kk.enbw.com' <rueckbauservice@kk.enbw.com>

Subject: Materials Harvesting Workshop at USNRC

Dear EnBW:

The US Nuclear Regulatory Commission is hosting a workshop on March 7-8, 2017 on the topic of harvesting materials from decommissioning nuclear plants. Participants will primarily be from nuclear materials research organizations from around the world, including Europe and Asia. One of the workshop sessions is focused on the practical aspects of a harvesting program and the decommissioning process.

A colleague of mine attended a conference in late 2014 with a presentation (attached) from EnBW about their decommissioning plans and process. We would like to invite a representative from EnBW to participate and present on the decommissioning process in Germany and how harvesting may interface with the decommissioning process.

I have also attached an announcement and high-level agenda for the workshop. Please feel free to contact me for additional information.

Sincerely,

Matthew Hiser

Materials Engineer

US Nuclear Regulatory Commission | Office of Nuclear Regulatory Research

Division of Engineering | Corrosion and Metallurgy Branch

Phone: 301-415-2454 | Office: TWFN 10D62

Matthew.Hiser@nrc.gov

From: [Bernhoft, Sherry](#)
To: [Hiser, Matthew](#)
Subject: [External_Sender] RE: Ex-plant Materials Harvesting Workshop
Date: Wednesday, February 15, 2017 11:44:42 AM

Thanks Matt and see you in a few weeks

Sherry Bernhoft

Electric Power Research Institute

EPRI, Senior Program Manager

1300 West WT Harris Boulevard | Charlotte, NC 28262

704.595.2740 (office)

 (cell) (b)(6)

Email: sbernhoft@epri.com

www.epri.com

Together...Shaping the Future of Electricity

From: Hiser, Matthew [mailto:Matthew.Hiser@nrc.gov]

Sent: Wednesday, February 15, 2017 9:50 AM

To: Bernhoft, Sherry <sbernhoft@epri.com>

Subject: [EXTERNAL] FW: Ex-plant Materials Harvesting Workshop

*** Exercise caution. This is an EXTERNAL email. DO NOT open attachments or click links from unknown senders or unexpected email. ***.

Sorry Sherry! Somehow, I missed you on this email. Here you go!

From: Hiser, Matthew

Sent: Wednesday, February 15, 2017 10:47 AM

To: Dyle, Robin <rdyle@epri.com>; Jean Smith (jmsmith@epri.com) <jmsmith@epri.com>; Ahluwalia, Kawaljit <kahluwal@epri.com>; Richard Reister (Richard.Reister@nuclear.energy.gov) <Richard.Reister@nuclear.energy.gov>; 'leonardk@ornl.gov' <leonardk@ornl.gov>; 'Rosseel, Thomas M.' <rosseeltm@ornl.gov>; 'William F Zipp (Generation - 4)' <william.f.zipp@dom.com>; 'Gerard P. Van Noordennen' <gpvannoordennen@energysolutions.com>; Ramuhalli, Pradeep (Pradeep.Ramuhalli@pnnl.gov) <Pradeep.Ramuhalli@pnnl.gov>; 'daniel.tello@canada.ca' <daniel.tello@canada.ca>; 'Uwe.Jendrich@grs.de' <Uwe.Jendrich@grs.de>; 'rachid.chaouadi@sckcen.be' <rachid.chaouadi@sckcen.be>; 'arait@criepi.denken.or.jp' <arait@criepi.denken.or.jp>; 'alpanfa@westinghouse.com' <alpanfa@westinghouse.com>; 'sokolovm@ornl.gov' <sokolovm@ornl.gov>; 'desire.ndomba@canada.ca' <desire.ndomba@canada.ca>; 'khuynh@aecl.ca' <khuynh@aecl.ca>; 'higuchi@criepi.denken.or.jp' <higuchi@criepi.denken.or.jp>; 'kazunobu_sakamoto@nsr.go.jp' <kazunobu_sakamoto@nsr.go.jp>; 'chimi.yasuhiro@jaea.go.jp' <chimi.yasuhiro@jaea.go.jp>; 'leo.fifield@pnnl.gov' <leo.fifield@pnnl.gov>

Cc: Tregoning, Robert <Robert.Tregoning@nrc.gov>; Purtscher, Patrick <Patrick.Purtscher@nrc.gov>

Subject: Ex-plant Materials Harvesting Workshop

Dear Harvesting Workshop Attendees:

You are receiving this email because I have you recorded as attending the upcoming Ex-plant Materials Harvesting Workshop on March 7-8 at USNRC headquarters in Rockville, MD. I have attached the workshop introduction slides that cover meeting logistics, motivation, approach, expected outcome, and session expectations. We are hoping these slides provide a common vision for the workshop that will allow for a focused, productive discussion.

The workshop will be held in NRC's Three White Flint North (3WFN) building, which is directly adjacent to the White Flint Metro station, in room 1C3 on the first floor. I have attached a map of the local area showing the Metro station and the 3WFN building.

The workshop is scheduled to start at 8:00 on Tuesday, March 7. I recommend planning to arrive at 3WFN around 7:30-7:45 in order to go through security to enter the building.

I would like to request input from attendees on two items:

1. We are making reservations at a nearby restaurant for dinner on Tuesday, March 7. Please let me know if you plan to join for the dinner with other workshop participants, so I can make the appropriate reservation.
2. If you are traveling from outside the U.S., please be sure to bring two forms of ID (passport and a second photo ID). Also, please email me a scanned copy of your passport if possible. This will speed the security check-in process.

Thank you for your participation in the workshop. We are looking forward to the discussion and engagement and appreciate your contribution to a productive and interesting meeting!

Please let me know if you have any questions.

Thanks!

Matt

Matthew Hiser

Materials Engineer

US Nuclear Regulatory Commission | Office of Nuclear Regulatory Research

Division of Engineering | Corrosion and Metallurgy Branch

Phone: 301-415-2454 | Office: TWFN 10D62

Matthew.Hiser@nrc.gov

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From: [Hiser, Matthew](#)
To: [Bernhoft, Sherry \(sbernhoft@epri.com\)](#); [Dyle, Robin](#); [Jean Smith \(jmsmith@epri.com\)](#); [Ahluwalia, Kawaljit](#); [Richard Reister \(Richard.Reister@nuclear.energy.gov\)](#); ["leonardk@ornl.gov"](#); ["Rosseel, Thomas M."](#); ["William F Zipp \(Generation - 4\)"](#); ["Gerard P. Van Noordennen"](#); [Ramuhalli, Pradeep \(Pradeep.Ramuhalli@pnnl.gov\)](#); ["daniel.tello@canada.ca"](#); ["Uwe.Jendrich@grs.de"](#); ["rachid.chaouadi@sckcen.be"](#); ["arait@criepi.denken.or.jp"](#); ["alpanfa@westinghouse.com"](#)
Cc: [Tregoning, Robert](#); [Purtscher, Patrick](#)
Subject: Ex-plant Materials Harvesting Workshop Presentations
Date: Wednesday, February 15, 2017 10:46:55 AM
Attachments: [Workshop Speakers & Titles.xlsx](#)
[Ex-Plant Materials Harvesting Workshop.pptx](#)

Dear Harvesting Workshop Presenters:

If you are receiving this email, then I have you down on the agenda to present at the upcoming Ex-plant Materials Harvesting Workshop on March 7-8. I have attached the workshop introduction slides that have been shared with most, if not all, of you. These slides cover meeting logistics, motivation, approach, expected outcome, and session expectations. We are hoping these slides provide a common vision for the workshop that will allow for a focused, productive discussion. Please take a look at these slides and try to tailor your presentation to the focus and length of the respective session.

There are two actions I request from presenters:

1. I have attached the confirmed list of speakers in an Excel document. Please take a look at this list to confirm you are presenting in the session you expected and if I have made any mistakes in the list of speakers. If you have not already done so, please provide me with a presentation title.
2. Please send me your slides (either via email or upload to Google Drive: <https://drive.google.com/drive/folders/0B5DWMLch5YSXcnpZZ0JOS055QUU?usp=sharing>) by the end of February if possible.

Thank you for your participation in the workshop. We are looking forward to the discussion and engagement and appreciate your contribution to a productive and interesting meeting!
Thanks!

Matt

Matthew Hiser

Materials Engineer

US Nuclear Regulatory Commission | Office of Nuclear Regulatory Research

Division of Engineering | Corrosion and Metallurgy Branch

Phone: 301-415-2454 | Office: TWFN 10D62

Matthew.Hiser@nrc.gov

Ex-Plant Materials Harvesting Workshop

March 7-8, 2017

USNRC HQ

Rockville, MD, USA

Meeting Logistics

- Workshop will be held at NRC's Three White Flint North building
 - Directly adjacent to the White Flint Metro station
 - Nearest hotel within walking distance: Bethesda North Marriott Hotel & Conference Center
- Workshop is a non-public meeting to encourage open discussion
 - Presentations and meeting summary will be distributed among meeting participants only
- GoToMeeting webinar will be available to support additional attendees
 - Webinar attendees will be primarily observers
 - Limited opportunities for webinar attendee participation in discussion if time allows
 - Discussion will be recorded through GoToMeeting software to aid capturing discussion in meeting summary

Motivation

- With plants shutting down both in the U.S. and internationally, there are increasing opportunities to harvest components from decommissioning plants
 - Past harvesting efforts generally more reactive as opportunities arose, rather than proactively planned
- Ex-plant materials may be valuable because they have been exposed to actual in-service plant operating conditions
 - Can reduce the uncertainty associated with the applicability of the aging conditions
- Insights from research on harvested materials can address technical data needs identified for extended plant operation
- Lessons learned from past harvesting programs can help improve future harvesting efforts
 - Challenges encountered in previous programs can be shared and mitigated or avoided in future programs

Approach

- Domestic and international researchers, industry, regulators, and decommissioning companies' discuss benefits and challenges with ex-plant harvesting
 - Encourage sharing of lessons learned as well as areas of common interest
- Workshop consists of topical sessions with short presentations and significant time for open discussion
 - Goal is to maximize engagement among meeting participants
- Scope includes any materials aging issue that could benefit from harvesting, including metals, cables, and concrete

Expected Outcome

- Participants become better informed and aware of the benefits and challenges associated with ex-plant harvesting
- Discussions help identify areas of common interest for harvesting to address technical data needs
- Presentations and discussions provide the starting point for a “database” of harvested materials and future harvesting opportunities
- Contacts are made among research organizations to allow for further discussion of specific harvesting projects
- Workshop summary documenting discussion will be distributed among participants

Session Expectations

- Session 1 Motivation for Harvesting
 - Perspective from panel participants on their organizations' interest in and motivation for harvesting
 - Brief (5-10 minute) presentation from each panel member followed by general discussion
- Session 2 Technical Data Needs for Harvesting
 - Presenters share high-priority data needs that may be best addressed by harvesting
 - Where does harvesting hold particular value compared to other sources of technical data
 - 15-20 minute presentations followed by open discussion of technical data needs for harvesting

Session Expectations

- Session 3 Sources of Materials
 - Information on previously harvested materials and future harvesting opportunities
 - Materials located at research and vendor facilities
 - Decommissioning plants that may allow for future harvesting
 - Short 5-10 minute presentations followed by open discussion
 - Starting point for potential database of previously harvested materials and future harvesting opportunities
- Session 4 Harvesting Experience: Lessons Learned and Practical Aspects
 - Improving future efforts with lessons learned from past programs
 - Pitfalls to avoid and strategies to improve likelihood of success
 - Practical perspective from non-researchers on how harvesting interfaces with the decommissioning process
 - International decommissioning and harvesting experience
 - 20-30 minute presentations followed by open discussion

Session Expectations

- Session 5 Future Harvesting Program Planning
 - Technical and logistical information needed when planning a specific harvesting program
 - Perspective from panel participants on the workshop
 - Next steps and actions from workshop
 - Potential areas of common interest for future harvesting programs
 - Brief (5-10 minute) presentation from each panel member followed by general discussion

Session	Topic	Organization	Speaker	Presentation Title
1	Why our organization is interested in harvesting	EPRI	Sherry Bernhoft	
		DOE	Rich Reister	
		NRC	Robert Tregoning	
		GRS	Uwe Jendrich	
		CRIEPI	Taku Arai	
2	Perspective on detailed data needs from harvesting	PNNL (for NRC)	Pradeep Ramuhalli	Data Needs Best Addressed By Harvesting
		DOE	Keith Leonard	
		NRC	Matthew Hiser	High-Priority Data Needs for Harvesting
		SCK-CEN	Rachid Chaouadi	Review of past RPV sampling test programs and perspective for long term operation
		Westinghouse	Arzu Alban	Importance of Harvesting to Evaluate Radiation Effects on Concrete Properties
3		NRC	Matthew Hiser	Sources of Materials: Past NRC Harvesting and U.S. Decommissioning Plants
	Available materials from operating reactors and past harvesting programs	EPRI	Al Ahluwalia	
	Available materials at DOE labs from past harvesting programs	DOE	Tom Rosseel	
	Upcoming U.S. decommissioning plans	Energy Solutions	Gerry van Noordennen	
	International Harvesting Opportunities	GRS	Uwe Jendrich	
		Westinghouse	Arzu Alban	Potential Harvesting of Concrete from Mihama Unit 1
4	Perspective on Harvesting Lessons Learned / Prior Experience	CNSC	Dan Tello	
		EPRI	Jean Smith	
		DOE	Tom Rosseel	
		NRC	Matthew Hiser	NRC Perspective on Harvesting Experience and Lessons Learned
	Decommissioning company perspective on harvesting	Energy Solutions	Gerry van Noordennen	
	Utility perspective on harvesting and decommissioning	Dominion	Bill Zipp	
5	Perspective on future harvesting planning	PNNL (for NRC)	Pradeep Ramuhalli	Technical Information Needed for Informed Harvesting Decisions
		EPRI	Sherry Bernhoft	
		DOE	Rich Reister	
		NRC	Robert Tregoning	

From: [Hiser, Matthew](#)
To: ["kelly.cunningham@inl.gov"](mailto:kelly.cunningham@inl.gov)
Cc: [Tregoning, Robert](#)
Subject: RE: Materials Harvesting Workshop Information Request
Date: Wednesday, February 15, 2017 2:43:11 PM
Attachments: [Ex-Plant Materials Harvesting Workshop.pptx](#)
[Harvesting Workshop Announcement.docx](#)
[Condensed Workshop Agenda.docx](#)

Note to requester: Attachments are immediately following.

Dear Ms. Cunningham:

Thank you for reaching out about the harvesting workshop. I am a materials engineer in the NRC's research office and am organizing the harvesting workshop for the NRC.

The workshop is being held at NRC headquarters on March 7-8, 2017. I've attached a few documents we've been sharing to publicize and describe the workshop. We have limited space available in the room, but are setting up a webinar for remote participation. I can be sure to include you on the distribution of webinar information.

The workshop has been coordinated with Rich Reister at DOE and Tom Rosseel at ORNL as well as staff from EPRI. Tom is presenting in session 3 on sources of materials, which includes previously harvested materials (such as those that may be in NFML) as well as future harvesting opportunities. We are hoping Tom's presentation will cover previously harvested materials that may be available within the DOE complex. Perhaps input of what materials are available at INL could be incorporated into Tom's presentation?

Again, thank you for your interest and please let me know if you have any questions.

Thanks!

Matt

Matthew Hiser

Materials Engineer

US Nuclear Regulatory Commission | Office of Nuclear Regulatory Research

Division of Engineering | Corrosion and Metallurgy Branch

Phone: 301-415-2454 | Office: TWFN 10D62

Matthew.Hiser@nrc.gov

From: Cunningham, Kelly A [<mailto:kelly.cunningham@inl.gov>]

Sent: Wednesday, February 15, 2017 1:13 PM

To: Tregoning, Robert <Robert.Tregoning@nrc.gov>

Subject: [External_Sender] Materials Harvesting Workshop Information Request

Mr. Tregoning,

I am with the Nuclear Science User Facilities (nsuf.inl.gov) as the coordinator of the Nuclear Fuels and Materials Library (NFML). The library houses available nuclear research specimens that can be used for NSUF-awarded research. My boss, Rory Kennedy, heard about a materials harvesting workshop being held in March but I'm unable to find anything about it on the internet. Can you give me any information about this workshop? As the coordinator of the NFML I am very interested in harvested materials that might, potentially, be added to our library.

Please feel free to go to the NSUF website and register as a user. The NFML can be found on the Infrastructure page. You can *Browse* the library from the menu on the left or search the library from the Nuclear Fuels and Materials Link.

Any information you can offer would be greatly appreciated. If you aren't aware of this workshop, do you know who might be able to help me? If you don't know anything about this workshop I apologize for the time it took to read this email.

Sincerely,

Kelly Cunningham

--

Kelly Cunningham

Idaho National Laboratory

Nuclear Science User Facilities

Nuclear Fuels and Materials Library Coordinator

(208) 526-2369 (w)

(b)(6)



Ex-Plant Materials Harvesting Workshop

March 7-8, 2017

USNRC HQ

Rockville, MD, USA

Meeting Logistics

- Workshop will be held at NRC's Three White Flint North building
 - Directly adjacent to the White Flint Metro station
 - Nearest hotel within walking distance: Bethesda North Marriott Hotel & Conference Center
- Workshop is a non-public meeting to encourage open discussion
 - Presentations and meeting summary will be distributed among meeting participants only
- GoToMeeting webinar will be available to support additional attendees
 - Webinar attendees will be primarily observers
 - Limited opportunities for webinar attendee participation in discussion if time allows
 - Discussion will be recorded through GoToMeeting software to aid capturing discussion in meeting summary

Motivation

- With plants shutting down both in the U.S. and internationally, there are increasing opportunities to harvest components from decommissioning plants
 - Past harvesting efforts generally more reactive as opportunities arose, rather than proactively planned
- Ex-plant materials may be valuable because they have been exposed to actual in-service plant operating conditions
 - Can reduce the uncertainty associated with the applicability of the aging conditions
- Insights from research on harvested materials can address technical data needs identified for extended plant operation
- Lessons learned from past harvesting programs can help improve future harvesting efforts
 - Challenges encountered in previous programs can be shared and mitigated or avoided in future programs

Approach

- Domestic and international researchers, industry, regulators, and decommissioning companies' discuss benefits and challenges with ex-plant harvesting
 - Encourage sharing of lessons learned as well as areas of common interest
- Workshop consists of topical sessions with short presentations and significant time for open discussion
 - Goal is to maximize engagement among meeting participants
- Scope includes any materials aging issue that could benefit from harvesting, including metals, cables, and concrete

Expected Outcome

- Participants become better informed and aware of the benefits and challenges associated with ex-plant harvesting
- Discussions help identify areas of common interest for harvesting to address technical data needs
- Presentations and discussions provide the starting point for a “database” of harvested materials and future harvesting opportunities
- Contacts are made among research organizations to allow for further discussion of specific harvesting projects
- Workshop summary documenting discussion will be distributed among participants

Session Expectations

- Session 1 Motivation for Harvesting
 - Perspective from panel participants on their organizations' interest in and motivation for harvesting
 - Brief (5-10 minute) presentation from each panel member followed by general discussion
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 - Technical and logistical information needed when planning a specific harvesting program
 - Perspective from panel participants on the workshop
 - Next steps and actions from workshop
 - Potential areas of common interest for future harvesting programs
 - Brief (5-10 minute) presentation from each panel member followed by general discussion

Ex-Plant Materials Harvesting Workshop

Location: NRC Headquarters in Rockville, MD, USA

Dates: March 7-8, 2017

Motivation:

- There are increasing opportunities to harvest the safety-critical components from decommissioning plants, both domestic and international.
- The harvested materials are valuable because they have been exposed to actual in-service plant operating conditions (temperature, irradiation, coolant, etc.), unlike virgin materials tested under simulated conditions in the lab.
- Data from ex-plant materials should help address technical gaps identified for extended operation of nuclear power plants due to highly relevant aging conditions.

Purpose and Objective:

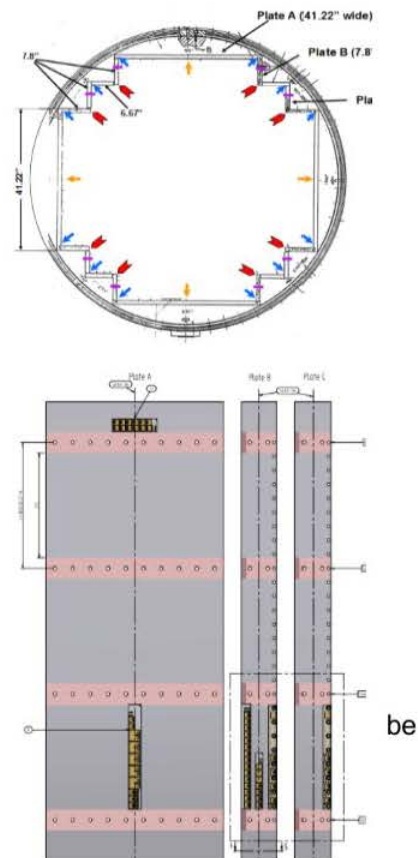
- For NRC staff and interested stakeholders to have greater awareness and knowledge of the benefits and challenges associated with ex-plant harvesting.
- Facilitate contacts and communication to enable specific cooperative ex-plant harvesting programs to be initiated.

Workshop Topics:

- Harvesting decision-making and prioritization
 - Technical data needs best addressed by harvesting
 - Technical information needed in advance of harvesting
- Sources of materials:
 - Decommissioning reactors
 - Operating reactors – replaced components
 - Previous harvesting programs – “boneyards”
 - Tracking available materials
- Harvesting process
 - Lessons learned from harvesting experience
 - Perspective of utility-owner and decommissioning contractor on harvesting
 - Communication and coordination between decommissioning and researchers
- International collaborative programs on specific components at specific plants

Workshop will consist of solicited presentations followed by discussion periods. If interested in attending or learning more about the workshop, please reach out to the contacts below.

Contacts: Robert Tregoning, Robert.Tregoning@nrc.gov
Matthew Hiser, Matthew.Hiser@nrc.gov
Patrick Purtscher, Patrick.Purtscher@nrc.gov



Draft Agenda – March 7-8, 2017 Harvesting Workshop

Tuesday, March 7, 2017

Introduction

- Overview of workshop purpose and objectives

Session 1: Motivation for Harvesting

- Solicited presentations from EPRI, DOE, NRC, and international organizations followed by panel discussion

Session 2: Technical data needs best addressed by harvesting

- Solicited presentations from EPRI, DOE, NRC, and international organizations followed by open discussion

Session 3: Sources of Materials

- Solicited presentations from EPRI, DOE, NRC, and international organizations followed by open discussion

Wednesday, March 8, 2017

Session 4: Harvesting Experience: Lessons learned and practical aspects

- Solicited presentations from EPRI, DOE, NRC, U.S. utility, decommissioning companies, and international organizations followed by open discussion

Session 5: Future Harvesting Program Planning

- Solicited presentations from EPRI, DOE, NRC, and international organizations followed by open and panel discussion

From: [Hiser, Matthew](#)
To: "Fifield, Leo S"
Subject: RE: RE: Ex-plant Materials Harvesting Workshop
Date: Wednesday, February 15, 2017 3:44:16 PM

Hi Leo,

Thank you for informing me. I will be sure to include you on the webinar information distribution.

Thanks!

Matt

From: Fifield, Leo S [mailto:leo.fifield@pnnl.gov]
Sent: Wednesday, February 15, 2017 2:56 PM
To: Hiser, Matthew <Matthew.Hiser@nrc.gov>
Cc: Rosseel, Tom (rosseeltm@ornl.gov) <rosseeltm@ornl.gov>
Subject: [External_Sender] RE: Ex-plant Materials Harvesting Workshop

Hi Matt,

I unfortunately do not plan to participate in person at the Harvesting Workshop as I will be travelling to MD the following week to attend the RIC.

Please do facilitate my participate, at least by observation, via your GoToMeeting option.

Thank you and best regards,

LEo

Leo Fifield
[509-375-6424](tel:509-375-6424)

From: Hiser, Matthew [<mailto:Matthew.Hiser@nrc.gov>]
Sent: Wednesday, February 15, 2017 7:47 AM
To: Dyle, Robin <rdyle@epri.com>; Jean Smith (jmsmith@epri.com) <jmsmith@epri.com>; Ahluwalia, Kawaljit <kahluwal@epri.com>; Richard Reister (Richard.Reister@nuclear.energy.gov) <Richard.Reister@nuclear.energy.gov>; 'leonardk@ornl.gov' <leonardk@ornl.gov>; 'Rosseel, Thomas M.' <rosseeltm@ornl.gov>; 'William F Zipp (Generation - 4)' <william.f.zipp@dom.com>; 'Gerard P. Van Noordennen' <gpvannoordennen@energysolutions.com>; Ramuhalli, Pradeep <Pradeep.Ramuhalli@pnnl.gov>; 'daniel.tello@canada.ca' <daniel.tello@canada.ca>; 'Uwe.Jendrich@grs.de' <Uwe.Jendrich@grs.de>; 'rachid.chaouadi@sckcen.be' <rachid.chaouadi@sckcen.be>; 'arait@criepi.denken.or.jp' <arait@criepi.denken.or.jp>; 'alpanfa@westinghouse.com' <alpanfa@westinghouse.com>; 'sokolovm@ornl.gov' <sokolovm@ornl.gov>; 'desire.ndomba@canada.ca' <desire.ndomba@canada.ca>; 'khuynh@aecl.ca' <khuynh@aecl.ca>; 'higuchi@criepi.denken.or.jp' <higuchi@criepi.denken.or.jp>; 'kazunobu_sakamoto@nsr.go.jp' <kazunobu_sakamoto@nsr.go.jp>; 'chimi.yasuhiro@jaea.go.jp' <chimi.yasuhiro@jaea.go.jp>; Fifield, Leo S <leo.fifield@pnnl.gov>
Cc: Tregoning, Robert <Robert.Tregoning@nrc.gov>; Purtscher, Patrick <Patrick.Purtscher@nrc.gov>
Subject: Ex-plant Materials Harvesting Workshop

Dear Harvesting Workshop Attendees:

You are receiving this email because I have you recorded as attending the upcoming Ex-plant Materials Harvesting Workshop on March 7-8 at USNRC headquarters in Rockville, MD. I have attached the workshop introduction slides that cover meeting logistics, motivation, approach, expected outcome, and session expectations. We are hoping these slides provide a common vision for the workshop that will allow for a focused, productive discussion.

The workshop will be held in NRC's Three White Flint North (3WFN) building, which is directly adjacent to the White Flint Metro station, in room 1C3 on the first floor. I have attached a map of the local area showing the Metro station and the 3WFN building. The workshop is scheduled to start at 8:00 on Tuesday, March 7. I recommend planning to arrive at 3WFN around 7:30-7:45 in order to go through security to enter the building.

I would like to request input from attendees on two items:

1. We are making reservations at a nearby restaurant for dinner on Tuesday, March 7. Please let me know if you plan to join for the dinner with other workshop participants, so I can make the appropriate reservation.
2. If you are traveling from outside the U.S., please be sure to bring two forms of ID (passport and a second photo ID). Also, please email me a scanned copy of your passport if possible. This will speed the security check-in process.

Thank you for your participation in the workshop. We are looking forward to the discussion and engagement and appreciate your contribution to a productive and interesting meeting! Please let me know if you have any questions.

Thanks!

Matt

Matthew Hiser

Materials Engineer

US Nuclear Regulatory Commission | Office of Nuclear Regulatory Research

Division of Engineering | Corrosion and Metallurgy Branch

Phone: 301-415-2454 | Office: TWFN 10D62

Matthew.Hiser@nrc.gov

From: [Ramuhalli, Pradeep](#)
To: [Hiser, Matthew](#)
Subject: [External_Sender] RE: Draft slides
Date: Wednesday, February 15, 2017 10:21:03 AM

Matt,

His email is leo.fifield@pnnl.gov

With best regards,
Pradeep

Pradeep Ramuhalli, PhD.
Senior Research Scientist
Pacific Northwest National Laboratory
pradeep.ramuhalli@pnnl.gov
509-375-2763

Sent from my Android phone using Symantec TouchDown (www.symantec.com)

-----Original Message-----

From: Hiser, Matthew [Matthew.Hiser@nrc.gov]
Received: Wednesday, 15 Feb 2017, 5:22AM
To: Ramuhalli, Pradeep [Pradeep.Ramuhalli@pnnl.gov]
Subject: RE: RE: Draft slides

Hi Pradeep,
My understanding is Leo Fifield is planning to attend the harvesting workshop (according to Tom Rosseel at ORNL). Can you send me his email address, so I can include him on an email I'm sending to all attendees?
Thanks!
Matt

From: Ramuhalli, Pradeep [mailto:Pradeep.Ramuhalli@pnnl.gov]
Sent: Monday, February 13, 2017 10:58 AM
To: Purtscher, Patrick <Patrick.Purtscher@nrc.gov>; Hiser, Matthew <Matthew.Hiser@nrc.gov>
Subject: [External_Sender] RE: Draft slides
Thanks. Will do.

With best regards,
Pradeep

Pradeep Ramuhalli, PhD.
Senior Research Scientist
Pacific Northwest National Laboratory
pradeep.ramuhalli@pnnl.gov

Sent from my Android phone using Symantec TouchDown (www.symantec.com)

-----Original Message-----

From: Hiser, Matthew [Matthew.Hiser@nrc.gov]

Received: Monday, 13 Feb 2017, 7:55AM

To: Purtscher, Patrick [Patrick.Purtscher@nrc.gov]; Ramuhalli, Pradeep [Pradeep.Ramuhalli@pnnl.gov]

Subject: RE: RE: Draft slides

Hi Pradeep! Let me know if you have any questions – I know we put a lot down here in an email ☺

Thanks!

Matt

From: Purtscher, Patrick

Sent: Monday, February 13, 2017 10:47 AM

To: Ramuhalli, Pradeep <Pradeep.Ramuhalli@pnnl.gov>

Cc: Hiser, Matthew <Matthew.Hiser@nrc.gov>

Subject: FW: RE: Draft slides

Hi Pradeep,

Thank you for sharing these slides. We've attached a PP that we are distributing to speakers and attendees describing the workshop overall as well as expectations for each session. We just developed this in the past few days, and are starting to distribute now. Please take a look for your awareness.

These slides are a good starting point, but are a little too broad for the sessions we're envisioning. For the first presentation in session 2, focus on capturing Section 3.3 from the draft report you sent a couple days ago. So focus on the criteria for prioritizing harvesting data needs and the examples that PNNL analyzed in the report: CASS, cables, DMWs, internals. We are planning a very short NRC slot in session 2 to cover more comprehensively NRC's data needs for harvesting; we want you to cover the criteria and 4 examples and we'll lay out the whole range of high-priority data needs for metals, cables, and concrete. The current draft of our slides is attached for your awareness. Plus, we don't want to explicitly focus on SLR, but talk about long-term operation.

From the slides you have now for session 2, here are some suggestions:

- I would delete slide 2 because it is high-level and should be captured in Session 1.
- Keep slide 3 to capture briefly Ch. 2 ideas: why do harvesting, which leads to prioritization criteria
- Add a slide to capture Section 3.1/3.2 on lit review / basis for information
- Add slide or two on criteria: why these criteria, how are they applied/used
- Add several slides going through examples (maybe 1 slide/example) and how criteria led to an outcome
 - In other words, explain why we're interested in harvesting cables, CASS, and internals, but not DM welds so much
- That's it!

For session 5 slides, put the focus on Section 4.2 from your report with references to 4.1 (harvesting experience) as needed to explain why we'd like various pieces of information for harvesting planning. Suggestions on specific slides:

- Delete slides 11/12 – don't need to cover info tool in this presentation
- Maybe 1 or 2 background slides referring to harvesting experience (Ch. 4.1) in general
- Focus several slides on Section 4.2 going in-depth on what information is needed for harvesting planning

- o This presentation sets the stage in Session 5 for a discussion of harvesting plans from the various participants, so we want to thoroughly systematically lay out what information we think is helpful for informed decision-making

Thanks!

Matt and Pat

From: Ramuhalli, Pradeep [<mailto:Pradeep.Ramuhalli@pnnl.gov>]

Sent: Friday, February 03, 2017 10:37 AM

To: Purtscher, Patrick <Patrick.Purtscher@nrc.gov>; Hiser, Matthew <Matthew.Hiser@nrc.gov>

Subject: [External_Sender] RE: Draft slides

Shoot! Will resend in a bit.

With best regards,

Pradeep

Pradeep Ramuhalli, PhD.
Senior Research Scientist
Pacific Northwest National Laboratory
pradeep.ramuhalli@pnnl.gov
509-375-2763

Sent from my Android phone using Symantec TouchDown (www.symantec.com)

-----Original Message-----

From: Hiser, Matthew [Matthew.Hiser@nrc.gov]

Received: Friday, 03 Feb 2017, 4:46AM

To: Ramuhalli, Pradeep [Pradeep.Ramuhalli@pnnl.gov]; Purtscher, Patrick [Patrick.Purtscher@nrc.gov]

Subject: RE: Draft slides

FYI – slides didn't make it through...

From: Ramuhalli, Pradeep [<mailto:Pradeep.Ramuhalli@pnnl.gov>]

Sent: Friday, February 03, 2017 1:36 AM

To: Purtscher, Patrick <Patrick.Purtscher@nrc.gov>

Cc: Hiser, Matthew <Matthew.Hiser@nrc.gov>

Subject: [External_Sender] Draft slides

Symantec Mail Security replaced Harvesting workshop slides draft.pptx with this text message. The original file was a malformed file, therefore it cannot be scanned and was quarantined.

ID:HQPWMSMRS04::SYQ3370fc312

The email message was also quarantined.

From: [Ramuhalli, Pradeep](#)
To: [Hiser, Matthew](#)
Subject: [External_Sender] RE: Draft slides
Date: Wednesday, February 15, 2017 10:21:40 AM

Ok.

With best regards,
Pradeep

Pradeep Ramuhalli, PhD.
Senior Research Scientist
Pacific Northwest National Laboratory
pradeep.ramuhalli@pnnl.gov
509-375-2763

Sent from my Android phone using Symantec TouchDown (www.symantec.com)

-----Original Message-----

From: Hiser, Matthew [Matthew.Hiser@nrc.gov]
Received: Wednesday, 15 Feb 2017, 6:39AM
To: Ramuhalli, Pradeep [Pradeep.Ramuhalli@pnnl.gov]
Subject: RE: RE: Draft slides

Nevermind, found it in another email... thanks!

From: Hiser, Matthew
Sent: Wednesday, February 15, 2017 8:22 AM
To: 'Ramuhalli, Pradeep' <Pradeep.Ramuhalli@pnnl.gov>
Subject: RE: RE: Draft slides

Hi Pradeep,

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Matt and Pat

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To: Purtscher, Patrick <Patrick.Purtscher@nrc.gov>
Cc: Hiser, Matthew <Matthew.Hiser@nrc.gov>
Subject: [External_Sender] Draft slides

Symantec Mail Security replaced Harvesting workshop slides draft.pptx with this text message. The original file was a malformed file, therefore it cannot be scanned and was quarantined.

ID:HQPWMSMRS04::SYQ3370fc312
The email message was also quarantined.

From: [Hiser, Matthew](#)
To: [Anders Jenssen](#)
Subject: RE: Harvesting Workshop
Date: Thursday, February 16, 2017 8:38:00 AM

Hi Anders,

As I have returned to the office this week and looked at the numbers for confirmed attendees at the workshop, I don't think we'll have space in the room for you to participate in person. We are planning to have a webinar available for remote participation, so I could share the webinar information with you if you'd like.

Thanks!

Matt

From: Hiser, Matthew
Sent: Friday, February 10, 2017 10:10 AM
To: Anders Jenssen (anders.jenssen@studsvik.se) <anders.jenssen@studsvik.se>; Pal.Efsing@vattenfall.com
Subject: Harvesting Workshop

Hi Pal and Anders,

It was good to see you at the ZIRP meeting this week. I apologize for not getting this email out to you sooner; I was unable to find a good internet connection in Brussels.

I have attached a few documents that we are sharing for those interested in the workshop. The PP slides cover the meeting logistics, motivation, expected outcome, and session expectations. Please take a look and let me know your in attending and/or presenting at the workshop. Jean Smith and Al Ahluwalia at EPRI are planning presentations for sessions 3 and 4, so you could try to work input into their talks or we may be able to provide a separate slot.

Thanks!

Matt

Matthew Hiser

Materials Engineer

US Nuclear Regulatory Commission | Office of Nuclear Regulatory Research

Division of Engineering | Corrosion and Metallurgy Branch

Phone: 301-415-2454 | Office: TWFN 10D62

Matthew.Hiser@nrc.gov

From: [Ramuhalli, Pradeep](#)
To: [Hiser, Matthew](#); [Hull, Amy](#)
Cc: [Obodoako, Aloysius](#); [Knobbs, Katie](#)
Subject: [External_Sender] RE: SOW Modification
Date: Thursday, February 18, 2016 3:28:31 PM

Matt,

Perfect timing! Good to "e-meet" Aloysius as well!

We had a project meeting yesterday here and the example screens for the information tool are coming together. We are working on a draft taxonomy for mapping info across databases and using the info across databases for developing a process for prioritizing harvesting needs and opportunities. Examples of the taxonomy and database info are being incorporated into the example screens from SRS and per the discussions yesterday, we are shooting for the week of March 9 for a demo to all of you.

In terms of a call, tomorrow is a bad day for me. Would Tuesday next week work? Say around 4 pm ET (1 PT)? I can set up the call.

With best regards,

Pradeep Ramuhalli, PhD
Pacific Northwest National Laboratory
509-375-2763
pradeep.ramuhalli@pnnl.gov

From: Hiser, Matthew [mailto:Matthew.Hiser@nrc.gov]
Sent: Thursday, February 18, 2016 9:26 AM
To: Ramuhalli, Pradeep; Hull, Amy
Cc: Obodoako, Aloysius
Subject: RE: SOW Modification

Hi Pradeep,

I hope all is well with you. It has been a few weeks since we had our last call, so I wanted to see when you are available next. Would you have time tomorrow? If not, then perhaps Monday or Tuesday next week?

The purpose of this call will be to get an update on how you are progressing with developing the examples for DM welds and cables. Also, I'll introduce a new staffer in our branch, Aloysius Obodoako (on cc), who will be taking the lead for this project over the coming weeks and months. Amy and I will remain involved, but Aloysius will be leading this from our end.

Thanks!

Matt

Matthew Hiser

Materials Engineer
US Nuclear Regulatory Commission | Office of Nuclear Regulatory Research
Division of Engineering | Corrosion and Metallurgy Branch
Phone: 301-415-2454 | Office: TWFN 10D62
Matthew.Hiser@nrc.gov

From: Ramuhalli, Pradeep [mailto:Pradeep.Ramuhalli@pnnl.gov]
Sent: Wednesday, February 10, 2016 2:07 AM
To: Hull, Amy <Amy.Hull@nrc.gov>
Cc: Hiser, Matthew <Matthew.Hiser@nrc.gov>

Subject: [External_Sender] SOW Modification

Amy,

We have received the modification to the SOW and are working on responding. I hope to have the response turned around by next week. I will get back to you and Matt if I have any questions about the SOW modification.

Thanks.

With best regards,

Pradeep

Pradeep Ramuhalli, PhD
Senior Research Scientist,
Applied Physics Group
Pacific Northwest National Laboratory
902 Battelle Blvd.
P.O.Box 999, MSIN K5-26
Richland, WA 99352
Tel: 509-375-2763
Email: pradeep.ramuhalli@pnnl.gov
<http://www.pnnl.gov>

From: [Roussel Guy](#)
To: [Hiser, Matthew](#)
Cc: [Tregoning, Robert](#)
Subject: [External_Sender] FW: Ex-plant Materials Harvesting Workshop
Date: Monday, February 20, 2017 1:23:08 AM
Attachments: [Passport Guy Roussel.pdf](#)

Note to requester: The attachment to this email has been withheld in full under FOIA Exemption B6.

Dear Matt,
Please find enclosed a scanned copy of my passport.
Best regards,
Guy
Guy Roussel
Structural integrity expert
Bel V

From: Roussel Guy
Sent: vendredi 17 février 2017 13:02
To: Hiser, Matthew
Cc: Robert.Tregoning@nrc.gov
Subject: RE: Ex-plant Materials Harvesting Workshop

Dear Matt,
As you probably know, Bel V which the Technical Support Organization of the Belgian Nuclear Safety Authorities (FANC) showed their interest in attending the upcoming Ex-plant Materials Harvesting Workshop on March 7-8. I'm informing you herewith that I will attend the workshop as a representative of my organization.
I'll send you next Monday a scanned copy of passport.
Best regards,
Guy
Guy Roussel
Structural integrity expert
Bel V

From: Hiser, Matthew [<mailto:Matthew.Hiser@nrc.gov>]
Sent: mercredi 15 février 2017 16:47
To: Dyle, Robin; Jean Smith (jmsmith@epri.com); Ahluwalia, Kawaljit; Richard Reister (Richard.Reister@nuclear.energy.gov); 'leonardk@ornl.gov'; 'Rosseel, Thomas M.'; 'William F Zipp (Generation - 4)'; 'Gerard P. Van Noordennen'; Ramuhalli, Pradeep (Pradeep.Ramuhalli@pnnl.gov); 'daniel.tello@canada.ca'; 'Uwe.Jendrich@grs.de'; Chaouadi Rachid; 'arait@criepi.denken.or.jp'; 'alpanfa@westinghouse.com'; 'sokolovm@ornl.gov'; 'desire.ndomba@canada.ca'; 'khuynh@aecl.ca'; 'higuchi@criepi.denken.or.jp'; 'kazunobu_sakamoto@nsr.go.jp'; 'chimi.yasuhiro@jaea.go.jp'; 'leo.fifield@pnnl.gov'
Cc: Tregoning, Robert; Purtscher, Patrick
Subject: Ex-plant Materials Harvesting Workshop

Dear Harvesting Workshop Attendees:
You are receiving this email because I have you recorded as attending the upcoming Ex-plant Materials Harvesting Workshop on March 7-8 at USNRC headquarters in Rockville, MD. I have attached the workshop introduction slides that cover meeting logistics, motivation, approach, expected outcome, and session expectations. We are hoping these slides provide a common vision for the workshop that will allow for a focused, productive discussion.
The workshop will be held in NRC's Three White Flint North (3WFN) building, which is directly adjacent to the White Flint Metro station, in room 1C3 on the first floor. I have attached a map of

the local area showing the Metro station and the 3WFN building.

The workshop is scheduled to start at 8:00 on Tuesday, March 7. I recommend planning to arrive at 3WFN around 7:30-7:45 in order to go through security to enter the building.

I would like to request input from attendees on two items:

1. We are making reservations at a nearby restaurant for dinner on Tuesday, March 7. Please let me know if you plan to join for the dinner with other workshop participants, so I can make the appropriate reservation.
2. If you are traveling from outside the U.S., please be sure to bring two forms of ID (passport and a second photo ID). Also, please email me a scanned copy of your passport if possible. This will speed the security check-in process.

Thank you for your participation in the workshop. We are looking forward to the discussion and engagement and appreciate your contribution to a productive and interesting meeting!

Please let me know if you have any questions.

Thanks!

Matt

Matthew Hiser

Materials Engineer

US Nuclear Regulatory Commission | Office of Nuclear Regulatory Research

Division of Engineering | Corrosion and Metallurgy Branch

Phone: 301-415-2454 | Office: TWFN 10D62

Matthew.Hiser@nrc.gov

(b)(6)

From: [Hiser, Matthew](#)
To: [Roussel Guy](#)
Cc: [Tregoning, Robert](#)
Subject: RE: FW: Ex-plant Materials Harvesting Workshop
Date: Tuesday, February 21, 2017 2:08:00 PM

Dear Guy,
Thank you for reaching out to participate in the workshop. I can confirm that I have received your scanned passport and have you registered for the workshop. I hope to send out a final agenda tomorrow.
Please let me know if I can provide any additional information.
Thanks!

Matt

Matthew Hiser

Materials Engineer

US Nuclear Regulatory Commission | Office of Nuclear Regulatory Research

Division of Engineering | Corrosion and Metallurgy Branch

Phone: 301-415-2454 | Office: TWFN 10D62

Matthew.Hiser@nrc.gov

From: Roussel Guy [mailto:guy.roussel@Belv.be]
Sent: Tuesday, February 21, 2017 7:22 AM
To: Hiser, Matthew <Matthew.Hiser@nrc.gov>
Cc: Tregoning, Robert <Robert.Tregoning@nrc.gov>
Subject: [External_Sender] FW: Ex-plant Materials Harvesting Workshop

Dear Matt –

Would you please confirm me that you got my registration to the Harvesting Workshop as well as the scanned copy of my passport.

Thank you.

Best regards,

Guy

Guy Roussel

Structural integrity expert

Bel V

From: [Hiser, Matthew](#)
To: [Storz Timo](#)
Subject: RE: AW: AW: Materials Harvesting Workshop at USNRC
Date: Tuesday, February 21, 2017 12:02:00 PM

Dear Timo:

Thank you for your response. We understand this contact was made with very short notice and appreciate the time you've spent engaging on this already.

We are planning to have a GoToMeeting webinar available for remote participation in the workshop. Would anyone from your organization be interested in participating remotely? We could still provide an opportunity to present remotely in Session 4 if you would like. Or you could observe the slides and discussion and participate remotely through the webinar. Thanks!

Matt

Matthew Hiser

Materials Engineer

US Nuclear Regulatory Commission | Office of Nuclear Regulatory Research

Division of Engineering | Corrosion and Metallurgy Branch

Phone: 301-415-2454 | Office: TWFN 10D62

Matthew.Hiser@nrc.gov

From: Storz Timo [<mailto:t.storz@enbw.com>]
Sent: Tuesday, February 21, 2017 3:37 AM
To: Hiser, Matthew <Matthew.Hiser@nrc.gov>
Subject: [External_Sender] AW: AW: Materials Harvesting Workshop at USNRC

Dear Matthew,

I am sorry for not answering earlier. We really want to join your workshop and tried to make it possible that a representative of us join your workshop.

But since the workshop is in 2 weeks, all relevant persons that could share profound experience are temporarily not available.

This is due to the fact that we just started to build two facilities that help us harvesting materials from our D&D projects.

And our experts are fixed in the projects.

Nevertheless, we hope that you will approach us in future to join your workshops and share our experience.

We would appreciate that.

Best regards,

Timo

Von: Hiser, Matthew [<mailto:Matthew.Hiser@nrc.gov>]
Gesendet: Freitag, 17. Februar 2017 13:47
An: Storz Timo
Betreff: RE: AW: Materials Harvesting Workshop at USNRC

Dear Timo:

I just wanted to check if you all have determined whether you will be able to participate in the workshop.

Thanks!

Matt

From: Storz Timo [<mailto:t.storz@enbw.com>]
Sent: Wednesday, February 15, 2017 4:05 AM

To: Hiser, Matthew <Matthew.Hiser@nrc.gov>

Subject: [External_Sender] AW: Materials Harvesting Workshop at USNRC

Dear Matthew,

thank you for forwarding the e-mail.

I already checked if I can participate but unfortunately I am [REDACTED] (b)(6) that time.

I talked to my boss and we will check if we can send somebody to the workshop.

We will reply by the end of the week.

Best regards,

Timo

Timo Storz

Project Manager

Nuclear Decommissioning Services

EnBW Kernkraft GmbH

Kernkraftwerk Neckarwestheim

Im Steinbruch

74382 Neckarwestheim

Phone: +49 7133 13-23255

Cell: [REDACTED] (b)(6)

<mailto:t.storz@enbw.com>

www.enbw.com/decommissioning_service

EnBW Kernkraft GmbH; Sitz der Gesellschaft: Obrigheim; Registergericht Mannheim; HRB Nr. 441806

Vorsitzender des Aufsichtsrats: Dr. Bernhard Beck

Geschäftsführer: Jörg Michels (Vorsitzender), Dr. Wolfgang Eckert, Christoph Heil, Volker Reinhard

Von: Hiser, Matthew [<mailto:Matthew.Hiser@nrc.gov>]

Gesendet: Dienstag, 14. Februar 2017 17:02

An: Storz Timo

Betreff: FW: Materials Harvesting Workshop at USNRC

Dear Timo:

Thank you for the phone conversation today. I am forwarding the email that was previously sent to EnBW customer service.

We hope that EnBW may be able to participate in the workshop.

Sincerely,

Matthew Hiser

Materials Engineer

US Nuclear Regulatory Commission | Office of Nuclear Regulatory Research

Division of Engineering | Corrosion and Metallurgy Branch

Phone: 301-415-2454 | Office: TWFN 10D62

Matthew.Hiser@nrc.gov

From: Hiser, Matthew

Sent: Thursday, February 02, 2017 10:40 AM

To: 'rueckbauservice@kk.enbw.com' <rueckbauservice@kk.enbw.com>

Subject: Materials Harvesting Workshop at USNRC

Dear EnBW:

The US Nuclear Regulatory Commission is hosting a workshop on March 7-8, 2017 on the topic of harvesting materials from decommissioning nuclear plants. Participants will primarily be from nuclear materials research organizations from around the world, including Europe and Asia. One of the workshop sessions is focused on the practical aspects of a harvesting program and the decommissioning process.

A colleague of mine attended a conference in late 2014 with a presentation (attached) from EnBW about their decommissioning plans and process. We would like to invite a representative from EnBW to participate and present on the decommissioning process in

Germany and how harvesting may interface with the decommissioning process.
I have also attached an announcement and high-level agenda for the workshop. Please feel free to contact me for additional information.

Sincerely,

Matthew Hiser

Materials Engineer

US Nuclear Regulatory Commission | Office of Nuclear Regulatory Research

Division of Engineering | Corrosion and Metallurgy Branch

Phone: 301-415-2454 | Office: TWFN 10D62

Matthew.Hiser@nrc.gov

From: [Hiser, Matthew](#)
To: [Jackson, John Howard](#)
Subject: FW: Ex-plant Materials Harvesting Workshop Presentations
Date: Tuesday, February 21, 2017 2:52:00 PM
Attachments: [Workshop Speakers & Titles.xlsx](#)
[Ex-Plant Materials Harvesting Workshop.pptx](#)

Note to requester: Attachments are immediately following.

Hi John,
Here's the info I sent to the speakers. If you can just send a presentation title and then slides at some point in advance, I can put you down in Session 3.
Thanks!
Matt

Matthew Hiser

Materials Engineer

US Nuclear Regulatory Commission | Office of Nuclear Regulatory Research

Division of Engineering | Corrosion and Metallurgy Branch

Phone: 301-415-2454 | Office: TWFN 10D62

Matthew.Hiser@nrc.gov

From: Hiser, Matthew

Sent: Wednesday, February 15, 2017 10:47 AM

To: Bernhoft, Sherry (sbernhof@epri.com) <sbernhof@epri.com>; Dyle, Robin <rdyle@epri.com>; Jean Smith (jmsmith@epri.com) <jmsmith@epri.com>; Ahluwalia, Kawaljit <kahluwal@epri.com>; Richard Reister (Richard.Reister@nuclear.energy.gov) <Richard.Reister@nuclear.energy.gov>; 'leonardk@ornl.gov' <leonardk@ornl.gov>; 'Rosseel, Thomas M.' <rosseeltm@ornl.gov>; 'William F Zipp (Generation - 4)' <william.f.zipp@dom.com>; 'Gerard P. Van Noordennen' <gpvannoordennen@energysolutions.com>; Ramuhalli, Pradeep (Pradeep.Ramuhalli@pnnl.gov) <Pradeep.Ramuhalli@pnnl.gov>; 'daniel.tello@canada.ca' <daniel.tello@canada.ca>; 'Uwe.Jendrich@grs.de' <Uwe.Jendrich@grs.de>; 'rachid.chaouadi@sckcen.be' <rachid.chaouadi@sckcen.be>; 'arait@criepi.denken.or.jp' <arait@criepi.denken.or.jp>; 'alpanfa@westinghouse.com' <alpanfa@westinghouse.com>

Cc: Tregoning, Robert <Robert.Tregoning@nrc.gov>; Purtscher, Patrick <Patrick.Purtscher@nrc.gov>

Subject: Ex-plant Materials Harvesting Workshop Presentations

Dear Harvesting Workshop Presenters:

If you are receiving this email, then I have you down on the agenda to present at the upcoming Ex-plant Materials Harvesting Workshop on March 7-8. I have attached the workshop introduction slides that have been shared with most, if not all, of you. These slides cover meeting logistics, motivation, approach, expected outcome, and session expectations. We are hoping these slides provide a common vision for the workshop that will allow for a focused, productive discussion. Please take a look at these slides and try to tailor your presentation to the focus and length of the respective session.

There are two actions I request from presenters:

1. I have attached the confirmed list of speakers in an Excel document. Please take a look at this list to confirm you are presenting in the session you expected and if I have made any mistakes in the list of speakers. If you have not already done so, please provide me with a presentation title.
2. Please send me your slides (either via email or upload to Google Drive: <https://drive.google.com/drive/folders/0B5DWMLch5YSXcnpZZ0JOS055QUU?usp=sharing>) by the end of February if possible.

Thank you for your participation in the workshop. We are looking forward to the discussion

and engagement and appreciate your contribution to a productive and interesting meeting!

Thanks!

Matt

Matthew Hiser

Materials Engineer

US Nuclear Regulatory Commission | Office of Nuclear Regulatory Research

Division of Engineering | Corrosion and Metallurgy Branch

Phone: 301-415-2454 | Office: TWFN 10D62

Matthew.Hiser@nrc.gov

Session	Topic	Organization	Speaker	Presentation Title
1	Why our organization is interested in harvesting	EPRI	Sherry Bernhoft	
		DOE	Rich Reister	
		NRC	Robert Tregoning	
		GRS	Uwe Jendrich	
		CRIEPI	Taku Arai	
2	Perspective on detailed data needs from harvesting	PNNL (for NRC)	Pradeep Ramuhalli	Data Needs Best Addressed By Harvesting
		DOE	Keith Leonard	
		NRC	Matthew Hiser	High-Priority Data Needs for Harvesting
		SCK-CEN	Rachid Chaouadi	Review of past RPV sampling test programs and perspective for long term operation
		Westinghouse	Arzu Alban	Importance of Harvesting to Evaluate Radiation Effects on Concrete Properties
3		NRC	Matthew Hiser	Sources of Materials: Past NRC Harvesting and U.S. Decommissioning Plants
	Available materials from operating reactors and past harvesting programs	EPRI	Al Ahluwalia	
	Available materials at DOE labs from past harvesting programs	DOE	Tom Rosseel	
	Upcoming U.S. decommissioning plans	Energy Solutions	Gerry van Noordennen	
	International Harvesting Opportunities	GRS	Uwe Jendrich	
		Westinghouse	Arzu Alban	Potential Harvesting of Concrete from Mihama Unit 1
4	Perspective on Harvesting Lessons Learned / Prior Experience	CNSC	Dan Tello	
		EPRI	Jean Smith	
		DOE	Tom Rosseel	
		NRC	Matthew Hiser	NRC Perspective on Harvesting Experience and Lessons Learned
	Decommissioning company perspective on harvesting	Energy Solutions	Gerry van Noordennen	
	Utility perspective on harvesting and decommissioning	Dominion	Bill Zipp	
5	Perspective on future harvesting planning	PNNL (for NRC)	Pradeep Ramuhalli	Technical Information Needed for Informed Harvesting Decisions
		EPRI	Sherry Bernhoft	
		DOE	Rich Reister	
		NRC	Robert Tregoning	

Ex-Plant Materials Harvesting Workshop

March 7-8, 2017

USNRC HQ

Rockville, MD, USA

Meeting Logistics

- Workshop will be held at NRC's Three White Flint North building
 - Directly adjacent to the White Flint Metro station
 - Nearest hotel within walking distance: Bethesda North Marriott Hotel & Conference Center
- Workshop is a non-public meeting to encourage open discussion
 - Presentations and meeting summary will be distributed among meeting participants only
- GoToMeeting webinar will be available to support additional attendees
 - Webinar attendees will be primarily observers
 - Limited opportunities for webinar attendee participation in discussion if time allows
 - Discussion will be recorded through GoToMeeting software to aid capturing discussion in meeting summary

Motivation

- With plants shutting down both in the U.S. and internationally, there are increasing opportunities to harvest components from decommissioning plants
 - Past harvesting efforts generally more reactive as opportunities arose, rather than proactively planned
- Ex-plant materials may be valuable because they have been exposed to actual in-service plant operating conditions
 - Can reduce the uncertainty associated with the applicability of the aging conditions
- Insights from research on harvested materials can address technical data needs identified for extended plant operation
- Lessons learned from past harvesting programs can help improve future harvesting efforts
 - Challenges encountered in previous programs can be shared and mitigated or avoided in future programs

Approach

- Domestic and international researchers, industry, regulators, and decommissioning companies' discuss benefits and challenges with ex-plant harvesting
 - Encourage sharing of lessons learned as well as areas of common interest
- Workshop consists of topical sessions with short presentations and significant time for open discussion
 - Goal is to maximize engagement among meeting participants
- Scope includes any materials aging issue that could benefit from harvesting, including metals, cables, and concrete

Expected Outcome

- Participants become better informed and aware of the benefits and challenges associated with ex-plant harvesting
- Discussions help identify areas of common interest for harvesting to address technical data needs
- Presentations and discussions provide the starting point for a “database” of harvested materials and future harvesting opportunities
- Contacts are made among research organizations to allow for further discussion of specific harvesting projects
- Workshop summary documenting discussion will be distributed among participants

Session Expectations

- Session 1 Motivation for Harvesting
 - Perspective from panel participants on their organizations' interest in and motivation for harvesting
 - Brief (5-10 minute) presentation from each panel member followed by general discussion
- Session 2 Technical Data Needs for Harvesting
 - Presenters share high-priority data needs that may be best addressed by harvesting
 - Where does harvesting hold particular value compared to other sources of technical data
 - 15-20 minute presentations followed by open discussion of technical data needs for harvesting

Session Expectations

- Session 3 Sources of Materials
 - Information on previously harvested materials and future harvesting opportunities
 - Materials located at research and vendor facilities
 - Decommissioning plants that may allow for future harvesting
 - Short 5-10 minute presentations followed by open discussion
 - Starting point for potential database of previously harvested materials and future harvesting opportunities
- Session 4 Harvesting Experience: Lessons Learned and Practical Aspects
 - Improving future efforts with lessons learned from past programs
 - Pitfalls to avoid and strategies to improve likelihood of success
 - Practical perspective from non-researchers on how harvesting interfaces with the decommissioning process
 - International decommissioning and harvesting experience
 - 20-30 minute presentations followed by open discussion

Session Expectations

- Session 5 Future Harvesting Program Planning
 - Technical and logistical information needed when planning a specific harvesting program
 - Perspective from panel participants on the workshop
 - Next steps and actions from workshop
 - Potential areas of common interest for future harvesting programs
 - Brief (5-10 minute) presentation from each panel member followed by general discussion

From: [Hiser, Matthew](#)
To: [Jendrich, Uwe Dr.](#)
Cc: [Tregoning, Robert](#)
Subject: RE: WG: Ex-plant Materials Harvesting Workshop Presentations
Date: Tuesday, February 21, 2017 1:59:00 PM

Dear Uwe:

The workshop is scheduled to go until 4:00 PM on Wednesday, although there is a chance it will end early. We greatly appreciate your participation in the workshop, but certainly understand if you need to leave a little early for a flight.

For transport to Dulles, the best option is a taxi. Early in the afternoon before traffic begins, it will take about 40 minutes to reach Dulles by taxi. Later in the afternoon approaching rush hour, I would plan for 1 hour to 1 hour and 15 minutes to account for traffic.

Thanks!

Matt

Matthew Hiser

Materials Engineer

US Nuclear Regulatory Commission | Office of Nuclear Regulatory Research

Division of Engineering | Corrosion and Metallurgy Branch

Phone: 301-415-2454 | Office: TWFN 10D62

Matthew.Hiser@nrc.gov

From: Jendrich, Uwe Dr. [<mailto:Uwe.Jendrich@grs.de>]

Sent: Tuesday, February 21, 2017 7:01 AM

To: Hiser, Matthew <Matthew.Hiser@nrc.gov>

Cc: Tregoning, Robert <Robert.Tregoning@nrc.gov>

Subject: [External_Sender] WG: Ex-plant Materials Harvesting Workshop Presentations

Sorry, I have an additional question: Is there any transfer to Dulles intl. airport?

Von: Jendrich, Uwe Dr.

Gesendet: Dienstag, 21. Februar 2017 12:58

An: 'Hiser, Matthew'

Cc: Tregoning, Robert; Purtscher, Patrick

Betreff: AW: Ex-plant Materials Harvesting Workshop Presentations

Dear Matthew,

Thank you for your information about the workshop.

Could you tell me please your planning for the timing of the workshop?

I am particularly interested in the end of workshop to choose my flight back.

Thank you in advance

Uwe Jendrich

Von: Hiser, Matthew [<mailto:Matthew.Hiser@nrc.gov>]

Gesendet: Mittwoch, 15. Februar 2017 16:47

An: Bernhoft, Sherry (sbernhof@epri.com); Dyle, Robin; Jean Smith (jmsmith@epri.com); Ahluwalia, Kawaljit; Richard Reister (Richard.Reister@nuclear.energy.gov); 'leonardk@ornl.gov'; 'Rosseel, Thomas M.'; 'William F Zipp (Generation - 4)'; 'Gerard P. Van Noordennen'; Ramuhalli, Pradeep (Pradeep.Ramuhalli@pnnl.gov); 'daniel.tello@canada.ca'; Jendrich, Uwe Dr.; 'rachid.chaouadi@sckcen.be'; 'arait@criepi.denken.or.jp'; 'alpanfa@westinghouse.com'

Cc: Tregoning, Robert; Purtscher, Patrick

Betreff: Ex-plant Materials Harvesting Workshop Presentations

Dear Harvesting Workshop Presenters:

If you are receiving this email, then I have you down on the agenda to present at the upcoming Ex-plant Materials Harvesting Workshop on March 7-8. I have attached the workshop introduction slides that have been shared with most, if not all, of you. These

slides cover meeting logistics, motivation, approach, expected outcome, and session expectations. We are hoping these slides provide a common vision for the workshop that will allow for a focused, productive discussion. Please take a look at these slides and try to tailor your presentation to the focus and length of the respective session.

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2. Please send me your slides (either via email or upload to Google Drive: <https://drive.google.com/drive/folders/0B5DWMLch5YSXcnpZZ0JOS055QUU?usp=sharing>) by the end of February if possible.

Thank you for your participation in the workshop. We are looking forward to the discussion and engagement and appreciate your contribution to a productive and interesting meeting!

Thanks!

Matt

Matthew Hiser

Materials Engineer

US Nuclear Regulatory Commission | Office of Nuclear Regulatory Research

Division of Engineering | Corrosion and Metallurgy Branch

Phone: 301-415-2454 | Office: TWFN 10D62

Matthew.Hiser@nrc.gov

From: [Hiser, Matthew](#)
To: [Jackson, John Howard](#)
Subject: RE: NRC Materials Harvesting Workshop
Date: Tuesday, February 21, 2017 2:27:00 PM
Attachments: [image001.jpg](#)

Hi John,

Can you give me a call when you get a chance? Either office number below or cell

Thanks!

Matt

Matthew Hiser

Materials Engineer

US Nuclear Regulatory Commission | Office of Nuclear Regulatory Research

Division of Engineering | Corrosion and Metallurgy Branch

Phone: 301-415-2454 | Office: TWFN 10D62

Matthew.Hiser@nrc.gov

From: Jackson, John Howard [mailto:john.jackson@inl.gov]

Sent: Thursday, February 16, 2017 7:06 PM

To: Hiser, Matthew <Matthew.Hiser@nrc.gov>

Subject: [External_Sender] NRC Materials Harvesting Workshop

Matt,

My NSUF folks have asked me about an NRC Materials Harvesting workshop that you are hosting next month. It looks like an LWR/NRC effort (Rich Reister, Keith Leonard, and Tom Rosseel) and I know they're highly involved in materials retrieval efforts. As you are most likely aware, we've got a pretty large effort to collect and place relevant specimens in our NSUF sample library. (...the Zorita TEM discs, for example) Rory Kennedy (NSUF director) has expressed an interest in having someone from NSUF participate (I would probably be this someone). There may be good reasons to have NSUF participation since we are set up to store and catalog materials and are focused on providing funding to researchers who propose research on them.

Hopefully I'm not stepping on toes. I understand your space is limited so let me know if this is too big of an ask.

Best,

John

JOHN H. JACKSON, Ph.D.

GAIN Technical Interface/NSUF Industry Program Lead

Idaho National Laboratory

P.O. Box 1625

Idaho Falls, ID. 83415-3870

Voice: 208-526-0293

Fax: 208-526-4822

john.jackson@inl.gov



From: [Hiser, Matthew](#)
To: [Cunningham, Kelly A](#); [Jackson, John Howard](#)
Subject: RE: Re: Materials Harvesting Workshop Information Request
Date: Tuesday, February 21, 2017 3:57:00 PM

Hi Kelly,

Sorry for the delay in getting back to you. John Jackson also reached out to me and I ended up talking to him briefly on the phone. We should have room for 1 person from INL in the room, but others can participate via webinar if interested.

Thanks!

Matt

Matthew Hiser

Materials Engineer

US Nuclear Regulatory Commission | Office of Nuclear Regulatory Research

Division of Engineering | Corrosion and Metallurgy Branch

Phone: 301-415-2454 | Office: TWFN 10D62

Matthew.Hiser@nrc.gov

From: Cunningham, Kelly A (<mailto:kelly.cunningham@inl.gov>)

Sent: Thursday, February 16, 2017 12:07 PM

To: Hiser, Matthew <Matthew.Hiser@nrc.gov>

Subject: [External_Sender] Re: Materials Harvesting Workshop Information Request

Matt,

Thank you very much for getting back to me so quickly. Are there any available seats to attend the workshop in person? If not, I would definitely like to be included on the webinar list.

Best regards,

Kelly

On Wed, Feb 15, 2017 at 12:43 PM, Hiser, Matthew <Matthew.Hiser@nrc.gov> wrote:

Dear Ms. Cunningham:

Thank you for reaching out about the harvesting workshop. I am a materials engineer in the NRC's research office and am organizing the harvesting workshop for the NRC.

The workshop is being held at NRC headquarters on March 7-8, 2017. I've attached a few documents we've been sharing to publicize and describe the workshop. We have limited space available in the room, but are setting up a webinar for remote participation. I can be sure to include you on the distribution of webinar information.

The workshop has been coordinated with Rich Reister at DOE and Tom Rosseel at ORNL as well as staff from EPRI. Tom is presenting in session 3 on sources of materials, which includes previously harvested materials (such as those that may be in NFML) as well as future harvesting opportunities. We are hoping Tom's presentation will cover previously harvested materials that may be available within the DOE complex. Perhaps input of what materials are available at INL could be incorporated into Tom's presentation?

Again, thank you for your interest and please let me know if you have any questions.

Thanks!

Matt

Matthew Hiser

Materials Engineer

US Nuclear Regulatory Commission | Office of Nuclear Regulatory Research

Division of Engineering | Corrosion and Metallurgy Branch

Phone: 301-415-2454 | Office: TWFN 10D62

Matthew.Hiser@nrc.gov

From: Cunningham, Kelly A (<mailto:kelly.cunningham@inl.gov>)

Sent: Wednesday, February 15, 2017 1:13 PM

To: Tregoning, Robert <Robert.Tregoning@nrc.gov>

Subject: [External_Sender] Materials Harvesting Workshop Information Request

Mr. Tregoning,

I am with the Nuclear Science User Facilities (nsuf.inl.gov) as the coordinator of the Nuclear Fuels and Materials Library (NFML). The library houses available nuclear research specimens that can be used for NSUF-awarded research. My boss, Rory Kennedy, heard about a materials harvesting workshop being held in March but I'm unable to find anything about it on the internet. Can you give me any information about this workshop? As the coordinator of the NFML I am very interested in harvested materials that might, potentially, be added to our library.

Please feel free to go to the NSUF website and register as a user. The NFML can be found on the Infrastructure page. You can *Browse* the library from the menu on the left or search the library from the Nuclear Fuels and Materials Link.

Any information you can offer would be greatly appreciated. If you aren't aware of this workshop, do you know who might be able to help me? If you don't know anything about this workshop I apologize for the time it took to read this email.

Sincerely,

Kelly Cunningham

--

Kelly Cunningham
Idaho National Laboratory
Nuclear Science User Facilities
Nuclear Fuels and Materials Library Coordinator
(208) 526-2369 (w)

(b)(6) [REDACTED] (c)



--

Kelly Cunningham
Idaho National Laboratory
Nuclear Science User Facilities
Nuclear Fuels and Materials Library Coordinator
(208) 526-2369 (w)

(b)(6) [REDACTED] (c)



From: [Hiser, Matthew](#)
To: ["Jackson, John Howard"](#)
Cc: [Cunningham, Kelly A](#)
Subject: RE: Re: FW: Ex-plant Materials Harvesting Workshop
Date: Wednesday, February 22, 2017 8:42:15 AM
Attachments: [image001.jpg](#)

Thanks John! I will be sure to include Kelly on the webinar email.

Matt

From: Jackson, John Howard [mailto:john.jackson@inl.gov]

Sent: Tuesday, February 21, 2017 4:21 PM

To: Hiser, Matthew <Matthew.Hiser@nrc.gov>

Cc: Cunningham, Kelly A <kelly.cunningham@inl.gov>

Subject: [External_Sender] Re: FW: Ex-plant Materials Harvesting Workshop

Matt,

I will be attending and I will give a ~10 minute overview of the NSUF sample library. I would just title the talk "NSUF Material Sample Library". I'll get you slides in a few days.

You can add me to the dinner reservation as well (if you've still got room).

Kelly Cunningham would like to observe via the webinar.

Thanks,

John

JOHN H. JACKSON, Ph.D.

GAIN Technical Interface/NSUF Industry Program Lead

Idaho National Laboratory

P.O. Box 1625

Idaho Falls, ID. 83415-3870

Voice: 208-526-0293

Fax: 208-526-4822

john.jackson@inl.gov



On Tue, Feb 21, 2017 at 1:36 PM, Hiser, Matthew <Matthew.Hiser@nrc.gov> wrote:

From: Hiser, Matthew

Sent: Wednesday, February 15, 2017 10:47 AM

To: Dyle, Robin <rdyle@epri.com>; Jean Smith (jmsmith@epri.com) <jmsmith@epri.com>; Ahluwalia, Kawaljit <kahluwal@epri.com>; Richard Reister (Richard.Reister@nuclear.energy.gov) <Richard.Reister@nuclear.energy.gov>; 'leonardk@ornl.gov' <leonardk@ornl.gov>; 'Rosseel, Thomas M.' <rosseeltm@ornl.gov>; 'William F Zipp (Generation - 4)' <william.f.zipp@dom.com>; 'Gerard P. Van Noordennen' <gpvannoordennen@energysolutions.com>; Ramuhalli, Pradeep (Pradeep.Ramuhalli@pnnl.gov) <Pradeep.Ramuhalli@pnnl.gov>; 'daniel.tello@canada.ca' <daniel.tello@canada.ca>; 'Uwe.Jendrich@grs.de' <Uwe.Jendrich@grs.de>; 'rachid.chaouadi@sckcen.be' <rachid.chaouadi@sckcen.be>; 'arait@criepi.denken.or.jp' <arait@criepi.denken.or.jp>; 'alpanfa@westinghouse.com' <alpanfa@westinghouse.com>; 'sokolovm@ornl.gov' <sokolovm@ornl.gov>; 'desire.ndomba@canada.ca' <desire.ndomba@canada.ca>; 'khuyinh@aecl.ca' <khuyinh@aecl.ca>; 'higuchi@criepi.denken.or.jp' <higuchi@criepi.denken.or.jp>; 'kazunobu_sakamoto@nsr.go.jp' <kazunobu_sakamoto@nsr.go.jp>; 'chimi.yasuhiro@jaea.go.jp' <chimi.yasuhiro@jaea.go.jp>; 'leo.fifield@pnnl.gov' <leo.fifield@pnnl.gov>

Cc: Tregoning, Robert <Robert.Tregoning@nrc.gov>; Purtscher, Patrick <Patrick.Purtscher@nrc.gov>

Subject: Ex-plant Materials Harvesting Workshop

Dear Harvesting Workshop Attendees:

You are receiving this email because I have you recorded as attending the upcoming Ex-plant Materials Harvesting Workshop on March 7-8 at USNRC headquarters in Rockville, MD. I have attached the workshop introduction slides that cover meeting logistics, motivation, approach, expected outcome, and session expectations. We are hoping these slides provide a common vision for the workshop that will allow for a focused, productive discussion.

The workshop will be held in NRC's Three White Flint North (3WFN) building, which is directly adjacent to the White Flint Metro station, in room 1C3 on the first floor. I have attached a map of the local area showing the Metro station and the 3WFN building.

The workshop is scheduled to start at 8:00 on Tuesday, March 7. I recommend planning to arrive at 3WFN around 7:30-7:45 in order to go through security to enter the building.

I would like to request input from attendees on two items:

1. We are making reservations at a nearby restaurant for dinner on Tuesday, March 7. Please let me know if you plan to join for the dinner with other workshop participants, so I can make the appropriate reservation.

2. If you are traveling from outside the U.S., please be sure to bring two forms of ID (passport and a second photo ID). Also, please email me a scanned copy of your passport if possible. This will speed the security check-in process.

Thank you for your participation in the workshop. We are looking forward to the discussion and engagement and appreciate your contribution to a productive and interesting meeting!

Please let me know if you have any questions.

Thanks!

Matt

Matthew Hiser

Materials Engineer

US Nuclear Regulatory Commission | Office of Nuclear Regulatory Research

Division of Engineering | Corrosion and Metallurgy Branch

Phone: 301-415-2454 | Office: TWFN 10D62

Matthew.Hiser@nrc.gov

From: [Ramuhalli, Pradeep](#)
To: [Hiser, Matthew](#)
Subject: [External_Sender] You have files ready for pickup
Date: Wednesday, February 22, 2017 1:24:16 PM

Hello,

Ramuhalli, Pradeep (Pradeep.Ramuhalli@pnnl.gov) has sent you the following 1 file(s)

Subject: Slides - rev2

Comments: Patrick, Matt:

Rev 2 of slides are available at the link. Note that this is not complete yet - I am waiting for our discussion before I finalize the slides. Some of the older slides are left as hidden and will be removed in the final version.

Talk to you in a bit.

The following files have been uploaded to the MassTransit Web File Transfer Services. You can download them by going to:

	(b)(4)
--	--------

NOTE: This link and contained passkey are only good for 14 days.

Harvesting workshop slides draft-r2.pptx (1.38M bytes)

This message was automatically generated from the PNNL FX Web File Transfer Service. If you have questions about its validity, please contact the sender listed above.

From: arait@criepi.denken.or.jp
To: [Hiser_Matthew](mailto:Hiser_Matthew@nrc.gov); higuchi@criepi.denken.or.jp
Subject: [External_Sender] 解凍パスワード通知メール / password information for the zip file
Date: Thursday, February 23, 2017 9:40:14 PM

以下メールの添付ファイルの解凍パスワードをお知らせします。

添付ファイル名: 2017-02-24_1138.zip

解凍パスワード: (b)(6)

メールの詳細:

送信者: arait@criepi.denken.or.jp

宛先: Matthew.Hiser@nrc.gov, higuchi@criepi.denken.or.jp

件名: RE: Re: Ex-plant Materials Harvesting Workshop

Message-ID: <006f01d28e48\$f1a9c3f0\$d4fd4bd0\$@criepi.denken.or.jp>

送信日時: 2017/02/24 11:51

本メールは自動送信によりお送りしております。
このメールへの返信には回答できかねます。ご了承ください。

Here is the password information to decrypt the zip file.

File name: 2017-02-24_1138.zip

Password: (b)(6)

Detail information:

Sender: arait@criepi.denken.or.jp

Recipient: Matthew.Hiser@nrc.gov, higuchi@criepi.denken.or.jp

Subject: RE: Re: Ex-plant Materials Harvesting Workshop

Message-ID: <006f01d28e48\$f1a9c3f0\$d4fd4bd0\$@criepi.denken.or.jp>

Sent time: February 24, 2017 11:51

This is an automated notification.
Replies to this email will not be answered.

From: [Gerard P. Van Noordennen](#)
To: [Hiser, Matthew](#)
Subject: [External_Sender] RE: Ex-plant Materials Harvesting Workshop
Date: Thursday, February 23, 2017 2:43:46 PM

Matt,

Yes, I plan to attend the dinner on March 7. Will get you the titles to my presentations by tomorrow.

Gerry van Noordennen

Vice President Regulatory Affairs

EnergySolutions

151 Lafayette Drive, Suite 201

Oak Ridge, TN 37830

Office: 865-481-6319

Cell: (b)(6)

ZionSolutions

101 Shiloh Boulevard

Zion, IL 60099

Office: 224-789-4025

gpvannoordennen@energysolutions.com

From: Hiser, Matthew [<mailto:Matthew.Hiser@nrc.gov>]

Sent: Thursday, February 23, 2017 2:25 PM

To: Bernhoft, Sherry; Dyle, Robin; Jean Smith (jmsmith@epri.com); Ahluwalia, Kawaljit; Richard Reister (Richard.Reister@nuclear.energy.gov); leonardk@ornl.gov; 'Rosseel, Thomas M.'; 'William F Zipp (Generation - 4)'; Gerard P. Van Noordennen; Ramuhalli, Pradeep (Pradeep.Ramuhalli@pnnl.gov); daniel.tello@canada.ca; 'Uwe.Jendrich@grs.de'; 'rachid.chaouadi@sckcen.be'; 'arait@criepi.denken.or.jp'; 'alpanfa@westinghouse.com'; 'sokolovm@ornl.gov'; 'desire.ndomba@canada.ca'; 'khuyinh@aecl.ca'; 'higuchi@criepi.denken.or.jp'; 'kazunobu_sakamoto@nsr.go.jp'; 'chimi.yasuhiro@jaea.go.jp'; Jackson, John Howard; Roussel Guy; john.wagner@inl.gov

Cc: Tregoning, Robert; Purtscher, Patrick

Subject: RE: Ex-plant Materials Harvesting Workshop

Dear workshop attendees:

Friendly reminder for attendees about dinner and passports (highlighted below):

- Please let me know if you plan to join for the dinner with other workshop participants
- If you are traveling from outside the U.S., please email me a scanned copy of your passport if possible.

I have also attached the draft agenda (awaiting titles for a few presentations).

Thanks!

Matt

From: Hiser, Matthew

Sent: Wednesday, February 15, 2017 10:47 AM

To: Dyle, Robin <rdyle@epri.com>; Jean Smith (jmsmith@epri.com) <jmsmith@epri.com>; Ahluwalia, Kawaljit <kahluwal@epri.com>; Richard Reister (Richard.Reister@nuclear.energy.gov) <Richard.Reister@nuclear.energy.gov>; leonardk@ornl.gov <leonardk@ornl.gov>; 'Rosseel, Thomas M.' <rosseeltm@ornl.gov>; 'William F Zipp (Generation - 4)' <william.f.zipp@dom.com>; 'Gerard P. Van Noordennen' <gpvannoordennen@energysolutions.com>; Ramuhalli, Pradeep (Pradeep.Ramuhalli@pnnl.gov) <Pradeep.Ramuhalli@pnnl.gov>; daniel.tello@canada.ca

<daniel.tello@canada.ca>; 'Uwe.Jendrich@grs.de' <Uwe.Jendrich@grs.de>;
'rachid.chaouadi@sckcen.be' <rachid.chaouadi@sckcen.be>; 'arait@criepi.denken.or.jp'
<arait@criepi.denken.or.jp>; 'alpanfa@westinghouse.com' <alpanfa@westinghouse.com>;
'sokolovm@ornl.gov' <sokolovm@ornl.gov>; 'desire.ndomba@canada.ca'
<desire.ndomba@canada.ca>; 'khuynh@aecl.ca' <khuynh@aecl.ca>; 'higuchi@criepi.denken.or.jp'
<higuchi@criepi.denken.or.jp>; 'kazunobu_sakamoto@nsr.go.jp' <kazunobu_sakamoto@nsr.go.jp>;
'chimi.yasuhiro@jaea.go.jp' <chimi.yasuhiro@jaea.go.jp>; 'leo.fifield@pnnl.gov'
<leo.fifield@pnnl.gov>

Cc: Tregoning, Robert <Robert.Tregoning@nrc.gov>; Purtscher, Patrick <Patrick.Purtscher@nrc.gov>

Subject: Ex-plant Materials Harvesting Workshop

Dear Harvesting Workshop Attendees:

You are receiving this email because I have you recorded as attending the upcoming Ex-plant Materials Harvesting Workshop on March 7-8 at USNRC headquarters in Rockville, MD. I have attached the workshop introduction slides that cover meeting logistics, motivation, approach, expected outcome, and session expectations. We are hoping these slides provide a common vision for the workshop that will allow for a focused, productive discussion.

The workshop will be held in NRC's Three White Flint North (3WFN) building, which is directly adjacent to the White Flint Metro station, in room 1C3 on the first floor. I have attached a map of the local area showing the Metro station and the 3WFN building.

The workshop is scheduled to start at 8:00 on Tuesday, March 7. I recommend planning to arrive at 3WFN around 7:30-7:45 in order to go through security to enter the building.

I would like to request input from attendees on two items:

1. We are making reservations at a nearby restaurant for dinner on Tuesday, March 7. Please let me know if you plan to join for the dinner with other workshop participants, so I can make the appropriate reservation.
2. If you are traveling from outside the U.S., please be sure to bring two forms of ID (passport and a second photo ID). Also, please email me a scanned copy of your passport if possible.

This will speed the security check-in process.

Thank you for your participation in the workshop. We are looking forward to the discussion and engagement and appreciate your contribution to a productive and interesting meeting!

Please let me know if you have any questions.

Thanks!

Matt

Matthew Hiser

Materials Engineer

US Nuclear Regulatory Commission | Office of Nuclear Regulatory Research

Division of Engineering | Corrosion and Metallurgy Branch

Phone: 301-415-2454 | Office: TWFN 10D62

Matthew.Hiser@nrc.gov

From: [Taku Arai](#)
To: [Hiser, Matthew](#); "[HIGUCHI, Sadao](#)"
Subject: [External_Sender] [WARNING: MESSAGE ENCRYPTED]RE: Re: Ex-plant Materials Harvesting Workshop
Date: Thursday, February 23, 2017 9:38:57 PM
Attachments: [2017-02-24_1138.zip](#)

Dear Matt,
I'm sending a copy of my passport by an attached file.

Note to requester: The attachment (immediately following this email) is being withheld in full under FOIA Exemption B6.

A password for the attached file will be send by another email following this mail.

Best regards,
Taku

Dr. Taku Arai
Deputy Associate Vice President
Structural Materials Sector
Materials Science Research Laboratory
Deputy Director,
NPP Maintenance Research Team
Central Research Institute of Electric Power Industry
(CRIEPI)

2-11-1, Iwado Kita, Komae-shi, Tokyo 201-8511 JAPAN
E-mail: arait@criepi.denken.or.jp
<http://criepi.denken.or.jp>

> -----Original Message-----

> From: Hiser, Matthew [<mailto:Matthew.Hiser@nrc.gov>]

> Sent: Thursday, February 23, 2017 11:02 PM

> To: HIGUCHI, Sadao

> Cc: 新井 拓

> Subject: RE: Re: Ex-plant Materials Harvesting Workshop

>

> Dear Sadao,

>

> We are glad you and Taku will be able to attend the workshop. Thank you
for

> responding about dinner.

>

> I think your driver's license or CRIEPI ID should be fine for a second
form

> of ID. Please send your passport copies at your earliest convenience.

>

> Thanks!

> Matt

>

> Matthew Hiser

> Materials Engineer

> US Nuclear Regulatory Commission | Office of Nuclear Regulatory Research

> Division of Engineering | Corrosion and Metallurgy Branch

> Phone: 301-415-2454 | Office: TWFN 10D62 Matthew.Hiser@nrc.gov

>

> -----Original Message-----

> From: HIGUCHI, Sadao [<mailto:higuchi@criepi.denken.or.jp>]
> Sent: Wednesday, February 22, 2017 7:44 PM
> To: Hiser, Matthew <Matthew.Hiser@nrc.gov>
> Cc: 新井 拓 <arait@criepi.denken.or.jp>
> Subject: [External_Sender] Re: Ex-plant Materials Harvesting Workshop
>
> Dear Mat
>
> Thank you for your announcement of Ex-plant Materials Harvesting Workshop.
>
> Taku Arai and Sadao Higuchi of CRIEPI attend dinner on Tuesday, March 7.
>
> And we can send copy of passport but I do not have English second photo ID
> (only Japanese driver licence or identification of CRIEPI)).
> Are these available as second photo ID?
>
> Sadao (Central Research Institute of Electric Power Industry, CRIEPI)
>
>
> On Wed, 15 Feb 2017 15:47:03 +0000
> "Hiser, Matthew" <Matthew.Hiser@nrc.gov> wrote:
>
>> Dear Harvesting Workshop Attendees:
>>
>> You are receiving this email because I have you recorded as attending
the
> upcoming Ex-plant Materials Harvesting Workshop on March 7-8 at USNRC
> headquarters in Rockville, MD. I have attached the workshop introduction
> slides that cover meeting logistics, motivation, approach, expected
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> check-in process.
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>> Thank you for your participation in the workshop. We are looking forward
> to the discussion and engagement and appreciate your contribution to a
> productive and interesting meeting!
>>
>> Please let me know if you have any questions.
>>
>> Thanks!
>> Matt
>>
>> Matthew Hiser
>> Materials Engineer
>> US Nuclear Regulatory Commission | Office of Nuclear Regulatory
>> Research Division of Engineering | Corrosion and Metallurgy Branch
>> Phone: 301-415-2454 | Office: TWFN 10D62
>> Matthew.Hiser@nrc.gov<<mailto:Matthew.Hiser@nrc.gov>>
>>

(b)(6)

From: [HIGUCHI, Sadao](#)
To: [Hiser, Matthew](#)
Cc: [新井 拓](#)
Subject: [External_Sender] Ref[3]: Ex-plant Materials Harvesting Workshop
Date: Thursday, February 23, 2017 5:42:27 PM

Dear Matt

Thank you for your good answer.
We take our driver's license or CRIEPI ID.
We are looking forward to meet at the meeting.

Thanks!
Sadao

On Thu, 23 Feb 2017 14:02:15 +0000
"Hiser, Matthew" <Matthew.Hiser@nrc.gov> wrote:

> Dear Sadao,
>
> We are glad you and Taku will be able to attend the workshop. Thank you for responding about dinner.
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> Matt
>
> Matthew Hiser
> Materials Engineer
> US Nuclear Regulatory Commission | Office of Nuclear Regulatory Research
> Division of Engineering | Corrosion and Metallurgy Branch
> Phone: 301-415-2454 | Office: TWFN 10D62
> Matthew.Hiser@nrc.gov
>
> -----Original Message-----
> From: HIGUCHI, Sadao [<mailto:higuchi@criepi.denken.or.jp>]
> Sent: Wednesday, February 22, 2017 7:44 PM
> To: Hiser, Matthew <Matthew.Hiser@nrc.gov>
> Cc: 新井 拓 <arait@criepi.denken.or.jp>
> Subject: [External_Sender] Re: Ex-plant Materials Harvesting Workshop
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>>
>> Please let me know if you have any questions.
>>
>> Thanks!
>> Matt
>>
>> Matthew Hiser
>> Materials Engineer
>> US Nuclear Regulatory Commission | Office of Nuclear Regulatory
>> Research Division of Engineering | Corrosion and Metallurgy Branch
>> Phone: 301-415-2454 | Office: TWFN 10D62
>> Matthew.Hiser@nrc.gov<<mailto:Matthew.Hiser@nrc.gov>>
>>

From: [Reister, Richard](#)
To: [Hiser, Matthew](#); [Tregoning, Robert](#)
Subject: [External_Sender] RE: RE: Ex-plant Materials Harvesting Workshop
Date: Thursday, February 23, 2017 8:28:17 AM

Thanks!

From: Hiser, Matthew [mailto:Matthew.Hiser@nrc.gov]
Sent: Thursday, February 23, 2017 8:24 AM
To: Reister, Richard <Richard.Reister@nuclear.energy.gov>; Tregoning, Robert <Robert.Tregoning@nrc.gov>
Subject: RE: RE: Ex-plant Materials Harvesting Workshop

Hi Rich,

Thank you for checking with us, but we should have room for John. Please go ahead and share the information I have sent out. I'll be sure to include him on future emails to attendees.

Thanks!

Matt

Matthew Hiser

Materials Engineer

US Nuclear Regulatory Commission | Office of Nuclear Regulatory Research

Division of Engineering | Corrosion and Metallurgy Branch

Phone: 301-415-2454 | Office: TWFN 10D62

Matthew.Hiser@nrc.gov

From: Reister, Richard [mailto:Richard.Reister@nuclear.energy.gov]
Sent: Wednesday, February 22, 2017 3:59 PM
To: Hiser, Matthew <Matthew.Hiser@nrc.gov>; Tregoning, Robert <Robert.Tregoning@nrc.gov>
Subject: [External_Sender] RE: Ex-plant Materials Harvesting Workshop

Matt/Rob:

It turns out the new LWRS TIO Director, John Wagner, will be in DC on other business the same week as this workshop and John would like to attend primarily to here directly from and interact with the various NRC folks involved in LTO issues. I know this workshop in invitation only and there is limited space. Would it be OK to invite John to the workshop? I think it would a good opportunity for John.

Thanks, Rich

From: Hiser, Matthew [mailto:Matthew.Hiser@nrc.gov]
Sent: Wednesday, February 15, 2017 10:47 AM
To: Dyle, Robin <rdyle@epri.com>; Jean Smith (jmsmith@epri.com) <jmsmith@epri.com>; Ahluwalia, Kawaljit <kahluwal@epri.com>; Reister, Richard <Richard.Reister@nuclear.energy.gov>; 'leonardk@ornl.gov' <leonardk@ornl.gov>; 'Rosseel, Thomas M.' <rosseeltm@ornl.gov>; 'William F Zipp (Generation - 4)' <william.f.zipp@dom.com>; 'Gerard P. Van Noordennen' <gpvannoordennen@energysolutions.com>; Ramuhalli, Pradeep <pradeep.ramuhalli@pnnl.gov>; 'daniel.tello@canada.ca' <daniel.tello@canada.ca>; 'Uwe.Jendrich@grs.de' <Uwe.Jendrich@grs.de>; 'rachid.chaouadi@sckcen.be' <rachid.chaouadi@sckcen.be>; 'arait@criepi.denken.or.jp' <arait@criepi.denken.or.jp>; 'alpanfa@westinghouse.com' <alpanfa@westinghouse.com>; 'sokolovm@ornl.gov' <sokolovm@ornl.gov>; 'desire.ndomba@canada.ca' <desire.ndomba@canada.ca>; 'khuynh@aecl.ca' <khuynh@aecl.ca>; 'higuchi@criepi.denken.or.jp' <higuchi@criepi.denken.or.jp>; 'kazunobu_sakamoto@nsr.go.jp' <kazunobu_sakamoto@nsr.go.jp>;

'chimi.yasuhiro@jaea.go.jp' <chimi.yasuhiro@jaea.go.jp>; Fifield, Leonard S
<leonard.fifield@pnnl.gov>

Cc: Tregoning, Robert <Robert.Tregoning@nrc.gov>; Purtscher, Patrick <Patrick.Purtscher@nrc.gov>

Subject: Ex-plant Materials Harvesting Workshop

Dear Harvesting Workshop Attendees:

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2. If you are traveling from outside the U.S., please be sure to bring two forms of ID (passport and a second photo ID). Also, please email me a scanned copy of your passport if possible. This will speed the security check-in process.

Thank you for your participation in the workshop. We are looking forward to the discussion and engagement and appreciate your contribution to a productive and interesting meeting!

Please let me know if you have any questions.

Thanks!

Matt

Matthew Hiser

Materials Engineer

US Nuclear Regulatory Commission | Office of Nuclear Regulatory Research

Division of Engineering | Corrosion and Metallurgy Branch

Phone: 301-415-2454 | Office: TWFN 10D62

Matthew.Hiser@nrc.gov

From: [Hiser, Matthew](#)
To: [Leonard, Keith J.](#)
Subject: RE: Re: Ex-plant Materials Harvesting Workshop Presentations
Date: Thursday, February 23, 2017 9:51:00 AM

Thanks Keith! I'm not very imaginative with my titles either...

Matthew Hiser

Materials Engineer

US Nuclear Regulatory Commission | Office of Nuclear Regulatory Research

Division of Engineering | Corrosion and Metallurgy Branch

Phone: 301-415-2454 | Office: TWFN 10D62

Matthew.Hiser@nrc.gov

From: Leonard, Keith J. [mailto:leonardk@ornl.gov]

Sent: Thursday, February 23, 2017 9:49 AM

To: Hiser, Matthew <Matthew.Hiser@nrc.gov>

Subject: [External_Sender] Re: Ex-plant Materials Harvesting Workshop Presentations

Matt,

For my presentation in Session 2. The title will be rather unimaginatively "LWRS Program Perspective on the Technical Needs for Harvesting"

Keith

Keith J. Leonard, PhD

Materials Aging and Degradation Pathway Lead, LWRS Program

Leader – Nuclear Materials Science and Technology Group

Materials Science and Technology Division

Oak Ridge National Laboratory

One Bethel Valley Rd

P.O. Box 2008, MS-6138

Oak Ridge, TN 37831-6138

phone (865) 576-3687

fax (865) 241-3650

leonardk@ornl.gov

From: "Hiser, Matthew" <Matthew.Hiser@nrc.gov>

Date: Thursday, February 23, 2017 at 9:06 AM

To: "Bernhoft, Sherry (sbernhoft@epri.com)" <sbernhoft@epri.com>, Robin Dyle <rdyle@epri.com>, Jean Smith <jmsmith@epri.com>, "Ahluwalia, Kawaljit" <kahluwal@epri.com>, "Richard Reister (Richard.Reister@nuclear.energy.gov)" <Richard.Reister@nuclear.energy.gov>, "Leonard, Keith J." <leonardk@ornl.gov>, Thomas Rosseel <rosseeltm@ornl.gov>, "William F Zipp (Generation - 4)" <william.f.zipp@dom.com>, "Gerard P. Van Noordennen" <gpvannoordennen@energysolutions.com>, Pradeep Ramuhalli <Pradeep.Ramuhalli@pnnl.gov>, "daniel.tello@canada.ca" <daniel.tello@canada.ca>, "Uwe.Jendrich@grs.de" <Uwe.Jendrich@grs.de>, "rachid.chaouadi@sckcen.be" <rachid.chaouadi@sckcen.be>, "arait@criepi.denken.or.jp" <arait@criepi.denken.or.jp>, "alpanfa@westinghouse.com" <alpanfa@westinghouse.com>, "Jackson, John Howard" <john.jackson@inl.gov>, "desire.ndomba@canada.ca" <desire.ndomba@canada.ca>

Cc: "Tregoning, Robert" <Robert.Tregoning@nrc.gov>, "Purtscher, Patrick" <Patrick.Purtscher@nrc.gov>

Subject: RE: Ex-plant Materials Harvesting Workshop Presentations

Dear Presenters:

Friendly reminders:

- Please provide presentation title by February 28.
- Please send me your slides (either via email or upload to Google Drive:
<https://drive.google.com/drive/folders/0B5DWMLch5YSXcnpZZ0JOS055QUU?usp=sharing>)
by March 3.

I have attached the workshop agenda to this email. Please let me know if you have any questions or corrections.

Thanks!

Matt

From: Hiser, Matthew

Sent: Wednesday, February 15, 2017 10:47 AM

To: Bernhoft, Sherry (sbernhoft@epri.com) <sbernhoft@epri.com>; Dyle, Robin <rdyle@epri.com>; Jean Smith (jmsmith@epri.com) <jmsmith@epri.com>; Ahluwalia, Kawaljit <kahluwal@epri.com>; Richard Reister (Richard.Reister@nuclear.energy.gov) <Richard.Reister@nuclear.energy.gov>; 'leonardk@ornl.gov' <leonardk@ornl.gov>; 'Rosseel, Thomas M.' <rosseeltm@ornl.gov>; 'William F Zipp (Generation - 4)' <william.f.zipp@dom.com>; 'Gerard P. Van Noordennen' <gpyvannoordennen@energysolutions.com>; Ramuhalli, Pradeep (Pradeep.Ramuhalli@pnnl.gov) <Pradeep.Ramuhalli@pnnl.gov>; 'daniel.tello@canada.ca' <daniel.tello@canada.ca>; 'Uwe.Jendrich@grs.de' <Uwe.Jendrich@grs.de>; 'rachid.chaouadi@sckcen.be' <rachid.chaouadi@sckcen.be>; 'arait@criepi.denken.or.jp' <arait@criepi.denken.or.jp>; 'alpanfa@westinghouse.com' <alpanfa@westinghouse.com>

Cc: Tregoning, Robert <Robert.Tregoning@nrc.gov>; Purtscher, Patrick <Patrick.Purtscher@nrc.gov>

Subject: Ex-plant Materials Harvesting Workshop Presentations

Dear Harvesting Workshop Presenters:

If you are receiving this email, then I have you down on the agenda to present at the upcoming Ex-plant Materials Harvesting Workshop on March 7-8. I have attached the workshop introduction slides that have been shared with most, if not all, of you. These slides cover meeting logistics, motivation, approach, expected outcome, and session expectations. We are hoping these slides provide a common vision for the workshop that will allow for a focused, productive discussion. Please take a look at these slides and try to tailor your presentation to the focus and length of the respective session.

There are two actions I request from presenters:

1. I have attached the confirmed list of speakers in an Excel document. Please take a look at this list to confirm you are presenting in the session you expected and if I have made any mistakes in the list of speakers. If you have not already done so, please provide me with a presentation title.
2. Please send me your slides (either via email or upload to Google Drive: <https://drive.google.com/drive/folders/0B5DWMLch5YSXcnpZZ0JOS055QUU?usp=sharing>) by the end of February if possible.

Thank you for your participation in the workshop. We are looking forward to the discussion and engagement and appreciate your contribution to a productive and interesting meeting! Thanks!

Matt

Matthew Hiser

Materials Engineer

US Nuclear Regulatory Commission | Office of Nuclear Regulatory Research

Division of Engineering | Corrosion and Metallurgy Branch

Phone: 301-415-2454 | Office: TWFN 10D62
Matthew.Hiser@nrc.gov

From: [Ramuhalli, Pradeep](#)
To: [Hiser, Matthew](#)
Cc: [Purtscher, Patrick](#)
Subject: [External_Sender] RE: RE: Ex-plant Materials Harvesting Workshop
Date: Thursday, February 23, 2017 12:26:31 PM

Matt,

Thanks – will get back to you tomorrow with any comments on this.

With best regards,

Pradeep Ramuhalli, PhD

Tel: 509-375-2763

Email: pradeep.ramuhalli@pnnl.gov

From: Hiser, Matthew [mailto:Matthew.Hiser@nrc.gov]
Sent: Thursday, February 23, 2017 9:12 AM
To: Ramuhalli, Pradeep <Pradeep.Ramuhalli@pnnl.gov>
Cc: Purtscher, Patrick <Patrick.Purtscher@nrc.gov>
Subject: RE: RE: Ex-plant Materials Harvesting Workshop

Hi Pradeep,

I wanted to share the latest version of the NRC slides for your awareness and review/comment.

Thanks!

Matt

Matthew Hiser

Materials Engineer

US Nuclear Regulatory Commission | Office of Nuclear Regulatory Research

Division of Engineering | Corrosion and Metallurgy Branch

Phone: 301-415-2454 | Office: TWFN 10D62

Matthew.Hiser@nrc.gov

From: Ramuhalli, Pradeep [mailto:Pradeep.Ramuhalli@pnnl.gov]
Sent: Wednesday, February 22, 2017 4:06 PM
To: Hiser, Matthew <Matthew.Hiser@nrc.gov>
Subject: [External_Sender] RE: Ex-plant Materials Harvesting Workshop

Matt,

Thanks. I will plan on joining the participants for dinner on the 7th.

With best regards,

Pradeep Ramuhalli, PhD

Tel: 509-375-2763

Email: pradeep.ramuhalli@pnnl.gov

From: Hiser, Matthew [mailto:Matthew.Hiser@nrc.gov]
Sent: Wednesday, February 15, 2017 7:47 AM
To: Dyle, Robin <rdyle@epri.com>; Jean Smith (jmsmith@epri.com) <jmsmith@epri.com>; Ahluwalia, Kawaljit <kahluwal@epri.com>; Richard Reister (Richard.Reister@nuclear.energy.gov) <Richard.Reister@nuclear.energy.gov>; 'leonardk@ornl.gov' <leonardk@ornl.gov>; 'Rosseel, Thomas M.' <rosseeltm@ornl.gov>; 'William F Zipp (Generation - 4)' <william.f.zipp@dom.com>; 'Gerard P. Van Noordennen' <gpyvannoordennen@energysolutions.com>; Ramuhalli, Pradeep <Pradeep.Ramuhalli@pnnl.gov>; 'daniel.tello@canada.ca' <daniel.tello@canada.ca>;

'Uwe.Jendrich@grs.de' <Uwe.Jendrich@grs.de>; 'rachid.chaouadi@sckcen.be' <rachid.chaouadi@sckcen.be>; 'arait@criepi.denken.or.jp' <arait@criepi.denken.or.jp>; 'alpanfa@westinghouse.com' <alpanfa@westinghouse.com>; 'sokolovm@ornl.gov' <sokolovm@ornl.gov>; 'desire.ndomba@canada.ca' <desire.ndomba@canada.ca>; 'khuynh@aecl.ca' <khuynh@aecl.ca>; 'higuchi@criepi.denken.or.jp' <higuchi@criepi.denken.or.jp>; 'kazunobu_sakamoto@nsr.go.jp' <kazunobu_sakamoto@nsr.go.jp>; 'chimi.yasuhiro@jaea.go.jp' <chimi.yasuhiro@jaea.go.jp>; Fifield, Leo S <leo.fifield@pnnl.gov>

Cc: Tregoning, Robert <Robert.Tregoning@nrc.gov>; Purtscher, Patrick <Patrick.Purtscher@nrc.gov>

Subject: Ex-plant Materials Harvesting Workshop

Dear Harvesting Workshop Attendees:

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Thank you for your participation in the workshop. We are looking forward to the discussion and engagement and appreciate your contribution to a productive and interesting meeting!

Please let me know if you have any questions.

Thanks!

Matt

Matthew Hiser

Materials Engineer

US Nuclear Regulatory Commission | Office of Nuclear Regulatory Research

Division of Engineering | Corrosion and Metallurgy Branch

Phone: 301-415-2454 | Office: TWFN 10D62

Matthew.Hiser@nrc.gov

From: [Hiser, Matthew](#)
To: [Ramuhalli, Pradeep](#)
Cc: [Purtscher, Patrick](#)
Subject: RE: RE: Ex-plant Materials Harvesting Workshop
Date: Thursday, February 23, 2017 12:11:00 PM
Attachments: [Sources of Materials.pptx](#)
[NRC Perspective on Harvesting Experience and Lessons Learned.pptx](#)
[NRC Technical Data Needs for Harvesting.pptx](#)

Note to requester: All the attachments are immediately following. The final versions of these presentations were released in the second interim response.

Hi Pradeep,
I wanted to share the latest version of the NRC slides for your awareness and review/comment.

Thanks!

Matt

Matthew Hiser

Materials Engineer

US Nuclear Regulatory Commission | Office of Nuclear Regulatory Research

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Matthew.Hiser@nrc.gov

From: Ramuhalli, Pradeep [mailto:Pradeep.Ramuhalli@pnnl.gov]
Sent: Wednesday, February 22, 2017 4:06 PM
To: Hiser, Matthew <Matthew.Hiser@nrc.gov>
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Cc: Tregoning, Robert <Robert.Tregoning@nrc.gov>; Purtscher, Patrick <Patrick.Purtscher@nrc.gov>
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Matt

Matthew Hiser

Materials Engineer

US Nuclear Regulatory Commission | Office of Nuclear Regulatory Research

Division of Engineering | Corrosion and Metallurgy Branch

Phone: 301-415-2454 | Office: TWFN 10D62

Matthew.Hiser@nrc.gov

Sources of Materials

Metals

- Examples of harvested materials used in NRC research programs:
 - Boral from Zion
 - SS plate and welds from Zorita
 - 304SS ranging from <1 to 50 dpa
 - SS weld up to 1 dpa
 - PWSCC
 - Alloy 600 J-groove weld from Davis-Besse
 - Alloy 600 CRD nozzle from North Anna
 - Alloy 182/82 from VC Summer
 - RPV
 - Shoreham, Midland

Electrical

Concrete

Recently Shutdown U.S. Plants

Plant	Design	Size (MWt)	Years in Operation	Shutdown Date	Notes
Kewaunee	W 2-loop	1772	39	2013	
SONGS 2/3	CE 2-loop	3438	31/30	2013	
Crystal River 3	B&W	2609	36	2013	
Vermont Yankee	BWR-4/Mark-1	1912	42	2015	
Fort Calhoun	CE 2-loop	1500	43	2016	

Planned Shutdown U.S. Plants

Plant	Design	Size (MWt)	Years in Operation	Planned Shutdown	Notes
Palisades	CE	2565	47	2018	
Pilgrim	BWR-3/Mark-1	2028	47	2019	
Oyster Creek	BWR-2/Mark-1	1930	50	2019	
Indian Point 2/3	W 4-loop	3216	48/46	2021	
Diablo Canyon 1/2	W 4-loop	3411	40	2024-5	

Additional Information from Plants

- Point of Contact
- Material information
 - Fabrication records, CMTRs
- Operating history
 - Temperature and fluence for components of interest
- Inspection records
 - Components with known flaws

NRC Perspective on Harvesting Experience and Lessons Learned

NRC Harvesting Experience

- RPV materials
 - Shoreham, Midland
- Reactor vessel head CRDM penetrations
 - North Anna, Davis-Besse
- Pressurizer from St. Lucie
- Piping from VC Summer, NMP, Oconee
- Reactor internals from Zorita
 - Joint harvesting and testing project with EPRI and international
- Neutron absorbers from Zion
 - Harvesting coordinated with DOE and EPRI; Independent NRC testing
- Concrete from Zorita
- Cables from Zion and Crystal River

Previous Benefits of Harvesting

- Reduce unnecessary conservatism
 - Flaw distributions and Master Curve information came from harvested materials to support PTS rule
- Understand in-service flaws
 - Mockups for NDE qualification
 - Leak rate methodology from studying in-service flaws

Technical Lessons Learned

- Harvesting can provide highly representative aged materials for research
 - May be only practical source of representative aged materials, particularly if irradiation and temperature are important factors
 - Achieving high fluence levels with representative irradiation conditions through other means is very challenging
 - May be able to use limited harvested materials to validate larger accelerated aging data set
- Important to gain as much information as possible in advance before committing to specific harvesting project
 - Ideally a bounding, yet broadly representative, material/environment
 - Understand material information (CMTRs if available) and plant operating conditions

Logistical Lessons Learned

- Harvesting is an expensive, time-consuming effort
 - Must balance cost with potential benefits carefully
 - High technical relevance of materials is needed to ensure value
- Leveraging resources with other research organizations helps mitigate cost challenges
 - Can introduce challenges for testing when aligning research priorities and interests of multiple organizations
 - May be needed, particularly for expensive testing of irradiated materials
- Transporting irradiated materials, particularly internationally, is cumbersome and time-consuming
 - Avoiding extra transport, especially between countries, is highly recommended

NRC High-Priority Data Needs for Harvesting

Metals

- Selected areas of interest for harvested materials:
 - High fluence reactor internals
 - >50 dpa 304 SS from high core outlet temp plant
 - Bounding temperature and high fluence for void swelling
 - Thermally aged unirradiated CASS
 - >30 years at ~320°C; Validate accelerated aging data
 - Moderate fluence (1-2 dpa) CASS
 - Bolster technical basis for embrittlement in this fluence range

Metals

- RPV
 - High fluence vessel with relatively high levels of minor alloying elements (Mn, P, etc.)
 - Through thickness section
 - Measure fluence, toughness, and chemistry as a function of depth
 - Validate fluence calculations
- Components with known flaws
 - Example: weld overlays over known flaws
 - Could be used for NDE evaluations or to assess effectiveness of mitigation techniques
- Components with limiting fatigue life
 - Confirm fatigue calculations are accurate by inspecting for flaws

Electrical

- Cables
 - Power cables energized and energized in normal operation
 - Cables from in containment applications
- Electrical components
 - 1E MOVs from harsh and mild environments
 - 1E Air operated valves
 - 4160 1E breakers
 - 1E Molded case breakers 480V, 250V DC, 125 VDC,
 - 1E Relays from mild environment GE – HFA, Agastat timing relays, any from Westinghouse, Potter Brumfield, Stuthers Dunn etc.,
- Other
 - Electrical penetrations
 - Batteries

Concrete

- High fluence irradiated concrete?
- ASR?
- Large sections for structural testing?

From: [Hiser, Matthew](#)
To: [Bernhoft, Sherry](#); [Dyle, Robin](#); [Jean Smith \(jmsmith@epri.com\)](#); [Ahluwalia, Kawaljit](#); [Richard Reister \(Richard.Reister@nuclear.energy.gov\)](#); ["leonardk@ornl.gov"](#); ["Rosseel, Thomas M."](#); ["William F Zipp \(Generation - 4\)"](#); ["Gerard P. Van Noordennen"](#); [Ramuhalli, Pradeep \(Pradeep.Ramuhalli@pnnl.gov\)](#); ["daniel.tello@canada.ca"](#); ["Uwe.Jendrich@grs.de"](#); ["rachid.chaouadi@sckcen.be"](#); ["arait@criepi.denken.or.jp"](#); ["alpanfa@westinghouse.com"](#); ["sokolovm@ornl.gov"](#); ["desire.ndomba@canada.ca"](#); ["khuyinh@aecl.ca"](#); ["higuchi@criepi.denken.or.jp"](#); ["kazunobu_sakamoto@nsr.go.jp"](#); ["chimi.yasuhiro@jaea.go.jp"](#); [Jackson, John Howard](#); [Rousset GUY](#); [john.wagner@inl.gov](#)
Cc: [Tregoning, Robert](#); [Purtscher, Patrick](#)
Subject: RE: Ex-plant Materials Harvesting Workshop
Date: Thursday, February 23, 2017 2:24:00 PM
Attachments: [Harvesting Workshop Draft Agenda.docx](#)

Note to requester: Attachment is immediately following.

Dear workshop attendees:

Friendly reminder for attendees about dinner and passports (highlighted below):

- Please let me know if you plan to join for the dinner with other workshop participants
- If you are traveling from outside the U.S., please email me a scanned copy of your passport if possible.

I have also attached the draft agenda (awaiting titles for a few presentations).

Thanks!

Matt

From: Hiser, Matthew

Sent: Wednesday, February 15, 2017 10:47 AM

To: [Dyle, Robin <rdyle@epri.com>](#); [Jean Smith \(jmsmith@epri.com\) <jmsmith@epri.com>](#); [Ahluwalia, Kawaljit <kahluwal@epri.com>](#); [Richard Reister \(Richard.Reister@nuclear.energy.gov\) <Richard.Reister@nuclear.energy.gov>](#); ["leonardk@ornl.gov" <leonardk@ornl.gov>](#); ["Rosseel, Thomas M." <rosseeltm@ornl.gov>](#); ["William F Zipp \(Generation - 4\)" <william.f.zipp@dom.com>](#); ["Gerard P. Van Noordennen" <gpvan Noordennen@energysolutions.com>](#); [Ramuhalli, Pradeep \(Pradeep.Ramuhalli@pnnl.gov\) <Pradeep.Ramuhalli@pnnl.gov>](#); ["daniel.tello@canada.ca" <daniel.tello@canada.ca>](#); ["Uwe.Jendrich@grs.de" <Uwe.Jendrich@grs.de>](#); ["rachid.chaouadi@sckcen.be" <rachid.chaouadi@sckcen.be>](#); ["arait@criepi.denken.or.jp" <arait@criepi.denken.or.jp>](#); ["alpanfa@westinghouse.com" <alpanfa@westinghouse.com>](#); ["sokolovm@ornl.gov" <sokolovm@ornl.gov>](#); ["desire.ndomba@canada.ca" <desire.ndomba@canada.ca>](#); ["khuyinh@aecl.ca" <khuyinh@aecl.ca>](#); ["higuchi@criepi.denken.or.jp" <higuchi@criepi.denken.or.jp>](#); ["kazunobu_sakamoto@nsr.go.jp" <kazunobu_sakamoto@nsr.go.jp>](#); ["chimi.yasuhiro@jaea.go.jp" <chimi.yasuhiro@jaea.go.jp>](#); ["leo.fifield@pnnl.gov" <leo.fifield@pnnl.gov>](#)

Cc: [Tregoning, Robert <Robert.Tregoning@nrc.gov>](#); [Purtscher, Patrick <Patrick.Purtscher@nrc.gov>](#)

Subject: Ex-plant Materials Harvesting Workshop

Dear Harvesting Workshop Attendees:

You are receiving this email because I have you recorded as attending the upcoming Ex-plant Materials Harvesting Workshop on March 7-8 at USNRC headquarters in Rockville, MD. I have attached the workshop introduction slides that cover meeting logistics, motivation, approach, expected outcome, and session expectations. We are hoping these slides provide a common vision for the workshop that will allow for a focused, productive discussion.

The workshop will be held in NRC's Three White Flint North (3WFN) building, which is directly adjacent to the White Flint Metro station, in room 1C3 on the first floor. I have attached a map of the local area showing the Metro station and the 3WFN building. The workshop is scheduled to start at 8:00 on Tuesday, March 7. I recommend planning to

arrive at 3WFN around 7:30-7:45 in order to go through security to enter the building.

I would like to request input from attendees on two items:

1. We are making reservations at a nearby restaurant for dinner on Tuesday, March 7.

Please let me know if you plan to join for the dinner with other workshop participants, so I can make the appropriate reservation.

2. If you are traveling from outside the U.S., please be sure to bring two forms of ID (passport and a second photo ID). Also, please email me a scanned copy of your passport if possible. This will speed the security check-in process.

Thank you for your participation in the workshop. We are looking forward to the discussion and engagement and appreciate your contribution to a productive and interesting meeting! Please let me know if you have any questions.

Thanks!

Matt

Matthew Hiser

Materials Engineer

US Nuclear Regulatory Commission | Office of Nuclear Regulatory Research

Division of Engineering | Corrosion and Metallurgy Branch

Phone: 301-415-2454 | Office: TWFN 10D62

Matthew.Hiser@nrc.gov

Ex-Plant Materials Harvesting Workshop Draft Agenda

Tuesday, March 7

Session	Time	Organization	Speaker	Presentation Title
Intro	8:00	NRC		Welcome and Introduction to Workshop
1	8:15 – 8:45	EPRI	Sherry Bernhoft	
		DOE	Rich Reister	
		NRC	Robert Tregoning	NRC Perspective on Motivation for Harvesting
		GRS	Uwe Jendrich	
		CRIEPI	Taku Arai	
	8:45 – 9:45	DISCUSSION		
9:45-10:00		BREAK		
2	10:00 – 10:20	PNNL (for NRC)	Pradeep Ramuhalli	Data Needs Best Addressed By Harvesting
	10:20 – 10:30	NRC	Matthew Hiser	High-Priority Data Needs for Harvesting
	10:30 – 10:55	DOE	Keith Leonard	LWRS Program Perspective on the Technical Needs for Harvesting
	10:55 – 11:20	SCK-CEN	Rachid Chaouadi	Review of past RPV sampling test programs and perspective for long term operation
	11:20 – 11:45	Westinghouse	Arzu Alpan	Importance of Harvesting to Evaluate Radiation Effects on Concrete Properties
	11:45 – 12:30	DISCUSSION		
12:30 – 2:00		LUNCH		
3	2:00 – 2:15	NRC	Matthew Hiser	Sources of Materials: Past NRC Harvesting and U.S. Decommissioning Plants
	2:15 – 2:30	EPRI	Al Ahluwalia	
	2:30 – 2:45	DOE/ORNL	Tom Rosseel	
	2:45 – 3:00	DOE/INL	John Jackson	NSUF Material Sample Library
	3:00 – 3:15	Energy Solutions	Gerry van Noordennen	
	3:15 – 3:30	Westinghouse	Arzu Alpan	Potential Harvesting of Concrete from Mihama Unit 1
	3:30 – 3:45	BREAK		
	3:45 – 4:00	GRS	Uwe Jendrich	
	4:00 – 4:15	CNSC	Daniel Tello	
	4:15 – 5:00	DISCUSSION		

Wednesday, March 8

Session	Time	Organization	Speaker	Presentation Title
4	8:00 – 8:30	EPRI	Jean Smith	
	8:30 – 9:00	DOE	Tom Rosseel	
	9:00 – 9:30	NRC	Matthew Hiser	NRC Perspective on Harvesting Experience and Lessons Learned
	9:30 – 10:00	CRIEPI	Taku Arai	
	10:00 – 10:15	BREAK		
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	2:30 – 3:00	Action Items and Next Steps		
	3:00 – 4:00	EPRI	Sherry Bernhoft	Closing Thoughts
		DOE	Rich Reister	
		NRC	Robert Tregoning	
		ALL		

From: [Chaouadi Rachid](#)
To: [Hiser, Matthew](#)
Subject: [External_Sender] RE: Ex-plant Materials Harvesting Workshop
Date: Thursday, February 23, 2017 2:59:28 AM
Attachments: [RC Passport.pdf](#)

Dear Matt

Please find attached a copy of my passport.

I will be glad to join dinner on March 7.

All the best

Rachid

Note to requester: The attachment to this email is withheld in full under FOIA Exemption B6.
--

From: Hiser, Matthew [mailto:Matthew.Hiser@nrc.gov]
Sent: woensdag 15 februari 2017 16:47
To: Dyle, Robin <rdyle@epri.com>; Jean Smith (jmsmith@epri.com) <jmsmith@epri.com>; Ahluwalia, Kawaljit <kahluwal@epri.com>; Richard Reister (Richard.Reister@nuclear.energy.gov) <Richard.Reister@nuclear.energy.gov>; 'leonardk@ornl.gov' <leonardk@ornl.gov>; 'Rosseel, Thomas M.' <rosseeltm@ornl.gov>; 'William F Zipp (Generation - 4)' <william.f.zipp@dom.com>; 'Gerard P. Van Noordennen' <gpvannoordennen@energysolutions.com>; Ramuhalli, Pradeep (Pradeep.Ramuhalli@pnnl.gov) <Pradeep.Ramuhalli@pnnl.gov>; 'daniel.tello@canada.ca' <daniel.tello@canada.ca>; 'Uwe.Jendrich@grs.de' <Uwe.Jendrich@grs.de>; Chaouadi Rachid <rachid.chaouadi@sckcen.be>; 'arait@criepi.denken.or.jp' <arait@criepi.denken.or.jp>; 'alpanfa@westinghouse.com' <alpanfa@westinghouse.com>; 'sokolovm@ornl.gov' <sokolovm@ornl.gov>; 'desire.ndomba@canada.ca' <desire.ndomba@canada.ca>; 'khuynh@aecl.ca' <khuynh@aecl.ca>; 'higuchi@criepi.denken.or.jp' <higuchi@criepi.denken.or.jp>; 'kazunobu_sakamoto@nsr.go.jp' <kazunobu_sakamoto@nsr.go.jp>; 'chimi.yasuhiro@jaea.go.jp' <chimi.yasuhiro@jaea.go.jp>; 'leo.fifield@pnnl.gov' <leo.fifield@pnnl.gov>
Cc: Tregoning, Robert <Robert.Tregoning@nrc.gov>; Purtscher, Patrick <Patrick.Purtscher@nrc.gov>
Subject: Ex-plant Materials Harvesting Workshop

Dear Harvesting Workshop Attendees:

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Thank you for your participation in the workshop. We are looking forward to the discussion and engagement and appreciate your contribution to a productive and interesting meeting! Please let me know if you have any questions.

Thanks!

Matt

Matthew Hiser

Materials Engineer

US Nuclear Regulatory Commission | Office of Nuclear Regulatory Research

Division of Engineering | Corrosion and Metallurgy Branch

Phone: 301-415-2454 | Office: TWFN 10D62

Matthew.Hiser@nrc.gov

(b)(6)

From: [Hiser, Matthew](#)
To: Henric.Lidberg@vattenfall.com
Subject: RE: RE: Harvesting Workshop
Date: Thursday, February 23, 2017 2:18:00 PM
Attachments: [Harvesting Workshop Draft Agenda.docx](#)

Note to requester: Attachment is immediately following.

Dear Henric,

Thank you for contacting me regarding the workshop. We are looking for participation from all interested parties and appreciate your interest and input.

In terms of attending the workshop in-person, we have had a large amount of interest, but limited space. Unfortunately, we simply don't have room for additional in-person attendees. However, we are planning to have a webinar available for remote participation. The time difference might make it somewhat challenging for you, but hopefully still possible. (I've attached the agenda for your information.) Would you like to be included on the webinar information?

In terms of the agenda, I think it would work well if your input could be included in AI's presentation in Session 3 on sources of materials. If you're able to participate in the webinar, you could help address any questions or participate in discussion that might arise during the workshop.

We are planning to pull together a workshop summary report following the workshop to document the discussion. This report would be distributed among meeting participants. Would you like to be included in the distribution of that report?

Thanks!

Matt

Matthew Hiser

Materials Engineer

US Nuclear Regulatory Commission | Office of Nuclear Regulatory Research

Division of Engineering | Corrosion and Metallurgy Branch

Phone: 301-415-2454 | Office: TWFN 10D62

Matthew.Hiser@nrc.gov

From: Henric.Lidberg@vattenfall.com [mailto:Henric.Lidberg@vattenfall.com]

Sent: Thursday, February 23, 2017 9:46 AM

To: Hiser, Matthew <Matthew.Hiser@nrc.gov>

Subject: [External_Sender] RE: Harvesting Workshop

Dear Matthew,

I got the information from Pal about the workshop in the beginning of March and as I understood it he mentioned that Ringhals was interested in attending.

Ringhals has an ongoing project with the intention to extract material from Barseback next year. We are also in the planning phase for closing Ringhals unit 1 and 2, with the possibility to harvest other types of material and components.

To be able to do this and perform the needed analysis we are seeking international cooperation, so, if possible, I would like to attend the workshop and to get information how this is done internationally.

If it is of interest I can do a short presentation of what we are planning to do in Barseback and what we think is of international interest from the units in Ringhals.

Please let me know if that is of interest and I should prepare something? I know AI, so if you want me to work input into his I can do that too.

Best Regards,
Henric Lidberg

R&D Manager

Ringhals AB

SE-432 85 Väröbacka

Phone +46 340 67 28 97

Mobile [REDACTED] (b)(6)

henric.lidberg@vattenfall.com

www.vattenfall.se

Please consider the environment

before printing this e-mail

From: Hiser, Matthew [<mailto:Matthew.Hiser@nrc.gov>]

Sent: Friday, February 10, 2017 4:10 PM

To: Anders Jenssen (anders.jenssen@studsvik.se); Efsing Pål (GN-UQ)

Subject: Harvesting Workshop

Hi Pål and Anders,

It was good to see you at the ZIRP meeting this week. I apologize for not getting this email out to you sooner; I was unable to find a good internet connection in Brussels.

I have attached a few documents that we are sharing for those interested in the workshop. The PP slides cover the meeting logistics, motivation, expected outcome, and session expectations. Please take a look and let me know your in attending and/or presenting at the workshop. Jean Smith and Al Ahluwalia at EPRI are planning presentations for sessions 3 and 4, so you could try to work input into their talks or we may be able to provide a separate slot.

Thanks!

Matt

Matthew Hiser

Materials Engineer

US Nuclear Regulatory Commission | Office of Nuclear Regulatory Research

Division of Engineering | Corrosion and Metallurgy Branch

Phone: 301-415-2454 | Office: TWFN 10D62

Matthew.Hiser@nrc.gov

Ex-Plant Materials Harvesting Workshop Draft Agenda

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		CRIEPI	Taku Arai	
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	4:15 – 5:00	DISCUSSION		

Wednesday, March 8

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	8:30 – 9:00	DOE	Tom Rosseel	
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		DOE	Rich Reister	
		NRC	Robert Tregoning	
		ALL		

From: [HIGUCHI, Sadao](#)
To: [Hiser, Matthew](#)
Subject: [External_Sender] Fw: 暗号化完了メール / Attachment is encrypted with password
Date: Friday, February 24, 2017 3:20:43 AM

Dear Matt,

The password of the attached file is following,
opening password: [redacted] (b)(6)

Thanks,
Sadao

Forwarded by "HIGUCHI, Sadao" <higuchi@criepi.denken.or.jp>

----- Original Message -----

From: report@securemx.jp
To: <higuchi@criepi.denken.or.jp>
Date: Fri, 24 Feb 2017 17:09:58 +0900
Subject: 暗号化完了メール / Attachment is encrypted with password

添付ファイルの暗号化が完了しました。
パスワードは自動的に通知されませんので、メールの宛先を
ご確認のうえ、解凍パスワード通知メール送信の際には、通
知メール確認URLより、操作を行ってください。

(b)(6) 解凍パスワード [redacted]
(b)(4) 通知メール確認URL: [redacted]
(b)(4) [redacted]
暗号化日時: 2017/02/24 17:09

送信者: higuchi@criepi.denken.or.jp
宛先: Matthew.Hiser@nrc.gov, arait@criepi.denken.or.jp
暗号化対象の宛先: <Matthew.Hiser@nrc.gov>
件名: Re[3]: Ex-plant Materials Harvesting Workshop
Message-ID: <20170224170824.D7AA.A9205204@criepi.denken.or.jp>
暗号化後の添付ファイル名: 2017-02-24_1709.zip

本メールは自動送信によりお送りしております。このメールへ
の返信には回答できかねます。ご了承ください。

Your previous email attachment has been encrypted with a password.

The password will not be sent automatically.
You need to send the password by yourself, or access the following URL to
send password from the system.

(b)(6) Zip password: [redacted]
(b)(4) URL to send password: [redacted]
(b)(4) [redacted]
Encrypted time: February 24, 2017 17:09

Sender: higuchi@criepi.denken.or.jp

Recipient(s): Matthew.Hiser@nrc.gov, arait@criepi.denken.or.jp
Encryption applied recipient(s): <Matthew.Hiser@nrc.gov>
Subject: Re[3]: Ex-plant Materials Harvesting Workshop
Message-ID: <20170224170824.D7AA.A9205204@criepi.denken.or.jp>
File name: 2017-02-24_1709.zip

This is an automated notification. Replies to this email will
not be answered.

----- Original Message Ends -----

From: [Hiser, Matthew](#)
To: "Tello, Daniel (CNSC/CCSN)"
Cc: [Karen Huynh](#); [Ndomba, Désiré \(CNSC/CCSN\)](#)
Subject: RE: Re: Ex-plant Materials Harvesting Workshop
Date: Friday, February 24, 2017 7:46:01 AM

Thanks Dan!

From: Tello, Daniel (CNSC/CCSN) [mailto:daniel.tello@canada.ca]
Sent: Thursday, February 23, 2017 4:48 PM
To: Hiser, Matthew <Matthew.Hiser@nrc.gov>
Cc: Karen Huynh <khuynh@aecl.ca>; Ndomba, Désiré (CNSC/CCSN) <desire.ndomba@canada.ca>
Subject: [External_Sender] Re: Ex-plant Materials Harvesting Workshop

Hi Matt,

Thanks for the invite for dinner. Yes the 3 of us would like to join you.

Also, our presentation is ready but we are presenting it to our management on Monday.

We will do our best to have it to you by Tuesday afternoon.

As for the passport copies, we will send those to you shortly.

Regards,

Dan

Sent from my BlackBerry 10 smartphone on the Rogers network.

From: Hiser, Matthew
Sent: Thursday, February 23, 2017 2:26 PM
To: Bernhoft, Sherry; Dyle, Robin; Jean Smith (jmsmith@epri.com); Ahluwalia, Kawaljit; Richard Reister (Richard.Reister@nuclear.energy.gov); 'leonardk@ornl.gov'; 'Rosseel, Thomas M.'; 'William F Zipp (Generation - 4)'; 'Gerard P. Van Noordennen'; Ramuhalli, Pradeep (Pradeep.Ramuhalli@pnnl.gov); Tello, Daniel (CNSC/CCSN); 'Uwe.Jendrich@grs.de'; 'rachid.chaouadi@sckcen.be'; 'arait@criepi.denken.or.jp'; 'alpanfa@westinghouse.com'; 'sokolovm@ornl.gov'; Ndomba, Désiré (CNSC/CCSN); 'khuynh@aecl.ca'; 'higuchi@criepi.denken.or.jp'; 'kazunobu_sakamoto@nsr.go.jp'; 'chimi.yasuhiro@jaea.go.jp'; Jackson, John Howard; Roussel Guy; john.wagner@inl.gov
Cc: Tregoning, Robert; Purtscher, Patrick
Subject: RE: Ex-plant Materials Harvesting Workshop

Dear workshop attendees:

Friendly reminder for attendees about dinner and passports (highlighted below):

- Please let me know if you plan to join for the dinner with other workshop participants
- If you are traveling from outside the U.S., please email me a scanned copy of your passport if possible.

I have also attached the draft agenda (awaiting titles for a few presentations).

Thanks!

Matt

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Sent: Wednesday, February 15, 2017 10:47 AM
To: Dyle, Robin <rdyle@epri.com>; Jean Smith (jmsmith@epri.com) <jmsmith@epri.com>; Ahluwalia, Kawaljit <kahluwal@epri.com>; Richard Reister (Richard.Reister@nuclear.energy.gov) <Richard.Reister@nuclear.energy.gov>; 'leonardk@ornl.gov' <leonardk@ornl.gov>; 'Rosseel, Thomas M.' <rosseeltm@ornl.gov>; 'William F Zipp (Generation - 4)' <william.f.zipp@dom.com>; 'Gerard P. Van Noordennen' <gpvannoordennen@energysolutions.com>; Ramuhalli, Pradeep (Pradeep.Ramuhalli@pnnl.gov) <Pradeep.Ramuhalli@pnnl.gov>; 'daniel.tello@canada.ca'

<daniel.tello@canada.ca>; 'Uwe.Jendrich@grs.de' <Uwe.Jendrich@grs.de>;
'rachid.chaouadi@sckcen.be' <rachid.chaouadi@sckcen.be>; 'arait@criepi.denken.or.jp'
<arait@criepi.denken.or.jp>; 'alpanfa@westinghouse.com' <alpanfa@westinghouse.com>;
'sokolovm@ornl.gov' <sokolovm@ornl.gov>; 'desire.ndomba@canada.ca'
<desire.ndomba@canada.ca>; 'khuynh@aecl.ca' <khuynh@aecl.ca>; 'higuchi@criepi.denken.or.jp'
<higuchi@criepi.denken.or.jp>; 'kazunobu_sakamoto@nsr.go.jp' <kazunobu_sakamoto@nsr.go.jp>;
'chimi.yasuhiro@jaea.go.jp' <chimi.yasuhiro@jaea.go.jp>; 'leo.fifield@pnnl.gov'
<leo.fifield@pnnl.gov>

Cc: Tregoning, Robert <Robert.Tregoning@nrc.gov>; Purtscher, Patrick <Patrick.Purtscher@nrc.gov>

Subject: Ex-plant Materials Harvesting Workshop

Dear Harvesting Workshop Attendees:

You are receiving this email because I have you recorded as attending the upcoming Ex-plant Materials Harvesting Workshop on March 7-8 at USNRC headquarters in Rockville, MD. I have attached the workshop introduction slides that cover meeting logistics, motivation, approach, expected outcome, and session expectations. We are hoping these slides provide a common vision for the workshop that will allow for a focused, productive discussion.

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1. We are making reservations at a nearby restaurant for dinner on Tuesday, March 7. Please let me know if you plan to join for the dinner with other workshop participants, so I can make the appropriate reservation.
2. If you are traveling from outside the U.S., please be sure to bring two forms of ID (passport and a second photo ID). Also, please email me a scanned copy of your passport if possible. This will speed the security check-in process.

Thank you for your participation in the workshop. We are looking forward to the discussion and engagement and appreciate your contribution to a productive and interesting meeting! Please let me know if you have any questions.

Thanks!

Matt

Matthew Hiser

Materials Engineer

US Nuclear Regulatory Commission | Office of Nuclear Regulatory Research

Division of Engineering | Corrosion and Metallurgy Branch

Phone: 301-415-2454 | Office: TWFN 10D62

Matthew.Hiser@nrc.gov

From: [Ahluwalia, Kawaljit](#)
To: [Hiser, Matthew](#)
Subject: [External_Sender] RE: [External] RE: Ex-plant Materials Harvesting Workshop
Date: Friday, February 24, 2017 4:54:43 PM

Matt,

I won't be able to participate in the dinner on March 7. Thanks for the invite.

Al

From: Hiser, Matthew [mailto:Matthew.Hiser@nrc.gov]

Sent: Thursday, February 23, 2017 2:25 PM

To: Bernhoft, Sherry <sbernhof@epri.com>; Dyle, Robin <rdyle@epri.com>; Smith, Jean <jmsmith@epri.com>; Ahluwalia, Kawaljit <kahluwal@epri.com>; Richard Reister (Richard.Reister@nuclear.energy.gov) <Richard.Reister@nuclear.energy.gov>; 'leonardk@ornl.gov' <leonardk@ornl.gov>; 'Rosseel, Thomas M.' <rosseeltm@ornl.gov>; 'William F Zipp (Generation - 4)' <william.f.zipp@dom.com>; 'Gerard P. Van Noordennen' <gpvannoordennen@energysolutions.com>; Ramuhalli, Pradeep (Pradeep.Ramuhalli@pnnl.gov) <Pradeep.Ramuhalli@pnnl.gov>; 'daniel.tello@canada.ca' <daniel.tello@canada.ca>; 'Uwe.Jendrich@grs.de' <Uwe.Jendrich@grs.de>; 'rachid.chaouadi@sckcen.be' <rachid.chaouadi@sckcen.be>; 'arait@criepi.denken.or.jp' <arait@criepi.denken.or.jp>; 'alpanfa@westinghouse.com' <alpanfa@westinghouse.com>; 'sokolovm@ornl.gov' <sokolovm@ornl.gov>; 'desire.ndomba@canada.ca' <desire.ndomba@canada.ca>; 'khuynh@aecl.ca' <khuynh@aecl.ca>; 'higuchi@criepi.denken.or.jp' <higuchi@criepi.denken.or.jp>; 'kazunobu_sakamoto@nsr.go.jp' <kazunobu_sakamoto@nsr.go.jp>; 'chimi.yasuhiro@jaea.go.jp' <chimi.yasuhiro@jaea.go.jp>; Jackson, John Howard <john.jackson@inl.gov>; Roussel Guy <guy.roussel@Belv.be>; john.wagner@inl.gov

Cc: Tregoning, Robert <Robert.Tregoning@nrc.gov>; Purtscher, Patrick <Patrick.Purtscher@nrc.gov>

Subject: [External] RE: Ex-plant Materials Harvesting Workshop

Dear workshop attendees:

Friendly reminder for attendees about dinner and passports (highlighted below):

- Please let me know if you plan to join for the dinner with other workshop participants
- If you are traveling from outside the U.S., please email me a scanned copy of your passport if possible.

I have also attached the draft agenda (awaiting titles for a few presentations).

Thanks!

Matt

From: Hiser, Matthew

Sent: Wednesday, February 15, 2017 10:47 AM

To: Dyle, Robin <rdyle@epri.com>; Jean Smith ([jmsmith@epri.com](#)) <[jmsmith@epri.com](#)>; Ahluwalia, Kawaljit <[kahluwal@epri.com](#)>; Richard Reister ([Richard.Reister@nuclear.energy.gov](#)) <[Richard.Reister@nuclear.energy.gov](#)>; 'leonardk@ornl.gov' <[leonardk@ornl.gov](#)>; 'Rosseel, Thomas M.' <[rosseeltm@ornl.gov](#)>; 'William F Zipp (Generation - 4)' <[william.f.zipp@dom.com](#)>; 'Gerard P. Van Noordennen' <[gpvannoordennen@energysolutions.com](#)>; Ramuhalli, Pradeep ([Pradeep.Ramuhalli@pnnl.gov](#)) <[Pradeep.Ramuhalli@pnnl.gov](#)>; 'daniel.tello@canada.ca' <[daniel.tello@canada.ca](#)>; 'Uwe.Jendrich@grs.de' <[Uwe.Jendrich@grs.de](#)>; 'rachid.chaouadi@sckcen.be' <[rachid.chaouadi@sckcen.be](#)>; 'arait@criepi.denken.or.jp'

<arait@criepi.denken.or.jp>; 'alpanfa@westinghouse.com' <alpanfa@westinghouse.com>;
'sokolovm@ornl.gov' <sokolovm@ornl.gov>; 'desire.ndomba@canada.ca'
<desire.ndomba@canada.ca>; 'khuynh@aecl.ca' <khuynh@aecl.ca>; 'higuchi@criepi.denken.or.jp'
<higuchi@criepi.denken.or.jp>; 'kazunobu_sakamoto@nsr.go.jp' <kazunobu_sakamoto@nsr.go.jp>;
'chimi.yasuhiro@jaea.go.jp' <chimi.yasuhiro@jaea.go.jp>; 'leo.fifield@pnnl.gov'
<leo.fifield@pnnl.gov>

Cc: Tregoning, Robert <Robert.Tregoning@nrc.gov>; Purtscher, Patrick <Patrick.Purtscher@nrc.gov>

Subject: Ex-plant Materials Harvesting Workshop

Dear Harvesting Workshop Attendees:

You are receiving this email because I have you recorded as attending the upcoming Ex-plant Materials Harvesting Workshop on March 7-8 at USNRC headquarters in Rockville, MD. I have attached the workshop introduction slides that cover meeting logistics, motivation, approach, expected outcome, and session expectations. We are hoping these slides provide a common vision for the workshop that will allow for a focused, productive discussion.

The workshop will be held in NRC's Three White Flint North (3WFN) building, which is directly adjacent to the White Flint Metro station, in room 1C3 on the first floor. I have attached a map of the local area showing the Metro station and the 3WFN building.

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I would like to request input from attendees on two items:

1. We are making reservations at a nearby restaurant for dinner on Tuesday, March 7. **Please let me know if you plan to join for the dinner with other workshop participants**, so I can make the appropriate reservation.
2. If you are traveling from outside the U.S., please be sure to bring two forms of ID (passport and a second photo ID). Also, **please email me a scanned copy of your passport if possible**. This will speed the security check-in process.

Thank you for your participation in the workshop. We are looking forward to the discussion and engagement and appreciate your contribution to a productive and interesting meeting!

Please let me know if you have any questions.

Thanks!

Matt

Matthew Hiser

Materials Engineer

US Nuclear Regulatory Commission | Office of Nuclear Regulatory Research

Division of Engineering | Corrosion and Metallurgy Branch

Phone: 301-415-2454 | Office: TWFN 10D62

Matthew.Hiser@nrc.gov

*** This email message is for the sole use of the intended recipient(s) and may contain information that is confidential, privileged or exempt from disclosure under applicable law. Unless otherwise expressed in this message by the sender or except as may be allowed by separate written agreement between EPRI and recipient or recipient's employer, any review, use, distribution or disclosure by others of this message is prohibited and this message is not intended to be an electronic signature, instrument or anything that may form a legally binding agreement with EPRI. If you are not the intended recipient, please contact the sender by reply email and permanently delete all copies of this message. Please be advised that the message and its contents may be disclosed, accessed and reviewed by the sender's email system

administrator and/or provider. ***

From: [Jendrich, Uwe Dr.](#)
To: [Hiser, Matthew](#)
Subject: [External_Sender] AW: Ex-plant Materials Harvesting Workshop
Date: Friday, February 24, 2017 4:45:39 AM
Attachments: [RP Jendrich.pdf](#)

Dear Matt,

Thank you for the invitation for dinner. I would like to join it.

Please find attached a scan of my passport.

The titles will follow next week.

Kind regards

Uwe

Dr. Uwe Jendrich

Gesellschaft für Anlagen- und Reaktorsicherheit (GRS) gGmbH

Abteilung Anlagenkonzepte / Plant Concepts Department

Bereich Reaktorsicherheitsanalysen / Reactor Safety Analyses Division

Schwertnergasse 1

50667 Köln

Germany

Phone: +49 221 2068-879

Fax: +49 221 2068-10879

E-Mail: uwe.jendrich@grs.de

www.grs.de

twitter.com/GRS_de

facebook.com/GRS.DE

Vorsitzende des Aufsichtsrates: Parl. Staatssekretärin Rita Schwarzelühr-Sutter

Geschäftsführer: Uwe Stoll, Hans J. Steinhauer

Registergericht: Amtsgericht Köln, HRB 7665

Sitz der Gesellschaft: Köln

Disclaimer: www.grs.de/content/email-disclaimer

Von: Hiser, Matthew [<mailto:Matthew.Hiser@nrc.gov>]

Gesendet: Donnerstag, 23. Februar 2017 20:25

An: Bernhoft, Sherry; Dyle, Robin; Jean Smith (jmsmith@epri.com); Ahluwalia, Kawaljit; Richard Reister (Richard.Reister@nuclear.energy.gov); 'leonardk@ornl.gov'; 'Rosseel, Thomas M.'; 'William F Zipp (Generation - 4)'; 'Gerard P. Van Noordennen'; Ramuhalli, Pradeep (Pradeep.Ramuhalli@pnnl.gov); 'daniel.tello@canada.ca'; Jendrich, Uwe Dr.; 'rachid.chaouadi@sckcen.be'; 'arait@criepi.denken.or.jp'; 'alpanfa@westinghouse.com'; 'sokolovm@ornl.gov'; 'desire.ndomba@canada.ca'; 'khuynh@aecl.ca'; 'higuchi@criepi.denken.or.jp'; 'kazunobu_sakamoto@nsr.go.jp'; 'chimi.yasuhiro@jaea.go.jp'; Jackson, John Howard; Roussel Guy; john.wagner@inl.gov

Cc: Tregoning, Robert; Purtscher, Patrick

Betreff: RE: Ex-plant Materials Harvesting Workshop

Dear workshop attendees:

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Note to requester: The attachment to this email is withheld in full under FOIA Exemption B6.
--

Thanks!
Matt

From: Hiser, Matthew

Sent: Wednesday, February 15, 2017 10:47 AM

To: Dyle, Robin <rdyle@epri.com>; Jean Smith (jmsmith@epri.com) <jmsmith@epri.com>; Ahluwalia, Kawaljit <kahluwal@epri.com>; Richard Reister (Richard.Reister@nuclear.energy.gov) <Richard.Reister@nuclear.energy.gov>; 'leonardk@ornl.gov' <leonardk@ornl.gov>; 'Rosseel, Thomas M.' <rosseeltm@ornl.gov>; 'William F Zipp (Generation - 4)' <william.f.zipp@dom.com>; 'Gerard P. Van Noordennen' <gpvannoordennen@energysolutions.com>; Ramuhalli, Pradeep (Pradeep.Ramuhalli@pnnl.gov) <Pradeep.Ramuhalli@pnnl.gov>; 'daniel.tello@canada.ca' <daniel.tello@canada.ca>; 'Uwe.Jendrich@grs.de' <Uwe.Jendrich@grs.de>; 'rachid.chaouadi@sckcen.be' <rachid.chaouadi@sckcen.be>; 'arait@criepi.denken.or.jp' <arait@criepi.denken.or.jp>; 'alpanfa@westinghouse.com' <alpanfa@westinghouse.com>; 'sokolovm@ornl.gov' <sokolovm@ornl.gov>; 'desire.ndomba@canada.ca' <desire.ndomba@canada.ca>; 'khuynh@aecl.ca' <khuynh@aecl.ca>; 'higuchi@criepi.denken.or.jp' <higuchi@criepi.denken.or.jp>; 'kazunobu_sakamoto@nsr.go.jp' <kazunobu_sakamoto@nsr.go.jp>; 'chimi.yasuhiro@jaea.go.jp' <chimi.yasuhiro@jaea.go.jp>; 'leo.fifield@pnnl.gov' <leo.fifield@pnnl.gov>

Cc: Tregoning, Robert <Robert.Tregoning@nrc.gov>; Purtscher, Patrick <Patrick.Purtscher@nrc.gov>

Subject: Ex-plant Materials Harvesting Workshop

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2. If you are traveling from outside the U.S., please be sure to bring two forms of ID (passport and a second photo ID). Also, please email me a scanned copy of your passport if possible. This will speed the security check-in process.

Thank you for your participation in the workshop. We are looking forward to the discussion and engagement and appreciate your contribution to a productive and interesting meeting!

Please let me know if you have any questions.

Thanks!
Matt

Matthew Hiser
Materials Engineer

US Nuclear Regulatory Commission | Office of Nuclear Regulatory Research
Division of Engineering | Corrosion and Metallurgy Branch
Phone: 301-415-2454 | Office: TWFN 10D62
Matthew.Hiser@nrc.gov

(b)(6)



From: [HIGUCHI, Sadao](#)
To: [Hiser, Matthew](#)
Cc: [新井 拓](#)
Subject: [External_Sender] [WARNING: MESSAGE ENCRYPTED]Re[3]: Ex-plant Materials Harvesting Workshop
Date: Friday, February 24, 2017 3:10:17 AM
Attachments: [2017-02-24_1709.zip](#)

Note to requester: The attachment to this email is withheld in full under FOIA Exemption B6.

Dear Matt,

I attach my passport copy with this mail.
The opening password of the attached file is sent by the other mail.

Best regards,
Sadao

On Thu, 23 Feb 2017 14:02:15 +0000
"Hiser, Matthew" <Matthew.Hiser@nrc.gov> wrote:

> Dear Sadao,
>
> We are glad you and Taku will be able to attend the workshop. Thank you for responding about dinner.
>
> I think your driver's license or CRIEPI ID should be fine for a second form of ID. Please send your passport
copies at your earliest convenience.
>
> Thanks!
> Matt
>
> Matthew Hiser
> Materials Engineer
> US Nuclear Regulatory Commission | Office of Nuclear Regulatory Research
> Division of Engineering | Corrosion and Metallurgy Branch
> Phone: 301-415-2454 | Office: TWFN 10D62
> Matthew.Hiser@nrc.gov
>
> -----Original Message-----
> From: HIGUCHI, Sadao [<mailto:higuchi@criepi.denken.or.jp>]
> Sent: Wednesday, February 22, 2017 7:44 PM
> To: Hiser, Matthew <Matthew.Hiser@nrc.gov>
> Cc: 新井 拓 <arait@criepi.denken.or.jp>
> Subject: [External_Sender] Re: Ex-plant Materials Harvesting Workshop
>
> Dear Mat
>
> Thank you for your announcement of Ex-plant Materials Harvesting Workshop.
>
> Taku Arai and Sadao Higuchi of CRIEPI attend dinner on Tuesday, March 7.
>
> And we can send copy of passport but I do not have English second photo ID (only Japanese driver licence or
identification of CRIEPI)).
> Are these available as second photo ID?
>
> Sadao (Central Research Institute of Electric Power Industry, CRIEPI)
>

>
> On Wed, 15 Feb 2017 15:47:03 +0000
> "Hiser, Matthew" <Matthew.Hiser@nrc.gov> wrote:
>
>> Dear Harvesting Workshop Attendees:
>>
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>>
>> Thank you for your participation in the workshop. We are looking forward to the discussion and engagement and appreciate your contribution to a productive and interesting meeting!
>>
>> Please let me know if you have any questions.
>>
>> Thanks!
>> Matt
>>
>> Matthew Hiser
>> Materials Engineer
>> US Nuclear Regulatory Commission | Office of Nuclear Regulatory
>> Research Division of Engineering | Corrosion and Metallurgy Branch
>> Phone: 301-415-2454 | Office: TWFN 10D62
>> Matthew.Hiser@nrc.gov<<mailto:Matthew.Hiser@nrc.gov>>
>>

(b)(6)

From: Henric.Lidberg@vattenfall.com
To: Hiser, Matthew
Subject: [External_Sender] RE: RE: RE: Harvesting Workshop
Date: Friday, February 24, 2017 8:33:55 AM

Dear Matthew,

Sorry for the inconvenience, I will look in to the possibilities to participate through the webinar and give some input through AI.

I will definitely take a deeper look on the summary report

Hopefully I will be able to extend the planning horizon in the future and be present in-person.

Best Regards,

Henric Lidberg

R&D Manager

Ringhals AB

SE-432 85 Väröbacka

Phone +46 340 67 28 97

Mobile (b)(6)

henric.lidberg@vattenfall.com

www.vattenfall.se

Please consider the environment
before printing this e-mail

From: Hiser, Matthew [mailto:Matthew.Hiser@nrc.gov]

Sent: Friday, February 24, 2017 1:42 PM

To: Lidberg Henric (GN-T)

Subject: RE: RE: RE: Harvesting Workshop

Dear Henric,

Yes, the only option at this point is the webinar. When I spoke with Pal back in early February, he indicated that your organization would probably provide input, but gave no indication of sending someone to attend. Unfortunately, now less than two weeks from the workshop we don't have any flexibility.

I encourage you to participate via webinar if possible and provide your input for the discussion on sources of materials, preferably through AI's presentation.

I will be sure to include you on the webinar distribution as well as the workshop summary report.

Thanks!

Matt

From: Henric.Lidberg@vattenfall.com [mailto:Henric.Lidberg@vattenfall.com]

Sent: Friday, February 24, 2017 5:13 AM

To: Hiser, Matthew <Matthew.Hiser@nrc.gov>

Subject: [External_Sender] RE: RE: Harvesting Workshop

Dear Matthew,

That was really bad news that there is no room for me to attend. I have gone through quite some effort to be able to attend and we have material that would benefit the nuclear fleet.

Is the really no possibilities to attend?

If that is the case I am still interested in the output of the discussion, but as you noted the time difference will make it difficult to attend the webinar.

However I would very much appreciate receiving the workshop summary report.

Best Regards,

Henric Lidberg

R&D Manager

Ringhals AB

SE-432 85 Väröbacka

Phone +46 340 67 28 97

Mobile [REDACTED] (b)(6)

henric.lidberg@vattenfall.com

www.vattenfall.se

Please consider the environment
before printing this e-mail

From: Hiser, Matthew [<mailto:Matthew.Hiser@nrc.gov>]

Sent: Thursday, February 23, 2017 8:18 PM

To: Lidberg Henric (GN-T)

Subject: RE: RE: Harvesting Workshop

Dear Henric,

Thank you for contacting me regarding the workshop. We are looking for participation from all interested parties and appreciate your interest and input.

In terms of attending the workshop in-person, we have had a large amount of interest, but limited space. Unfortunately, we simply don't have room for additional in-person attendees. However, we are planning to have a webinar available for remote participation. The time difference might make it somewhat challenging for you, but hopefully still possible. (I've attached the agenda for your information.) Would you like to be included on the webinar information?

In terms of the agenda, I think it would work well if your input could be included in AI's presentation in Session 3 on sources of materials. If you're able to participate in the webinar, you could help address any questions or participate in discussion that might arise during the workshop. We are planning to pull together a workshop summary report following the workshop to document the discussion. This report would be distributed among meeting participants. Would you like to be included in the distribution of that report?

Thanks!

Matt

Matthew Hiser

Materials Engineer

US Nuclear Regulatory Commission | Office of Nuclear Regulatory Research

Division of Engineering | Corrosion and Metallurgy Branch

Phone: 301-415-2454 | Office: TWFN 10D62

Matthew.Hiser@nrc.gov

From: Henric.Lidberg@vattenfall.com [<mailto:Henric.Lidberg@vattenfall.com>]

Sent: Thursday, February 23, 2017 9:46 AM

To: Hiser, Matthew <Matthew.Hiser@nrc.gov>

Subject: [External_Sender] RE: Harvesting Workshop

Dear Matthew,

I got the information from Pal about the workshop in the beginning of March and as I understood it he mentioned that Ringhals was interested in attending.

Ringhals has an ongoing project with the intention to extract material from Barseback next year.

We are also in the planning phase for closing Ringhals unit 1 and 2, with the possibility to harvest other types of material and components.

To be able to do this and perform the needed analysis we are seeking international cooperation, so, if possible, I would like to attend the workshop and to get information how this is done internationally.

If it is of interest I can do a short presentation of what we are planning to do in Barseback and what we think is of international interest from the units in Ringhals.

Please let me know if that is of interest and I should prepare something? I know AI, so if you want me to work input into his I can do that too.

Best Regards,

Henric Lidberg

R&D Manager

Ringhals AB

SE-432 85 Väröbacka
Phone +46 340 67 28 97
Mobile [REDACTED] (b)(6)
henric.lidberg@vattenfall.com
www.vattenfall.se

Please consider the environment
before printing this e-mail

From: Hiser, Matthew [<mailto:Matthew.Hiser@nrc.gov>]
Sent: Friday, February 10, 2017 4:10 PM
To: Anders Jenssen (anders.jenssen@studsvik.se); Efsing Pål (GN-UQ)
Subject: Harvesting Workshop

Hi Pal and Anders,

It was good to see you at the ZIRP meeting this week. I apologize for not getting this email out to you sooner; I was unable to find a good internet connection in Brussels.

I have attached a few documents that we are sharing for those interested in the workshop. The PP slides cover the meeting logistics, motivation, expected outcome, and session expectations. Please take a look and let me know your in attending and/or presenting at the workshop. Jean Smith and Al Ahluwalia at EPRI are planning presentations for sessions 3 and 4, so you could try to work input into their talks or we may be able to provide a separate slot.

Thanks!

Matt

Matthew Hiser

Materials Engineer

US Nuclear Regulatory Commission | Office of Nuclear Regulatory Research

Division of Engineering | Corrosion and Metallurgy Branch

Phone: 301-415-2454 | Office: TWFN 10D62

Matthew.Hiser@nrc.gov

From: [Ramuhalli, Pradeep](#)
To: [Obodoako, Aloysius](#); [Hiser, Matthew](#)
Cc: [Hull, Amy](#); [Knobbs, Katie](#)
Subject: [External_Sender] RE: RRIM Project Updates
Date: Friday, February 26, 2016 3:44:07 PM
Attachments: [SLR GALL Production Tool_Oct27.2015.xlsm](#)

Note to requester: Due to its size, the Excel file attachment is being provided as a separate file for retrieval in BOX.

Aloysius, Matt:

It was good talking with both of you today. I am attaching the draft version of the SLR Gall production tool that Amy had provided back in October of last year. We are working to pull in info from this tool and map it back to EMDA, etc. for prioritizing harvesting info. The production tool appears to provide a compact representation of the info in the GALL report drafts. If there is a more recent version of this tool, it would help us in improving our ability to map across data sets in the prioritization process.

Thanks!

With best regards,

Pradeep Ramuhalli, PhD

Pacific Northwest National Laboratory

509-375-2763

pradeep.ramuhalli@pnnl.gov

From: Obodoako, Aloysius [mailto:Aloysius.Obodoako@nrc.gov]

Sent: Friday, February 26, 2016 11:32 AM

To: Ramuhalli, Pradeep

Subject: RE: RRIM Project Updates

Hello Pradeep, I can't seem to join the teleconference. The Lync link doesn't work and the pin you provided does not match the telecon number your provided.

-----Original Appointment-----

From: Ramuhalli, Pradeep [mailto:Pradeep.Ramuhalli@pnnl.gov]

Sent: Thursday, February 18, 2016 7:32 PM

To: Ramuhalli, Pradeep; Knobbs, Katie; Hiser, Matthew; Hull, Amy; Obodoako, Aloysius

Subject: [External_Sender] RRIM Project Updates

When: Friday, February 26, 2016 11:30 AM-12:30 PM (UTC-08:00) Pacific Time (US & Canada).

Where: Call-in number below

Matt:

Would this work? If not, we can do this from 8-9 PST Friday (11-noon). Unfortunately, Tuesday morning is a mess for me right now.

→ [Join Skype Meeting](#)

This is an online meeting for Skype for Business, the professional meetings and communications app formerly known as Lync.

Join by phone

[Join the meeting and have Lync call you or dial-in](#) (Richland) English (United States)

[866-528-1882 or 509-375-4555](#) (Richland) English (United States)

[On-campus PNNL staff dial 5-4555](#) (Richland) English (United States)

[Find a local number](#)

Conference ID: (b)(6)

[Forgot your dial-in PIN?](#) [Help](#)

[!OC(!1033)!]

From: [Hiser, Matthew](#)
To: [Riccardella, Pete](#)
Subject: RE: RE: Harvesting Workshop
Date: Monday, February 27, 2017 1:45:00 PM

Hi Pete,
Yes, dinner is Tuesday evening. I will include you in the count for the reservation.
Thanks!
Matt

From: Riccardella, Pete [mailto:Priccardella@Structint.com]
Sent: Monday, February 27, 2017 1:38 PM
To: Hiser, Matthew <Matthew.Hiser@nrc.gov>
Subject: [External_Sender] RE: Harvesting Workshop
Thanks Matt. I plan to be there for sure on Tuesday. Not sure about Wednesday, as there is also an ACRS subcommittee meeting that day. I may try to split my time.
Regarding dinner, is that Tuesday evening? If so, I can attend.
Pete

From: Hiser, Matthew [<mailto:Matthew.Hiser@nrc.gov>]
Sent: Monday, February 27, 2017 10:05 AM
To: Riccardella, Pete <Priccardella@Structint.com>
Cc: Tregoning, Robert <Robert.Tregoning@nrc.gov>
Subject: Harvesting Workshop

Dr. Ricardella:

Rob forwarded me your request for information on the harvesting workshop. I appreciate your interest in the topic of the workshop and am glad you are planning to attend. I have attached the agenda as well as slides developed to describe the purpose and objectives of the workshop. The workshop will start on Tuesday at 8 AM in 3WFN 1C3. For your awareness, we have limited space in the room and will also be offering remote participation online through a webinar for additional NRC staff and external participants unable to attend.

We are planning a dinner at a nearby restaurant for workshop participants. Please let me know if you would like to be included on the headcount for the reservation. Please let me know if you have any questions or would like more information regarding the workshop.

Thanks!

Matt

Matthew Hiser

Materials Engineer

US Nuclear Regulatory Commission | Office of Nuclear Regulatory Research

Division of Engineering | Corrosion and Metallurgy Branch

Phone: 301-415-2454 | Office: TWFN 10D62

Matthew.Hiser@nrc.gov

From: [Tello, Daniel \(CNSC/CCSN\)](#)
To: [Hiser, Matthew](#)
Subject: [External_Sender] RE: RE: Re: Ex-plant Materials Harvesting Workshop
Date: Monday, February 27, 2017 1:43:48 PM
Attachments: [Scanned document Dan Tello.pdf](#)
[K.Huynh - Scanned document.pdf](#)

Hi Matt,
As requested, here are the 2 copies. I will send you the last one tomorrow.
Regards,
Dan

Note to requester: The 2 attachments are passports, and are both withheld in full under FOIA Exemption B6.

Daniel Tello
Senior Research Program Officer
Regulatory Research and Evaluation Division
Canadian Nuclear Safety Commission / Government of Canada
daniel.tello@canada.ca / Tel: 613-995-2609
Agent principal du programme de recherche
Division de la recherche en réglementation et de l'évaluation
Commission canadienne de sûreté nucléaire / Gouvernement du Canada
daniel.tello@canada.ca / Tél: 613-995-2609

From: Hiser, Matthew [mailto:Matthew.Hiser@nrc.gov]
Sent: February-27-17 1:25 PM
To: Tello, Daniel (CNSC/CCSN)
Subject: RE: RE: Re: Ex-plant Materials Harvesting Workshop

Hi Dan,
Sounds good! Can you go ahead and send the other two now? Our security person wanted to get them done today if possible, but tomorrow should be OK for Désiré's.
Thanks!
Matt

Matthew Hiser

Materials Engineer
US Nuclear Regulatory Commission | Office of Nuclear Regulatory Research
Division of Engineering | Corrosion and Metallurgy Branch
Phone: 301-415-2454 | Office: TWFN 10D62
Matthew.Hiser@nrc.gov

From: Tello, Daniel (CNSC/CCSN) [<mailto:daniel.tello@canada.ca>]
Sent: Monday, February 27, 2017 1:11 PM
To: Hiser, Matthew <Matthew.Hiser@nrc.gov>
Subject: [External_Sender] RE: Re: Ex-plant Materials Harvesting Workshop

Hi Matt,
I'm just waiting for Désiré's copy and I will then send them all to you.
He told me that he would give it to me tomorrow.
Is that okay?
Regards,
Dan

Daniel Tello
Senior Research Program Officer

*Regulatory Research and Evaluation Division
Canadian Nuclear Safety Commission / Government of Canada
daniel.tello@canada.ca / Tel: 613-995-2609
Agent principal du programme de recherche
Division de la recherche en réglementation et de l'évaluation
Commission canadienne de sûreté nucléaire / Gouvernement du Canada
daniel.tello@canada.ca / Tél: 613-995-2609*

From: Hiser, Matthew [<mailto:Matthew.Hiser@nrc.gov>]

Sent: February-27-17 1:03 PM

To: Tello, Daniel (CNSC/CCSN)

Subject: RE: Re: Ex-plant Materials Harvesting Workshop

Hi Dan,

I just wanted to check on the status of the passport copies.

Thanks!

Matt

Matthew Hiser

Materials Engineer

US Nuclear Regulatory Commission | Office of Nuclear Regulatory Research

Division of Engineering | Corrosion and Metallurgy Branch

Phone: 301-415-2454 | Office: TWFN 10D62

Matthew.Hiser@nrc.gov

From: Tello, Daniel (CNSC/CCSN) [<mailto:daniel.tello@canada.ca>]

Sent: Thursday, February 23, 2017 4:48 PM

To: Hiser, Matthew <Matthew.Hiser@nrc.gov>

Cc: Karen Huynh <khuyh@aecl.ca>; Ndomba, Désiré (CNSC/CCSN) <desire.ndomba@canada.ca>

Subject: [External_Sender] Re: Ex-plant Materials Harvesting Workshop

Hi Matt,

Thanks for the invite for dinner. Yes the 3 of us would like to join you.

Also, our presentation is ready but we are presenting it to our management on Monday.

We will do our best to have it to you by Tuesday afternoon.

As for the passport copies, we will send those to you shortly.

Regards,

Dan

Sent from my BlackBerry 10 smartphone on the Rogers network.

From: Hiser, Matthew

Sent: Thursday, February 23, 2017 2:26 PM

To: Bernhoft, Sherry; Dyle, Robin; Jean Smith (jmsmith@epri.com); Ahluwalia, Kawaljit; Richard Reister (Richard.Reister@nuclear.energy.gov); 'leonardk@ornl.gov'; 'Rosseel, Thomas M.'; 'William F Zipp (Generation - 4)'; 'Gerard P. Van Noordennen'; Ramuhalli, Pradeep (Pradeep.Ramuhalli@pnnl.gov); Tello, Daniel (CNSC/CCSN); 'Uwe.Jendrich@grs.de'; 'rachid.chaouadi@sckcen.be'; 'arait@criepi.denken.or.jp'; 'alpanfa@westinghouse.com'; 'sokolovm@ornl.gov'; Ndomba, Désiré (CNSC/CCSN); 'khuyh@aecl.ca'; 'higuchi@criepi.denken.or.jp'; 'kazunobu_sakamoto@nsr.go.jp'; 'chimi.yasuhiro@jaea.go.jp'; Jackson, John Howard; Roussel Guy; john.wagner@inl.gov

Cc: Tregoning, Robert; Purtscher, Patrick

Subject: RE: Ex-plant Materials Harvesting Workshop

Dear workshop attendees:

Friendly reminder for attendees about dinner and passports (highlighted below):

- Please let me know if you plan to join for the dinner with other workshop participants
- If you are traveling from outside the U.S., please email me a scanned copy of your passport if possible.

I have also attached the draft agenda (awaiting titles for a few presentations).

Thanks!

Matt

From: Hiser, Matthew

Sent: Wednesday, February 15, 2017 10:47 AM

To: Dyle, Robin <rdyle@epri.com>; Jean Smith (jmsmith@epri.com) <jmsmith@epri.com>; Ahluwalia, Kawaljit <kahluwal@epri.com>; Richard Reister (Richard.Reister@nuclear.energy.gov) <Richard.Reister@nuclear.energy.gov>; 'leonardk@ornl.gov' <leonardk@ornl.gov>; 'Rosseel, Thomas M.' <rosseeltm@ornl.gov>; 'William F Zipp (Generation - 4)' <william.f.zipp@dom.com>; 'Gerard P. Van Noordennen' <gpvannoordennen@energysolutions.com>; Ramuhalli, Pradeep (Pradeep.Ramuhalli@pnnl.gov) <Pradeep.Ramuhalli@pnnl.gov>; 'daniel.tello@canada.ca' <daniel.tello@canada.ca>; 'Uwe.Jendrich@grs.de' <Uwe.Jendrich@grs.de>; 'rachid.chaouadi@sckcen.be' <rachid.chaouadi@sckcen.be>; 'arait@criepi.denken.or.jp' <arait@criepi.denken.or.jp>; 'alpanfa@westinghouse.com' <alpanfa@westinghouse.com>; 'sokolovm@ornl.gov' <sokolovm@ornl.gov>; 'desire.ndomba@canada.ca' <desire.ndomba@canada.ca>; 'khuynh@aecl.ca' <khuynh@aecl.ca>; 'higuchi@criepi.denken.or.jp' <higuchi@criepi.denken.or.jp>; 'kazunobu_sakamoto@nsr.go.jp' <kazunobu_sakamoto@nsr.go.jp>; 'chimi.yasuhiro@jaea.go.jp' <chimi.yasuhiro@jaea.go.jp>; 'leo.fifield@pnnl.gov' <leo.fifield@pnnl.gov>

Cc: Tregoning, Robert <Robert.Tregoning@nrc.gov>; Purtscher, Patrick <Patrick.Purtscher@nrc.gov>

Subject: Ex-plant Materials Harvesting Workshop

Dear Harvesting Workshop Attendees:

You are receiving this email because I have you recorded as attending the upcoming Ex-plant Materials Harvesting Workshop on March 7-8 at USNRC headquarters in Rockville, MD. I have attached the workshop introduction slides that cover meeting logistics, motivation, approach, expected outcome, and session expectations. We are hoping these slides provide a common vision for the workshop that will allow for a focused, productive discussion.

The workshop will be held in NRC's Three White Flint North (3WFN) building, which is directly adjacent to the White Flint Metro station, in room 1C3 on the first floor. I have attached a map of the local area showing the Metro station and the 3WFN building.

The workshop is scheduled to start at 8:00 on Tuesday, March 7. I recommend planning to arrive at 3WFN around 7:30-7:45 in order to go through security to enter the building.

I would like to request input from attendees on two items:

1. We are making reservations at a nearby restaurant for dinner on Tuesday, March 7. Please let me know if you plan to join for the dinner with other workshop participants, so I can make the appropriate reservation.
2. If you are traveling from outside the U.S., please be sure to bring two forms of ID (passport and a second photo ID). Also, please email me a scanned copy of your passport if possible. This will speed the security check-in process.

Thank you for your participation in the workshop. We are looking forward to the discussion and

engagement and appreciate your contribution to a productive and interesting meeting!

Please let me know if you have any questions.

Thanks!

Matt

Matthew Hiser

Materials Engineer

US Nuclear Regulatory Commission | Office of Nuclear Regulatory Research

Division of Engineering | Corrosion and Metallurgy Branch

Phone: 301-415-2454 | Office: TWFN 10D62

Matthew.Hiser@nrc.gov

(b)(6)



(b)(6)

From: [Hiser, Matthew](#)
To: [Gerard P. Van Noordennen](#)
Subject: RE: Re: RE: Ex-plant Materials Harvesting Workshop
Date: Monday, February 27, 2017 11:15:00 AM

Thanks Gerry!

From: Gerard P. Van Noordennen [<mailto:gpvannoordennen@energysolutions.com>]

Sent: Monday, February 27, 2017 10:00 AM

To: Hiser, Matthew <Matthew.Hiser@nrc.gov>

Subject: [External_Sender] Re: RE: Ex-plant Materials Harvesting Workshop

Matt,

Ok, I can talk about future harvesting opportunities. I'll include the Zion Harvesting Program in Session 4 along with the lessons learned.

Gerry

----- Original message-----

From: Hiser, Matthew

Date: Mon, Feb 27, 2017 9:54 AM

To: Gerard P. Van Noordennen;

Cc:

Subject: RE: RE: Ex-plant Materials Harvesting Workshop

Hi Gerry,

Thank you – I have updated the agenda to reflect these titles.

For your talk in session 3, your title focuses on Zion. When we talked previously, I think we were envisioning your talk to be forward-looking on future harvesting opportunities (ie decommissioning plans at US plants going forward). Are you planning to address non-Zion harvesting opportunities (as far as you are aware of them and can share)?

Thanks!

Matt

Matthew Hiser

Materials Engineer

US Nuclear Regulatory Commission | Office of Nuclear Regulatory Research

Division of Engineering | Corrosion and Metallurgy Branch

Phone: 301-415-2454 | Office: TWFN 10D62

Matthew.Hiser@nrc.gov

From: Gerard P. Van Noordennen [<mailto:gpvannoordennen@energysolutions.com>]

Sent: Monday, February 27, 2017 7:30 AM

To: Hiser, Matthew <Matthew.Hiser@nrc.gov>

Subject: [External_Sender] RE: Ex-plant Materials Harvesting Workshop

Matt,

The titles for my 2 presentations are:

Session 3: Zion Material Harvesting Program

Session 4: Zion Harvesting Experience and Lessons Learned

Gerry van Noordennen

Vice President Regulatory Affairs

EnergySolutions

151 Lafayette Drive, Suite 201

Oak Ridge, TN 37830

Office: 865-481-6319

Cell (b)(6)

ZionSolutions
101 Shiloh Boulevard
Zion, IL 60099
Office: 224-789-4025

gpvan Noordennen@energysolutions.com

From: Hiser, Matthew [<mailto:Matthew.Hiser@nrc.gov>]

Sent: Thursday, February 23, 2017 2:25 PM

To: Bernhoft, Sherry; Dyle, Robin; Jean Smith (jmsmith@epri.com); Ahluwalia, Kawaljit; Richard Reister (Richard.Reister@nuclear.energy.gov); 'leonardk@ornl.gov'; 'Rosseel, Thomas M.'; 'William F Zipp (Generation - 4)'; Gerard P. Van Noordennen; Ramuhalli, Pradeep (Pradeep.Ramuhalli@pnnl.gov); 'daniel.tello@canada.ca'; 'Uwe.Jendrich@grs.de'; 'rachid.chaouadi@sckcen.be'; 'arait@criepi.denken.or.jp'; 'alpanfa@westinghouse.com'; 'sokolovm@ornl.gov'; 'desire.ndomba@canada.ca'; 'khuyinh@aecl.ca'; 'higuchi@criepi.denken.or.jp'; 'kazunobu_sakamoto@nsr.go.jp'; 'chimi.yasuhiro@jaea.go.jp'; Jackson, John Howard; Roussel Guy; john.wagner@inl.gov

Cc: Tregoning, Robert; Purtscher, Patrick

Subject: RE: Ex-plant Materials Harvesting Workshop

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I have also attached the draft agenda (awaiting titles for a few presentations).

Thanks!

Matt

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Sent: Wednesday, February 15, 2017 10:47 AM

To: Dyle, Robin <rdyle@epri.com>; Jean Smith (jmsmith@epri.com) <jmsmith@epri.com>; Ahluwalia, Kawaljit <kahluwal@epri.com>; Richard Reister (Richard.Reister@nuclear.energy.gov) <Richard.Reister@nuclear.energy.gov>; 'leonardk@ornl.gov' <leonardk@ornl.gov>; 'Rosseel, Thomas M.' <rosseeltm@ornl.gov>; 'William F Zipp (Generation - 4)' <william.f.zipp@dom.com>; 'Gerard P. Van Noordennen' <gpvan Noordennen@energysolutions.com>; Ramuhalli, Pradeep (Pradeep.Ramuhalli@pnnl.gov) <Pradeep.Ramuhalli@pnnl.gov>; 'daniel.tello@canada.ca' <daniel.tello@canada.ca>; 'Uwe.Jendrich@grs.de' <Uwe.Jendrich@grs.de>; 'rachid.chaouadi@sckcen.be' <rachid.chaouadi@sckcen.be>; 'arait@criepi.denken.or.jp' <arait@criepi.denken.or.jp>; 'alpanfa@westinghouse.com' <alpanfa@westinghouse.com>; 'sokolovm@ornl.gov' <sokolovm@ornl.gov>; 'desire.ndomba@canada.ca' <desire.ndomba@canada.ca>; 'khuyinh@aecl.ca' <khuyinh@aecl.ca>; 'higuchi@criepi.denken.or.jp' <higuchi@criepi.denken.or.jp>; 'kazunobu_sakamoto@nsr.go.jp' <kazunobu_sakamoto@nsr.go.jp>; 'chimi.yasuhiro@jaea.go.jp' <chimi.yasuhiro@jaea.go.jp>; 'leo.fifield@pnnl.gov' <leo.fifield@pnnl.gov>

Cc: Tregoning, Robert <Robert.Tregoning@nrc.gov>; Purtscher, Patrick <Patrick.Purtscher@nrc.gov>

Subject: Ex-plant Materials Harvesting Workshop

Dear Harvesting Workshop Attendees:

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I would like to request input from attendees on two items:

1. We are making reservations at a nearby restaurant for dinner on Tuesday, March 7. **Please let me know if you plan to join for the dinner with other workshop participants**, so I can make the appropriate reservation.
2. If you are traveling from outside the U.S., please be sure to bring two forms of ID (passport and a second photo ID). Also, **please email me a scanned copy of your passport if possible**. This will speed the security check-in process.

Thank you for your participation in the workshop. We are looking forward to the discussion and engagement and appreciate your contribution to a productive and interesting meeting! Please let me know if you have any questions.

Thanks!

Matt

Matthew Hiser

Materials Engineer

US Nuclear Regulatory Commission | Office of Nuclear Regulatory Research

Division of Engineering | Corrosion and Metallurgy Branch

Phone: 301-415-2454 | Office: TWFN 10D62

Matthew.Hiser@nrc.gov

From: [Hiser, Matthew](#)
To: Priccardella@Structint.com
Cc: [Tregoning, Robert](#)
Subject: Harvesting Workshop
Date: Monday, February 27, 2017 12:04:00 PM
Attachments: [Ex-Plant Materials Harvesting Workshop.pptx](#)
[Harvesting Workshop Draft Agenda.docx](#)

Note to requester: Attachments are immediately following.

Dr. Ricardella:

Rob forwarded me your request for information on the harvesting workshop. I appreciate your interest in the topic of the workshop and am glad you are planning to attend. I have attached the agenda as well as slides developed to describe the purpose and objectives of the workshop. The workshop will start on Tuesday at 8 AM in 3WFN 1C3. For your awareness, we have limited space in the room and will also be offering remote participation online through a webinar for additional NRC staff and external participants unable to attend.

We are planning a dinner at a nearby restaurant for workshop participants. Please let me know if you would like to be included on the headcount for the reservation.

Please let me know if you have any questions or would like more information regarding the workshop.

Thanks!

Matt

Matthew Hiser

Materials Engineer

US Nuclear Regulatory Commission | Office of Nuclear Regulatory Research

Division of Engineering | Corrosion and Metallurgy Branch

Phone: 301-415-2454 | Office: TWFN 10D62

Matthew.Hiser@nrc.gov

Ex-Plant Materials Harvesting Workshop

March 7-8, 2017

USNRC HQ

Rockville, MD, USA

Meeting Logistics

- Workshop will be held at NRC's Three White Flint North building
 - Directly adjacent to the White Flint Metro station
 - Nearest hotel within walking distance: Bethesda North Marriott Hotel & Conference Center
- Workshop is a non-public meeting to encourage open discussion
 - Presentations and meeting summary will be distributed among meeting participants only
- GoToMeeting webinar will be available to support additional attendees
 - Webinar attendees will be primarily observers
 - Limited opportunities for webinar attendee participation in discussion if time allows
 - Discussion will be recorded through GoToMeeting software to aid capturing discussion in meeting summary

Motivation

- With plants shutting down both in the U.S. and internationally, there are increasing opportunities to harvest components from decommissioning plants
 - Past harvesting efforts generally more reactive as opportunities arose, rather than proactively planned
- Ex-plant materials may be valuable because they have been exposed to actual in-service plant operating conditions
 - Can reduce the uncertainty associated with the applicability of the aging conditions
- Insights from research on harvested materials can address technical data needs identified for extended plant operation
- Lessons learned from past harvesting programs can help improve future harvesting efforts
 - Challenges encountered in previous programs can be shared and mitigated or avoided in future programs

Approach

- Domestic and international researchers, industry, regulators, and decommissioning companies' discuss benefits and challenges with ex-plant harvesting
 - Encourage sharing of lessons learned as well as areas of common interest
- Workshop consists of topical sessions with short presentations and significant time for open discussion
 - Goal is to maximize engagement among meeting participants
- Scope includes any materials aging issue that could benefit from harvesting, including metals, cables, and concrete

Expected Outcome

- Participants become better informed and aware of the benefits and challenges associated with ex-plant harvesting
- Discussions help identify areas of common interest for harvesting to address technical data needs
- Presentations and discussions provide the starting point for a “database” of harvested materials and future harvesting opportunities
- Contacts are made among research organizations to allow for further discussion of specific harvesting projects
- Workshop summary documenting discussion will be distributed among participants

Session Expectations

- Session 1 Motivation for Harvesting
 - Perspective from panel participants on their organizations' interest in and motivation for harvesting
 - Brief (5-10 minute) presentation from each panel member followed by general discussion
- Session 2 Technical Data Needs for Harvesting
 - Presenters share high-priority data needs that may be best addressed by harvesting
 - Where does harvesting hold particular value compared to other sources of technical data
 - 15-20 minute presentations followed by open discussion of technical data needs for harvesting

Session Expectations

- Session 3 Sources of Materials
 - Information on previously harvested materials and future harvesting opportunities
 - Materials located at research and vendor facilities
 - Decommissioning plants that may allow for future harvesting
 - Short 5-10 minute presentations followed by open discussion
 - Starting point for potential database of previously harvested materials and future harvesting opportunities
- Session 4 Harvesting Experience: Lessons Learned and Practical Aspects
 - Improving future efforts with lessons learned from past programs
 - Pitfalls to avoid and strategies to improve likelihood of success
 - Practical perspective from non-researchers on how harvesting interfaces with the decommissioning process
 - International decommissioning and harvesting experience
 - 20-30 minute presentations followed by open discussion

Session Expectations

- Session 5 Future Harvesting Program Planning
 - Technical and logistical information needed when planning a specific harvesting program
 - Perspective from panel participants on the workshop
 - Next steps and actions from workshop
 - Potential areas of common interest for future harvesting programs
 - Brief (5-10 minute) presentation from each panel member followed by general discussion

Ex-Plant Materials Harvesting Workshop Draft Agenda

Tuesday, March 7

Session	Time	Organization	Speaker	Presentation Title
Intro	8:00	NRC		Welcome and Introduction to Workshop
1	8:15 – 8:45	EPRI	Sherry Bernhoft	EPRI Perspective on Harvesting Projects
		DOE	Rich Reister	
		NRC	Robert Tregoning	NRC Perspective on Motivation for Harvesting
		GRS	Uwe Jendrich	
		CRIEPI	Taku Arai	
	8:45 – 9:45	DISCUSSION		
9:45-10:00		BREAK		
2	10:00 – 10:20	PNNL (for NRC)	Pradeep Ramuhalli	Data Needs Best Addressed By Harvesting
	10:20 – 10:30	NRC	Matthew Hiser	High-Priority Data Needs for Harvesting
	10:30 – 10:55	DOE	Keith Leonard	LWRS Program Perspective on the Technical Needs for Harvesting
	10:55 – 11:20	SCK-CEN	Rachid Chaouadi	Review of past RPV sampling test programs and perspective for long term operation
	11:20 – 11:45	Westinghouse	Arzu Alpan	Importance of Harvesting to Evaluate Radiation Effects on Concrete Properties
	11:45 – 12:30	DISCUSSION		
12:30 – 2:00		LUNCH		
3	2:00 – 2:15	NRC	Matthew Hiser	Sources of Materials: Past NRC Harvesting and U.S. Decommissioning Plants
	2:15 – 2:30	EPRI	Al Ahluwalia	
	2:30 – 2:45	DOE/ORNL	Tom Rosseel	
	2:45 – 3:00	DOE/INL	John Jackson	NSUF Material Sample Library
	3:00 – 3:15	Energy Solutions	Gerry van Noordennen	Zion Material Harvesting Program
	3:15 – 3:30	Westinghouse	Arzu Alpan	Potential Harvesting of Concrete from Mihama Unit 1
	3:30 – 3:45	BREAK		
	3:45 – 4:00	GRS	Uwe Jendrich	
	4:00 – 4:15	CNSC	Daniel Tello	
	4:15 – 5:00	DISCUSSION		

Wednesday, March 8

Session	Time	Organization	Speaker	Presentation Title
4	8:00 – 8:30	EPRI	Jean Smith	
	8:30 – 9:00	DOE	Tom Rosseel	
	9:00 – 9:30	NRC	Matthew Hiser	NRC Perspective on Harvesting Experience and Lessons Learned
	9:30 – 10:00	CRIEPI	Taku Arai	
	10:00 – 10:15	BREAK		
	10:15 - 10:45	Energy Solutions	Gerry van Noordennen	Zion Harvesting Experience and Lessons Learned
	10:45 - 11:15	Dominion	Bill Zipp	
	11:15 – 12:00	DISCUSSION		
12:00 – 1:30		LUNCH		
5	1:30 – 1:45	PNNL (for NRC)	Pradeep Ramuhalli	Technical Information Needed for Informed Harvesting Decisions
	1:45 – 2:30	DISCUSSION		
	2:30 – 3:00	Action Items and Next Steps		
	3:00 – 4:00	EPRI	Sherry Bernhoft	Closing Thoughts
		DOE	Rich Reister	
		NRC	Robert Tregoning	
		ALL		

From: [Yasuhiro Chimi](#)
To: [Hiser, Matthew](#)
Subject: [External_Sender] RE: Ex-plant Materials Harvesting Workshop
Date: Monday, February 27, 2017 5:13:58 AM

Dear Mr. Matthew Hiser,

The password to open the PDF file that I sent the previous e-mail is as follows.

(b)(6)

Best regards,

Yasuhiro Chimi

Yasuhiro Chimi, Ph.D.

Materials and Water Chemistry Research Group
Materials and Structural Integrity Research Division
Nuclear Safety Research Center
Sector of Nuclear Safety Research and Emergency Preparedness
Japan Atomic Energy Agency (JAEA)

Phone: +81-29-282-6473 , Fax: +81-29-282-5406
E-mail: chimi.yasuhiro@jaea.go.jp

-----Original Message-----

From: Yasuhiro Chimi [<mailto:chimi.yasuhiro@jaea.go.jp>]
Sent: Monday, February 27, 2017 7:09 PM
To: 'Hiser, Matthew' <Matthew.Hiser@nrc.gov>
Subject: RE: Ex-plant Materials Harvesting Workshop

Dear Mr. Matthew Hiser,

Thank you very much for your e-mail. I'm very sorry for my late response.

I send a copy (photo) of my passport as an attached PDF file with a password to open it. I will send you the password in the next e-mail.

For the dinner, do you mean that you will arrange the dinner for all the workshop participants? If so, I would like to join for the dinner.

I would like to ask you a question about "a second photo ID" in your previous e-mail. Do you accept the Japanese driving license (in Japanese) for it? I don't have any other photo ID now.

Best regards,

Yasuhiro Chimi

Yasuhiro Chimi, Ph.D.

Materials and Water Chemistry Research Group Materials and Structural Integrity
Research Division Nuclear Safety Research Center Sector of Nuclear Safety
Research and Emergency Preparedness Japan Atomic Energy Agency (JAEA)

Phone: +81-29-282-6473 , Fax: +81-29-282-5406

E-mail: chimi.yasuhiro@jaea.go.jp

-----Original Message-----

From: Hiser, Matthew [<mailto:Matthew.Hiser@nrc.gov>]

Sent: Friday, February 24, 2017 4:25 AM

To: Bernhoft, Sherry <sbernhoft@epri.com>; Dyle, Robin <rdyle@epri.com>; Jean Smith (jmsmith@epri.com) <jmsmith@epri.com>; Ahluwalia, Kawaljit <kahluwal@epri.com>; Richard Reister (Richard.Reister@nuclear.energy.gov) <Richard.Reister@nuclear.energy.gov>; 'leonardk@ornl.gov' <leonardk@ornl.gov>; 'Rosseel, Thomas M.' <rosseeltm@ornl.gov>; 'William F Zipp (Generation - 4)' <william.f.zipp@dom.com>; 'Gerard P. Van Noordennen' <gpvannoordennen@energysolutions.com>; Ramuhalli, Pradeep (Pradeep.Ramuhalli@pnnl.gov) <Pradeep.Ramuhalli@pnnl.gov>; 'daniel.tello@canada.ca' <daniel.tello@canada.ca>; 'Uwe.Jendrich@grs.de' <Uwe.Jendrich@grs.de>; 'rachid.chaouadi@sckcen.be' <rachid.chaouadi@sckcen.be>; 'arait@criepi.denken.or.jp' <arait@criepi.denken.or.jp>; 'alpanfa@westinghouse.com' <alpanfa@westinghouse.com>; 'sokolovm@ornl.gov' <sokolovm@ornl.gov>; 'desire.ndomba@canada.ca' <desire.ndomba@canada.ca>; 'khuynh@aecl.ca' <khuynh@aecl.ca>; 'higuchi@criepi.denken.or.jp' <higuchi@criepi.denken.or.jp>; 'kazunobu_sakamoto@nsr.go.jp' <kazunobu_sakamoto@nsr.go.jp>; 'chimi.yasuhiro@jaea.go.jp' <chimi.yasuhiro@jaea.go.jp>; Jackson, John Howard <john.jackson@inl.gov>; Roussel Guy <guy.roussel@Belv.be>; john.wagner@inl.gov
Cc: Tregoning, Robert <Robert.Tregoning@nrc.gov>; Purtscher, Patrick <Patrick.Purtscher@nrc.gov>
Subject: RE: Ex-plant Materials Harvesting Workshop

Dear workshop attendees:

Friendly reminder for attendees about dinner and passports (highlighted below):

- * Please let me know if you plan to join for the dinner with other workshop participants
- * If you are traveling from outside the U.S., please email me a scanned copy of your passport if possible.

I have also attached the draft agenda (awaiting titles for a few presentations).

Thanks!

Matt

From: Hiser, Matthew
Sent: Wednesday, February 15, 2017 10:47 AM
To: Dyle, Robin <rdyle@epri.com>; Jean Smith (jmsmith@epri.com) <jmsmith@epri.com>; Ahluwalia, Kawaljit <kahluwal@epri.com>; Richard Reister (Richard.Reister@nuclear.energy.gov) <Richard.Reister@nuclear.energy.gov>; 'leonardk@ornl.gov' <leonardk@ornl.gov>; 'Rosseel, Thomas M.' <rosseeltm@ornl.gov>; 'William F Zipp (Generation - 4)' <william.f.zipp@dom.com>; 'Gerard P. Van Noordennen' <gpvannoordennen@energysolutions.com>; Ramuhalli, Pradeep (Pradeep.Ramuhalli@pnnl.gov) <Pradeep.Ramuhalli@pnnl.gov>; 'daniel.tello@canada.ca' <daniel.tello@canada.ca>; 'Uwe.Jendrich@grs.de' <Uwe.Jendrich@grs.de>; 'rachid.chaouadi@sckcen.be' <rachid.chaouadi@sckcen.be>; 'arait@criepi.denken.or.jp' <arait@criepi.denken.or.jp>; 'alpanfa@westinghouse.com' <alpanfa@westinghouse.com>; 'sokolovm@ornl.gov' <sokolovm@ornl.gov>; 'desire.ndomba@canada.ca' <desire.ndomba@canada.ca>; 'khuynh@aecl.ca' <khuynh@aecl.ca>; 'higuchi@criepi.denken.or.jp' <higuchi@criepi.denken.or.jp>; 'kazunobu_sakamoto@nsr.go.jp' <kazunobu_sakamoto@nsr.go.jp>; 'chimi.yasuhiro@jaea.go.jp' <chimi.yasuhiro@jaea.go.jp>; 'leo.fifield@pnnl.gov' <leo.fifield@pnnl.gov>
Cc: Tregoning, Robert <Robert.Tregoning@nrc.gov>; Purtscher, Patrick <Patrick.Purtscher@nrc.gov>
Subject: Ex-plant Materials Harvesting Workshop

Dear Harvesting Workshop Attendees:

You are receiving this email because I have you recorded as attending the upcoming Ex-plant Materials Harvesting Workshop on March 7-8 at USNRC headquarters in Rockville, MD. I have attached the workshop introduction slides that cover meeting logistics, motivation, approach, expected outcome, and session expectations. We are hoping these slides provide a common vision for the workshop that will allow for a focused, productive discussion.

The workshop will be held in NRC's Three White Flint North (3WFN) building, which is directly adjacent to the White Flint Metro station, in room 1C3 on the first floor. I have attached a map of the local area showing the Metro station and the 3WFN building.

The workshop is scheduled to start at 8:00 on Tuesday, March 7. I recommend planning to arrive at 3WFN around 7:30-7:45 in order to go through security to enter the building.

I would like to request input from attendees on two items:

1. We are making reservations at a nearby restaurant for dinner on Tuesday, March 7. Please let me know if you plan to join for the dinner with other

workshop participants, so I can make the appropriate reservation.

2. If you are traveling from outside the U.S., please be sure to bring two forms of ID (passport and a second photo ID). Also, please email me a scanned copy of your passport if possible. This will speed the security check-in process.

Thank you for your participation in the workshop. We are looking forward to the discussion and engagement and appreciate your contribution to a productive and interesting meeting!

Please let me know if you have any questions.

Thanks!

Matt

Matthew Hiser

Materials Engineer

US Nuclear Regulatory Commission | Office of Nuclear Regulatory Research

Division of Engineering | Corrosion and Metallurgy Branch

Phone: 301-415-2454 | Office: TWFN 10D62

Matthew.Hiser@nrc.gov <<mailto:Matthew.Hiser@nrc.gov>>

From: [Hiser, Matthew](#)
To: ["Charles A Tomes \(Generation - 6\)"](#)
Subject: RE: RE: Harvesting Workshop at NRC HQ
Date: Wednesday, January 11, 2017 1:15:05 PM
Attachments: [Condensed Workshop Agenda 12-12-16.docx](#)

Note to requester: Attachment is immediately following.

Hi Chuck,

Sounds good! I figured it might have ended up in your spam blocker ☺

Feel free to reach out if you have any questions or need more information. We're still working on identifying all the presenters, but I have attached an agenda showing the session topics. Your presentation would be in session 4. We're hoping to get a good group to participate in this conversation and certainly the utility perspective is an important one for any harvesting project...

Thanks!

Matt

From: Charles A Tomes (Generation - 6) [mailto:charles.a.tomes@dom.com]

Sent: Wednesday, January 11, 2017 11:39 AM

To: Hiser, Matthew <Matthew.Hiser@nrc.gov>

Subject: [External_Sender] RE: Harvesting Workshop at NRC HQ

Mathew

I want to let you know that I am not ignoring your email nor has the issued dropped between the cracks.

We are discussing internally who and how to support your request. I do not have a final decision yet. We are still discussing the request.

But I wanted for you to know we are addressing your question internally and we plan to get back to you with an answer.

Chuck

From: Hiser, Matthew [<mailto:Matthew.Hiser@nrc.gov>]

Sent: Tuesday, January 03, 2017 3:17 PM

To: Charles A Tomes (Generation - 6)

Subject: [External] RE: Harvesting Workshop at NRC HQ

Hi Chuck,

Hi Chuck,

I just wanted to follow up from this email back before the holidays regarding the harvesting workshop that we are planning for early March. Please let me know if you have any questions and would be interested and able to participate.

Thanks!

Matt

From: Hiser, Matthew

Sent: Monday, December 12, 2016 5:32 PM

To: 'charles.a.tomes@dom.com' <charles.a.tomes@dom.com>

Subject: Harvesting Workshop at NRC HQ

Hi Chuck,

We spoke several months back with Bob Hardies about opportunities for harvesting at Kewaunee.

Bob has since moved on from NRC and NRC's budget has continued to be very tight, so the prospects for moving forward in the near-term on harvesting at Kewaunee are not clear.

However, NRC is working with DOE and EPRI to host a workshop on ex-plant materials harvesting on

March 7 and 8, 2017 at NRC headquarters in Rockville, MD. I am working with Rob Tregoning and Pat Purtscher at the NRC on this effort. I have attached a 1-page announcement we've put together describing the workshop purpose and objectives. Our hope is for this workshop to bring together a diverse group of interested parties: researchers, utilities, decommissioning experts, and regulators, both domestic and international. We're looking to have an open and honest discussion of the benefits and challenges associated with harvesting, including when it makes sense and is effective and when it isn't. The plan is for this to be a non-public workshop (no NRC public meeting requirements) in order to elicit the best and most frank discussion of harvesting.

One of the sessions we're planning is focused on the practical aspects of harvesting and balancing the perspectives and priorities of the different parties involved in a harvesting project: researchers, utility, decommissioning contractor, etc. We would like to invite you to present the utility perspective on harvesting and the decommissioning process. Dominion's position with a decommissioning plant that may be useful for harvesting along with a number of operating reactors makes your perspective a quite valuable and interesting one in the discussion. We're hoping to also have a decommissioning contractor (perhaps EnergySolutions) provide their perspective and experience with harvesting and the decommissioning process in this session, along with a couple researchers with harvesting experience.

Please let me know if I can provide any more information and if you're interested in participating in and presenting at the workshop.

(b)(6)

Thanks!

Matt

Matthew Hiser

Materials Engineer

US Nuclear Regulatory Commission | Office of Nuclear Regulatory Research

Division of Engineering | Corrosion and Metallurgy Branch

Phone: 301-415-2454 | Office: TWFN 10D62

Matthew.Hiser@nrc.gov

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Draft Agenda – March 7-8, 2017 Harvesting Workshop

Tuesday, March 7, 2017

Introduction

- Overview of workshop purpose and objectives

Session 1: Motivation for Harvesting

- Solicited presentations from EPRI, DOE, NRC, and international organizations followed by panel discussion

Session 2: Technical data needs best addressed by harvesting

- Solicited presentations from EPRI, DOE, NRC, and international organizations followed by open discussion

Session 3: Sources of Materials

- Solicited presentations from EPRI, DOE, NRC, and international organizations followed by open discussion

Wednesday, March 8, 2017

Session 4: Harvesting Experience: Lessons learned and practical aspects

- Solicited presentations from EPRI, DOE, NRC, U.S. utility, decommissioning companies, and international organizations followed by open discussion

Session 5: Future Harvesting Program Planning

- Solicited presentations from EPRI, DOE, NRC, and international organizations followed by open and panel discussion

From: [Hiser, Matthew](#)
To: [Rosseel, Thomas M.](#); [Dyle, Robin](#); [Bernhoft, Sherry \(sbernhoft@epri.com\)](#)
Subject: Harvesting Workshop Sessions 3 & 4
Date: Thursday, January 12, 2017 2:00:00 PM
Attachments: [Harvesting Workshop Agenda 1-12-17.docx](#)
[Sessions 3 & 4.docx](#)

Note to requester: Attachments are immediately following.

Hi Tom, Sherry, and Robin,

I hope all is well with you all in the new year!

As Rob had indicated in previous emails, we would like to work with DOE and EPRI to plan the workshop and hopefully achieve the best outcome for all parties. I have the lead for the NRC for planning sessions 3 and 4 of the March harvesting workshop and would like to set up a call with you all to discuss sessions 3 and 4. The objective of this call is to agree and align on the primary focus and objective of these sessions as well as the appropriate presenters (organization/individual).

I've attached the latest version of the workshop agenda along with a table showing the current planned topics and speakers for sessions 3 and 4.

Please let me know your availability in the next week or two to have a call to discuss.

Thanks!

Matt

Matthew Hiser

Materials Engineer

US Nuclear Regulatory Commission | Office of Nuclear Regulatory Research

Division of Engineering | Corrosion and Metallurgy Branch

Phone: 301-415-2454 | Office: TWFN 10D62

Matthew.Hiser@nrc.gov

Draft Agenda – March 7-8, 2017 Harvesting Workshop

Tuesday, March 7, 2017

Introduction

- Overview of workshop purpose and objectives 8:00 – 8:15
 - NRC

Session 1: Motivation for Harvesting 8:15 – 9:45

- Why our organization is interested in harvesting (short, 5-10 min presentations)
 - EPRI
 - DOE
 - NRC
 - MAI or JRC
 - JNRA
- PANEL DISCUSSION with prepared questions

BREAK 9:45 - 10:00

Session 2: Technical data needs best addressed by harvesting 10:00 – 12:00

- Overview of data needs best addressed by harvesting
 - NRC/PNNL
- Perspective on detailed data needs from harvesting
 - DOE
 - EPRI
 - MAI or JRC

LUNCH 12:00 – 1:00

- Perspective on harvesting data needs 1:00 – 2:15
 - JNRA
- DISCUSSION

BREAK 2:15 – 2:30

Session 3: Sources of Materials 2:30 – 5:30

- Available materials from decommissioning plants and past harvesting programs
 - NRC
- Available materials from operating reactors and past harvesting programs
 - EPRI
- Available materials at DOE labs from past harvesting programs
 - DOE (ORNL?)
- International sources of materials
 - IAEA?
- DISCUSSION

Wednesday, March 8, 2017

Session 4: Harvesting Experience: Lessons learned and practical aspects 8:00 – 12:00

- Perspective on Harvesting Lessons Learned / Prior Experience
 - EPRI
 - DOE
 - NRC
- Decommissioning process vs. harvesting: schedule, site-specific, timing for different components
 - US decommissioning company (Energy Solutions)
- Decommissioning and harvesting plans and experience
 - International decommissioning company (Germany?)
- Owner perspective on harvesting and decommissioning
 - US utility (Dominion/Kewaunee, other?)
- DISCUSSION

LUNCH 12:00 – 1:00

Session 5: Future Harvesting Program Planning 1:00 – 4:00

- Technical information needed for informed harvesting decisions
 - NRC/PNNL
- DISCUSSION of Next Steps / Actions
- Perspective on future harvesting planning
 - EPRI
 - NRC
 - DOE
 - MAI or JRC
 - JNRA
- PANEL DISCUSSION with prepared questions

Session	Topic	Organization	Speaker	Status
3	Available materials from decommissioning plants and past harvesting programs	NRC	Matt Hiser	
	Available materials from operating reactors and past harvesting programs	EPRI		
	Available materials at DOE labs from past harvesting programs	DOE (ORNL?)		
	International sources of materials	IAEA?		
4	Perspective on Harvesting Lessons Learned / Prior Experience	EPRI		
		DOE		
		NRC		
	Decommissioning process and harvesting: schedule, site-specific, timing for different components	Energy Solutions	Gerry van Noordennen	
	Utility-Owner perspective on harvesting and decommissioning	Dominion?		
	International decommissioning and harvesting experience	Germany?		

From: [Hiser, Matthew](#)
To: [Bernhoft, Sherry](#); [Rosseel, Thomas M.](#); [Dyle, Robin](#); [Demma, Anne](#)
Subject: Harvesting Workshop Sessions 3 & 4
Attachments: [Harvesting Workshop Agenda 1-12-17.docx](#)
[Sessions 3 & 4.docx](#)

Note to requester: Attachments are immediately following.
--

888-677-8615 passcode: (b)(6)

There have been previous discussions between NRC, DOE, and EPRI on the workshop agenda overall to discuss what the workshop is trying to accomplish and the best way to do so. Those conversations did not dig down into each session and make a final decision on exactly who will be the presenters and topics in each session. Internally here at NRC, we've worked to lay that out in the attached documents.

The purpose of this call is to discuss all the specifics of sessions 3 and 4 to identify the right presenters for each slot. This discussion could also lead to adding, eliminating or changing some of the planned presentations if you all have other ideas or suggestions. Our main goal is to have a well-balanced, comprehensive discussion of harvesting that will benefit all participants. We think working with you all up front to help plan and make decisions will give us a better workshop in the end. So please come with ideas and suggestions for sessions 3 and 4 on sources of materials and lessons learned/practical aspects of harvesting.

Draft Agenda – March 7-8, 2017 Harvesting Workshop

Tuesday, March 7, 2017

Introduction

- Overview of workshop purpose and objectives 8:00 – 8:15
 - NRC

Session 1: Motivation for Harvesting 8:15 – 9:45

- Why our organization is interested in harvesting (short, 5-10 min presentations)
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LUNCH 12:00 – 1:00

- Perspective on harvesting data needs 1:00 – 2:15
 - JNRA
- DISCUSSION

BREAK 2:15 – 2:30

Session 3: Sources of Materials 2:30 – 5:30

- Available materials from decommissioning plants and past harvesting programs
 - NRC
- Available materials from operating reactors and past harvesting programs
 - EPRI
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- International sources of materials
 - IAEA?
- DISCUSSION

Wednesday, March 8, 2017

Session 4: Harvesting Experience: Lessons learned and practical aspects 8:00 – 12:00

- Perspective on Harvesting Lessons Learned / Prior Experience
 - EPRI
 - DOE
 - NRC
- Decommissioning process vs. harvesting: schedule, site-specific, timing for different components
 - US decommissioning company (Energy Solutions)
- Decommissioning and harvesting plans and experience
 - International decommissioning company (Germany?)
- Owner perspective on harvesting and decommissioning
 - US utility (Dominion/Kewaunee, other?)
- DISCUSSION

LUNCH 12:00 – 1:00

Session 5: Future Harvesting Program Planning 1:00 – 4:00

- Technical information needed for informed harvesting decisions
 - NRC/PNNL
- DISCUSSION of Next Steps / Actions
- Perspective on future harvesting planning
 - EPRI
 - NRC
 - DOE
 - MAI or JRC
 - JNRA
- PANEL DISCUSSION with prepared questions

Session	Topic	Organization	Speaker	Status
3	Available materials from decommissioning plants and past harvesting programs	NRC	Matt Hiser	
	Available materials from operating reactors and past harvesting programs	EPRI		
	Available materials at DOE labs from past harvesting programs	DOE (ORNL?)		
	International sources of materials	IAEA?		
4	Perspective on Harvesting Lessons Learned / Prior Experience	EPRI		
		DOE		
		NRC		
	Decommissioning process and harvesting: schedule, site-specific, timing for different components	Energy Solutions	Gerry van Noordennen	
	Utility-Owner perspective on harvesting and decommissioning	Dominion?		
	International decommissioning and harvesting experience	Germany?		

From: [Hiser, Matthew](#)
To: daniel.tello@canada.ca
Cc: [Tregoning, Robert](#); [Purtscher, Patrick](#)
Subject: Harvesting Workshop
Date: Tuesday, January 17, 2017 11:51:00 AM
Attachments: [Condensed Workshop Agenda.docx](#)

Note to requester: Attachment is immediately following.

Hello Daniel:

Thank you for reaching out to me about CNSC's interest in the workshop we are hosting here at NRC. As we discussed, NRC would certainly be interested in attendance and participation by CNSC and other Canadian organizations. We are planning for the workshop to include presentations as well as significant time for open discussion among attendees.

I have attached a condensed version of the agenda which includes the titles of each session. We are hoping to have at least one international presentation in each session. If CNSC or another Canadian organization is interested in presenting, we will certainly try to include them on the agenda if possible.

Thanks!

Matt

Matthew Hiser

Materials Engineer

US Nuclear Regulatory Commission | Office of Nuclear Regulatory Research

Division of Engineering | Corrosion and Metallurgy Branch

Phone: 301-415-2454 | Office: TWFN 10D62

Matthew.Hiser@nrc.gov

Draft Agenda – March 7-8, 2017 Harvesting Workshop

Tuesday, March 7, 2017

Introduction

- Overview of workshop purpose and objectives

Session 1: Motivation for Harvesting

- Solicited presentations from EPRI, DOE, NRC, and international organizations followed by panel discussion

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- Solicited presentations from EPRI, DOE, NRC, and international organizations followed by open discussion

Session 3: Sources of Materials

- Solicited presentations from EPRI, DOE, NRC, and international organizations followed by open discussion

Wednesday, March 8, 2017

Session 4: Harvesting Experience: Lessons learned and practical aspects

- Solicited presentations from EPRI, DOE, NRC, U.S. utility, decommissioning companies, and international organizations followed by open discussion

Session 5: Future Harvesting Program Planning

- Solicited presentations from EPRI, DOE, NRC, and international organizations followed by open and panel discussion

Note to requester:
Attachments are immediately
following.

From: Hiser, Matthew
Sent: Wed, 18 Jan 2017 17:24:35 +0000
To: Molkenthin, Jim;Heather Malikowski
Cc: 'Burgos, Brian';Tregoning, Robert;Purtscher, Patrick
Subject: RE: RE: Harvesting Workshop Sessions 3 & 4
Attachments: Harvesting Workshop Announcement.docx, Condensed Workshop Agenda.docx

Hi Jim and Heather:

NRC is working with EPRI and DOE to host a workshop on ex-plant materials harvesting in early March at NRC HQ in Rockville, MD. I have attached an announcement and condensed workshop agenda for your information and background.

One of the sessions we have planned is on Sources of Materials, which includes archived materials from past harvesting programs as well as future harvesting opportunities. Brian suggested the PWROG may have information related to archive materials held by vendors that could be relevant to this discussion. For this session, we are looking at short presentations (maybe 2-3 slides, 5-10 min) providing information on sources of harvested materials.

We would certainly appreciate any information on sources of harvested materials that the PWROG can provide or help compile. If you would like to attend the workshop and present, that could work or, if you're unable to attend, you could provide input to myself or EPRI that could be incorporated into our slides.

Thanks!
Matt Hiser

Matthew Hiser

Materials Engineer
US Nuclear Regulatory Commission | Office of Nuclear Regulatory Research
Division of Engineering | Corrosion and Metallurgy Branch
Phone: 301-415-2454 | Office: TWFN 10D62
Matthew.Hiser@nrc.gov

From: Burgos, Brian [mailto:bburgos@epri.com]
Sent: Wednesday, January 18, 2017 9:37 AM
To: Hiser, Matthew <Matthew.Hiser@nrc.gov>
Cc: Molkenthin, Jim <molkenjp@westinghouse.com>; Heather Malikowski <Heather.Malikowski@exeloncorp.com>
Subject: [External_Sender] RE: Harvesting Workshop Sessions 3 & 4

Matt,

Per our discussions yesterday regarding the potential that the PWROG may have information related to materials stored in archives at vendors (e.g., surveillance specimens, flux thimble tubes, etc...), please reach out to Jim Molkenthin (WEC Program Manager) and Heather Malikowski (Materials Subcommittee

Chairman). As I mentioned, they would be a good starting point to help with information for archived materials to support your harvesting workshop. They are copied on the email.

Brian

From: Demma, Anne

Sent: Tuesday, January 17, 2017 3:15 PM

To: Hiser, Matthew <Matthew.Hiser@nrc.gov>; Burgos, Brian <bburgos@epri.com>

Cc: Bernhoft, Sherry <sbernhof@epri.com>; Dyle, Robin <rdyle@epri.com>

Subject: RE: Harvesting Workshop Sessions 3 & 4

Matt,

I am forwarding your notes to Brian for his information.

Thank you,

Anne

From: Hiser, Matthew [<mailto:Matthew.Hiser@nrc.gov>]

Sent: Tuesday, January 17, 2017 12:36 PM

To: Bernhoft, Sherry <sbernhof@epri.com>; Rosseel, Thomas M. <rosseeltm@ornl.gov>; Dyle, Robin <rdyle@epri.com>; Demma, Anne <ademma@epri.com>

Cc: Tregoning, Robert <Robert.Tregoning@nrc.gov>; Purtscher, Patrick <Patrick.Purtscher@nrc.gov>

Subject: [EXTERNAL] RE: Harvesting Workshop Sessions 3 & 4

*** Exercise caution. This is an EXTERNAL email. DO NOT open attachments or click links from unknown senders or unexpected email. ***

Thanks everyone for participating today. I appreciate all the comments and suggestions and we'll adjust the agenda accordingly.

One follow-up: could DOE and EPRI identify who they expect their presenter to be for each of the 5 sessions?

Notes from today's call:

- Matt H. described general plans for workshop:
- Non-public, keep participation to around 30 individuals for more focused interactive discussion
- Goal is to have well-balanced discussion of harvesting, not sales pitches for specific projects or programs
- Sherry B. suggested fewer presentations with more panel discussion time
- Plan is for roughly 50-60% presentations and remaining time for discussion
- Sessions 1 and 5 should be primarily panel discussion
- Session 2:
 - Question raised about covering metals, cables, and concrete
 - Agreed that all presenters can cover all three types materials, hopefully just a few slides
 - Suggest presenters focus on high-priority data needs from their organization's perspective
 - Perhaps some background on what informs their priorities

- Session 3:
- Suggestions to include EnergySolutions, PWROG, Korea, Japan, and French presentation slots
- Emphasize to presenters to avoid "sales pitch," but please provide information on sources of materials
- Short ~10 min presentations on sources of materials with remaining time for discussion
- Hopefully use presented information as starting point for previously harvested materials database
- Session 4:
- Longer (20-30 min) presentations focused on forward-looking lessons learned
- Suggestion to reach out to Exelon (Zion experience plus many operating facilities) if Dominion can't support
- Also consider Japan and France for international presentations

Actions:

- Brian Bergos provide Matt with PWROG contact
- Matt look into if affidavit would be needed for any proprietary information from EPRI/industry
- Matt update agenda for sessions 3 and 4 and finalize speakers

Thanks!
Matt

Matthew Hiser

Materials Engineer

US Nuclear Regulatory Commission | Office of Nuclear Regulatory Research

Division of Engineering | Corrosion and Metallurgy Branch

Phone: 301-415-2454 | Office: TWFN 10D62

Matthew.Hiser@nrc.gov

-----Original Appointment-----

From: Hiser, Matthew

Sent: Monday, January 16, 2017 9:48 AM

To: Hiser, Matthew; Bernhoft, Sherry; Rosseel, Thomas M.; Dyle, Robin; Demma, Anne

Subject: Harvesting Workshop Sessions 3 & 4

When: Tuesday, January 17, 2017 1:00 PM-2:00 PM (UTC-05:00) Eastern Time (US & Canada).

Where: Telecon: 888-677-8615 passcode: (b)(6)

888-677-8615 passcode: (b)(6)

<< File: Sessions 3 & 4.docx >> << File: Harvesting Workshop Agenda 1-12-17.docx >>

There have been previous discussions between NRC, DOE, and EPRI on the workshop agenda overall to discuss what the workshop is trying to accomplish and the best way to do so. Those conversations did not dig down into each session and make a final decision on exactly who will be the presenters and topics in each session. Internally here at NRC, we've worked to lay that out in the attached documents.

The purpose of this call is to discuss all the specifics of sessions 3 and 4 to identify the right presenters for each slot. This discussion could also lead to adding, eliminating or changing some of the planned presentations if you all have other ideas or suggestions. Our main goal is to have a well-balanced, comprehensive discussion of harvesting that will benefit all participants. We think working with you all up front to help plan and make decisions will give us a better workshop in the end. So please come with ideas and suggestions for sessions 3 and 4 on sources of materials and lessons learned/practical aspects of harvesting.

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Ex-Plant Materials Harvesting Workshop

Location: NRC Headquarters in Rockville, MD, USA

Dates: March 7-8, 2017

Motivation:

- There are increasing opportunities to harvest the safety-critical components from decommissioning plants, both domestic and international.
- The harvested materials are valuable because they have been exposed to actual in-service plant operating conditions (temperature, irradiation, coolant, etc.), unlike virgin materials tested under simulated conditions in the lab.
- Data from ex-plant materials should help address technical gaps identified for extended operation of nuclear power plants due to highly relevant aging conditions.

Purpose and Objective:

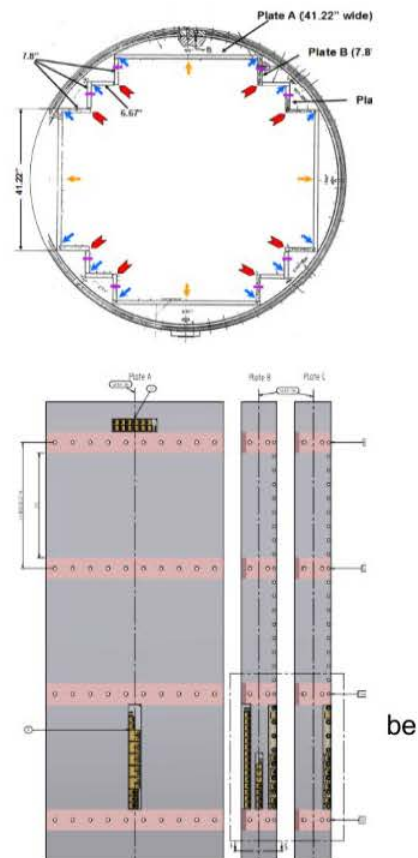
- For NRC staff and interested stakeholders to have greater awareness and knowledge of the benefits and challenges associated with ex-plant harvesting.
- Facilitate contacts and communication to enable specific cooperative ex-plant harvesting programs to be initiated.

Workshop Topics:

- Harvesting decision-making and prioritization
 - Technical data needs best addressed by harvesting
 - Technical information needed in advance of harvesting
- Sources of materials:
 - Decommissioning reactors
 - Operating reactors – replaced components
 - Previous harvesting programs – “boneyards”
 - Tracking available materials
- Harvesting process
 - Lessons learned from harvesting experience
 - Perspective of utility-owner and decommissioning contractor on harvesting
 - Communication and coordination between decommissioning and researchers
- International collaborative programs on specific components at specific plants

Workshop will consist of solicited presentations followed by discussion periods. If interested in attending or learning more about the workshop, please reach out to the contacts below.

Contacts: Robert Tregoning, Robert.Tregoning@nrc.gov
Matthew Hiser, Matthew.Hiser@nrc.gov
Patrick Purtscher, Patrick.Purtscher@nrc.gov



Draft Agenda – March 7-8, 2017 Harvesting Workshop

Tuesday, March 7, 2017

Introduction

- Overview of workshop purpose and objectives

Session 1: Motivation for Harvesting

- Solicited presentations from EPRI, DOE, NRC, and international organizations followed by panel discussion

Session 2: Technical data needs best addressed by harvesting

- Solicited presentations from EPRI, DOE, NRC, and international organizations followed by open discussion

Session 3: Sources of Materials

- Solicited presentations from EPRI, DOE, NRC, and international organizations followed by open discussion

Wednesday, March 8, 2017

Session 4: Harvesting Experience: Lessons learned and practical aspects

- Solicited presentations from EPRI, DOE, NRC, U.S. utility, decommissioning companies, and international organizations followed by open discussion

Session 5: Future Harvesting Program Planning

- Solicited presentations from EPRI, DOE, NRC, and international organizations followed by open and panel discussion

From: [Tregoning, Robert](#)
To: [Lian, Tiangan](#); [Regis NHILL](#)
Cc: [Hiser, Matthew](#); [Purtscher, Patrick](#)
Subject: RE: RE: [External] RE: Harvesting Workshop
Date: Wednesday, January 18, 2017 7:00:05 AM
Attachments: [Condensed Workshop Agenda 12-12-16.docx](#)
[Harvesting Workshop Announcement.docx](#)

Note to requester: The two attachments are both immediately following.

Dr. Nhili:

Thank you for expressing interest in the workshop. I'm not sure how much information TG has shared with you, so I wanted to start by sending you the workshop announcement and the condensed workshop agenda along with a brief summary of the sessions. Each session has a specific theme, or objective, as outlined below (and in the attached agenda).

1. Session 1 will consist of short presentations and a panel discussion on the motivation for harvesting.

2. Session 2 will discuss data needs best met through harvesting.

3. Session 3 will discuss sources of materials for harvesting programs

4. Session 4 will discuss lessons-learned from past harvesting programs and practical aspects associated with harvesting.

5. Session 5 will attempt to summarize the workshop and planning a harvesting program, as well as discuss actions and next steps

Session 1 and 5 will be more panel discussions with only short prepared presentations. The other sessions will have longer technical presentations along with discussion.

We are planning to have both U.S. and international presentations during each session. We are hoping to get both an Asian and European perspective on the issues. From Japan, JNRA, CRIEPI, and possibly representatives from power companies will be participating.

From Europe, we will have participation from SCK and possibly JRC and GRS. I'd be very interested if someone from MAI could possibly participate to provide a broader European perspective. I would welcome contributions from MAI in any of the above sessions, but I'm most interested in your participation in Sessions 1, 2, and/or 5. These sessions are intended to be discuss broader interests that I think MAI may be well-suited to address.

Please let me know if you would like more information or would like to discuss the workshop in more detail. I'm available to call you at your convenience. We are trying to finalize the agenda with speakers and titles by the end of January.

Thank you for your consideration.

Regards,

Rob

Robert Tregoning

Technical Advisor for Materials

US Nuclear Regulatory Commission

Two White Flint North, M/S T-10 A36

11545 Rockville Pike

Rockville, MD 20852-2738

ph: 301-415-2324

fax: 301-415-6671

From: Lian, Tiangan [<mailto:tliau@epri.com>]

Sent: Wednesday, January 18, 2017 5:38 AM

To: Tregoning, Robert <Robert.Tregoning@nrc.gov>

Cc: Regis NHILL <regis.nhili@edf.fr>

Subject: [External_Sender] RE: [External] RE: Harvesting Workshop

Hi Rob:

I talked to MAI director, Regis Nhili briefly about the workshop. Please contact Regis directly and he is happy to discuss with you on this matter. I have copied Regis here for your convenience.

Let me know if you have any questions.

Best regards,

TG

From: Tregoning, Robert [<mailto:Robert.Tregoning@nrc.gov>]

Sent: Thursday, January 12, 2017 12:51 PM

To: Lian, Tiangan <tlia@epri.com>

Subject: [EXTERNAL] RE: Harvesting Workshop

*** Exercise caution. This is an EXTERNAL email. DO NOT open attachments or click links from unknown senders or unexpected email. ***.

T.G.:

I sent you the email below just before the holidays. I wanted to follow up to make sure you received it and also if you could help me identify the correct contact(s) at MAI for discussing possible participation in this workshop on harvesting.

Thanks in advance for your help,

Warm regards,

Rob

Robert Tregoning

Technical Advisor for Materials

US Nuclear Regulatory Commission

Two White Flint North, M/S T-10 A36

11545 Rockville Pike

Rockville, MD 20852-2738

ph: 301-415-2324

fax: 301-415-6671

From: Tregoning, Robert

Sent: Tuesday, December 20, 2016 10:56 AM

To: 'tlia@epri.com' <tlia@epri.com>

Subject: Harvesting Workshop

T.G.:

I hope that this email finds you well and that you and your family are now settled in (b)(6)

I'm writing for a favor from you. In early March, we're hosting a materials harvesting workshop. I've attached the workshop announcement and the condensed agenda.

You can see that we are planning five unique sessions as part of the workshop. Each session has a specific theme, or objective, as outlined below (and in the attached agenda).

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5. Session 5 will attempt to summarize the workshop and planning a harvesting program, as well as discuss actions and next steps

Robin Dyle and Sherry Bernhoft are participating from EPRI and will provide that

perspective. However, we are also looking for some targeted international participation. We

were therefore thinking that someone from MAI might be good to participate in Session 2 (or possibly another session).

What are your thoughts on this idea and, if you think MAI may be able to contribute to the workshop, do you have a POC that you can provide me so that I can see if they're interested?

I hope you and your family have a Happy Holidays and a prosperous New Year.

Regards,

Rob

Robert Tregoning

Technical Advisor for Materials

US Nuclear Regulatory Commission

Two White Flint North, M/S T-10 A36

11545 Rockville Pike

Rockville, MD 20852-2738

ph: 301-415-2324

fax: 301-415-6671

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Draft Agenda – March 7-8, 2017 Harvesting Workshop

Tuesday, March 7, 2017

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Ex-Plant Materials Harvesting Workshop

Location: NRC Headquarters in Rockville, MD, USA

Dates: March 7-8, 2017

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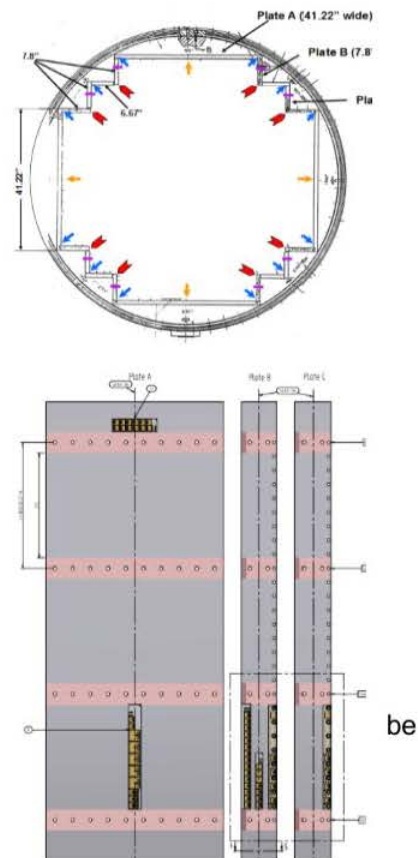
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Contacts: Robert Tregoning, Robert.Tregoning@nrc.gov
Matthew Hiser, Matthew.Hiser@nrc.gov
Patrick Purtscher, Patrick.Purtscher@nrc.gov



From: [Charles A Tomes \(Generation - 6\)](#)
To: [William F Zipp \(Generation - 4\)](#)
Cc: [Hiser, Matthew](#); [Stewart J Yuen \(Generation - 4\)](#); [Paul Aitken \(Generation - 6\)](#)
Subject: [External_Sender] Harvesting Workshop March 7 & 8
Date: Tuesday, January 24, 2017 11:07:11 AM
Attachments: [Harvesting Workshop Announcement.docx](#)
[Condensed Workshop Agenda.docx](#)

Note to requester: The two attachments are immediately following.

Bill

I spoke to Stew last week about the possibility of your participation in the upcoming NRC workshop on harvesting of materials.

The workshop is scheduled for March 7 & 8.

Since it is getting closer I wanted to confirm if you will be able to support the NRC request for Dominion to develop slides to share an industry perspective on harvesting of materials.

If you can support this effort it is my understanding that the NRC would like to receive the slides by the end of February.

If you can support this request your contact at the NRC will be Matt Hiser.

Please give me a call or shoot me an email on your availability.

Thank you,

Chuck Tomes

804-273-4384 office

(b)(6) cell

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Ex-Plant Materials Harvesting Workshop

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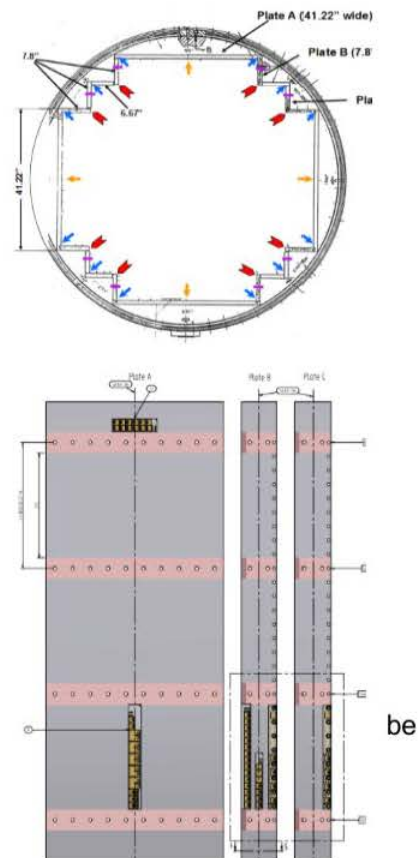
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Matthew Hiser, Matthew.Hiser@nrc.gov
Patrick Purtscher, Patrick.Purtscher@nrc.gov



Draft Agenda – March 7-8, 2017 Harvesting Workshop

Tuesday, March 7, 2017

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- Solicited presentations from EPRI, DOE, NRC, and international organizations followed by open and panel discussion

From: [Hiser, Matthew](#)
To: [Charles A Tomes \(Generation - 6\)](#)
Subject: RE: RE: Harvesting Workshop at NRC HQ
Date: Tuesday, January 24, 2017 10:59:00 AM
Attachments: [Harvesting Workshop Announcement.docx](#)
[Condensed Workshop Agenda.docx](#)

Note to requester: Attachments are immediately following.

Attached are the workshop announcement and agenda.

Matthew Hiser

Materials Engineer

US Nuclear Regulatory Commission | Office of Nuclear Regulatory Research

Division of Engineering | Corrosion and Metallurgy Branch

Phone: 301-415-2454 | Office: TWFN 10D62

Matthew.Hiser@nrc.gov

From: Charles A Tomes (Generation - 6) [<mailto:charles.a.tomes@dom.com>]

Sent: Wednesday, January 11, 2017 11:39 AM

To: Hiser, Matthew <Matthew.Hiser@nrc.gov>

Subject: [External_Sender] RE: Harvesting Workshop at NRC HQ

Mathew

I want to let you know that I am not ignoring your email nor has the issued dropped between the cracks.

We are discussing internally who and how to support your request. I do not have a final decision yet.

We are still discussing the request.

But I wanted for you to know we are addressing your question internally and we plan to get back to you with an answer.

Chuck

From: Hiser, Matthew [<mailto:Matthew.Hiser@nrc.gov>]

Sent: Tuesday, January 03, 2017 3:17 PM

To: Charles A Tomes (Generation - 6)

Subject: [External] RE: Harvesting Workshop at NRC HQ

Hi Chuck,

Hi Chuck,

I just wanted to follow up from this email back before the holidays regarding the harvesting workshop that we are planning for early March. Please let me know if you have any questions and would be interested and able to participate.

Thanks!

Matt

From: Hiser, Matthew

Sent: Monday, December 12, 2016 5:32 PM

To: 'charles.a.tomes@dom.com' <charles.a.tomes@dom.com>

Subject: Harvesting Workshop at NRC HQ

Hi Chuck,

We spoke several months back with Bob Hardies about opportunities for harvesting at Kewaunee.

Bob has since moved on from NRC and NRC's budget has continued to be very tight, so the prospects for moving forward in the near-term on harvesting at Kewaunee are not clear.

However, NRC is working with DOE and EPRI to host a workshop on ex-plant materials harvesting on March 7 and 8, 2017 at NRC headquarters in Rockville, MD. I am working with Rob Tregoning and Pat Purtscher at the NRC on this effort. I have attached a 1-page announcement we've put together

describing the workshop purpose and objectives. Our hope is for this workshop to bring together a diverse group of interested parties: researchers, utilities, decommissioning experts, and regulators, both domestic and international. We're looking to have an open and honest discussion of the benefits and challenges associated with harvesting, including when it makes sense and is effective and when it isn't. The plan is for this to be a non-public workshop (no NRC public meeting requirements) in order to elicit the best and most frank discussion of harvesting.

One of the sessions we're planning is focused on the practical aspects of harvesting and balancing the perspectives and priorities of the different parties involved in a harvesting project: researchers, utility, decommissioning contractor, etc. We would like to invite you to present the utility perspective on harvesting and the decommissioning process. Dominion's position with a decommissioning plant that may be useful for harvesting along with a number of operating reactors makes your perspective a quite valuable and interesting one in the discussion. We're hoping to also have a decommissioning contractor (perhaps EnergySolutions) provide their perspective and experience with harvesting and the decommissioning process in this session, along with a couple researchers with harvesting experience.

Please let me know if I can provide any more information and if you're interested in participating in and presenting at the workshop.

(b)(6)

Thanks!

Matt

Matthew Hiser

Materials Engineer

US Nuclear Regulatory Commission | Office of Nuclear Regulatory Research

Division of Engineering | Corrosion and Metallurgy Branch

Phone: 301-415-2454 | Office: TWFN 10D62

Matthew.Hiser@nrc.gov

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Draft Agenda – March 7-8, 2017 Harvesting Workshop

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Ex-Plant Materials Harvesting Workshop

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Dates: March 7-8, 2017

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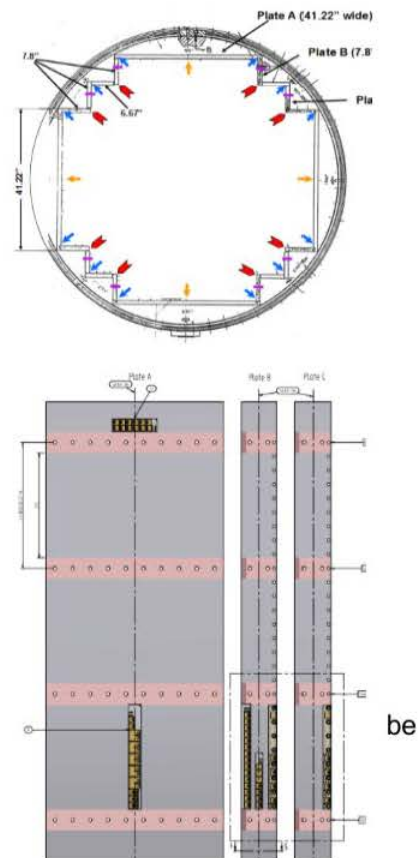
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Contacts: Robert Tregoning, Robert.Tregoning@nrc.gov
Matthew Hiser, Matthew.Hiser@nrc.gov
Patrick Purtscher, Patrick.Purtscher@nrc.gov



From: [Hiser, Matthew](#)
To: Reiner.Mailaender@ensi.ch
Subject: Materials Harvesting Workshop at USNRC
Date: Tuesday, January 24, 2017 11:46:00 AM
Attachments: [Condensed Workshop Agenda.docx](#)
[Harvesting Workshop Announcement.docx](#)

Note to requester: Attachments are immediately following.
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Dear Mr. Mailander:

I am a materials engineer in the NRC's Office of Research and was present for your visit to the NRC last year to discuss plans in Switzerland for harvesting from the Muhleberg plant that will be shutting down in 2019.

I am coordinating a 2-day workshop on ex-plant materials harvesting. This workshop will be held on March 7-8 (one week before NRC's Regulatory Information Conference) here at NRC headquarters. I wanted to make you aware of the workshop and have attached the workshop announcement and session topics for your information.

We are currently working to finalize the agenda. If you have any questions or would like further information, please feel free to contact me.

Sincerely,

Matthew Hiser

Materials Engineer

US Nuclear Regulatory Commission | Office of Nuclear Regulatory Research

Division of Engineering | Corrosion and Metallurgy Branch

Phone: 301-415-2454 | Office: TWFN 10D62

Matthew.Hiser@nrc.gov

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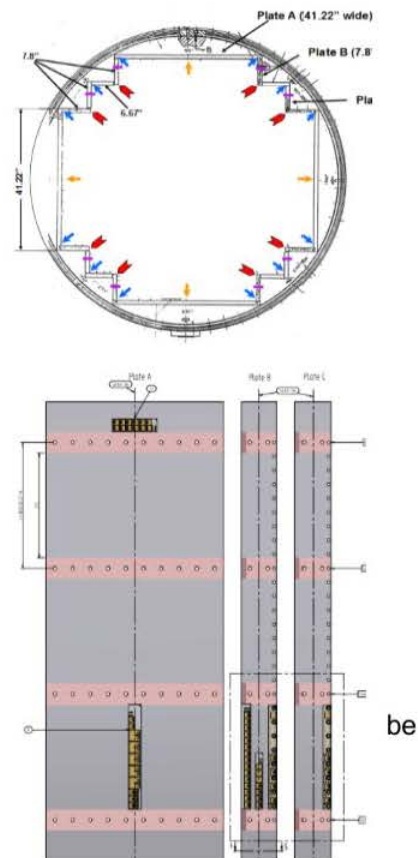
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Contacts: Robert Tregoning, Robert.Tregoning@nrc.gov
Matthew Hiser, Matthew.Hiser@nrc.gov
Patrick Purtscher, Patrick.Purtscher@nrc.gov



From: [Hiser, Matthew](#)
To: ["gpvan Noordennen@energysolutions.com"](mailto:gpvan Noordennen@energysolutions.com)
Subject: Harvesting Workshop at NRC HQ
Date: Wednesday, January 25, 2017 9:58:56 AM
Attachments: [Harvesting Workshop Announcement.docx](#)
[Condensed Workshop Agenda.docx](#)

Note to requester: Attachments are immediately following.

Dear Mr. van Noordennen:

The NRC is working with DOE and EPRI to organize a workshop on ex-plant materials harvesting on March 7-8 in Rockville, MD. I understand through Tom Rosseel at ORNL that you are willing to present for EnergySolutions. I've attached the workshop announcement and session topics to this email.

Would you have some time this week for a brief phone call to discuss the workshop and the session we're hoping you can present in? If so, please let me know your availability and a good contact number.

Thanks!

Matt

Matthew Hiser

Materials Engineer

US Nuclear Regulatory Commission | Office of Nuclear Regulatory Research

Division of Engineering | Corrosion and Metallurgy Branch

Phone: 301-415-2454 | Office: TWFN 10D62

Matthew.Hiser@nrc.gov

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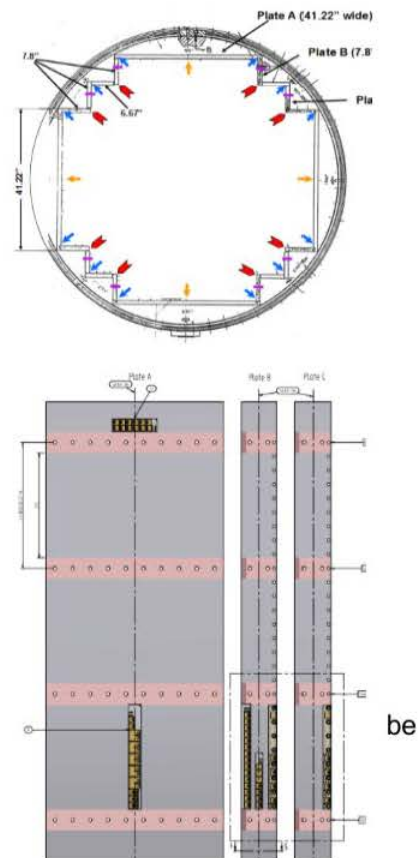
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Draft Agenda – March 7-8, 2017 Harvesting Workshop

Tuesday, March 7, 2017

Introduction

- Overview of workshop purpose and objectives

Session 1: Motivation for Harvesting

- Solicited presentations from EPRI, DOE, NRC, and international organizations followed by panel discussion

Session 2: Technical data needs best addressed by harvesting

- Solicited presentations from EPRI, DOE, NRC, and international organizations followed by open discussion

Session 3: Sources of Materials

- Solicited presentations from EPRI, DOE, NRC, and international organizations followed by open discussion

Wednesday, March 8, 2017

Session 4: Harvesting Experience: Lessons learned and practical aspects

- Solicited presentations from EPRI, DOE, NRC, U.S. utility, decommissioning companies, and international organizations followed by open discussion

Session 5: Future Harvesting Program Planning

- Solicited presentations from EPRI, DOE, NRC, and international organizations followed by open and panel discussion

From: [Tregoning, Robert](#)
To: [Arai, Taku](#); [Sadao Higuchi](#)
Cc: [Soneda, Naoki](#); [Hiser, Matthew](#); [Purtscher, Patrick](#)
Subject: FW: Re: Harvesting Workshop Announcement
Date: Tuesday, January 31, 2017 8:20:07 AM
Attachments: [Ex-Plant Materials Harvesting Workshop.pptx](#)
[Harvesting Workshop Announcement.docx](#)
[Condensed Workshop Agenda.docx](#)

Note to requester: Attachments are immediately following.

Dr. Arai and Dr. Higuchi:

Thank you for your interest and willingness to participate in the workshop. I have attached the workshop announcement and condensed agenda along with a few slides describing the motivation for the workshop and the expectations for each session. The workshop is divided into 5 sessions, each with a combination of presentations and discussion:

1. Session 1 will consist of short presentations and a panel discussion on the motivation for harvesting.
2. Session 2 will discuss data needs best met through harvesting.
3. Session 3 will discuss sources of materials for harvesting programs
4. Session 4 will discuss lessons-learned from past harvesting programs and practical aspects associated with harvesting.
5. Session 5 will attempt to summarize the workshop and planning a harvesting program, as well as discuss actions and next steps

We would like to invite you to present in any of Sessions 2, 3, or 4. For session 3, we are looking for brief 5-10 minute presentations, so just a few slides at most on sources of materials. For sessions 2 and 4, the presentations are anticipated to be longer, perhaps 20-30 minutes, covering data needs best addressed through harvesting (session 2) and lessons learned from previous harvesting experience (session 4).

Please let me know if you would be able to participate and which sessions you would be willing to support, along with presentation titles. We will look forward to your participation and contribution to the workshop!

Warm regards,

Rob

Robert Tregoning
Technical Advisor for Materials
US Nuclear Regulatory Commission
Two White Flint North, M/S T-10 A36
11545 Rockville Pike
Rockville, MD 20852-2738
ph: 301-415-2324
fax: 301-415-6671

-----Original Message-----

From: Soneda, Naoki [<mailto:soneda@criepi.denken.or.jp>]
Sent: Monday, January 30, 2017 8:38 AM
To: Tregoning, Robert <Robert.Tregoning@nrc.gov>
Cc: Arai, Taku <arait@criepi.denken.or.jp>; Sadao Higuchi <higuchi@criepi.denken.or.jp>
Subject: [External_Sender] Re: Harvesting Workshop Announcement

Dear Rob,

Sorry for my late response. I talked to several stakeholders about our presentation at the workshop. At this point of

time, it looks we should make a presentation in Session I on the motivation for harvesting.

CRIEPI has a lot of experiences on characterizing materials from nuclear reactors. We would like to talk about our motivation for harvesting in light of such experiences.

I learned that I need to stay within Japan during that week, and Dr.

Taku Arai and Dr. Sadao Higuchi will participate the workshop from CRIEPI. These two people are deeply involved in the discussions on future possible researches of decommissioned materials in Japan, even though such discussions are still in a very early stage. So I think they can contribute to discussions in other sessions as well.

I would appreciate if you could provide me with any new information about the workshop so that my colleagues can start preparing for the workshop. You can find their e-mail addresses in the Cc: fields of this message.

Best regards,
Naoki

Tregoning, Robert wrote on 2017/01/04 20:40:

> Naoki:

>

> That sounds great. I look forward to hearing from you.

>

> Regards,

>

> Rob

>

> -----Original Message-----

> From: Soneda, Naoki [<mailto:soneda@criepi.denken.or.jp>]

> Sent: Tuesday, January 03, 2017 7:01 PM

> To: Tregoning, Robert <Robert.Tregoning@nrc.gov>; Hiser, Matthew

> <Matthew.Hiser@nrc.gov>

> Cc: Rosseel, Thomas M. <rosseeltm@ornl.gov>; Sokolov, Mikhail A.

> <sokolovm@ornl.gov>; Arai, Taku <arait@criepi.denken.or.jp>; 坂本 一信

> <kazunobu_sakamoto@nsr.go.jp>

> Subject: [External_Sender] Re: Harvesting Workshop Announcement

>

> Rob,

>

> Thank you for the information. The end of January is a good target because I will have time to discuss several people who are interested in working on harvesting activities. Let's keep in touch.

>

> Best regards,

> Naoki

>

> Tregoning, Robert wrote on 2017/01/03 21:23:

>> Naoki:

>>

>> Thank you for your reply and interest in the workshop. We would certainly like CRIEPI to attend and hopefully participate in the workshop. We're just now starting to planning the talks for the individual sessions so there is certainly time for you to discuss with your colleagues the contribution that you would like to propose. I am hoping that we can have the titles and speakers for all the talks confirmed by the end of January. We will certainly be in contact with you during this planning period. Please let me know if you have any other questions in the interim.

>>

>> Warm regards,

>>

>> Rob

>>

>> -----Original Message-----

>> From: Soneda, Naoki [<mailto:soneda@criepi.denken.or.jp>]

>> Sent: Monday, December 26, 2016 1:49 AM
>> To: Tregoning, Robert <Robert.Tregoning@nrc.gov>; Hiser, Matthew
>> <Matthew.Hiser@nrc.gov>
>> Cc: Rosseel, Thomas M. <rosseeltm@ornl.gov>; Sokolov, Mikhail A.
>> <sokolovm@ornl.gov>; Arai, Taku <arait@criepi.denken.or.jp>; 坂本 一信
>> <kazunobu_sakamoto@nsr.go.jp>
>> Subject: [External_Sender] Re: Harvesting Workshop Announcement
>>
>> Dear Rob,
>>
>> Thank you very much for your response. We am now discussing with our Japanese colleagues on the session
where we can make a contribution. I would appreciate if you could allow us some more time. In any case, CRIEPI
would like to participate the workshop if it is acceptable with you.
>>
>> At this moment, I have no idea about the organizations, other than NRA, which are interested in participating.
>>
>> Best regards,
>> Naoki
>>
>> Tregoning, Robert wrote on 2016/12/20 23:47:
>>> Dear Dr. Sonada:
>>>
>>> Thank you so much for your email and your inquiry about the harvesting workshop. I apologize for not
responding to you sooner, but last week was very busy for me. I've attached a workshop announcement as well as a
condensed workshop agenda for your information. You can see that we are planning five unique sessions as part of
the workshop. Each session has a specific theme, or objective, as outlined below (and in the attached agenda).
>>> 1. Session 1 will consist of short presentations and a panel discussion on the motivation for harvesting.
>>> 2. Session 2 will discuss data needs best met through harvesting.
>>> 3. Session 3 will discuss sources of materials for harvesting
>>> programs 4. Session 4 will discuss lessons-learned from past harvesting programs and practical aspects
associated with harvesting.
>>> 5. Session 5 will attempt to summarize the workshop and planning a
>>> harvesting program, as well as discuss actions and next steps
>>>
>>> Do you have a particular session in mind where you would like to make a presentation? If so, can you please
send me a proposed title?
>>>
>>> Also, we are trying to keep the workshop participation fairly small to make sure that we can have meaningful
discussion. I've been in contact with Kazu Sakamoto from NRAJ and want to make sure that we work together to
get the right organizations from Japan to participate. Can you tell me what other organizations are interested in
participating?
>>>
>>> Thank you again for your interest. I'm hoping that the workshop will be successful for all participants. I hope
you and your family have a Happy Holidays and a prosperous New Year as well.
>>>
>>> Regards,
>>>
>>> Rob
>>>
>>> Robert Tregoning
>>> Technical Advisor for Materials
>>> US Nuclear Regulatory Commission
>>> Two White Flint North, M/S T-10 A36
>>> 11545 Rockville Pike
>>> Rockville, MD 20852-2738
>>> ph: 301-415-2324
>>> fax: 301-415-6671

>>>
>>>
>>> -----Original Message-----
>>> From: Soneda, Naoki [<mailto:soneda@criepi.denken.or.jp>]
>>> Sent: Wednesday, December 14, 2016 4:18 AM
>>> To: Tregoning, Robert <Robert.Tregoning@nrc.gov>; Hiser, Matthew
>>> <Matthew.Hiser@nrc.gov>
>>> Cc: Rosseel, Thomas M. <rosseeltm@ornl.gov>; Sokolov, Mikhail A.
>>> <sokolovm@ornl.gov>; Arai, Taku <arait@criepi.denken.or.jp>
>>> Subject: [External_Sender] Harvesting Workshop Announcement
>>>
>>> Dear Dr. Tregoning and Dr. Hiser,
>>>
>>> Dr. Rosseel of ORNL kindly let me know that the USNRC is organizing a material harvesting workshop in
March, and I am writing you to ask if there is any chance for us to participate and contribute, somehow, to the
workshop.
>>>
>>> We, CRIEPI, are working with Tom and Dr. Sokolov of ORNL on the characterization of RPV materials from
Zion Unit 1 under the US-Japan collaboration. We also have some discussions in Japan about materials harvesting
from decommissioned Japanese LWRs because some of the Japanese utilities decided permanent shutdown of some of
the old LWRs. So, materials harvesting is becoming a hot topic in Japan, and we are very much interested in
participating in the workshop.
>>>
>>> I would appreciate if our participation in the workshop is acceptable with the USNRC, and if so, please let me
know your current idea about the scope of the workshop so that we can discuss how we can contribute to the
workshop.
>>>
>>> I would like to send at least one researcher from CRIEPI, but some people from other organizations in Japan
may also like to participate.
>>>
>>> I look forward to hearing from you.
>>>
>>> Best regards,
>>> Naoki
>>>
>>> --
>>> ---
>>> Naoki Soneda, Dr.
>>> Director, Materials Science Research Laboratory CRIEPI
>>> 2-6-1 Nagasaka, Yokosuka-shi, Kanagawa 240-0196
>>> Phone: 070-6568-9287
>>> Fax: 046-856-5571
>>> E-mail: soneda@criepi.denken.or.jp
>>>
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>> Naoki Soneda, Dr.
>> Materials Science Research Laboratory CRIEPI
>> 2-6-1 Nagasaka, Yokosuka-shi, Kanagawa 240-0196
>> Phone: 070-6568-9287
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Materials Science Research Laboratory
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Phone: 070-6568-9287
Fax: 046-856-5571
E-mail: soneda@criepi.denken.or.jp

Ex-Plant Materials Harvesting Workshop

March 7-8, 2017

USNRC HQ

Rockville, MD, USA

Motivation

- With plants shutting down both in the U.S. and internationally, there are increasing opportunities to harvest components from decommissioning plants
 - Past harvesting efforts generally more reactive as opportunities arose, rather than proactively planned
- Ex-plant materials may be valuable because they have been exposed to actual in-service plant operating conditions
 - Can reduce the uncertainty associated with the applicability of the aging conditions
- Insights from research on harvested materials can address technical data needs identified for extended plant operation
- Lessons learned from past harvesting programs can help improve future harvesting efforts
 - Challenges encountered in previous programs can be shared and mitigated or avoided in future programs

Approach

- Domestic and international researchers, industry, regulators, and decommissioning companies' discuss benefits and challenges with ex-plant harvesting
 - Encourage sharing of lessons learned as well as areas of common interest
- Workshop consists of topical sessions with short presentations and significant time for open discussion
 - Goal is to maximize engagement among meeting participants
- Scope includes any materials aging issue that could benefit from harvesting, including metals, cables, and concrete

Expected Outcome

- Participants become better informed and aware of the benefits and challenges associated with ex-plant harvesting
- Discussions help identify areas of common interest for harvesting to address technical data needs
- Presentations and discussions provide the starting point for a “database” of harvested materials and future harvesting opportunities
- Contacts are made among research organizations to allow for further discussion of specific harvesting projects

Session Expectations

- Session 1 Motivation for Harvesting
 - Perspective from panel participants on their organizations' interest in and motivation for harvesting
 - Brief (5-10 minute) presentation from each panel member followed by general discussion
- Session 2 Technical Data Needs for Harvesting
 - Presenters share high-priority data needs that may be best addressed by harvesting
 - Where does harvesting hold particular value compared to other sources of technical data
 - 15-20 minute presentations followed by open discussion of technical data needs for harvesting

Session Expectations

- Session 3 Sources of Materials
 - Information on previously harvested materials and future harvesting opportunities
 - Materials located at research and vendor facilities
 - Decommissioning plants that may allow for future harvesting
 - Short 5-10 minute presentations followed by open discussion
 - Starting point for potential database of previously harvested materials and future harvesting opportunities
- Session 4 Harvesting Experience: Lessons Learned and Practical Aspects
 - Improving future efforts with lessons learned from past programs
 - Pitfalls to avoid and strategies to improve likelihood of success
 - Practical perspective from non-researchers on how harvesting interfaces with the decommissioning process
 - International decommissioning and harvesting experience
 - 20-30 minute presentations followed by open discussion

Session Expectations

- Session 5 Future Harvesting Program Planning
 - Technical and logistical information needed when planning a specific harvesting program
 - Perspective from panel participants on the workshop
 - Next steps and actions from workshop
 - Potential areas of common interest for future harvesting programs
 - Brief (5-10 minute) presentation from each panel member followed by general discussion

Ex-Plant Materials Harvesting Workshop

Location: NRC Headquarters in Rockville, MD, USA

Dates: March 7-8, 2017

Motivation:

- There are increasing opportunities to harvest the safety-critical components from decommissioning plants, both domestic and international.
- The harvested materials are valuable because they have been exposed to actual in-service plant operating conditions (temperature, irradiation, coolant, etc.), unlike virgin materials tested under simulated conditions in the lab.
- Data from ex-plant materials should help address technical gaps identified for extended operation of nuclear power plants due to highly relevant aging conditions.

Purpose and Objective:

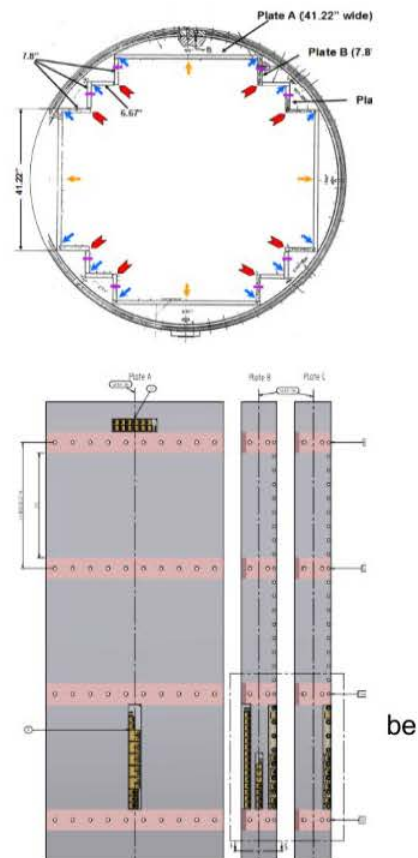
- For NRC staff and interested stakeholders to have greater awareness and knowledge of the benefits and challenges associated with ex-plant harvesting.
- Facilitate contacts and communication to enable specific cooperative ex-plant harvesting programs to be initiated.

Workshop Topics:

- Harvesting decision-making and prioritization
 - Technical data needs best addressed by harvesting
 - Technical information needed in advance of harvesting
- Sources of materials:
 - Decommissioning reactors
 - Operating reactors – replaced components
 - Previous harvesting programs – “boneyards”
 - Tracking available materials
- Harvesting process
 - Lessons learned from harvesting experience
 - Perspective of utility-owner and decommissioning contractor on harvesting
 - Communication and coordination between decommissioning and researchers
- International collaborative programs on specific components at specific plants

Workshop will consist of solicited presentations followed by discussion periods. If interested in attending or learning more about the workshop, please reach out to the contacts below.

Contacts: Robert Tregoning, Robert.Tregoning@nrc.gov
Matthew Hiser, Matthew.Hiser@nrc.gov
Patrick Purtscher, Patrick.Purtscher@nrc.gov



Draft Agenda – March 7-8, 2017 Harvesting Workshop

Tuesday, March 7, 2017

Introduction

- Overview of workshop purpose and objectives

Session 1: Motivation for Harvesting

- Solicited presentations from EPRI, DOE, NRC, and international organizations followed by panel discussion

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- Solicited presentations from EPRI, DOE, NRC, and international organizations followed by open discussion

Session 3: Sources of Materials

- Solicited presentations from EPRI, DOE, NRC, and international organizations followed by open discussion

Wednesday, March 8, 2017

Session 4: Harvesting Experience: Lessons learned and practical aspects

- Solicited presentations from EPRI, DOE, NRC, U.S. utility, decommissioning companies, and international organizations followed by open discussion

Session 5: Future Harvesting Program Planning

- Solicited presentations from EPRI, DOE, NRC, and international organizations followed by open and panel discussion

From: [Tregoning, Robert](#)
To: [Yasuhiro Chimi](#)
Cc: [Hiser, Matthew](#); [Purtscher, Patrick](#)
Subject: Participation in Harvesting workshop from JAEA
Date: Tuesday, January 31, 2017 9:03:14 AM
Attachments: [Ex-Plant Materials Harvesting Workshop.pptx](#)
[Harvesting Workshop Announcement.docx](#)
[Condensed Workshop Agenda.docx](#)

Note to requester: All attachments are immediately following.

Dr. Chimi:

Thank you for your interest in the workshop. I have attached the workshop announcement and condensed agenda along with a few slides describing the motivation for the workshop and the expectations for each session. The workshop is divided into 5 sessions, each with a combination of presentations and discussion:

1. Session 1 will consist of short presentations and a panel discussion on the motivation for harvesting.
2. Session 2 will discuss data needs best met through harvesting.
3. Session 3 will discuss sources of materials for harvesting programs
4. Session 4 will discuss lessons-learned from past harvesting programs and practical aspects associated with harvesting.
5. Session 5 will attempt to summarize the workshop and planning a harvesting program, as well as discuss actions and next steps

We would like to invite you to present in any of these sessions. For sessions 1, 3, and 5, we are looking for brief 5-10 minute presentations, so just a few slides at most on motivation for harvesting, sources of materials, and any future harvesting plans. For sessions 2 and 4, the presentations are anticipated to be longer, perhaps 20-30 minutes, covering data needs best addressed through harvesting (session 2) and lessons learned from previous harvesting experience (session 4).

For logistics, the workshop will be held at NRC's headquarters, which is at the White Flint Metro station:

Three White Flint North
11601 Landsdown Street
North Bethesda, MD 20852

The nearest hotel is across the street: <http://www.marriott.com/hotels/travel/wasbn-bethesda-north-marriott-hotel-and-conference-center/>. Please let me know if you need any other information regarding location or accommodations.

Please also let me know if you would be able to participate and which sessions you would be willing to support. I look forward to your participation and contributions to the workshop!

Regards,

Rob

Robert Tregoning
Technical Advisor for Materials
US Nuclear Regulatory Commission
Two White Flint North, M/S T-10 A36
11545 Rockville Pike
Rockville, MD 20852-2738
ph: 301-415-2324
fax: 301-415-6671

-----Original Message-----

From: Yasuhiro Chimi [<mailto:chimi.yasuhiro@jaea.go.jp>]

Sent: Tuesday, January 31, 2017 2:05 AM

To: Tregoning, Robert <Robert.Tregoning@nrc.gov>

Subject: [External_Sender] RE: Participation in Harvesting workshop from JAEA

Dear Mr. Robert Tregoning,

My name is Yasuhiro Chimi. I'm a member of Nuclear Safety Research Center, Japan Atomic Energy Agency (JAEA), and in charge of IASCC study of stainless steels.

As Mr. Kazunobu Sakamoto told you, I would like to attend the harvesting workshop. Could you give me some more information on the workshop, such as registration, venue, accommodation, how to get there, etc.?

I'm looking forward to hearing from you.

Sincerely yours,

Yasuhiro Chimi

Yasuhiro Chimi, Ph.D.

Materials and Water Chemistry Research Group Materials and Structural Integrity Research Division Nuclear Safety Research Center Sector of Nuclear Safety Research and Emergency Preparedness Japan Atomic Energy Agency (JAEA)

Phone: +81-29-282-6473 , Fax: +81-29-282-5406

E-mail: chimi.yasuhiro@jaea.go.jp

-----Original Message-----

From: Tregoning, Robert [<mailto:Robert.Tregoning@nrc.gov>]

Sent: Monday, January 23, 2017 11:01 PM

To: 坂本 一信 <kazunobu_sakamoto@nsr.go.jp>

Cc: chimi.yasuhiro@jaea.go.jp; Yutaka Nishiyama (nishiyama.yutaka93@jaea.go.jp)

<nishiyama.yutaka93@jaea.go.jp>; 高倉 賢一 <kenichi_takakura01@nsr.go.jp>; 田口

清貴 <kiyotaka_taguchi@nsr.go.jp>; Purtscher, Patrick <Patrick.Purtscher@nrc.gov>; Hiser, Matthew <Matthew.Hiser@nrc.gov>

Subject: RE: Participation in Harvesting workshop from JAEA

Kazu:

It's always so good to hear from you. I look forward to hearing from your colleague at JAEA about participation in the harvesting workshop. I also will be in touch with you shortly to coordinate and finalize the contributions from Japan so that we can finalize the agenda.

Warm regards,

Rob

Robert Tregoning

Technical Advisor for Materials

US Nuclear Regulatory Commission

Two White Flint North, M/S T-10 A36
11545 Rockville Pike
Rockville, MD 20852-2738

ph: 301-415-2324

fax: 301-415-6671

From: 坂本 一信 [mailto:kazunobu_sakamoto@nsr.go.jp]

Sent: Thursday, January 19, 2017 9:19 PM

To: Tregoning, Robert <Robert.Tregoning@nrc.gov>

Cc: chimi.yasuhiro@jaea.go.jp; Yutaka Nishiyama (nishiyama.yutaka93@jaea.go.jp)
<nishiyama.yutaka93@jaea.go.jp>; 高倉 賢一 <kenichi_takakura01@nsr.go.jp>; 田口
清貴 <kiyotaka_taguchi@nsr.go.jp>

Subject: [External_Sender] Participation in Harvesting workshop from JAEA

Hi Rob,

A staff of our technical support organization JAEA wants to participate in the workshop and will contact you soon.

So I would appreciate if you could accept his participation.

Thanks for your cooperation in advance.

Best regards,

Kazu

Ex-Plant Materials Harvesting Workshop

March 7-8, 2017

USNRC HQ

Rockville, MD, USA

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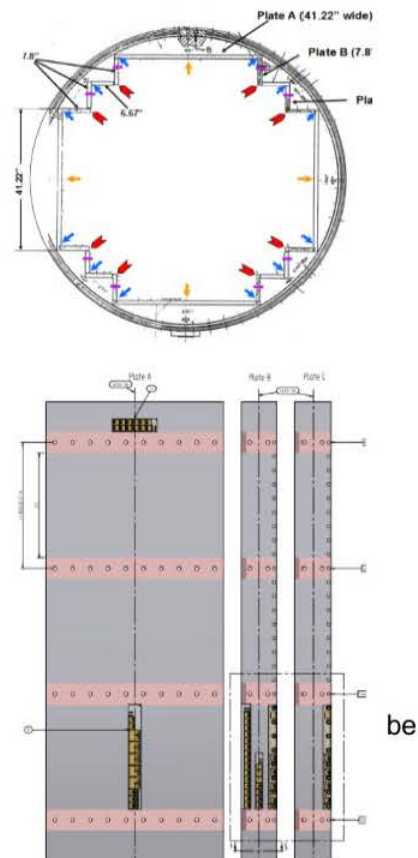
- For NRC staff and interested stakeholders to have greater awareness and knowledge of the benefits and challenges associated with ex-plant harvesting.
- Facilitate contacts and communication to enable specific cooperative ex-plant harvesting programs to be initiated.

Workshop Topics:

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Matthew Hiser, Matthew.Hiser@nrc.gov
Patrick Purtscher, Patrick.Purtscher@nrc.gov



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