

Group 5

FOIA/PA NO: 2013-0332

RECORDS BEING RELEASED IN PART

The following types of information are being withheld:

- Ex. 1: Records properly classified pursuant to Executive Order 13526
- Ex. 2: Records regarding personnel rules and/or human capital administration
- Ex. 3: Information about the design, manufacture, or utilization of nuclear weapons
 - Information about the protection or security of reactors and nuclear materials
 - Contractor proposals not incorporated into a final contract with the NRC
 - Other _____
- Ex. 4: Proprietary information provided by a submitter to the NRC
 - Other _____
- Ex. 5: Draft documents or other pre-decisional deliberative documents (D.P. Privilege)
 - Records prepared by counsel in anticipation of litigation (A.W.P. Privilege)
 - Privileged communications between counsel and a client (A.C. Privilege)
 - Other _____
- Ex. 6: Agency employee PII, including SSN, contact information, birthdates, etc.
 - Third party PII, including names, phone numbers, or other personal information
- Ex. 7(A): Copies of ongoing investigation case files, exhibits, notes, ROI's, etc.
 - Records that reference or are related to a separate ongoing investigation(s)
- Ex. 7(C): Special Agent or other law enforcement PII
 - PII of third parties referenced in records compiled for law enforcement purposes
- Ex. 7(D): Witnesses' and Allegers' PII in law enforcement records
 - Confidential Informant or law enforcement information provided by other entity
- Ex. 7(E): Law Enforcement Technique/Procedure used for criminal investigations
 - Technique or procedure used for security or prevention of criminal activity
- Ex. 7(F): Information that could aid a terrorist or compromise security

Other/Comments: _____

Heater, Keith

From: Floyd, Niklas
Sent: Tuesday, September 17, 2013 12:55 AM
To: Heater, Keith
Subject: FOIA: Question from Bruce Skud of No More Fukishimas!

From: Conte, Richard
Sent: Wednesday, January 30, 2013 2:24 PM
To: Lamb, John; Philip, Jacob
Cc: Khanna, Meena; Floyd, Niklas; Cook, William; Trapp, James
Subject: RE: Question from Bruce Skud of No More Fukishimas!

Jake, please help me out with spelling.

Canada has Gentilly II.

Belgium has Tihange II

Japan, not sure of name but the nuclear plant has it in the foundation of Turbine pedestal, not sure it is operating, perhaps research knows more.

We should most likely put link to any information on these plant on our web page for Seabrook ASR. Are there links in English that will help, Jake?

It you have such links please provide them

From: Lamb, John
Sent: Wednesday, January 30, 2013 2:19 PM
To: Conte, Richard
Cc: Khanna, Meena
Subject: Question from Bruce Skud of No More Fukishimas!
Importance: High

Rich,

I got a voicemail from Bruce Skud of No More Fukishimas! He read an internet article from a Canadian paper (not sure which one) that reported 3 nuclear plants have ASR concerns. Obviously, Seabrook is one plant and Mr. Skud knows that. Mr. Skud wants to know who the other two nuclear plants are. Besides Seabrook, I know there are no other US nuclear plants that have ASR concerns. I thought I read awhile back that a European plant (I think in Belgium) that found ASR.

Do you know, besides Seabrook, which nuclear plants have ASR concerns? Do you want to answer Mr. Skud? His email is (b)(6)

Thanks.
John

NIST ASR Scoping Study

Comments for NIST

HS Lew Slides

1. Slide#13 – Technical Plan – key point of NIST study
Can the study further determine a correlation between the measurement of mechanical properties from cores in the unconfined versus confined condition?
2. Slide#18 - Technical Plan – methodology for assessing capacity of ASR impacted structures
Can the study make recommendations on measurement errors on monitoring ASR impacted concrete and how to bound the uncertainties so as to assure the structural evaluations are conservative?

K Snyder Slides

1. Slide #9 – Materials Plan – Existing Structures
Can the NIST test program address the correlation between ASR expansion and combined crack index? Can it assess the efficacy of measuring only surface cracking versus expansions in 3-D?
2. Is there a way to assess the impact of ASR on rebar stresses? Can the study relate rebar stresses as a function of either ASR reaction or measured expansion? Can we assess whether the reinforcement stays in the elastic range versus plastic range at higher levels of expansion (e.g., 6%, 8%, 10%). What would be the impact on capacity? At what point would continued expansion be detrimental to structural capacity relative to adding prestress to the reinforcement?

Questions for NextEra

- a. Slide #5 – There seems to be some differences reported regarding the impact of ASR on concrete properties. Compare this slide with the Bayrak White Paper – “Structural Implications of ASR, State of the Art,” page 6. The literature review by NIST shows a larger decrease in properties and at a much lower expansion. (by a factor of 10). Have we sufficiently challenged / validated the literature research by UT/NextEra?
- b. Slide #9 – “meaningful correlation between expansion and development length not possible due to paucity of data.” The case for development length is different than for shear capacity, for which there is more available test data. What implication does this have to the Seabrook testing of bond strength/development length at FSEL given the relatively low amount of test data. Given the potential scatter in test results and relatively low amount of test data, the associated uncertainty in applying the FSEL results to Seabrook structural evaluations seems to greater.

Heater, Keith

From: Floyd, Niklas
Sent: Tuesday, September 17, 2013 12:57 AM
To: Heater, Keith
Subject: FOIA: Some food for thought - see attached DRAFT

From: Buford, Angela
Sent: Wednesday, February 06, 2013 1:55 PM
To: Cook, William; Raymond, William
Cc: Trapp, James; Conte, Richard; Floyd, Niklas
Subject: RE: Some food for thought - see attached DRAFT

Bill, Sorry for the late response – Just getting through my emails from last week and being out the beginning of this week.

I had the same comment regarding item #4, and agree with adding verbiage along the lines as what is stated below, but I'd like to discuss whether we should be asking up front for a plan for the licensee to "baseline" the current condition of structures/ASR severity prior to CCI or monitoring efforts, and prior to completion of testing in Texas. Regardless of the anticipated conclusions/results of the testing, the SMP should include provisions to understand the relationship between the visual survey and the ASR beneath the surface.

If you have time, give me a call to discuss.

From: Cook, William
Sent: Friday, February 01, 2013 9:15 AM
To: Raymond, William
Cc: Trapp, James; Conte, Richard; Buford, Angela; Floyd, Niklas; Cook, William
Subject: RE: Some food for thought - see attached DRAFT

If it works for you, no problem for me.

Jim and I talked this morning and item #4 may need to be revised. Specifically, we (the team and ASR Working Group) may be able to accept a revision to the SMP for CAL item closure (Revision 3, as we outlined with NextEra last week), but accept it with a stated (documented in the report) understanding that the SMP may be revised after the testing is completed, that validates the structural performance and the adequacy of the CCI methodology for non-destructive monitoring, and/or as a result of the license renewal process.

Bill

From: Raymond, William
Sent: Friday, February 01, 2013 7:54 AM
To: Cook, William; Conte, Richard; Trapp, James; Buford, Angela; Floyd, Niklas
Subject: RE: Some food for thought - see attached DRAFT

Bill
This is very well stated. I endorse each point.
Can I quote you in the 5059 paper?
Bill

From: Cook, William
Sent: Thursday, January 31, 2013 5:53 PM

To: Conte, Richard; Raymond, William; Trapp, James; Buford, Angela; Floyd, Niklas
Subject: Some food for thought - see attached DRAFT

William A. Cook
Senior Reactor Analyst,
USNRC, Region I

(610) 337-5074 (work)

(b)(6) (cell)

Heater, Keith

From: Floyd, Niklas
Sent: Tuesday, September 17, 2013 1:05 AM
To: Heater, Keith
Subject: FOIA: Response to Request - Seabrook ASR Licensing Approach Outline
Attachments: ASR Outline Reg Process - Rev 3.docx

From: Conte, Richard
Sent: Wednesday, February 20, 2013 7:53 AM
To: Khanna, Meena; Cook, William; Trapp, James; Raymond, William
Cc: Lamb, John; McMurtray, Anthony; Dentel, Glenn; Chaudhary, Suresh; Floyd, Niklas
Subject: RE: Response to Request - Seabrook ASR Licensing Approach Outline

I changed the title of the file slightly, made no other modifications. Good document as to where we are headed in combination with the below email.

My plans on this are to put it on the working group agenda to summarize and ensure the working group is on board - tentative working group meeting is March 13 instead of March 6 – due to scheduling conflicts in Region I.

You can certainly brief your management now but I would like input from Bill Raymond on the gory details that Mr. O'Keefe was stating. I would like more details on the issue myself before I forward this to Jim Clifford and Chris Miller.

In my discussion with Jim Trapp we would shoot for the end of March to get the ASR Executives together (that is about a quarter after the last brief – we should start to plan it now) together assuming the working group thinks there is substantial developments to this point. I think this email and the attachment is a development in and of itself. Not sure all staff is onboard about whether the 50.59 for the FSAR change screens in or out – I think it depends on how the change is defined.

More to come, there is an inspection next week. Perhaps Bill Raymond can discuss the past violation with Mr. O'Keefe next week.

Any response please call me or see me.

Rich Conte, Seabrook ASR Team Lead, Region I
(610) 337-5183 (Office)
(b)(6) (NRC cell)

From: Khanna, Meena
Sent: Tuesday, February 19, 2013 7:36 PM
To: Conte, Richard; Cook, William; Trapp, James; Raymond, William
Cc: Lamb, John; McMurtray, Anthony
Subject: Response to Request - Seabrook ASR Licensing Approach Outline
Importance: High

Rich, Bill, and Jim,

(b)(5)

03

82
(b)(5)

OGC agreed (b)(5)

(b)(5)

and the licensee makes a final operability determination, due to the high public interest of this issue.

I also called (b)(5)

(b)(5)

We hope that this helps and please contact John L. or myself if you have any further questions.

Rich, I need to find some time to brief my management of this and then we can proceed with going forward.

Thanks,
Meena

Seabrook ASR – Regulatory Process Overview and Approach

1. The licensee has performed (b)(5)

(b)(5)
2. Seabrook submitted (b)(5)

(b)(5)

 - 2.1. Evaluation of impact of (b)(5) at NRC request.
 - 2.2. 10 CFR 50.71(e) requires the Final Safety Analysis Report (FSAR) to be updated with "...all analyses of new safety issues performed by or on behalf of the applicant or licensee at Commission request."
 - 2.3. The FSAR update must, "...assure that the information included in the report contains the latest information developed. This submittal shall contain all the changes necessary to reflect information and analyses submitted to the Commission by the ... licensee ..."
3. Therefore, (b)(5)

(b)(5)

 - 3.1.

(b)(5)
 - 3.2.

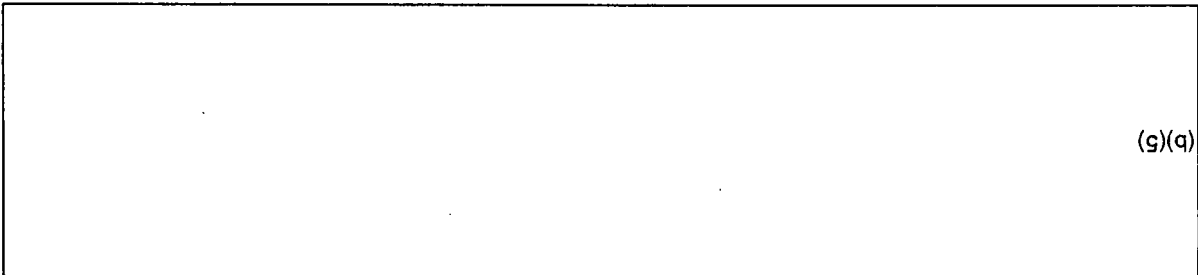
(b)(5)
4. The 10 CFR 50.59 evaluation of the (b)(5)

(b)(5)

 - 4.1. Amendment process provides a strong regulatory framework to document NRC staff review of the licensee evaluation/analysis of ASR.
 - 4.2. Amendment process provides a structured opportunity for public involvement.
 - 4.3.

(b)(5)
5. Licensee (b)(5)

(b)(5)



(g)(9)

Heater, Keith

From: Floyd, Niklas
Sent: Tuesday, September 17, 2013 1:20 AM
To: Heater, Keith
Subject: FOIA: Bilateral with Belgium - Followup Activities
Attachments: 2013 NRC RIC Tihange 2 RB.PDF

From: Conte, Richard
Sent: Tuesday, March 19, 2013 10:06 AM
To: Buford, Angela; Cartwright, William; Chaudhary, Suresh; Cline, Leonard; Cook, William; Cruz, Holly; Dentel, Glenn; Erickson, Alice; Floyd, Niklas; Fuhrmann, Mark; Graves, Herman; Hogan, Rosemary; Hughey, John; Khanna, Meena; Kobetz, Timothy; Lamb, John; Manoly, Kamal; Marshall, Michael; McMurtray, Anthony; Merzke, Daniel; Milano, Patrick; Morey, Dennis; Ott, William; Philip, Jacob; Raymond, William; Sheikh, Abdul; Sircar, Madhumita; Stuchell, Sheldon; Thomas, George; Trapp, James
Subject: FW: Bilateral with Belgium - Followup Activities

For your info based on a brief the Belgium reps. gave headquarters last week at the RIC.

At this point I would keep it close if we got this through the regulatory international community. Not sure if this is publicly available.

From: Trapp, James
Sent: Tuesday, March 19, 2013 9:38 AM
To: Conte, Richard
Subject: FW: Bilateral with Belgium - Followup Activities

Please distribute to ASR group. Thanks

From: Rodriguez, Veronica
Sent: Tuesday, March 19, 2013 9:36 AM
To: Dorman, Dan; Hiland, Patrick; Kokajko, Lawrence; McMurtray, Anthony; Hardies, Robert; Thomas, George; Hopkins, Jon; Trapp, James
Cc: Fehst, Geraldine; Carpenter, Gene
Subject: RE: Bilateral with Belgium - Followup Activities

Hi everyone,
Just a short email to provide you a status of the Belgium bilat followup activities.

Action items 1, 3, and 4 have been completed. Thanks to Bob/Jon for forwarding the presentations so quickly. FANC was very appreciative.

Regarding action item #2 -- FANC's presentation on ASR/Tihange-2 is attached for your information. Jim -- please feel free to FW it to all interested parties in R1. I'll send a copy to our counterparts in RES. This action is also considered complete.

Regarding action item #5, RES' questions to FANC on ASR are included below. NRC/RES is still awaiting the responses. I'll send you a copy once they become available.

- 1) At Tihange is the applicant checking ASR in parts of the nuclear buildings and foundations below the water table??
- 2) Is a monitoring campaign of the concrete after repair foreseen?
- 3) What are the root causes of the alkali-silica reaction at Tihange 2 NPP ?
- 4) What are the mechanical characteristics of the affected and unaffected concrete zones ?
- 5) What is the depth of the ASR-affected radial profile across the external containment wall (120 cm) ?

- 6) Are compression tests done according to the EN 12390-3 norm;
- 7) What is the number of buildings (potentially) affected by ASR on the Tihange site;
- 8) Are Non-destructive tests foreseen with uranyl acetate;

And lastly, I expect to send the meeting summary for your review some time next week. I need to focus on the CNS report this week but will work on the summary asap.

Have a nice day,
Veronica

From: Rodriguez, Veronica

Sent: Wednesday, March 13, 2013 12:36 PM

To: Dorman, Dan; Hiland, Patrick; Kokajko, Lawrence; McMurtray, Anthony; Hardies, Robert; Thomas, George; Hopkins, Jon; Trapp, James

Cc: Fehst, Geraldine; Carpenter, Gene

Subject: Bilateral with Belgium - Followup Activities

Team ... one more time, thanks for supporting the bilat and the prep meeting. We greatly appreciate it. I think we had a fantastic exchange of info. Gerri and I will work on the meeting summary. I'll run it by you to ensure we did not mischaracterize anything.

I noted a few action items:

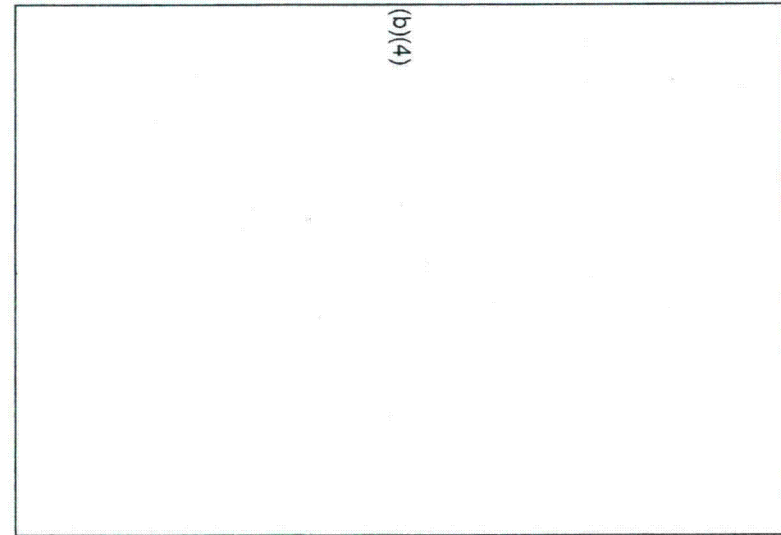
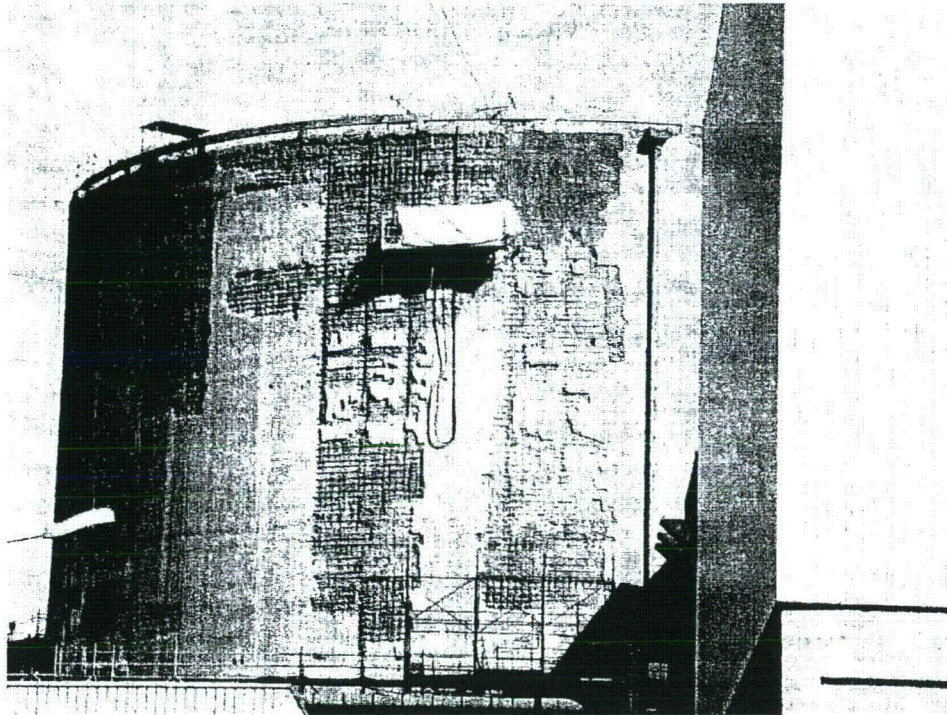
- 1- Exchange slides on RPV issue (Lead: NRC – Bob) COMPLETED
Please send the slides to me and I'll FW them to Belgium.
- 2- Exchange slides on ASR issue at Tihange-2 (Lead: FANC) COMPLETED
I'll send you the info once I get it.
- 3- Exchange slides from IRRS workshop (Lead: NRC – Jon) COMPLETED
Please send the slides to me and I'll FW them to Belgium.
- 4- Provide contact info from Sweden re: IRRS topic (Lead: NRC – Veronica). COMPLETED
- 5- Obtain Q-As on Tihange-2 from RES (Lead: NRC – Veronica)
I'll send you the info once I get it.

Last but not least ... NRR staff -- please use the following TACs for the time spent in support of this meeting (prep time, prep meeting, actual bilat, and any followup activities, such as completion of action items). Please note that there is a TAC for supervisors. Thanks! And enjoy the rest of the RIC! Veronica

Dan, Pat, Lawrence, Tony – ZM001 – Management Supervision -- International Activities

Bob, George, Jon – ME3707 – NRR Support for International Activities – Bilateral Cooperation

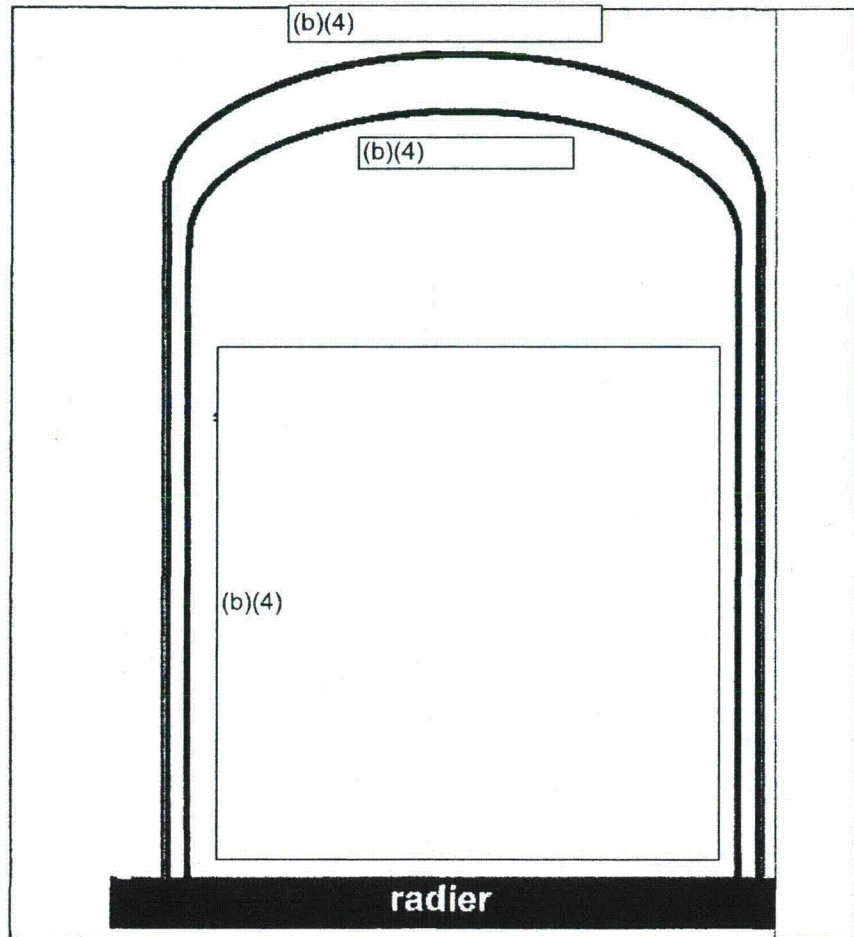
P.S. If you have suggestions for improving the coordination of our bilateral meetings please feel free to share those with us. We always welcome your recommendations.



(b)(4)

Reactor Building

(b)(4)

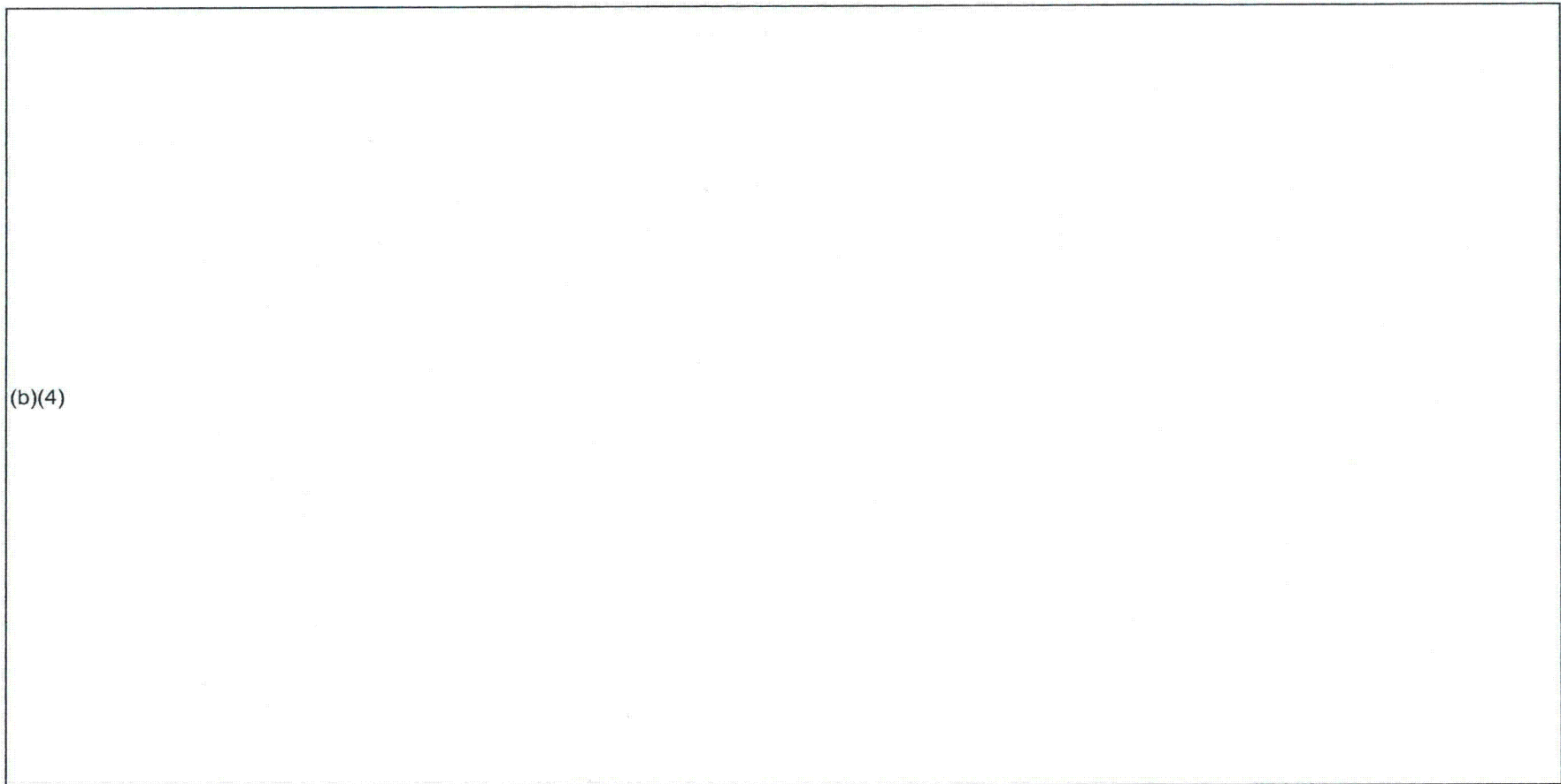


(b)(4)

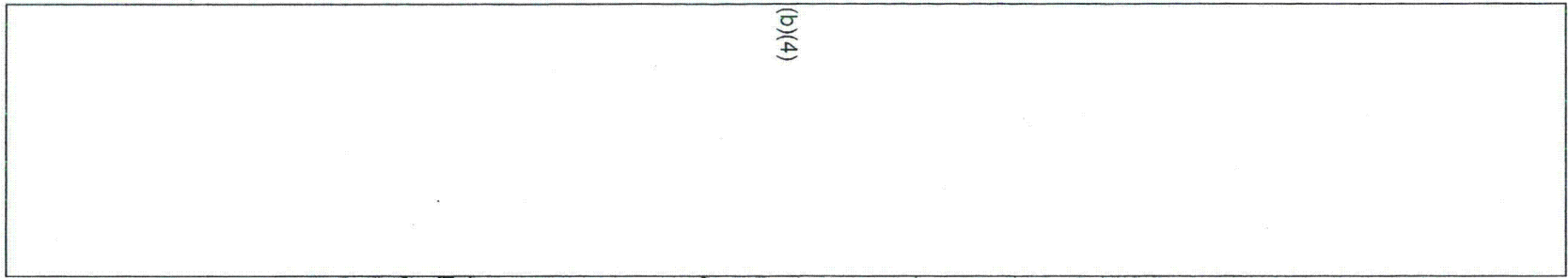
(b)(4)

A large rectangular area on the right side of the page is completely redacted with a white box. Two bullet points are visible to the left of this redacted area.

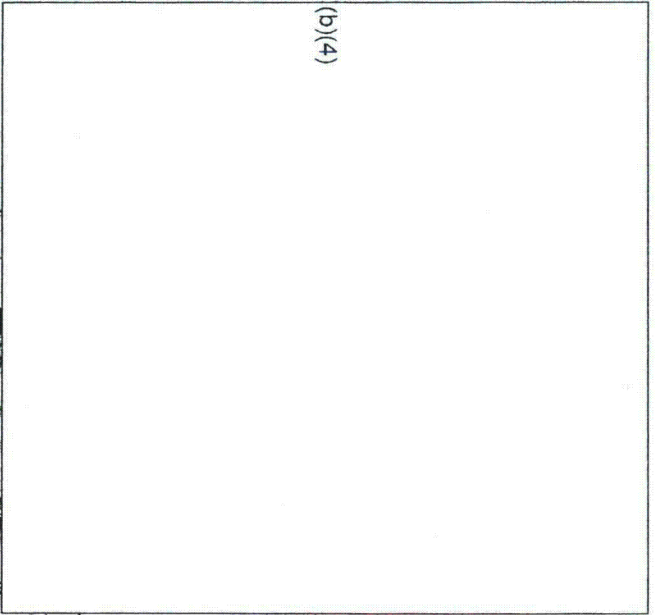
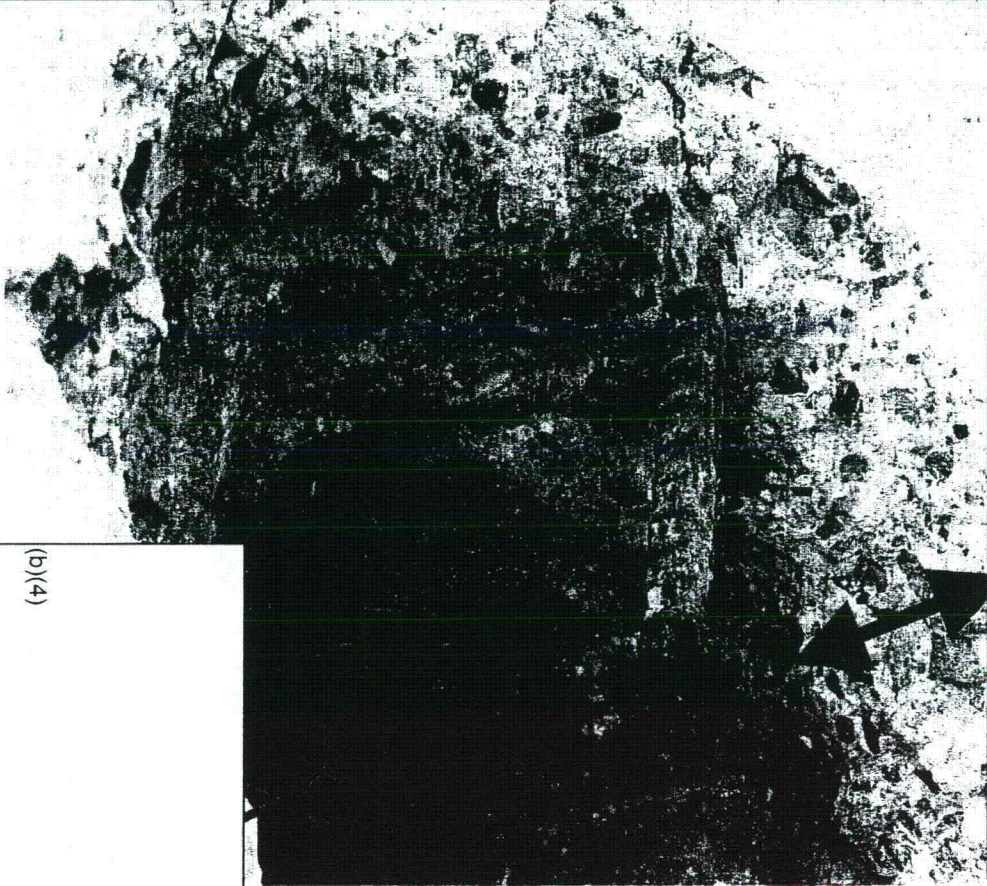
Timeline



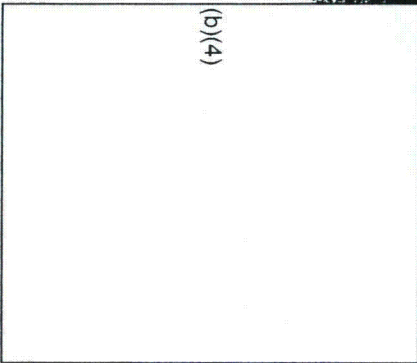
(b)(4)



(b)(4)



(b)(4)



(b)(4)

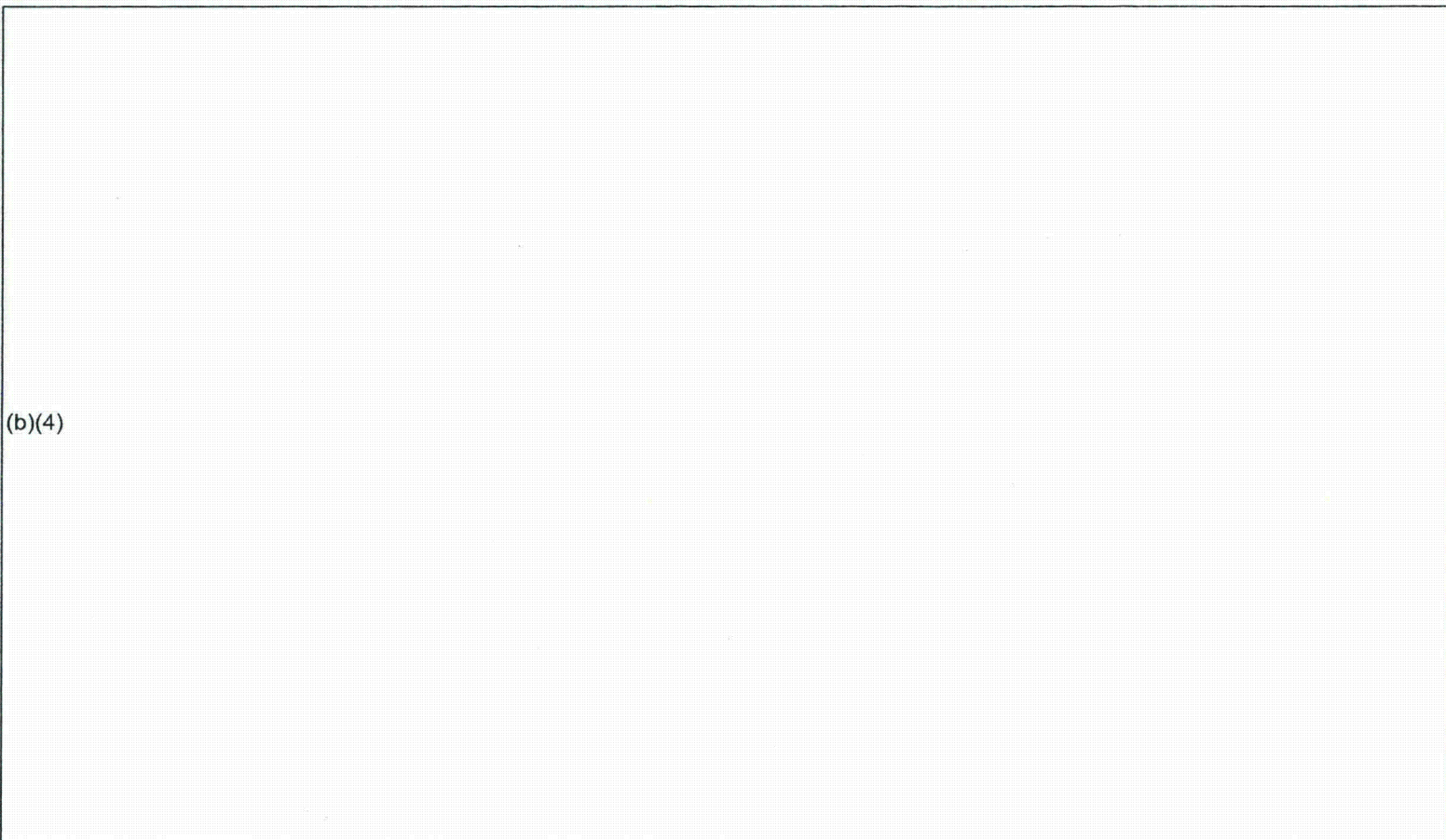
(b)(4)



ANC

ANC is a member of the ANI Group of companies.

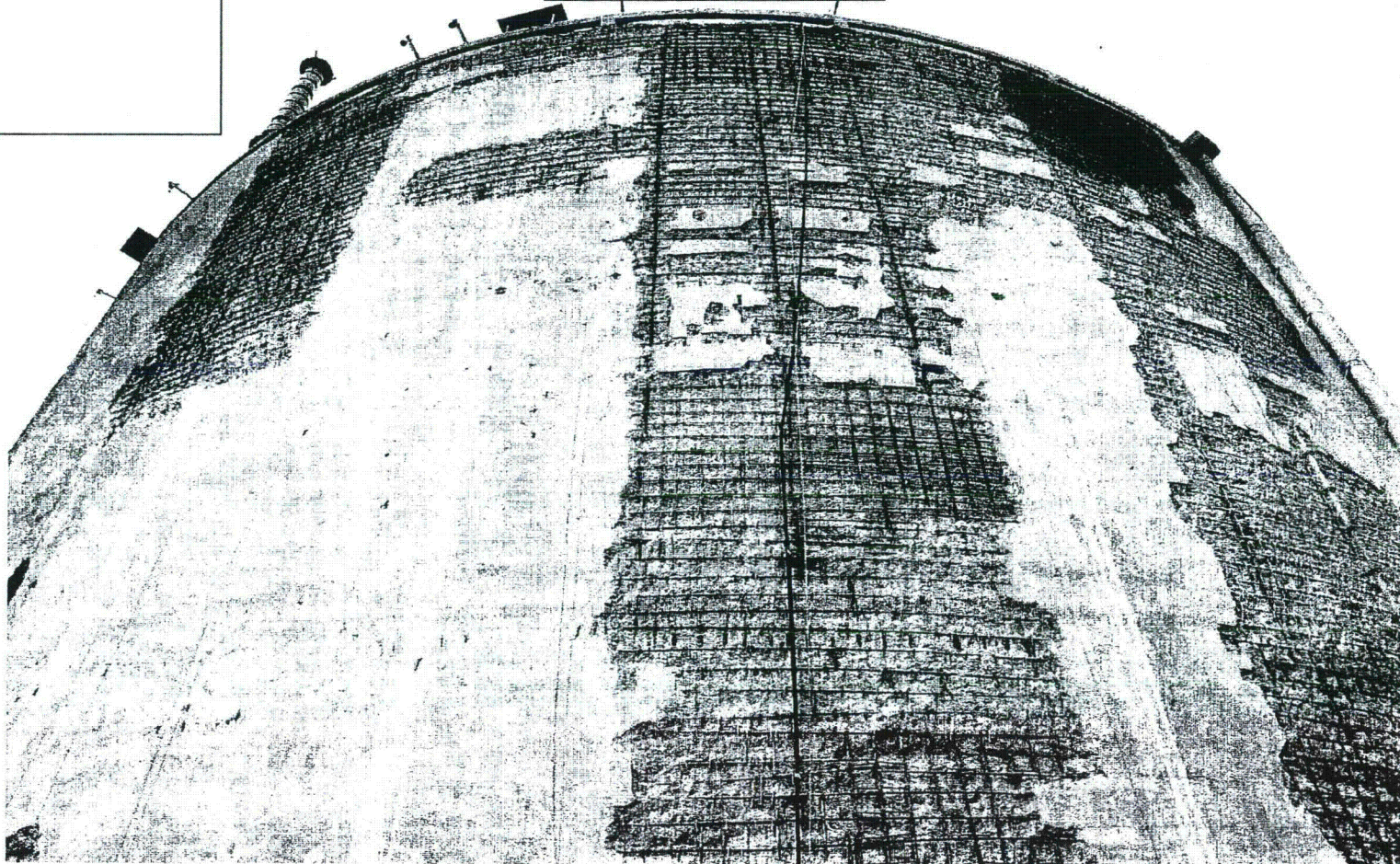
Repair work



(b)(4)

(b)(4)

(b)(4)



Current situation



•

•

(b)(4)

•

•



Heater, Keith

From: Floyd, Niklas
Sent: Tuesday, September 17, 2013 1:30 AM
To: Heater, Keith
Subject: FOIA: Groundwater Ingress at Seabrook

***From:** Cheek, Michael
***Sent:** Monday, June 10, 2013 4:30 PM
***To:** Trapp, James; Raymond, William; Floyd, Niklas
***Subject:** RE: Groundwater Ingress at Seabrook

Jim, Bill, Niklas – thanks for the prompt response. This is very helpful.

*Mike

From: Trapp, James
Sent: Monday, June 10, 2013 4:23 PM
To: Cheek, Michael
Cc: Raymond, William; Floyd, Niklas
Subject: FW: Groundwater Ingress at Seabrook

Mike – we looked at the ASR OD's and they don't directly address the groundwater intrusion on plant safety equipment. I asked your question to Bill Raymond the former Senior Resident and ASR resident expert for the NRC.

I hope this information helps. The bottom line is we don't believe the groundwater intrusion has/had a adverse impact on safety-related equipment at Seabrook. If you need more, please let me know.

From: Raymond, William
Sent: Monday, June 10, 2013 4:04 PM
To: Trapp, James
Cc: Floyd, Niklas
Subject: RE: Groundwater Ingress at Seabrook

(b)(5)

Let me know if you need more information.
Bill

Chaudhary, Suresh

From: Raymond, William
Sent: Monday, March 12, 2012 11:24 AM
To: Conte, Richard
Cc: Thomas, George; Chaudhary, Suresh
Subject: RE: Seabrook ASR Degradation Review Strategy

(b)(5)

Bill

From: Conte, Richard
Sent: Monday, March 12, 2012 11:16 AM
To: Raymond, William
Cc: Thomas, George; Chaudhary, Suresh
Subject: RE: Seabrook ASR Degradation Review Strategy

(b)(5)

From: Raymond, William
Sent: Monday, March 12, 2012 10:41 AM
To: Conte, Richard
Cc: Thomas, George; Chaudhary, Suresh
Subject: FW: Seabrook ASR Degradation Review Strategy

Rich,

(b)(5)

Bill

From: Thomas, George
Sent: Monday, March 12, 2012 8:03 AM
To: Raymond, William; Conte, Richard
Cc: Chaudhary, Suresh; Sheikh, Abdul
Subject: RE: Seabrook ASR Degradation Review Strategy

There are (b)(5)

(b)(5)

From: Raymond, William
Sent: Sunday, March 11, 2012 4:17 PM
To: Conte, Richard
Cc: Thomas, George; Chaudhary, Suresh
Subject: RE: Seabrook ASR Degradation Review Strategy

Rich,

(b)(5)

(b)(5)

Bill

From: Conte, Richard
Sent: Friday, March 09, 2012 9:21 PM
To: Raymond, William
Subject: RE: Seabrook ASR Degradation Review Strategy

(b)(5)

From: Conte, Richard
Sent: Friday, March 09, 2012 3:22 AM
To: Burritt, Arthur; Cline, Leonard; Chaudhary, Suresh; Raymond, William
Cc: Clifford, James; Tappert, John; Miller, Chris; Wilson, Peter
Subject: RE: Seabrook ASR Degradation Review Strategy

(b)(5)

(b)(5)

(b)(5)

(b)(5)

(b)(5)

(b)(5)

(b)(5)

(b)(5)

(b)(5)

(b)(5)

(b)(5)

(b)(5)

Chaudhary, Suresh

From: Raymond, William
Sent: Monday, April 09, 2012 5:36 PM
To: Lamb, John; Conte, Richard; Thomas, George; Chaudhary, Suresh
Cc: Burritt, Arthur; Khanna, Meena; Marshall, Michael; Morey, Dennis; Murphy, Martin; Sheikh, Abdul; Erickson, Alice; Cunanan, Arthur
Subject: RE: For Your Review - REV 3 - Seabrook ASR Slides - Public Meeting April 23, 2012

John & Rich,

Here are a few comments on the slides:

1.

2.

3.

(b)(5)

4.

5.

Bill

From: Lamb, John
Sent: Monday, April 09, 2012 8:56 AM
To: Conte, Richard; Burritt, Arthur; Khanna, Meena; Marshall, Michael; Morey, Dennis; Murphy, Martin; Sheikh, Abdul; Thomas, George; Chaudhary, Suresh; Erickson, Alice; Cunanan, Arthur; Raymond, William
Subject: For Your Review - REV 3 - Seabrook ASR Slides - Public Meeting April 23, 2012
Importance: High

Ladies & Gentlemen:

- Attached, for your review, is Rev 3 of the Seabrook ASR slides for the public meeting on April 23, 2012. Rev 3 contains the input from Region 1. You only have to review the first 10 slides; all the other slides are back-up slides (from previous presentations).

Thanks.

John

Chaudhary, Suresh

From: Raymond, William
Sent: Tuesday, April 10, 2012 10:37 AM
To: Lamb, John
Cc: Conte, Richard; Burritt, Arthur; Khanna, Meena; Marshall, Michael; Erickson, Alice; Morey, Dennis; Murphy, Martin; Thomas, George; Sheikh, Abdul; Chaudhary, Suresh; Cunanan, Arthur
Subject: RE: For Your Review - DRAFT 50.54(f) Letter - Seabrook ASR

John,

(b)(5)

These are my early thoughts. More to come as we get into the detailed questions....

Bill

From: Lamb, John
Sent: Monday, April 09, 2012 9:58 PM
To: Conte, Richard; Burritt, Arthur; Raymond, William; Khanna, Meena; Marshall, Michael; Morey, Dennis; Murphy, Martin; Thomas, George; Sheikh, Abdul; Chaudhary, Suresh; Erickson, Alice; Cunanan, Arthur
Subject: For Your Review - DRAFT 50.54(f) Letter - Seabrook ASR
Importance: High

Ladies & Gentlemen:

Attached, for your review, is a **DRAFT** 50.54(f) letter regarding Seabrook ASR.

Thanks.
John

Chaudhary, Suresh

From: Raymond, William
Sent: Tuesday, May 15, 2012 10:38 AM
To: Lamb, John; Conte, Richard
Cc: Burritt, Arthur; Chaudhary, Suresh; Khanna, Meena; Marshall, Michael; Erickson, Alice; Sheikh, Abdul; Murphy, Martin; Thomas, George
Subject: RE: For Your Input and Review - Response to "No More Fukushima!" Questions at NRC Public Meeting on April 23, 2012

John & Rich – Here is a partial response to get us started.
We do not have complete answers (yet) for all of Mr. Skud's questions.

Question #2

(b)(5)

(b)(5)

(b)(5)

(b)(5)

Question #3

(b)(5)

For both Questions #2 and #3

(b)(5)

(b)(5)

(b)(5)

09

(b)(5)

(b)(5)

Facts Regarding Past NRC Inspections – Needs Followup Review and Evaluation:

(b)(5)

(b)(5)

(b)(5)

(b)(5)

(b)(5)

William J. Raymond

USNRC-Nuclear Engineer

Seabrook Resident Office

william.raymond@nrc.gov

603-474-3580 (work)

(b)(6) (cell)

603-474-9018 (fax)

From: Lamb, John

Sent: Tuesday, May 15, 2012 8:53 AM

To: Burritt, Arthur; Raymond, William; Conte, Richard; Chaudhary, Suresh; Khanna, Meena; Marshall, Michael; Erickson, Alice; Sheikh, Abdul; Murphy, Martin; Thomas, George

Subject: For Your Input and Review - Response to "No More Fukishimas!" Questions at NRC Public Meeting on April 23, 2012

Ladies & Gentlemen:

At the NRC public meeting regarding Seabrook ASR held on April 23, 2012, "No More Fukushima!" provided the attached comments/questions. At the meeting, Mr. Chris Miller offered to respond to the questions; however, Mr. Bruce Skud of "No More Fukushima!" was put on mute by the bridge line coordinator. By email dated April 24, 2012, Mr. Skud expressed a desire that NRC respond to the questions.

Attached, for your input and review, are the **DRAFT** responses to the "No More Fukushima!" comments/questions.

Thanks.
John

Chaudhary, Suresh

From: Raymond, William
Sent: Tuesday, May 22, 2012 9:46 AM
To: Conte, Richard; Thomas, George
Cc: Chaudhary, Suresh; Sheikh, Abdul; Khanna, Meena; Murphy, Martin; Manoly, Kamal; Cartwright, William; Dimitriadis, Anthony; Kobetz, Timothy; Burritt, Arthur; Lamb, John
Subject: RE: Response to Requested Info - Seabrook: References for Bounding Evaluation

(b)(5)

Bill

From: Conte, Richard
Sent: Tuesday, May 22, 2012 8:49 AM
To: Lamb, John; Burritt, Arthur
Cc: Raymond, William; Chaudhary, Suresh; Sheikh, Abdul; Khanna, Meena; Murphy, Martin; Manoly, Kamal; Cartwright, William; Dimitriadis, Anthony; Kobetz, Timothy
Subject: RE: Response to Requested Info - Seabrook: References for Bounding Evaluation

What criteria are we using to inspect this?

Do we regulate by literature?

Sounds to me like guidance needs to be developed if we can ever get the working group started and the TIA addressed.

From: Lamb, John
Sent: Tuesday, May 22, 2012 8:24 AM
To: Burritt, Arthur
Cc: Raymond, William; Chaudhary, Suresh; Sheikh, Abdul; Khanna, Meena; Conte, Richard; Murphy, Martin; Manoly, Kamal
Subject: Response to Requested Info - Seabrook: References for Bounding Evaluation
Importance: High

From: Thomas, George
Sent: Tuesday, May 22, 2012 7:40 AM
To: Lamb, John
Cc: Murphy, Martin; Khanna, Meena; Manoly, Kamal
Subject: RE: Seabrook: References for Bounding Evaluation

John,

Friday does not look good for me. I have provided the information that Art Burritt is seeking below with regard to the source of reduction in shear capacity in literature for ASR-affected beams. If Region needs further info or clarification, we can have a conference call early next week when I am back in the office -pl use my Outlook calendar.

210

(b)(5)

(b)(5)

Thanks.
George

From: Lamb, John
Sent: Monday, May 21, 2012 1:30 PM
To: Thomas, George
Cc: Murphy, Martin; Khanna, Meena
Subject: FW: Seabrook: References for Bounding Evaluation

George,

What is your availability this Friday, May 25, 2012, for a conference call?

Thanks.
John

From: Manoly, Kamal
Sent: Monday, May 21, 2012 12:07 PM
To: Khanna, Meena; Murphy, Martin; Lamb, John
Subject: RE: Seabrook: References for Bounding Evaluation

I will be available this week.

From: Khanna, Meena
Sent: Monday, May 21, 2012 9:27 AM
To: Murphy, Martin; Lamb, John
Cc: Manoly, Kamal
Subject: RE: Seabrook: References for Bounding Evaluation

Thanks Marty...we'll try to set something up according to everyone's schedule.

From: Murphy, Martin
Sent: Monday, May 21, 2012 7:15 AM
To: Khanna, Meena; Lamb, John
Cc: Manoly, Kamal
Subject: RE: Seabrook: References for Bounding Evaluation

Meena, John,

George is in training all week this week, If you can get a hold of him, the morning of 5/23 will work or the morning of 5/25 will work. I want to be on the call and I want Kamal on the call. 5/24 will not work at all for me. If we cannot get one of these two days then it will need to be next week.

Marty

From: Khanna, Meena
Sent: Thursday, May 17, 2012 5:27 PM
To: Murphy, Martin
Cc: Marshall, Michael; Lamb, John
Subject: FW: Seabrook: References for Bounding Evaluation

Hi Marty, would you be okay with having George (and yourself) support a brief call with Art Burritt and Rich Conte on either 5/23, 5/24/ or 5/25 to address (b)(5)
Art would like to understand (b)(5) If you are okay with this, I will ask John to set something up for next week..thanks!

meena

From: Burritt, Arthur
Sent: Thursday, May 17, 2012 5:19 PM
To: Khanna, Meena
Cc: Conte, Richard
Subject: RE: Seabrook: References for Bounding Evaluation

Can you set something up on 5/23 to 5/25

From: Khanna, Meena
Sent: Thursday, May 10, 2012 8:55 AM
To: Burritt, Arthur
Subject: Re: Seabrook: References for Bounding Evaluation

Ok I think the best thing is to schedule a conf call with you, George and the other tech reviewers to discuss, thx.

From: Burritt, Arthur
To: Khanna, Meena
Sent: Thu May 10 08:47:12 2012
Subject: RE: Seabrook: References for Bounding Evaluation

I will call you next week when I am back in the office. I wanted to understand (b)(5)

(b)(5)

From: Khanna, Meena
Sent: Thursday, May 10, 2012 7:49 AM
To: Burritt, Arthur; Conte, Richard
Subject: Fw: Seabrook: References for Bounding Evaluation

Here you go.

From: Thomas, George
To: Khanna, Meena
Cc: Murphy, Martin
Sent: Thu May 10 07:48:19 2012
Subject: RE: Seabrook: References for Bounding Evaluation

It comes from Reference 11 in the list below as well as Table 4 of Dr Bayrak's White Paper for Seabrook on Structural Implications of ASR.

From: Khanna, Meena
Sent: Thursday, May 10, 2012 4:12 AM
To: Thomas, George; Murphy, Martin
Subject: Fw: Seabrook: References for Bounding Evaluation

Could you pls help with Art's request below, if possible. Thx

From: Burritt, Arthur
To: Khanna, Meena
Sent: Wed May 09 22:17:51 2012
Subject: RE: Seabrook: References for Bounding Evaluation

I just wanted to know where did (b)(5) was hoping for a simpler more direct answer.

From: Khanna, Meena
Sent: Wednesday, May 09, 2012 3:51 PM
To: Burritt, Arthur
Cc: Conte, Richard
Subject: FW: Seabrook: References for Bounding Evaluation

Art, pls see below for the references that you requested and George indicated that the TIA has a more detailed list of references. Also, he suggested that the reviewers look at the white papers that Dr. Bayrak wrote.

Thanks,
Meena

From: Thomas, George
Sent: Wednesday, May 09, 2012 3:46 PM
To: Murphy, Martin; Khanna, Meena
Subject: FW: Seabrook: References for Bounding Evaluation

Marty/Meena:

Please use this version – I attempted to recall the previous version.

Below is a list of references that was used for the high-level bounding evaluation of engg/design margins based on B Electrical Tunnel (structure with the worst ASR).

1. Seabrook UFSAR Sections 3.8.4, 2.4 & 2.5
2. ACI 318-71, Building Code Requirements for Reinforced Concrete
3. SD-66, Revision 2, System Description for Structural Design Criteria for Public Service Company of New Hampshire, Seabrook Station, Unit Nos. 1 and 2, 3/02/84.
4. Calculation CD-20, UE Control and Diesel Generator Building Design of Material and Walls below grade for Electrical Tunnel and the Control Building (Original Design Calculation)
5. Calculation C-S-1-10150, Rev. 0, Effects of Reduced Modulus of Elasticity – 'B' Electrical Tunnel Exterior Walls
6. Calculation C-S-1-10159, Rev. 0, 'B' Electrical Tunnel Transverse Shear Evaluation Supplement to Calculation CD-20
7. Action Request (AR) 581434, Revision 001, Prompt Operability Determination Reduced Concrete Properties Below Grade in 'B' Electrical Tunnel Exterior Walls.

8. Dwg 9763-F-111342, for Control Building Concrete (Electrical tunnel)
9. Test data of compressive strength and modulus of elasticity from cores taken from the B Electrical Tunnel (2010, 2011) – Excel Table from Senior Resident
10. Structural effects of alkali-silica reaction – Technical guidance on the appraisal of existing structures, The Institution of Structural Engineers, London, UK, July 1992 and Addendum, April 2010
11. den Uijl, J.A., and Kaptijn, N., Structural Consequences of ASR: an example on shear capacity, HERON, Vol. 47, No. 2 (2002) special issue on ASR-ISSN 0046-7316, pp 125-139, Delft, The Netherlands

George

Chaudhary, Suresh

From: Raymond, William
Sent: Tuesday, July 03, 2012 2:35 PM
To: Sheikh, Abdul; Thomas, George; Conte, Richard; Cook, William; Chaudhary, Suresh
Cc: Buford, Angela
Subject: RE: Mortar Bar Testing and Results

A potential concern is that the continued exposure to ground water via the cracked sections might increase the potential for corrosion of the rebar. The potential impact of ground water on rebar is somewhat ameliorated by the influence of the cement which has the effect of increasing the pH of the water in contact with rebar. As the cracks progress to open up water pathways, there could be a trend toward a more corrosive water chemistry affecting the rebar leading to a more significant impact on the structural integrity.

From: Sheikh, Abdul
Sent: Tuesday, July 03, 2012 2:25 PM
To: Thomas, George; Raymond, William; Conte, Richard; Cook, William; Chaudhary, Suresh
Cc: Buford, Angela
Subject: RE: Mortar Bar Testing and Results

Bottom line on the test results is that there is a lot of expansion and reactivity left over the long term in the ASR affected concrete structures (cracked areas). This can continue with continuous ingress of ground water into the walls. The aggregates from the cracked area reached 0.10 limit in 7 days as compared to 5 days in the non cracked areas.

From: Thomas, George
Sent: Tuesday, July 03, 2012 1:17 PM
To: Raymond, William; Conte, Richard; Cook, William; Chaudhary, Suresh
Cc: Buford, Angela; Sheikh, Abdul
Subject: RE: Mortar Bar Testing and Results

Just a clarification/correction on Bill's email below: Reactive forms of silica needed for ASR comes from the aggregate. The alkalis (sodium hydroxide and potassium hydroxide) needed for ASR comes primarily from the cement. The aggregate could also contribute to this. In addition, moisture is needed for the ASR gel to expand and cause cracking – this moisture could come from ground water, rain, snow, humidity in the atmosphere, and water in the concrete itself. For the below-grade structures at Seabrook, it is primarily coming from ground water.

From: Raymond, William
Sent: Tuesday, July 03, 2012 10:50 AM
To: Conte, Richard; Cook, William; Chaudhary, Suresh
Cc: Thomas, George; Buford, Angela; Sheikh, Abdul
Subject: RE: Mortar Bar Testing and Results

Rich,

The file on Certrec is the test report prepared by SGH in Mass. I am not aware of any other assessment NextEra's may have regarding the results.

I think it is premature to say much more at ACRS other than the tests are done, the results indicate the structural concrete is still reactive, and NRC staff review of the matter is in progress.

Bill Cook – look at the last bullet of the conclusions from the SGH report....

- "the nonreacted concrete cores show no evidence of ASR in the field because the conditions of exposure are not conducive to initiating and sustaining ASR within the hardened concrete at that location."

This just reaffirms that reactive concrete without water (moisture) will not degrade due to ASR. A Root Cause Evaluation which does not identify ground water as causal would "miss the mark," as would an engineering "mindset" that fails to deal with continued exposure to groundwater as a problem for the structures long term serviceability.

Quick answers to your questions:

- 1) The silica comes from the cement; the alkali comes from the aggregate. There is a question as to how much alkali can be contributed by the groundwater for in-place structures.
- 2) We can pursue this with NextEra. I think the ASTM C1260 limitations were that the tests could produce false negative results. I have not heard that they can produce false positive results. If the concrete grows, it is reactive. If it does not expand in 16 days maybe the concrete reaction rate is slow enough that the expansion cannot be measured in 16 days.
- 3) The conclusion one can reach from the ASTM C1260 results is that the alkali in the concrete has not been exhausted and there is an expectation that the structures would continue to degrade from ASR in the continued presence of water (moisture).
- 4) The test continues by leaving the specimens immersed in the water bath and periodically measuring the expansion to determine whether the reaction rate is changing or approaching an end point. The test can continue until the specimens disintegrate.

We can follow this up more with NextEra during the week of July 16th.

Bill

From: Conte, Richard
Sent: Tuesday, July 03, 2012 10:15 AM
To: Raymond, William; Cook, William
Cc: Thomas, George; Sheikh, Abdul; Auluck, Rajender; Marshall, Michael; Chaudhary, Suresh; Buford, Angela; Cartwright, William
Subject: RE: Mortar Bar Testing and Results

Added Abdul and a few others. What should we say at ACRS, most likely nothing since the CAL says the test will be completed by June 30 which I think they did AND test results will be available to NRC July 30. Is what that is on Certrec their evaluation of the test results????

I think we still need to reconcile the test limits with conclusions being brought forward by NextEra.

Perhaps our contractor can give a perspective on all this. Perhaps he should pursue something with NextEra.

The contractor seems to have had experience with core sampling and large scale testing. It appears he has ASR experience also

First obvious questions:

1. Where is the Silica coming from, aggregate or groundwater or both.
2. What are the limitations of the test, we have stated previously this ST test gives misleading results the negative ones or the positive ones.
3. If no quantitative results can be achieved from this test, is the only conclusion being the reaction continues because of a continuous supply of alkali and silica and water.
4. How does one continue with this short term test.

From: Raymond, William
Sent: Monday, July 02, 2012 4:03 PM
To: Buford, Angela

Cc: Conte, Richard; Thomas, George
Subject: Mortar Bar Testing and Results

Angela,

The mortar bar tests are described in FP100734 which has been posted to Certrec.

The tests were completed over a 16-day period per ASTM C1260.

The test samples consisted of mortar bars constructed from "recovered" aggregate taken from Seabrook structures.

The aggregates in **Mix A** samples were taken from cores removed from **structures impacted by ASR**.

The aggregates in **Mix B** samples were taken from cores removed from **non-ASR impacted structures**.

The test results after 16 days showed that samples from both mixes contain sufficient alkali for continued reactivity.

There is little difference in reactivity of the concrete in any of the structures.

The ASTM C1260 testing continues on the samples to determine if an end state can be observed.

The results are copied below for your convenience:

- The average percentage of expansion data (relative to the zero reading) for all of the test specimens exceeds the 0.1% limit provided as a guideline in ASTM C1260 that represents the threshold for determining if an aggregate source contains potentially deleteriously expansive ASR aggregate.
- The slope of the expansion curves for each aggregate type (reacted and nonreacted) remains positive with no indication of approaching a condition of near zero (flat-line) expansion rate.
- There is no indication that potential for continued reactivity of the aggregate in either the reacted or nonreacted structures has been substantially lessened during service.
- Based on the plotted test data, the nonreacted aggregate (Mix B) exceeded the 0.1% limit after 5 days of exposure, while the reacted aggregate series did not exceed the limit after 7 days of exposure.
- Both aggregate sources contain reactive aggregate capable of contributing to long-term expansion.
- The test results indicate that the nonreacted concrete cores show no evidence of ASR in the field because the conditions of exposure are not conducive to initiating and sustaining of ASR within the hardened concrete at that location.

Bill

William J. Raymond

USNRC-Nuclear Engineer

Seabrook Resident Office

william.raymond@nrc.gov

603-474-3580 (work)

(b)(6) cell)

603-474-9018 (fax)

Chaudhary, Suresh

From: Raymond, William
Sent: Wednesday, August 22, 2012 5:09 PM
To: Conte, Richard
Cc: Chaudhary, Suresh; Sheikh, Abdul; Cook, William; Thomas, George
Subject: RE: RESPONSE: Follow-up RAIs for Seabrook Concerning ASR

Rich,
Thanks for sharing the RAIs. All are good questions. I am particularly interested in the questions raised about the Structure Monitoring Program.
I have similar observations and concerns as raised by Abdul. See my notes below.

(b)(5)

(b)(5)

(b)(5)

(b)(5)

(b)(5)

(b)(5)

012

(b)(5)

(b)(5)

(b)(5)

Bill

From: Conte, Richard
Sent: Wednesday, August 22, 2012 3:43 PM
To: Raymond, William
Subject: FW: RESPONSE: Follow-up RAIs for Seabrook Concerning ASR

FYI latest on RAIs from DLR

From: Buford, Angela
Sent: Wednesday, August 22, 2012 1:43 PM
To: Milano, Patrick
Cc: Douth, Clifford; Cook, William; Conte, Richard; Auluck, Rajender; Marshall, Michael; Cunanan, Arthur; Morey, Dennis
Subject: FW: RESPONSE: Follow-up RAIs for Seabrook Concerning ASR

Pat, I understand you are taking over for Arthur on Seabrook.

The attached RAIs for the Seabrook LRA were sent to Rich Conte and Bill Cook (representing ASR working group), and Rich informed me that he and Bill have provided written and verbal response that they are satisfied with the content. As such, and per Michael Marshall's approval below, these RAIs are ready to be provided to the Seabrook applicant without further revision.

From: Marshall, Michael
Sent: Tuesday, August 14, 2012 12:06 PM
To: Cunanan, Arthur
Cc: Morey, Dennis; Sheikh, Abdul; Erickson, Alice; Buford, Angela
Subject: RESPONSE: Follow-up RAIs for Seabrook Concerning ASR

Hello Arthur,

Attached are RASB's follow-up RAIs for Seabrook concerning ASR. Please, delay sending the RAIs to applicant until, we have given the NRC's ASR team an opportunity to read the attached RAIs. In a separate

email (you will be cc'd), I will send the attach file to Rich Conte and Bill Cook. In that email, I will inform them that we will delay providing the RAIs to the applicant until close of business Wednesdays, August 22, 2012.

Thanks,
Michael

Chaudhary, Suresh

From: Raymond, William
Sent: Tuesday, October 16, 2012 9:39 AM
To: Thomas, George; Buford, Angela; Conte, Richard
Cc: Chaudhary, Suresh; Sheikh, Abdul; Cook, William; Murphy, Martin
Subject: RE: Containment Tech Eval: Calc CS-15 page 238-241
Attachments: Drawing 101435.tif

(b)(5)

Bill

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

From: Thomas, George
Sent: Tuesday, October 16, 2012 8:22 AM
To: Raymond, William; Buford, Angela; Conte, Richard
Cc: Chaudhary, Suresh; Sheikh, Abdul; Cook, William; Murphy, Martin
Subject: RE: Containment Tech Eval: Calc CS-15 page 238-241

Bill,

UFSAR Section 3.8.1.6.a states the following with regard to containment concrete strength:

"Except as noted below, the containment is constructed of concrete which has a standard compressive strength at 28 days of at least 3000 psi. The base mat, reactor pit, bottom 10 feet of the cylinder, and the regions in the cylinder near the equipment hatch and personnel air lock, in which the reinforcing anchor plates are located, are constructed of concrete which has a standard compressive strength at 28 days of at least 4000 psi. To insure that these strengths were attained, verification testing was performed in accordance with the requirements of Division 2."

From the above, the bottom 10 ft of the containment cylinder is made of concrete with f'c = 4000 psi. I believe it is the bottom portions of the containment cylinder that are potentially affected by ASR.

Bill - could you please have the licensee put the CS-15 calculation on Certrec?

Thanks.
George

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

From: Raymond, William
Sent: Monday, October 15, 2012 8:03 PM
To: Buford, Angela; Thomas, George; Conte, Richard
Cc: Chaudhary, Suresh; Sheikh, Abdul; Cook, William

213

Subject: Containment Tech Eval: Calc CS-15 page 238-241

Rich,

(b)(5)

(b)(5)

(b)(5)

Angie & George - please check my work and conclusions.

Rich - if Angie & George agree with the above, I'd like to present the question to NextEra so they can be prepared to discuss on Wednesday.

I'd rather present this question face-to-face rather than try to explain it to them over the phone.

Bill

William J. Raymond

Nuclear Engineer

US Nuclear Regulatory Commission

Seabrook Station

william.raymond@nrc.gov

work: 603-773-7037

Cell: (b)(6)

Chaudhary, Suresh

From: Raymond, William
Sent: Tuesday, October 16, 2012 3:49 PM
To: Thomas, George; Buford, Angela; Conte, Richard
Cc: Chaudhary, Suresh; Sheikh, Abdul; Cook, William
Subject: Comments: Containment Tech Eval
Attachments: WJR Comments on Containment Technical Evaluation.doc

Rich,

My comments are attached. I would discuss only question #4 during the Wednesday teleconference with NextEa:

4. (b)(5)

We are dropping item #3. I will cover items 1, 2, 5 & 6 with NextEra offline. I have calls in to Brian Brown and Rick Noble to give them a heads-up on the (b)(5) question.

Bill

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

From: Thomas, George
Sent: Tuesday, October 16, 2012 8:22 AM
To: Raymond, William; Buford, Angela; Conte, Richard
Cc: Chaudhary, Suresh; Sheikh, Abdul; Cook, William; Murphy, Martin
Subject: RE: Containment Tech Eval: Calc CS-15 page 238-241

Bill,

UFSAR Section 3.8.1.6.a states the following with regard to containment concrete strength:

"Except as noted below, the containment is constructed of concrete which has a standard compressive strength at 28 days of at least 3000 psi. The base mat, reactor pit, bottom 10 feet of the cylinder, and the regions in the cylinder near the equipment hatch and personnel air lock, in which the reinforcing anchor plates are located, are constructed of concrete which has a standard compressive strength at 28 days of at least 4000 psi. To insure that these strengths were attained, verification testing was performed in accordance with the requirements of Division 2."

From the above, the bottom 10 ft of the containment cylinder is made of concrete with f'c = 4000 psi. I believe it is the bottom portions of the containment cylinder that are potentially affected by ASR.

Bill - could you please have the licensee put the CS-15 calculation on Certrec?

Thanks.
George

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

From: Raymond, William
Sent: Monday, October 15, 2012 8:03 PM
To: Buford, Angela; Thomas, George; Conte, Richard
Cc: Chaudhary, Suresh; Sheikh, Abdul; Cook, William
Subject: Containment Tech Eval: Calc CS-15 page 238-241

Rich,

(b)(5)

(b)(5)

(b)(5)

Angie & George - please check my work and conclusions.

Rich - if Angie & George agree with the above, I'd like to present the question to NextEra so they can be prepared to discuss on Wednesday.

I'd rather present this question face-to-face rather than try to explain it to them over the phone.

Bill

William J. Raymond

Nuclear Engineer

US Nuclear Regulatory Commission

Seabrook Station

william.raymond@nrc.gov

work: 603-773-7037

Cell: (b)(6)

Chaudhary, Suresh

From: Raymond, William
Sent: Thursday, November 29, 2012 5:15 PM
To: Conte, Richard
Cc: Cook, William; Chaudhary, Suresh; Trapp, James
Subject: RE: Concrete Issues During Construction

Rich,

(b)(5)

I will send more information tomorrow...
Bill

From: Conte, Richard
Sent: Thursday, November 29, 2012 4:55 PM
To: Raymond, William
Cc: Cook, William; Chaudhary, Suresh; Trapp, James
Subject: RE: Concrete Issues During Construction

So here is the fall-on-our-sword Q&A.

(b)(5)

(b)(5)

(b)(5)

From: Raymond, William
Sent: Thursday, November 29, 2012 1:52 PM
To: Conte, Richard
Cc: Cook, William; Chaudhary, Suresh

215

Chaudhary, Suresh

From: Raymond, William
Sent: Thursday, November 29, 2012 1:52 PM
To: Conte, Richard
Cc: Cook, William; Chaudhary, Suresh
Subject: Concrete Issues During Construction
Attachments: LTR - PSNH - 04-21-1988 - Part 1.pdf

Importance: High

HEY – I hit Pay Dirt!

(No, NOT the Lotto).

I found the closing reference to the Report 87-07 URIs on concrete – Report 88-17 issued on 2/3/89.

Region I had the assist by a NRR Structural Engineer, along with a Technical Evaluation Report by Brookhaven Labs.

(b)(5)

More to come – I need to scan it in.

Bill

From: Lamb, John
Sent: Thursday, November 29, 2012 9:13 AM
To: Raymond, William
Cc: Conte, Richard; Khanna, Meena
Subject: Response to Requested Info - PSNH Letter Dated April 21, 1988
Importance: High

Bill,

I found the document you requested, PSNH letter dated April 21, 1988, in microfiche (45369: 211-252). If you have access to microfiche, you may want to look at it since the copy is not the greatest quality, especially since the drawings are hand drawings (1988 – before computer aided drafting was popular). I made a pdf file; however, it was too large to send as 1 file so I split it in 2 parts. So you will get another email with Part 2.

I can send you the hard copy via mail. What is your address?

Thanks.

John

From: Conte, Richard
Sent: Thursday, November 29, 2012 4:55 PM
To: Raymond, William
Cc: Cook, William; Chaudhary, Suresh; Trapp, James
Subject: RE: Concrete Issues During Construction

So here is the fall-on-our-sword Q&A.

(b)(5)

From: Raymond, William
Sent: Thursday, November 29, 2012 1:52 PM
To: Conte, Richard
Cc: Cook, William; Chaudhary, Suresh
Subject: Concrete Issues During Construction
Importance: High

HEY – I hit Pay Dirt!
(No, NOT the Lotto).

I found the closing reference to the Report 87-07 URIs on concrete – Report 88-17 issued on 2/3/89. Region I had the assist by a NRR Structural Engineer, along with a Technical Evaluation Report by Brookhaven Labs.

(b)(5)

More to come – I need to scan it in.
Bill

From: Lamb, John
Sent: Thursday, November 29, 2012 9:13 AM
To: Raymond, William
Cc: Conte, Richard; Khanna, Meena
Subject: Response to Requested Info - PSNH Letter Dated April 21, 1988
Importance: High

Bill,

I found the document you requested, PSNH letter dated April 21, 1988, in microfiche (45369: 211-252). If you have access to microfiche, you may want to look at it since the copy is not the greatest quality, especially since the drawings are hand drawings (1988 – before computer aided drafting was popular). I made a pdf file; however, it was too large to send as 1 file so I split it in 2 parts. So you will get another email with Part 2.

I can send you the hard copy via mail. What is your address?

Thanks.
John

Chaudhary, Suresh

From: Conte, Richard
Sent: Tuesday, January 22, 2013 11:39 AM
To: Buford, Angela
Cc: Chaudhary, Suresh; Trapp, James; Cook, William
Subject: RE: Plans for Next Week in Texas RE: Discussion Points/Outline

Just checked and he is available. I plan to get there Monday. Suresh will arrive Tuesday, I may go pick him up at the airport to save on car expenses.

We can do an entrance mid to late afternoon Monday or Tuesday morning. I will get a hotel room for each of the three of us. Please call me at 900am tomorrow to discuss plans.

Also, can you say when DLR is calling NextEra and one an internal call will occur. I am available after 330pm today or anytime tomorrow.

From: Conte, Richard
Sent: Tuesday, January 22, 2013 11:32 AM
To: Buford, Angela
Cc: Chaudhary, Suresh
Subject: RE: Plans for Next Week in Texas RE: Discussion Points/Outline

Thanks for getting back to me, as I am checking on Suresh's availability.

I need to go to the dentist but will be back for tomorrow and I can be reached by cell below

Rich Conte, Seabrook-ASR Team Lead, Region I
(610) 337-5183 (Office)
(b)(6) (NRC cell)

From: Buford, Angela
Sent: Tuesday, January 22, 2013 10:51 AM
To: Conte, Richard
Subject: RE: Plans for Next Week in Texas RE: Discussion Points/Outline

Rich, I'm here on site let me know when works best for you to conference RE next week.

From: Conte, Richard
Sent: Tuesday, January 22, 2013 7:15 AM
To: Cook, William; Buford, Angela
Cc: Trapp, James; Floyd, Niklas; Raymond, William; Khanna, Meena; Chaudhary, Suresh
Subject: Plans for Next Week in Texas RE: Discussion Points/Outline

Angie were we to conference today Tuesday Jan. 23 on the inspection plans for next week?

See attached draft. Bill told me Friday when I got back to the US that Melanie wanted some input or discussion on the matter.

I had not as yet received an appointment or email about it, then again I have so many I might have missed it.

Over the weekend I had a filling come out so I need to tend to it before next week when we are in Texas. I need to be off on sick leave this PM but I will be here this AM to 1130. Will be here all day Wednesday and Thursday. Not sure about this Friday AM but sure for PM.

From: Cook, William
Sent: Friday, January 18, 2013 8:10 AM
To: Khanna, Meena
Cc: Trapp, James; Floyd, Niklas; Buford, Angela; Conte, Richard; Raymond, William
Subject: Discussion Points/Outline

Meena,

The points that we hope to make with NextEra next week are outlined below. I think this will facilitate our discussion today. I welcome any insights/feedback on how best to discuss these topics with NextEra. Please call when convenient for you.

Thanks,
Bill

Compliance with ACI 318-71

- Team reviewed and discussed Chapter 1 (para 1.4) and Chapter 20 applicability to Seabrook proposed testing
- Paragraph 1.4 does not apply (construction design phase); and 2011 version explicitly refers to Chapter 20 for "evaluation of existing structures." The Code is silent with respect to a time frame of applicability subsequent to initial construction.
- Chapter 20 "Strength Evaluation of Existing Structures," defines structural strength evaluations by either in-situ load test or analysis, or combination of these two methods. The prescribed analytical evaluation method involves actual structural details and material properties from the affected structure.
- Consequently, an evaluation other than prescribed by Code, requires Building Official review and approval (a licensing action). The 2011 version of ACI 318 is more explicit about the details of a load test or analysis and it is clear to the NRC staff that testing of large scale specimens is not covered by ACI 318. Conditions involving deterioration (such as ASR) are specifically addressed in the 2011 version, 20.1.4 and commentary R20.1.4 pertaining to periodic evaluations and the agreement of all concerned parties
- 10CFR50.59 is explicit, a licensee shall obtain a license amendment pursuant to 50.90 prior to implementing a proposed change, test, or experiment if the change, test, or experiment would; (viii) result in a departure from a method of evaluation described in the FSAR (as updated) used in establishing the design bases of the safety analysis
- May seek approval (license amendment) in advance of applying the results of UT-A testing or seek approval (license amendment) upon completion of the testing, thereby proceed at your own risk.
- Question: What supports NextEra belief that the testing approach is a viable path? (NRC review of ACI 326 for shear capacity determination appears to be a viable methodology, but what other limiting states does NextEra plan to evaluate by testing and by what methodology?)
- Next Step: NextEra's response will determine.

Structures Monitoring Program, Revision 2

- Evaluated per Appendix B, Criterion XVI – not acceptable, specifically:
 - Adequate baseline not established (petrographic analysis, material properties, and extent of condition) for future reference
 - No plans for periodic material property sampling
 - Selected monitoring methodology (CCI) does not sufficiently characterize the current state of degradation or progression rate (due to implementation – two dimensional measurements only, cyclic temperature and humidity changes, no differentiation between reaction mechanisms)
 - Ground water chemistry evaluation and analysis program insufficiently established
- NextEra should commit and follow ACI 349.3R guidance (Position Paper)
- Additional SMP considerations/recommendations due to ASR warrant incorporation for appropriate monitoring purposes and research/data collection.

William A. Cook
Senior Reactor Analyst,
USNRC, Region I

(610) 337-5074 (work)
(b)(6) cell

Chaudhary, Suresh

From: Conte, Richard
Sent: Wednesday, February 20, 2013 7:53 AM
To: Khanna, Meena; Cook, William; Trapp, James; Raymond, William
Cc: Lamb, John; McMurtray, Anthony; Dentel, Glenn; Chaudhary, Suresh; Floyd, Niklas
Subject: RE: Response to Request - Seabrook ASR Licensing Approach Outline
Attachments: ASR Outline Reg Process - Rev 3.docx

I changed the title of the file slightly, made no other modifications. Good document as to where we are headed in combination with the below email.

My plans on this are to put it on the working group agenda to summarize and ensure the working group is on board - tentative working group meeting is March 13 instead of March 6 – due to scheduling conflicts in Region I.

You can certainly brief your management now but I would like input from Bill Raymond on the gory details that Mr. O’Keefe was stating. I would like more details on the issue myself before I forward this to Jim Clifford and Chris Miller.

In my discussion with Jim Trapp we would shoot for the end of March to get the ASR Executives together (that is about a quarter after the last brief – we should start to plan it now) together assuming the working group thinks there is substantial developments to this point. I think this email and the attachment is a development in and of itself. Not sure all staff is onboard about whether the 50.59 for the FSAR change screens in or out – I think it depends on how the change is defined.

More to come, there is an inspection next week. Perhaps Bill Raymond can discuss the past violation with Mr. O’Keefe next week.

Any response please call me or see me.

Rich Conte, Seabrook ASR Team Lead, Region I
(610) 337-5183 (Office)
(b)(6) (NRC cell)

From: Khanna, Meena
Sent: Tuesday, February 19, 2013 7:36 PM
To: Conte, Richard; Cook, William; Trapp, James; Raymond, William
Cc: Lamb, John; McMurtray, Anthony
Subject: Response to Request - Seabrook ASR Licensing Approach Outline
Importance: High

Rich, Bill, and Jim,

(b)(5)

017

(b)(5)

(b)(5)

(b)(5)

We hope that this helps and please contact John L. or myself if you have any further questions.

Rich, I need to find some time to brief my management of this and then we can proceed with going forward.

Thanks,
Meena

Chaudhary, Suresh

From: Raymond, William
Sent: Monday, March 11, 2013 2:28 PM
To: Conte, Richard; Dean, Bill; Miller, Chris; Clifford, James; Trapp, James
Cc: Cook, William; Chaudhary, Suresh; Raymond, William
Subject: RE: Debrief between Commissioner Magwood and RA Bill Dean today FW: Can you please get me some information

(b)(5)

Bill R

From: Conte, Richard
Sent: Monday, March 11, 2013 2:07 PM
To: Dean, Bill; Miller, Chris; Clifford, James; Trapp, James
Cc: Cook, William; Raymond, William; Chaudhary, Suresh
Subject: FW: Debrief between Commissioner Magwood and RA Bill Dean today FW: Can you please get me some information

Bill is this a good enough example of fame to show the potential impact of ASR.

From: Sheikh, Abdul
Sent: Monday, March 11, 2013 1:33 PM
To: Conte, Richard
Subject: RE: Debrief between Commissioner Magwood and RA Bill Dean today FW: Can you please get me some information

<http://losangeles.urbdeazine.com/2012/07/18/6th-street-viaduct-replacement-project/>

From: Conte, Richard
Sent: Monday, March 11, 2013 1:04 PM
To: Thomas, George; Sheikh, Abdul; Buford, Angela; Erickson, Alice; Raymond, William
Cc: McMurtray, Anthony; Marshall, Michael; Cook, William; Chaudhary, Suresh
Subject: Debrief between Commissioner Magwood and RA Bill Dean today FW: Can you please get me some information

You guys have anything quick in terms of this bridges or highways closed or were demolished because of ASR.

Most of the references talk about this bridge girder and that bridge column but they don't say this was shut down because of it – most likely for obvious reasons.

From: Dean, Bill
Sent: Monday, March 11, 2013 11:11 AM
To: Conte, Richard
Cc: Cook, William; Miller, Chris; Clifford, James
Subject: Can you please get me some information

Rich

During a periodic with Comm. Magwood today, in talking about ASR, he asked me what DOT's experiences were with severe degradation as a result of ASR (e.g., have they had to close bridges, roads, etc.). Do we have anything I could share with him on that particular question?

Thanks

Bill

Chaudhary, Suresh

From: Conte, Richard
Sent: Tuesday, March 12, 2013 7:16 AM
To: Thomas, George; Raymond, William; Sheikh, Abdul; Buford, Angela; Erickson, Alice
Cc: McMurtray, Anthony; Marshall, Michael; Cook, William; Chaudhary, Suresh
Subject: RE: Debrief between Commissioner Magwood and RA Bill Dean today FW: Can you please get me some information

Thanks George this is helpful.

From: Thomas, George
Sent: Monday, March 11, 2013 2:54 PM
To: Conte, Richard; Raymond, William; Sheikh, Abdul; Buford, Angela; Erickson, Alice
Cc: McMurtray, Anthony; Marshall, Michael; Cook, William; Chaudhary, Suresh
Subject: RE: Debrief between Commissioner Magwood and RA Bill Dean today FW: Can you please get me some information

Rich,

Below is a generic response to your question – I do not have specifics.

(b)(5)

(b)(5)

(b)(5)

Thanks.
George

J 19

Chaudhary, Suresh

From: Conte, Richard
Sent: Thursday, March 14, 2013 3:20 PM
To: Modes, Michael; Gray, Harold
Cc: Chaudhary, Suresh
Subject: Rebar Corrosion FW: Notes from Yesterday's Working Group Meeting

A question has come up if NextEra should be doing more on rebar corrosion with the current groundwater situation. Actually it has never gone away since the license renewal inspection.

The Office of Research seems to indicate the possibility of corrosion with low concentrations of oxygenated water. We have the below on black iron oxide. In H₂O, I thought the bond was pretty strong and it is the free oxygen that causes corrosion – even with low concentration of the free oxygen, it still seems reasonable to me that the high alkaline content of rebar in cement forms a protective film.

As metal material experts, your independent thoughts would be appreciated. No extensive research, your thoughts.

From: Cartwright, William
Sent: Thursday, March 14, 2013 3:09 PM
To: Conte, Richard; Cook, William
Subject: RE: Notes from Yesterday's Working Group Meeting

FYI, there was a brief discussion of a new corrosion mechanism of "black corrosion" in low oxygen conditions yesterday.

From my Chemical Engineering past, with what we have available in a concrete/rebar matrix, the only thing that potentially fits that is black iron oxide (assuming we are not magically creating new elements). Black iron oxide is characterized as tightly adherent, and actually protects iron surfaces against further corrosion. Red iron oxide is bad because it tends to be loosely adherent, flakes off, and then the surfaces corrode again, consuming the base metal. Black iron oxide is all over the interior surfaces of well maintained steam and feed water systems where carbon steel is part of the system. The interior of Steam Generators are black because of it.

From: Conte, Richard
Sent: Thursday, March 14, 2013 2:40 PM
To: Buford, Angela; Cartwright, William; Chaudhary, Suresh; Cline, Leonard; Cook, William; Cruz, Holly; Dentel, Glenn; Erickson, Alice; Floyd, Niklas; Fuhrmann, Mark; Graves, Herman; Hogan, Rosemary; Hughey, John; Khanna, Meena; Kobetz, Timothy; Lamb, John; Manoly, Kamal; Marshall, Michael; McMurtray, Anthony; Merzke, Daniel; Milano, Patrick; Morey, Dennis; Ott, William; Philip, Jacob; Raymond, William; Sheikh, Abdul; Sircar, Madhumita; Stuchell, Sheldon; Thomas, George; Trapp, James
Cc: Clifford, James; Miller, Chris
Subject: Notes from Yesterday's Working Group Meeting

See section 9 for listing of open actions. The document is in track changes to see what changes except for Attachment 1 which was wholesale replacement based on development in the briefing package for the RA.

If I got something wrong in the updated discussion topics, please let me know.

Michael Marshall, next Monday, 3/18, to let me know if your management would like a verbal brief – anyone else for that matter? Take a look at the new attachment 1 to the attached. It is the close to final brief for the regional administrator. It has lots of detail on status of open issues. Given that the consensus yesterday was neutral on a verbal brief with the executives, we could invite your management into the RA brief on Tuesday March 19th at 830am for an half hour. Michelle and Louise I believe were briefed on the essential developments.

I propose we will send out the RA brief with any calibrations after the brief on Tuesday to the Division Executive overseeing the ASR issue as an update for this quarter.

Let me know – we are flexible.

Rich Conte, Seabrook ASR Team Lead, Region I

(610) 337-5183 (Office)

(b)(6) (NRC cell)

Chaudhary, Suresh

From: Conte, Richard
Sent: Tuesday, March 19, 2013 10:07 AM
To: Buford, Angela; Cartwright, William; Chaudhary, Suresh; Cline, Leonard; Cook, William; Cruz, Holly; Dentel, Glenn; Erickson, Alice; Floyd, Niklas; Fuhrmann, Mark; Graves, Herman; Hogan, Rosemary; Hughey, John; Khanna, Meena; Kobetz, Timothy; Lamb, John; Manoly, Kamal; Marshall, Michael; McMurtray, Anthony; Merzke, Daniel; Milano, Patrick; Morey, Dennis; Ott, William; Philip, Jacob; Raymond, William; Sheikh, Abdul; Sircar, Madhumita; Stuchell, Sheldon; Thomas, George; Trapp, James
Subject: FW: Bilateral with Belgium - Followup Activities
Attachments: 2013 NRC RIC Tihange 2 RB.PDF

For your info based on a brief the Belgium reps. gave headquarters last week at the RIC.

At this point I would keep it close if we got this through the regulatory international community. Not sure if this is publicly available.

From: Trapp, James
Sent: Tuesday, March 19, 2013 9:38 AM
To: Conte, Richard
Subject: FW: Bilateral with Belgium - Followup Activities

Please distribute to ASR group. Thanks

From: Rodriguez, Veronica
Sent: Tuesday, March 19, 2013 9:36 AM
To: Dorman, Dan; Hiland, Patrick; Kokajko, Lawrence; McMurtray, Anthony; Hardies, Robert; Thomas, George; Hopkins, Jon; Trapp, James
Cc: Fehst, Geraldine; Carpenter, Gene
Subject: RE: Bilateral with Belgium - Followup Activities

Hi everyone,
Just a short email to provide you a status of the Belgium bilat followup activities.

Action items 1, 3, and 4 have been completed. Thanks to Bob/Jon for forwarding the presentations so quickly. FANC was very appreciative.

Regarding action item #2 -- FANC's presentation on ASR/Tihange-2 is attached for your information. Jim -- please feel free to FW it to all interested parties in R1. I'll send a copy to our counterparts in RES. This action is also considered complete.

Regarding action item #5, RES' questions to FANC on ASR are included below. NRC/RES is still awaiting the responses. I'll send you a copy once they become available.

- 1)
- 2)
- 3)
- 4)
- 5)
- 6)
- 7)
- 8)

(b)(4)

021

And lastly, I expect to send the meeting summary for your review some time next week. I need to focus on the CNS report this week but will work on the summary asap.

Have a nice day,
Veronica

From: Rodriguez, Veronica
Sent: Wednesday, March 13, 2013 12:36 PM
To: Dorman, Dan; Hiland, Patrick; Kokajko, Lawrence; McMurtray, Anthony; Hardies, Robert; Thomas, George; Hopkins, Jon; Trapp, James
Cc: Fehst, Geraldine; Carpenter, Gene
Subject: Bilateral with Belgium - Followup Activities

Team ... one more time, thanks for supporting the bilat and the prep meeting. We greatly appreciate it. I think we had a fantastic exchange of info. Gerri and I will work on the meeting summary. I'll run it by you to ensure we did not mischaracterize anything.

I noted a few action items:

- 1- Exchange slides on RPV issue (Lead: NRC – Bob) COMPLETED
Please send the slides to me and I'll FW them to Belgium.
- 2- Exchange slides on ASR issue at Tihange-2 (Lead: FANC) COMPLETED
I'll send you the info once I get it.
- 3- Exchange slides from IRRS workshop (Lead: NRC – Jon) COMPLETED
Please send the slides to me and I'll FW them to Belgium.
- 4- Provide contact info from Sweden re: IRRS topic (Lead: NRC – Veronica). COMPLETED
- 5- Obtain Q-As on Tihange-2 from RES (Lead: NRC – Veronica)
I'll send you the info once I get it.

Last but not least ... NRR staff – please use the following TACs for the time spent in support of this meeting (prep time, prep meeting, actual bilat, and any followup activities, such as completion of action items). Please note that there is a TAC for supervisors. Thanks! And enjoy the rest of the RIC! Veronica

Dan, Pat, Lawrence, Tony – ZM001 – Management Supervision -- International Activities
Bob, George, Jon – ME3707 – NRR Support for International Activities – Bilateral Cooperation

P.S. If you have suggestions for improving the coordination of our bilateral meetings please feel free to share those with us. We always welcome your recommendations.

Heater, Keith

From: Floyd, Niklas
Sent: Tuesday, September 17, 2013 1:13 AM
To: Heater, Keith
Subject: FOIA: Final on Response to C-10 on Latest Questions
Attachments: C-10 Email of 2-27-2013 SeabrookASR.docx; c-10 Questions Rev 2 - NRC Resp on Process and Unit 2 - February 27 .docx

From: Conte, Richard
Sent: Tuesday, March 12, 2013 8:41 AM
To: Trapp, James; Sheehan, Neil; Screnci, Diane
Cc: McMurtray, Anthony; Marshall, Michael; Floyd, Niklas; Cook, William
Subject: Final on Response to C-10 on Latest Questions

Thanks to all the help from NRR I concluded we were getting too detailed, perhaps too forward looking on acceptability and too long winded.

The first file is the incoming and the second file is the response.

I took a fresh look yesterday and today and here is the final. Back you cc's for feedback. It has changed so much I won't even bother with a text comparison.

Neil or Diane can you evaluate plain language and overall receptiveness to the incoming. (OGC has stated we owe them nothing and this is much more than that). If you can get back to us in a day or two it would be appreciated.

Rich Conte, Seabrook ASR Team Lead, Region I

(610) 337-5183 (Office)

(b)(6) (NRC cell)

222

Heater, Keith

From: Floyd, Niklas
Sent: Tuesday, September 17, 2013 1:30 AM
To: Heater, Keith
Subject: FOIA: Groundwater Ingress at Seabrook

From: Cheok, Michael
Sent: Monday, June 10, 2013 4:30 PM
To: Trapp, James; Raymond, William; Floyd, Niklas
Subject: RE: Groundwater Ingress at Seabrook

Jim, Bill, Niklas – thanks for the prompt response. This is very helpful.

Mike

From: Trapp, James
Sent: Monday, June 10, 2013 4:23 PM
To: Cheok, Michael
Cc: Raymond, William; Floyd, Niklas
Subject: FW: Groundwater Ingress at Seabrook

Mike – we looked at the ASR OD's and they don't directly address the groundwater intrusion on plant safety equipment. I asked your question to Bill Raymond the former Senior Resident and ASR resident expert for the NRC.

I hope this information helps. The bottom line is we don't believe the groundwater intrusion has/had a adverse impact on safety-related equipment at Seabrook. If you need more, please let me know.

From: Raymond, William
Sent: Monday, June 10, 2013 4:04 PM
To: Trapp, James
Cc: Floyd, Niklas
Subject: RE: Groundwater Ingress at Seabrook

1) I am not aware of (b)(5)

(b)(5)

2) There is a question in my mind whether the affects (b)(5)

(b)(5)

Although (b)(5)

(b)(5)

The only other area of interest relative to (b)(5)

(b)(5)

Let me know if you need more information.

Dill

Tifft, Doug

From: Dostie, Pat <Pat.Dostie@maine.gov>
Sent: Monday, December 10, 2012 4:18 PM
To: Tifft, Doug
Subject: RE: Seabrook Inspection Report

Thanks Doug.

From: Tifft, Doug [mailto:Doug.Tifft@nrc.gov]
Sent: Monday, December 10, 2012 3:33 PM
To: Dostie, Pat
Subject: RE: Seabrook Inspection Report

No problem. And here is a press release we just issued. The press release references a website we've created where we have all of the Seabrook ASR information in one place. Here is the link:
<http://www.nrc.gov/info-finder/reactor/seabrook/concrete-degradation.html>

-Doug

From: Dostie, Pat [mailto:Pat.Dostie@maine.gov]
Sent: Monday, December 10, 2012 3:00 PM
To: Tifft, Doug
Subject: RE: Seabrook Inspection Report

Thanks Doug. I appreciate your promptness.

Pat

From: Tifft, Doug [mailto:Doug.Tifft@nrc.gov]
Sent: Monday, December 10, 2012 1:33 PM
To: Dostie, Pat
Subject: Seabrook Inspection Report

Pat,

Attached is the Seabrook ASR inspection report that was publicly released last week. The last 4 pages of the document is the Confirmatory Action Letter that was issued in May.

I'll get you a copy of the meeting slides as soon as the staff returns to the office from the meeting.

-Doug

Doug Tifft
Regional State Liaison Officer
Office: 610-337-6918
Cell: (b)(6)

224

Chaudhary, Suresh

From: Conte, Richard
Sent: Thursday, January 03, 2013 2:25 PM
To: Ali, Syed; Buford, Angela; Cartwright, William; Chaudhary, Suresh; Cline, Leonard; Cook, William; Cruz, Holly; Erickson, Alice; Floyd, Niklas; Fuhrmann, Mark; Graves, Herman; Hogan, Rosemary; Hughey, John; Khanna, Meena; Kobetz, Timothy; Lamb, John; Manoly, Kamal; Marshall, Michael; Merzke, Daniel; Milano, Patrick; Morey, Dennis; Murphy, Martin; Ott, William; Philip, Jacob; Raymond, William; Schroeder, Daniel; Sheikh, Abdul; Sircar, Madhumita; Stuchell, Sheldon; Thomas, George; Trapp, James
Subject: FW: Dec 21 Mtg (b)(6) Seabrook Station Report Review
Attachments: Requesting a No Technical Objections (NTO) Review from Key Members of the Working Group

(b)(5)

From: Raymond, William
Sent: Thursday, January 03, 2013 12:21 PM
To: Conte, Richard
Subject: FW: Dec 21 Mtg (b)(6) Seabrook Station Report Review

From: Raymond, William
Sent: Thursday, January 03, 2013 11:19 AM
To: Raymond, William
Subject: Dec 21 Mtg (b)(6) Seabrook Station Report Review

From: Raymond, William
Sent: Friday, December 21, 2012 6:53 PM
To: Cook, William; Conte, Richard
Cc: Buford, Angela
Subject: RE: Seabrook Station Report Review

The meeting with (b)(6)
(b)(6) (b)(5)
(b)(5)

(b)(5)

025

(b)(5)

o (b)(5)

(b)(5)

(b)(5)

Bill

From: Cook, William
Sent: Friday, December 21, 2012 11:12 AM
To: Raymond, William; Conte, Richard
Cc: Buford, Angela
Subject: RE: Seabrook Station Report Review

OK, good luck. Should be interesting!!

From: Raymond, William
Sent: Friday, December 21, 2012 11:09 AM
To: Cook, William; Conte, Richard
Cc: Buford, Angela
Subject: RE: Seabrook Station Report Review

Bill,

(b)(6)

Bill
p.s.,

(b)(5)

From: Cook, William
Sent: Friday, December 21, 2012 7:19 AM

To: Conte, Richard
Cc: Buford, Angela; Raymond, William
Subject: RE: Seabrook Station Report Review

That works for me.

From: Conte, Richard
Sent: Thursday, December 20, 2012 4:45 PM
To: Cook, William
Cc: Buford, Angela; Raymond, William
Subject: RE: Seabrook Station Report Review

Can we do this between Jan 2 and 4, otherwise the following week.

From: Cook, William
Sent: Thursday, December 20, 2012 4:30 PM
To: Conte, Richard
Cc: Buford, Angela; Raymond, William
Subject: FW: Seabrook Station Report Review

FYI

From: (b)(6)
Sent: Thursday, December 20, 2012 4:16 PM
To: Cook, William
Subject: RE: Seabrook Station Report Review

(b)(6)

(b)(6)

(b)(6)

(b)(6)

From: Cook, William [<mailto:William.Cook@nrc.gov>]
Sent: Thursday, December 20, 2012 10:41 AM
To: (b)(6)

Cc: Conte, Richard
Subject: RE: Seabrook Station Report Review

(b)(6)

Thanks you for your kind offer to discuss your observations on the Seabrook ASR issue. If it is amenable to you, I or another member of my team, can give you a call after the holidays to hear your comments. To be clear, I can not offer you any compensation for your efforts. However, as a member of the public, the NRC always welcomes input and feedback regarding our regulatory oversight of licensee activities.

We appreciate your continued interest and support.

Best regards,
Bill Cook

William A. Cook
Senior Reactor Analyst,
USNRC, Region I

(610) 337-5074 (work)

(b)(6) (cell)

From: (b)(6)
Sent: Saturday, December 15, 2012 9:28 AM
To: Cook, William
Subject: Seabrook Station Report Review

Hi Bill! (b)(6)

(b)(6)

(b)(6) Thanks.

(b)(6)

(b)(6)

(b)(6)

Tift, Doug

From: Conte, Richard
Sent: Thursday, March 14, 2013 10:28 AM
To: Roberts, Darrell; Dentel, Glenn; Clifford, James; Miller, Chris; Sheehan, Neil; Screnci, Diane; Tift, Doug; McNamara, Nancy
Subject: FW: C10 Follow Up: ASR

This is to let you know that this interaction occurred and there may be more correspondence coming in.

We are working another email response related to her question on our processes and the use of Seabrook Unit 2 concrete that was vetted with the ASR working group.

I will discuss with you this PM, Chris, at our 100pm meeting.

From: Raymond, William
Sent: Wednesday, March 13, 2013 5:41 PM
To: Conte, Richard; Trapp, James
Cc: Cook, William; Dentel, Glenn; McKenna, Philip; Jennerich, Matthew; Lamb, John
Subject: C10 Follow Up: ASR

Rich & Jim,

(b)(5)

Bill

From: Conte, Richard
Sent: Thursday, March 07, 2013 3:26 PM
To: Raymond, William; Trapp, James
Cc: Cook, William
Subject: RE: ASR- What else

Looks good, be prepared to define what Tier 2 means to her over the phone.

From: Raymond, William
Sent: Thursday, March 07, 2013 3:24 PM
To: Conte, Richard; Trapp, James
Cc: Raymond, William; Cook, William
Subject: FW: ASR- What else

Rich & Jim,
See the talking points below for my discussion with C-10.
Your comments are welcome. I will try to reach Deb on Friday.
Bill

028

Proposed Talking Points

Question 1 – status of containment

-
-
-
-
-
-

(b)(5)

Question 2 – monitoring the 131 areas

The Interim Assessment describes how NextEra evaluated the 131 ASR-impacted areas
NRC review of the monitoring program is described in Report 2012-09, Section 6.0

-
-
-
-
-
-

(b)(5)

From: Trapp, James
Sent: Thursday, March 07, 2013 1:47 PM
To: Raymond, William; Conte, Richard
Cc: Dentel, Glenn; Cook, William; McKenna, Philip
Subject: RE: ASR- What else

I think you likely have all the information necessary to answer Ms. Ginnell's questions. If you are comfortable replying, please give her a call. You may also want to give her an organization update.

Thanks Bill!

From: Raymond, William
Sent: Thursday, March 07, 2013 1:39 PM
To: Conte, Richard; Trapp, James
Cc: Dentel, Glenn; Cook, William; McKenna, Philip
Subject: FW: ASR- What else

Rich & Jim
I am forwarding this for your info and response.
I know Rich is preparing a response to another recent request.
This is the first direct communication I have received in some time.
I am not sure Deb is aware of my change in status..
Let me know if you would like me to reply.
Thanks,
Bill

From: Debbie Grinnell [<mailto:debbie@c-10.org>]
Sent: Thursday, March 07, 2013 1:31 PM
To: Raymond, William
Subject: ASR- What else

Hi Bill,

I have looked but have not seen the petrographic results for ASR concrete in containment. Where are those results. Have we tested for tensile strength yet?

Your staff stated that 131 must be trended for monitoring. They are in different areas and will evolve at different rates. ALL must be trended.

Where has the NRC stated that the 131 areas identified as ASR be confirmed with petrographic results and then placed in a monitoring program for trending. You signed off on CAL #10 with only 20. ALL areas must be evaluated for crack index and individual crack width to even begin a reliable trend.

I made that point at the meeting...what happened.

Thanks,

Debbie

Chaudhary, Suresh

From: Raymond, William
Sent: Wednesday, April 17, 2013 9:55 AM
To: Trapp, James
Cc: Chaudhary, Suresh
Subject: RE: Seabrook's ASR follow-up

Hi Jim,

(b)(5)

I hope this helps.
Bill

From: Trapp, James
Sent: Wednesday, April 17, 2013 9:33 AM
To: Debbie Grinnell
Subject: RE: Seabrook's ASR follow-up

Good hearing from you again. I would be happy to answer your questions, but believe a verbal discussion would be the most efficient means of communication.

I will be available anytime on Thursday morning, if you have time. Please let me know if this works for you and what time you would like me to arrange the call.

As background material for our discussion, the letter from NextEra requesting the NRC accept their commitment change regarding prism testing and our basis for accepting this request can be found on the NRC's Seabrook Special NRC Oversight webpage. They are the first two publically available documents listed on the website. The webpage can be accessed from the following link:

<http://www.nrc.gov/info-finder/reactor/seabrook/concrete-degradation.html>

From: Debbie Grinnell [<mailto:debbie@c-10.org>]
Sent: Tuesday, April 16, 2013 1:58 PM
To: Trapp, James
Subject: Seabrook's ASR follow-up

Hello Jim,

In NextEra's Response to Confirmatory Action Letter (SBK-L-13027) they state: " In reference 2, the NextEra Energy Seabrook requested deletion of CAL action 7, as the results of the Mortar Bar Expansion Testing obviated the need for long-term expansion testing."

027

As we discussed, our expert recommended a Prism Test which the NRC also required to be done. Could you provide us the results of the Mortar Bar Expansion test and the rationale from NextEra as to why it is now considered unnecessary.

I also asked you, Jim, for the # lb/y³ of alkali present.

Also, where are the test results from Seabrook's ASR affected walls and basemat in their CEVA and containment areas submerged in 6 feet of water since construction. What are the core results? Do we have results from sections on the interior and exterior surface above grade and from sections below grade to compare affected to unaffected areas in the same areas of containment?

Thank you,

Debbie

Debbie Grinnell
Research Manager
C-10 Foundation
44 Merrimac Street
Newburyport, Ma. 01950
Tel. 978-465-6646

Chaudhary, Suresh

From: Raymond, William
Sent: Tuesday, May 15, 2012 10:38 AM
To: Lamb, John; Conte, Richard
Cc: Burritt, Arthur; Chaudhary, Suresh; Khanna, Meena; Marshall, Michael; Erickson, Alice; Sheikh, Abdul; Murphy, Martin; Thomas, George
Subject: RE: For Your Input and Review - Response to "No More Fukishimas!" Questions at NRC Public Meeting on April 23, 2012

John & Rich – Here is a partial response to get us started.
We do not have complete answers (yet) for all of Mr. Skud's questions.

Question #2

(b)(5)

NextEra informed the NRC of the (b)(5)

(b)(5)

While NextEra deserves credit for discovering the (b)(5)

(b)(5)

Green. Inspectors identified (b)(5)

(b)(5)

Question #3

(b)(5)

For both Questions #2 and #3

It remains to be determined why NRC (b)(5)

(b)(5)

(b)(5)

(b)(5)

(b)(4)

(b)(5)

Facts Regarding Past NRC Inspections – Needs Followup Review and Evaluation:

(b)(5)

(b)(5)

(b)(5)

I reviewed the inspection history through February 1990 but was unable to identify how or when (b)(5)

(b)(5)

(b)(5)

William J. Raymond

USNRC-Nuclear Engineer

Seabrook Resident Office

william.raymond@nrc.gov

603-474-3580 (work)

(b)(6) (cell)

603-474-9018 (fax)

From: Lamb, John

Sent: Tuesday, May 15, 2012 8:53 AM

To: Burritt, Arthur; Raymond, William; Conte, Richard; Chaudhary, Suresh; Khanna, Meena; Marshall, Michael; Erickson, Alice; Sheikh, Abdul; Murphy, Martin; Thomas, George

Subject: For Your Input and Review - Response to "No More Fukishimas!" Questions at NRC Public Meeting on April 23, 2012

Ladies & Gentlemen:

At the NRC public meeting regarding Seabrook ASR held on April 23, 2012, "No More Fukushima!" provided the attached comments/questions. At the meeting, Mr. Chris Miller offered to respond to the questions; however, Mr. Bruce Skud of "No More Fukushima!" was put on mute by the bridge line coordinator. By email dated April 24, 2012, Mr. Skud expressed a desire that NRC respond to the questions.

Attached, for your input and review, are the **DRAFT** responses to the "No More Fukushima!" comments/questions.

Thanks.
John

Chaudhary, Suresh

From: Raymond, William
Sent: Tuesday, May 22, 2012 9:46 AM
To: Conte, Richard; Thomas, George
Cc: Chaudhary, Suresh; Sheikh, Abdul; Khanna, Meena; Murphy, Martin; Manoly, Kamal; Cartwright, William; Dimitriadis, Anthony; Kobetz, Timothy; Burritt, Arthur; Lamb, John
Subject: RE: Response to Requested Info - Seabrook: References for Bounding Evaluation

George is correct. The Bayrak paper quotes data from test specimens that were (b)(5)

(b)(5)

Bill

From: Conte, Richard
Sent: Tuesday, May 22, 2012 8:49 AM
To: Lamb, John; Burritt, Arthur
Cc: Raymond, William; Chaudhary, Suresh; Sheikh, Abdul; Khanna, Meena; Murphy, Martin; Manoly, Kamal; Cartwright, William; Dimitriadis, Anthony; Kobetz, Timothy
Subject: RE: Response to Requested Info - Seabrook: References for Bounding Evaluation

What criteria are we using to inspect this?

Do we regulate by literature?

Sounds to me like guidance needs to be developed if we can ever get the working group started and the TIA addressed.

From: Lamb, John
Sent: Tuesday, May 22, 2012 8:24 AM
To: Burritt, Arthur
Cc: Raymond, William; Chaudhary, Suresh; Sheikh, Abdul; Khanna, Meena; Conte, Richard; Murphy, Martin; Manoly, Kamal
Subject: Response to Requested Info - Seabrook: References for Bounding Evaluation
Importance: High

From: Thomas, George
Sent: Tuesday, May 22, 2012 7:40 AM
To: Lamb, John
Cc: Murphy, Martin; Khanna, Meena; Manoly, Kamal
Subject: RE: Seabrook: References for Bounding Evaluation

John,

Friday does not look good for me. I have provided the information that Art Burritt is seeking below with regard to the source of reduction in shear capacity in literature for ASR-affected beams. If Region needs further info or clarification, we can have a conference call early next week when I am back in the office -pl use my Outlook calendar.

329

Attached is Reference 11 from my list that reports in its Conclusions a 25% reduction in shear capacity in ASR-affected beams with NO transverse shear reinforcement. This reference reports testing and results of several "large-scale" beams sawn out of two 35-year old bridge decks (approx. 2 ft to 2.5 ft thick) in the Netherlands that have been significantly affected by ASR. These bridge decks have rebar mats on the two faces with no transverse shear ties through the thickness, similar to the Electrical Tunnel and other affected below-grade walls at Seabrook.

Another reference reporting potential reduction in shear capacity of ASR-affected beams is Reference 24 in Dr Bayrak's whitepaper for Seabrook "Structural Implications of ASR - State of the Art," written for NextEra. I do not have that reference handy. Region can request it of the licensee if they want this reference. That reference provides results of testing of "model-scale" ASR-induced beams (I think 3 in x 5 in cross section x 50 in long) with NO transverse shear reinforcement and reports potential reduction in shear capacity of up to 25%.

Thanks.
George

From: Lamb, John
Sent: Monday, May 21, 2012 1:30 PM
To: Thomas, George
Cc: Murphy, Martin; Khanna, Meena
Subject: FW: Seabrook: References for Bounding Evaluation

George,

What is your availability this Friday, May 25, 2012, for a conference call?

Thanks.
John

From: Manoly, Kamal
Sent: Monday, May 21, 2012 12:07 PM
To: Khanna, Meena; Murphy, Martin; Lamb, John
Subject: RE: Seabrook: References for Bounding Evaluation

I will be available this week.

From: Khanna, Meena
Sent: Monday, May 21, 2012 9:27 AM
To: Murphy, Martin; Lamb, John
Cc: Manoly, Kamal
Subject: RE: Seabrook: References for Bounding Evaluation

Thanks Marty...we'll try to set something up according to everyone's schedule.

From: Murphy, Martin
Sent: Monday, May 21, 2012 7:15 AM
To: Khanna, Meena; Lamb, John
Cc: Manoly, Kamal
Subject: RE: Seabrook: References for Bounding Evaluation

Meena, John,

George is in training all week this week. If you can get a hold of him, the morning of 5/23 will work or the morning of 5/25 will work. I want to be on the call and I want Kamal on the call. 5/24 will not work at all for me. If we cannot get one of these two days then it will need to be next week.

Marty

From: Khanna, Meena
Sent: Thursday, May 17, 2012 5:27 PM
To: Murphy, Martin
Cc: Marshall, Michael; Lamb, John
Subject: FW: Seabrook: References for Bounding Evaluation

Hi Marty, would you be okay with having George (and yourself) support a brief call with Art Burritt and Rich Conte on either 5/23, 5/24/ or 5/25 to address the references that George used for the bounding calculation. Art would like to understand the source of the 25% and verify how comparable it is to Seabrook. If you are okay with this, I will ask John to set something up for next week..thanks!

Meena

From: Burritt, Arthur
Sent: Thursday, May 17, 2012 5:19 PM
To: Khanna, Meena
Cc: Conte, Richard
Subject: RE: Seabrook: References for Bounding Evaluation

Can you set something up on 5/23 to 5/25

From: Khanna, Meena
Sent: Thursday, May 10, 2012 8:55 AM
To: Burritt, Arthur
Subject: Re: Seabrook: References for Bounding Evaluation

Ok I think the best thing is to schedule a conf call with you, George and the other tech reviewers to discuss, thx.

From: Burritt, Arthur
To: Khanna, Meena
Sent: Thu May 10 08:47:12 2012
Subject: RE: Seabrook: References for Bounding Evaluation

I will call you next week when I am back in the office.. I wanted to understand the source of the 25% and verify how comparable it is to Seabrook since that seems to be key to our safety assessment. I suspect that reference 11 is not readily accessible to a person with no particular expertise.

From: Khanna, Meena
Sent: Thursday, May 10, 2012 7:49 AM
To: Burritt, Arthur; Conte, Richard
Subject: Fw: Seabrook: References for Bounding Evaluation

Here you go.

From: Thomas, George
To: Khanna, Meena
Cc: Murphy, Martin
Sent: Thu May 10 07:48:19 2012
Subject: RE: Seabrook: References for Bounding Evaluation

It comes from Reference 11 in the list below as well as Table 4 of Dr Bayrak's White Paper for Seabrook on Structural Implications of ASR.

From: Khanna, Meena
Sent: Thursday, May 10, 2012 4:12 AM
To: Thomas, George; Murphy, Martin
Subject: Fw: Seabrook: References for Bounding Evaluation

✓ Could you pls help with Art's request below, if possible. Thx

From: Burrirt, Arthur
To: Khanna, Meena
Sent: Wed May 09 22:17:51 2012
Subject: RE: Seabrook: References for Bounding Evaluation

I just wanted to know where did the 25% reduction in shear capacity came from? I was hoping for a simpler more direct answer.

From: Khanna, Meena
Sent: Wednesday, May 09, 2012 3:51 PM
To: Burrirt, Arthur
Cc: Conte, Richard
Subject: FW: Seabrook: References for Bounding Evaluation

Art, pls see below for the references that you requested and George indicated that the TIA has a more detailed list of references. Also, he suggested that the reviewers look at the white papers that Dr. Bayrak wrote.

Thanks,
Meena

From: Thomas, George
Sent: Wednesday, May 09, 2012 3:46 PM
To: Murphy, Martin; Khanna, Meena
Subject: FW: Seabrook: References for Bounding Evaluation

Marty/Meena:

Please use this version – I attempted to recall the previous version.

Below is a list of references that was used for the high-level bounding evaluation of engg/design margins based on B Electrical Tunnel (structure with the worst ASR).

1. Seabrook UFSAR Sections 3.8.4, 2.4 & 2.5
2. ACI 318-71, Building Code Requirements for Reinforced Concrete
3. SD-66, Revision 2, System Description for Structural Design Criteria for Public Service Company of New Hampshire, Seabrook Station, Unit Nos. 1 and 2, 3/02/84.
4. Calculation CD-20, UE Control and Diesel Generator Building Design of Material and Walls below grade for Electrical Tunnel and the Control Building (Original Design Calculation)
5. Calculation C-S-1-10150, Rev. 0, Effects of Reduced Modulus of Elasticity – 'B' Electrical Tunnel Exterior Walls
6. Calculation C-S-1-10159, Rev. 0, 'B' Electrical Tunnel Transverse Shear Evaluation Supplement to Calculation CD-20
7. Action Request (AR) 581434, Revision 001, Prompt Operability Determination Reduced Concrete Properties Below Grade in 'B' Electrical Tunnel Exterior Walls.

8. Dwg 9763-F-111342, for Control Building Concrete (Electrical tunnel)
9. Test data of compressive strength and modulus of elasticity from cores taken from the B Electrical Tunnel (2010, 2011) – Excel Table from Senior Resident
10. Structural effects of alkali-silica reaction – Technical guidance on the appraisal of existing structures, The Institution of Structural Engineers, London, UK, July 1992 and Addendum, April 2010
11. den Uijl, J.A., and Kaptijn, N., Structural Consequences of ASR: an example on shear capacity, HERON, Vol. 47, No. 2 (2002) special issue on ASR-ISSN 0046-7316, pp 125-139, Delft, The Netherlands

George

Chaudhary, Suresh

From: Raymond, William
Sent: Wednesday, May 02, 2012 5:49 PM
To: Dacus, Eugene
Cc: Weil, Jenny; Burritt, Arthur; Miller, Chris; DeBoer, Joseph; Khanna, Meena; Conte, Richard; Chaudhary, Suresh
Subject: RE: Seabrook Question

Gene,

As stated, the quote below does not correctly characterize the NRC interaction with NextEra relative to impacts on rebar. It seems to imply that NRC told NextEra to do something and they refused to do it. NOT TRUE.

(b)(5)

NRC review of this topic remains in progress. It remains to be seen whether NRC question/concerns have been adequately addressed.

I trust this helps.
Bill

William J. Raymond
USNRC-Nuclear Engineer
Seabrook Resident Office
william.raymond@nrc.gov
603-474-3580 (work)
(b)(6) cell.
603-474-9018 (fax)

From: Dacus, Eugene
Sent: Wednesday, May 02, 2012 5:25 PM
To: Burritt, Arthur; Miller, Chris; Raymond, William; DeBoer, Joseph; Khanna, Meena
Cc: Weil, Jenny
Subject: Seabrook Question

Art,

Help! Just got this question from Rep. Markey's staff.

The NRCc told Nextera to look at whether ASR messed with the steel rebar. Nextera said no. Is the NRC making them do it?

Thanks

230

Gene

Trapp, James

From: Dean, Bill
Sent: Tuesday, January 15, 2013 3:02 PM
To: 'DLochbaum@ucsusa.org'
Cc: Trapp, James
Subject: Re: SAITT

Dave

Thanks for the thoughtful and constructive feedback.

Bill Dean
Regional Administrator
Region I, USNRC
Sent from NRC BlackBerry

From: Dave Lochbaum <DLochbaum@ucsusa.org>
To: Trapp, James
Cc: Leeds, Eric; Dean, Bill; Grinnell, Debbie <debbie@c-10.org>
Sent: Tue Jan 15 14:25:16 2013
Subject: RE: SAITT

Hello Jim:

First, I appreciate that the NRC established a webpage for the Seabrook ASR issue.

Comments on the webpage:

- 1) ASR is not (yet) a common household discussion topic. I think the NRC's explanation linked from paragraph two of the webpage is a very good summary. I saw it again in the slides used by the NRC in the December 11, 2012 public meeting (ML12356A043) and emailed Chris Miller accordingly.
- 2) I expected to see the 12/11/2012 slides on the webpage, either under the Publicly Available Documents section or under the Public Meetings section, or both. That meeting was over a month ago and the slides appeared in ADAMS weeks ago.
- 3) I'd recommend omitting a Next Steps section until there are next steps to report. The information currently listed as Next Steps really aren't.
- 4) Concrete issues have also been experienced at Crystal River 3 and Davis-Besse. It might be worthwhile to include a brief discussion on this webpage of how ASR compares to the concrete degradation at those sites. Alternatively, the Related Information box in the upper right could be supplemented with links to the NRC inspection reports for concrete degradation at these sites and/or the licensees' root cause reports. I'm not entirely convinced these materials would add more than they'd distract from this webpage - hence it might be worthwhile to include them.
- 5) I think the level of detail on this webpage is just right. It's tempting to add more descriptive text, resulting in a webpage that's a mile deep. I think the staff achieved a proper balance with this webpage - providing concise descriptive text with links to the fuller stories for those wishing additional details.

031

Thanks,
Dave Lochbaum
UCS

From: Trapp, James [James.Trapp@nrc.gov]
Sent: Tuesday, January 15, 2013 1:19 PM
To: Dave Lochbaum
Cc: Leeds, Eric; Dean, Bill; Grinnell, Debbie
Subject: RE: SAITT

Dave – good to hear from you again.

As you requested, I've provided you our Action Item Tracking Database (Attached). The database is maintained by our ASR Project Manager to make sure all the tasks associated with the project are tracked and completed. I would be happy to discuss any of the specific task database items with you. I would also appreciate your feedback on whether the information in the database is of interest to members of your organization.

Regarding the reports to the NRC executive team, these "reports" have been verbal briefings by the ASR team to the NRC key executives, primarily consisting of a status of NextEra's actions, inspections, and completed and planned actions by our task group.

I would also like to bring to your attention our new Seabrook ASR website. I would also be interested in your feedback and suggestions on enhancements we could consider for the website. You can access the website at the following address:

<http://www.nrc.gov/info-finder/reactor/seabrook/concrete-degradation.html>

If there is anything else I can help you with please don't hesitate to call me at either (610) 337-5186 (Office) or

(b) (6) (Cell).

From: Dave Lochbaum [mailto:DLochbaum@ucsusa.org]
Sent: Thursday, January 03, 2013 12:55 PM
To: Trapp, James
Cc: Leeds, Eric; Dean, Bill; Grinnell, Debbie
Subject: SAITT

Hello Jim:

The SAITT charter (ML12270A060) indicated that you were chairing this team. If that's incorrect or no longer the case, please forward this inquiry along to the chair and accept my apology for the inconvenience.

Debbie Grinnell asked me about the documents collected by the SAITT. More specifically, she asked about public access to those documents.

The Functional Responsibilities section on page 2 of the charter indicates that an action item tracking system will be established and maintained and that periodic reports will be made to the Region I Administrator and the NRR Office Director.

A search of ADAMS did not return any such records in the public arena.

UCS could seek these records under with a FOIA request. If so, we'd likely widen the request to all SAITT and ASR-related records just to make sure we didn't miss anything.

Another option, perhaps easier for NRC and us, would be for the agency to place those records in ADAMS that it feels address the issue without revealing pre-decisional, proprietary, etc. information. Following the Davis-Besse reactor vessel head degradation event, the NRC voluntarily placed documents from its Manual Chapter 0350 team (e.g., meeting minutes, action item tracking lists, etc) along with a monthly status report from Region III OPA into ADAMS.

Will the SAITT make publicly available as many records as is appropriate?

Or is our submitting a FOIA the best way for this material to be accessed by the public?

Thanks,

Dave Lochbaum

Director, Nuclear Safety Project

Union of Concerned Scientists

PO Box 15316

Chattanooga, TN 37415

(423) 468-9272 office

(615) 468-9272 cell

dlochbaum@ucsusa.org

Chaudhary, Suresh

From: Raymond, William
Sent: Thursday, January 10, 2013 8:58 AM
To: Buford, Angela; Cook, William; Conte, Richard; Chaudhary, Suresh; Sheikh, Abdul
Subject: Re: FYI: Report from Canada FW: Can you please share the University of Toronto Report for ASR

Thanks, Angie. It is an interesting paper, especially the different views on the ability of confinement to suppress the expansion and the implications on crack indexing.
Bill

Bill
Sent via NRC BlackBerry

From: Buford, Angela
To: Cook, William; Conte, Richard; Raymond, William; Chaudhary, Suresh
Sent: Thu Jan 10 08:02:01 2013
Subject: FYI: Report from Canada FW: Can you please share the University of Toronto Report for ASR

Please see Abdul's highlights on the CNSC paper, also attached.

From: Sheikh, Abdul
Sent: Monday, January 07, 2013 5:23 PM
To: Erickson, Alice; Buford, Angela
Cc: Marshall, Michael; Thomas, George
Subject: FW: Can you please share the University of Toronto Report for ASR

Please see the attached report from Canada. A quick glance of the report found the following information which may be useful:

(b)(4)

(b)(4)

(b)(4)

(b)(4)

032

(b)(4)

(b)(4)

(b)(4)

(b)(4)

The Berkeley report also report similar results.

From: Orbovic, Nebojsa [<mailto:Nebojsa.Orbovic@cnsccsn.gc.ca>]

Sent: Monday, January 07, 2013 2:33 PM

To: Sheikh, Abdul

Cc: Graves, Herman; Philip, Jacob; Marshall, Michael; Nicholson, Thomas; Ducic, Milan; Dewar, Keith; Watson, Brian; Blahoiianu, Andrei

Subject: RE: Can you please share the University of Toronto Report for ASR

Abdul,

Please, find here attached the first (b)(4)

(b)(4)

Neb

From: Sheikh, Abdul [<mailto:Abdul.Sheikh@nrc.gov>]

Sent: Monday, January 07, 2013 9:40 AM

To: Orbovic, Nebojsa

Cc: Graves, Herman; Philip, Jacob; Marshall, Michael

Subject: Can you please share the University of Toronto Report for ASR

*** NOTE ***

The CNSC email security server scanned this email and found no potentially hostile or malicious content. To be safe, do not open attachments from unrecognized senders.

*** REMARQUE ****

Le serveur de sécurité de la CCSN a examiné ce courriel et n'y a trouvé aucun contenu potentiellement hostile ou malveillant. Pour protéger votre ordinateur, n'ouvrez pas les pièces jointes en provenance d'expéditeurs inconnus.

Trapp, James

From: Conte, Richard
Sent: Wednesday, February 20, 2013 1:37 PM
To: Dentel, Glenn; Trapp, James; Cook, William; Buford, Angela; Raymond, William; Chaudhary, Suresh; Floyd, Niklas
Cc: Clifford, James; Miller, Chris
Subject: FW: Can you please share the University of Toronto Report for ASR
Attachments: CNSC_Progress Report_1-Literature Review_Jan7_2013.pdf

A review from Canada on State of the Art.

From: Nicholson, Thomas
Sent: Wednesday, February 20, 2013 11:36 AM
To: Conte, Richard
Cc: Philip, Jacob
Subject: FW: Can you please share the University of Toronto Report for ASR

Richard:

As we discussed, attached is the report from the Canadian Nuclear Safety Commission.

Thanks Tom

From: Orbovic, Nebojsa [<mailto:Nebojsa.Orbovic@cnscccsn.gc.ca>]
Sent: Monday, January 07, 2013 2:33 PM
To: Sheikh, Abdul
Cc: Graves, Herman; Philip, Jacob; Marshall, Michael; Nicholson, Thomas; Ducic, Milan; Dewar, Keith; Watson, Brian; Blahoianu, Andrei
Subject: RE: Can you please share the University of Toronto Report for ASR

Abdul,

Please find here attached the first (b)(4)

(b)(4)

Neb

From: Sheikh, Abdul [<mailto:Abdul.Sheikh@nrc.gov>]
Sent: Monday, January 07, 2013 9:40 AM
To: Orbovic, Nebojsa
Cc: Graves, Herman; Philip, Jacob; Marshall, Michael
Subject: Can you please share the University of Toronto Report for ASR

*** NOTE ***

The CNSC email security server scanned this email and found no potentially hostile or malicious content. To be safe, do not open attachments from unrecognized senders.