Group B

FOIA/PA NO: 2014-0179

RECORDS BEING RELEASED IN THEIR ENTIRETY

Reckley, William

From: Dave Lochbaum <DLochbaum@ucsusa.org>
Sent: Monday, January 28, 2013 8:58 AM
To: Reckley, William
Subject: RE: BWR Owners Group Report

Hello Bill:

Thanks for the info. Also thanks for the opportunity to make a presentation during the public meeting next week. I have prior schedule commitments that prevent me from doing so.

Thanks again,
Dave Lochbaum
UCS

From: Reckley, William [William.Reckley@nrc.gov]
Sent: Friday, January 25, 2013 10:55 AM
To: Edwin Lyman; Dave Lochbaum
Subject: BWR Owners Group Report

The report related to a containment severe accident management strategy mentioned by the industry at the January 9, 2013 Commission Meeting on BWR Containment Venting is now available in ADAMS. The package accession number is ML130220583. We are planning to discuss the report and other issues associated with containment venting during a public meeting to be held on the afternoon of Monday, Feb 4 and all day (if needed) on Feb 5 (meeting notice and agenda should be posted today or Monday). We will be providing specific opportunities for public questions and comments and could if you desired make time for a more formal presentation. Please let me know if you have any questions or if you would like to make a presentation. Thanks.

William D. Reckley
Japan Lessons Learned Project Directorate
william.reckley@nrc.gov
(301) 415-7490

B1

Reckley, William

From:	Dave Lochbaum <DLochbaum@ucsusa.org>
Sent:	Thursday, August 22, 2013 11:58 AM
To:	Diane Curran
Cc:	Rakovan, Lance; Reckley, William; Skeen, David; Zeller, Lou
Subject:	Purpose and scope of today's NRC public meeting
Attachments:	20130806-nrc-mtg-notice-august-22nd-spent-fuel-meeting.pdf

Hello Diane:

I share your frustration at the game played by the NRC during today's public meeting on moving spent fuel from pools to dry storage.

I also echo the comment made by Lou Zeller from BREDL toward the end of the meeting regarding how disgraceful the NRC's handling of your comments was. I've seldom experienced worse behavior by the NRC during a public meeting and hope to never come close again --- even if that means never attending another sham that the NRC calls a public meeting again.

I just don't understand the NRC's filibuster when you dared to address questions and comments to the NRC draft spent fuel pool study rather than the NRC's regulatory analysis. I don't understand why the NRC claimed that today's meeting was narrowly focused on the regulatory analysis and its associated process. If that's what they wanted to discuss, they surely could have explicitly stated that in the meeting notice.

Attached is the meeting notice issued by the NRC for this public meeting.

That meeting notice stated: "The purpose of this meeting is to provide external stakeholders with information on the NRC staff's analysis regarding whether regulatory action is needed to require expedited transfer of spent fuel to dry cask storage, as well as, an opportunity to ask the NRC staff clarifying questions and to provide feedback to NRC staff."

The agenda included in the meeting notice stated that the portion of the meeting in which you spoke was devoted to "NRC Overview and General Discussion of Tier 3 Analysis on Expedited Transfer of Spent Fuel to Dry Cask Storage."

I simply don't understand why the NRC played this game designed to gag public communication by trying to narrow the discussion to only the regulatory analysis and its associated process. I also note that few members of the public, and the industry representative at the meeting, opted to ignore this feeble NRC attempt to narrow the scope of the meeting.

The regulatory analysis for this matter has not been made publicly available to date -- thus, the public had zero chance to ask clarifying questions or provide feedback on that which they have NEVER EVER SEEN.

The NRC had issued its draft spent fuel pool scoping study in June 2013. And as was mentioned during the public meeting, the public comment period on that draft study closed on August 1, 2013.

So, the NRC staff conducted a public meeting AFTER the comment period on the draft spent fuel pool scoping study and BEFORE the regulatory analysis was made publicly available.

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Very clever way to conduct a meeting that provide ZERO meaningful opportunity to achieve its stated purpose.

Someone needs to take the NRC out to the wood shed. These antics must stop, or at least slow down.

Thanks,
Dave Lochbaum
UCS

Reckley, William

From: Dave Lochbaum <DLochbaum@ucsusa.org>
Sent: Wednesday, December 19, 2012 9:04 AM
To: Monninger, John
Cc: Skeen, David; Taylor, Robert; Reckley, William; Edwin Lyman
Subject: RE: SECY-12-0157 on containment vent options

Hello John:

Thanks for the response. I saw the $4k value later in the report and now understand how the two values were applied.

I've finished reading the SECY paper and have drafted our presentation for the Commission briefing next month. The draft is being reviewed internally. The thoroughness of the SECY paper greatly helped me prepare my presentation.

Thanks,
Dave Lochbaum
UCS

From: Monninger, John [John.Monninger@nrc.gov]
Sent: Monday, December 17, 2012 7:39 AM
To: Dave Lochbaum
Cc: Skeen, David; Taylor, Robert; Reckley, William; Edwin Lyman
Subject: RE: SECY-12-0157 on containment vent options

Dave,

I hope you are getting ready for the Holiday season, and thanks for the question.

The high level response to your question is - yes, different values for different parameters were used in different calculations. The overall intent in doing so was to provide the decision-makers (Commissioners) with information on the sensitivity of the results to various assumptions. One key assumption is the dollar per person-rem conversion value.

NRC's current practice is to use $2000 per person-rem. However, we have an ongoing effort to consider updating/revising this value. As such, we intentionally wanted to provide insights on the sensitivity of the results to different assumptions. As you note, the Commission paper mentions $4000 per person-rem and Section 2 of Enclosure 1 discusses $2000 per person-rem. In Section 3 of Enclosure 1, we discuss the staff's consideration of a different value ($4000 per person-rem). Table 3 (page 21) in Enclosure 1 illustrates the results between using the $2000 and $4000 assumptions. In effect, in going from $2000 to $4000, you double the "public health" and occupational health" benefits.

We used the values from Table 3 (Enclosure 1) using the $4000 per person-rem assumption on page 8 of the SECY paper (as you noted). As such, we provided the 2nd bullet discussing the use of "$4K/person-rem." In the lead up to presenting these results in the SECY paper, we state that "when values from the higher end of the uncertainty bands are assumed for event frequencies or event consequences, the calculated benefits from the proposed options can exceed the estimated costs." So, the higher end for the event frequency is 2×10^{-4}/yr, and the higher end for the consequences is the assumption of $4000 per person-rem.

B7)

I hope this helps.

Separately, my email address has another "n" in it (John.Monninger@nrc.gov). Just wanted to let you know in case any prior emails were not responded to.

Please let us know if you have any other questions/comments.

Thanks,
John

From: Dave Lochbaum <DLochbaum@ucsusa.org>
To: Skeen, David
Cc: john.monniger@nrc.gov <john.monniger@nrc.gov>; Edwin Lyman <ELyman@ucsusa.org>
Sent: Fri Dec 14 10:52:38 2012
Subject: SECY-12-0157 on containment vent options

Hello Dave:

In reading the subject SECY paper, I got confused.

The second bullet in the table on page 8 of the SECY paper states that $4,000 per person-rem was used to calculate benefits.

But the middle of page 12 of Enclosure 1 and the second to the last paragaph on page 13 state that $2,000 per person-rem was used in the calculations.

Were different values used in different calculations? If so, why?

Was the same value used in all calcualtions? If so, what value?

Thanks,
Dave Lochbaum
UCS

Reckley, William

From: Edwin Lyman <ELyman@ucsusa.org>
Sent: Friday, January 03, 2014 12:49 PM
To: Schofer, Fred
Cc: Reckley, William
Subject: RE: Expedited Transfer Regulatory Analysis

Dear Mr. Schofer,

Thanks for your message. I just need to clarify, though - isn't it true that the base case release of 40% cesium-137 would likely lead to exceeding the PAGs beyond 10 miles, and therefore the Evacuation Model 1 in Table 63 is not the model that would have been used for the MACCS2 run for this case? And if that is true, then isn't the COMSECY in error by suggesting that only Evacuation Model 1 was used in the regulatory analysis? This is what I would like to understand. Thanks for your help.

Best,

Ed Lyman

-----Original Message-----
From: Schofer, Fred [mailto:Fred.Schofer@nrc.gov]
Sent: Friday, January 03, 2014 12:26 PM
To: Edwin Lyman
Cc: Reckley, William
Subject: RE: Expedited Transfer Regulatory Analysis

Dr. Lyman,

This email confirms Mr. Reckley's response to your question that the same evacuation models were used in the regulatory analyses in COMSECY-13-0030 as was used in the spent fuel pool study. No changes were made to the evacuation models for the Tier 3 expedited transfer regulatory analysis.

Thanks,
Fred Schofer
NRR/DPR/PRMB
301-415-5682

-----Original Message-----
From: Edwin Lyman [mailto:ELyman@ucsusa.org]
Sent: Friday, December 27, 2013 12:15 PM
To: Reckley, William
Cc: Skeen, David; Schofer, Fred
Subject: RE: Expedited Transfer Regulatory Analysis

Bill,

Thanks so much for your prompt reply. I'll look forward to hearing from Mr. Schofer.

B4

I actually had another question that you may know right off the bat, if you don't mind. The staff has endorsed the NEI position paper on the use of FLEX for shutdown and refueling modes. But I've read that paper and it is not clear to me if it involves an commitment that FLEX strategies will be developed that can be used specifically during shutdown and refueling modes. If you could clarify, I'd appreciate it. This has a bearing on the likelihood of mitigation during OCP 1 and OCP 2.

Best,

Ed

From: Reckley, William [William.Reckley@nrc.gov]
Sent: Friday, December 27, 2013 11:41 AM
To: Edwin Lyman
Cc: Skeen, David; Schofer, Fred
Subject: Expedited Transfer Regulatory Analysis

Dr. Lyman -

I am responding to your email below to Dave Skeen. Unfortunately the analysts are not in the office today. We will get back to you prior to the Commission meeting but I believe that it would be a safer assumption to say that we used the same evacuation models in the regulatory analyses in COMSECY-13-0030 as was used in the spent fuel pool study. The COMSECY evaluations used the spent fuel pool study results and then through the scaling and other estimations described in the paper - we adjusted the projected offsite doses and other parameters for the various groups, cases, and sensitivity studies. Although we ran some additional MACCS simulations to help in the estimations, I do not believe we made changes to the evacuations models. Fred Schofer will be back next week and I will confirm with him that we didn't revise the values or otherwise make changes to reflect a different approach to evacuation as was used in the spent fuel pool study. I am in the office the rest of the day if you have any questions. Thanks.

William D. Reckley
Japan Lessons Learned Project Directorate william.reckley@nrc.gov
(301) 415-7490

From: Edwin Lyman [mailto:ELyman@ucsusa.org]

Sent: Friday, December 27, 2013 12:53 AM

To: Skeen, David

Cc: Uhle, Jennifer

Subject: question on expedited transfer regulatory analysis

Dave,

I hope you're enjoying the holiday season.

I am preparing my slides for the January 6 Commission meeting on spent fuel, which are due tomorrow, and I have a question about the MACCS2 calculation in the regulatory analysis that I was hoping I could get clarified.

In the Spent Fuel Pool Study, the emergency response model that is employed varies depending on whether or not the EPA PAGs will be exceeded outside of the EPZ. In the latter case, an ad hoc evacuation of up to 30 miles is modeled.

In the regulatory analysis, it appears that only one emergency response model is used - Evacuation Model 1 in Table 3. I just wanted to confirm that this is indeed the case and that Evacuation Models 2 or 3 were not used for the high-density pool base case or for the any of the high estimate cases, even though in those cases the PAGs would likely be exceeded beyond 10 miles.

It would be very helpful if the NRC could provide the MACCS2 output files for the cases modeled in the regulatory analysis, which are different from the ones in the SFPS.

Thanks so much for your help on this.

Best regards,

Ed Lyman

UCS

elyman@ucsusa.org<mailto:elyman@ucsusa.org>

Reckley, William

From: Edwin Lyman <ELyman@ucsusa.org>
Sent: Thursday, January 10, 2013 1:08 PM
To: Reckley, William; Dave Lochbaum
Subject: Re: question on today's meeting

Thanks for your reply, Bill. I'll look forward to the clarification.

Best,

Ed

From: Reckley, William [mailto:William.Reckley@nrc.gov]
Sent: Thursday, January 10, 2013 12:29 PM
To: Edwin Lyman
Subject: RE: question on today's meeting

Ed –

There are been a couple questions raised similar to those included in your email and we are preparing some clarification of our discussions related to mitigating strategies and containment performance during severe accident conditions. I expect to have it prepared by mid next week and will provide to you then. We hope putting together this background information will explain our assumptions and why we feel comfortable with our paper and presentation. This email is just to let you know when to expect the response. Please feel free to email or call if you have any additional questions. Thanks..

William D. Reckley
Japan Lessons Learned Project Directorate
william.reckley@nrc.gov
(301) 415-7490

From: Edwin Lyman [mailto:ELyman@ucsusa.org]
Sent: Wednesday, January 09, 2013 12:43 PM
To: Monninger, John; Dave Lochbaum
Cc: Skeen, David; Taylor, Robert; Reckley, William
Subject: question on today's meeting

Dear John,

I got very confused watching today's briefing on filtered vents -- I'd appreciate if you could clarify.

The mitigating strategies order requires that

(1) Licensees or construction permit (CP) holders shall develop, implement, and maintain guidance and strategies to maintain or restore core cooling, **containment** and SFP cooling capabilities following a beyond-design-basis external event.

B5

I don't see anything in the order that says this requirement is restricted to the period before core damage occurs. Thus the order would appear to require strategies (and procedures, I might add) to maintain containment integrity even after core damage -- e.g. cavity flooding.

Yes the industry says that FLEX, which is their response to the mitigating strategies order, only applies prior to core damage. Throughout the development of the FLEX guidance, UCS argued that FLEX strategies must be designed to work both before and after core damage occurs. After all, most of the attempted mitigative actions at Fukushima took place after core damage at Unit 1 had already occurred. But it sounds like our point of view did not prevail.

At the meeting today, there was discussion about how B.5.b /10 CFR 50.54(hh) measures include containment flooding strategies. But B.5.b was not designed to function in the event of beyond-design-basis external events other than aircraft impacts, and the post-Fukushima B.5.b inspections found many instances in which they would not be available following seismic or flooding events. This is why the mitigating strategies order was needed in the first place.

So how can anyone take credit for B.5.b actions for post-core damage containment integrity for the range of beyond-design basis external events that the post-Fukushima regulatory actions are designed to address? It seems to me that is what you were claiming today to refute the industry assertion that they are not currently required to provide mitigating strategies for maintaining containment integrity post core damage.

I appreciate your help on this.

Best regards,

Ed Lyman

Reckley, William

From: Edwin Lyman <ELyman@ucsusa.org>
Sent: Wednesday, January 23, 2013 5:31 PM
To: Reckley, William
Subject: RE: question on today's meeting

Dear Bill,

Thanks for the detailed response. I will study it and let you know if I have any questions.

Best,

Ed

From: Reckley, William [William.Reckley@nrc.gov]
Sent: Wednesday, January 23, 2013 2:30 PM
To: Edwin Lyman
Subject: RE: question on today's meeting

Ed – sorry for the delay in responding but below is my shot at addressing your question. In a related matter, we are currently putting into ADAMS the BWR Owners Group report mentioned by the industry in the Commission meeting regarding their efforts to develop and exercise a strategy that includes both water addition to the drywell and venting. I will send you an email as soon as its available. In addition, we are trying to arrange a meeting for the industry to describe their activities and results provided in the report. The current proposed dates are Feb 4th starting in the afternoon and all day on Feb 5th. Again, we will let you know as it gets finalized.

In terms of the specific question,

As you mention, the mitigating strategies order, EA-12-049, requires that licensees shall develop, implement, and maintain guidance and strategies to maintain or restore core cooling, containment and spent fuel pool (SFP) cooling capabilities following a beyond-design-basis external event. The focus of these requirements is to strengthen licensees' capabilities to provide the core cooling, containment and SFP cooling functions following a beyond-design-basis external event in order to prevent fuel damage in the reactor cores and SFPs. As described in the related ISG, the NRC staff recognizes that for certain beyond-design-basis external events, the damage state could prevent maintenance of the capabilities using the equipment intended for particular phases; in such circumstances prompt initiation of the follow-on phases to restore core and SFP cooling and containment functions is appropriate. If fuel damage occurs, the Severe Accident Management Guidelines (SAMGs) would be used as guidance.

In terms of the NRC staff's reference to 10 CFR 50.54(hh)(2) in the SECY paper on BWR vents, the staff discusses the importance of core debris cooling following a breach of the reactor vessel and notes that its included in existing severe accident management guidelines and requirements related to the loss of large areas due to fires or explosions. In terms of the existing regulatory requirements, the guidance for Section 50.54(hh)(2) states that licensees should

- Provide an AC-power-independent means to inject at least 300 gpm of water to the drywell for a period of 12 hours. The water injection can be directly to the drywell, or through lines connected to the RPV. This could utilize the Phase 2 portable pump or other existing sources. A makeup rate of less than 300 gpm may be justified on a site-specific basis.

As you point out, there are limits to this reference since the requirement is related to a specific scenario (loss of large area due to fire or explosions) and the for the purpose of 50.54(hh)(2), the licensee can assume things like access to the reactor building to connect equipment.

B6

Reckley, William

From: Reckley, William
Sent: Friday, January 25, 2013 10:56 AM
To: 'Edwin Lyman'; 'Dave Lochbaum'
Subject: BWR Owners Group Report

The report related to a containment severe accident management strategy mentioned by the industry at the January 9, 2013 Commission Meeting on BWR Containment Venting is now available in ADAMS. The package accession number is ML130220583. We are planning to discuss the report and other issues associated with containment venting during a public meeting to be held on the afternoon of Monday, Feb 4 and all day (if needed) on Feb 5 (meeting notice and agenda should be posted today or Monday). We will be providing specific opportunities for public questions and comments and could if you desired make time for a more formal presentation. Please let me know if you have any questions or if you would like to make a presentation. Thanks.

William D. Reckley
Japan Lessons Learned Project Directorate
william.reckley@nrc.gov
(301) 415-7490

B7

Reckley, William

From: Reckley, William
Sent: Wednesday, February 29, 2012 2:50 PM
To: 'Edwin Lyman'
Subject: RE: Risk management task force

Thank you for coming by and sharing some initial reactions. Please feel free to send an email or give me a call if you have any further comments or questions.

I believe that licensees did make a regulatory commitment to implement the SAMGs as part of the resolution of Generic Letter 88-20. However, we did not have clear guidance at that time regarding the handling of regulatory commitments and so it is not clear (at least to me) how far that commitment went (i.e., to what level of detail, whether it included updating, etc.). You are also unlikely to see the correspondence from the licensees in that time frame specifically mention that they are making a commitment (unlike more recent correspondence that includes agreed upon language).

In any case, it is pretty common for people to use the terms "regulatory commitment" and "voluntary initiative" interchangeably when the commitment doesn't get captured somehow by a higher tier licensing document (rule, license, etc.). It gets a bit more confusing when the industry sets binding requirements on itself through the NEI Initiative process (e.g., groundwater and post-Fukushima FLEX programs). We could treat such an NEI Initiative as regulatory commitments by all the licensees but I am not sure if we have done that in the cases mentioned above.

One can make a distinction that a truly voluntary action (one not including a regulatory commitment) would need to satisfy the cost-justified substantial safety improvement provision of the backfit rule if we subsequently wanted to impose it as a requirement. The regulatory commitment on the other hand could (hypothetically) be imposed using the "compliance exception" of the backfit rule (thereby avoiding the need for us to do the cost-benefit analysis). In addition, we would have no enforcement action available for a truly voluntary initiative but we can issue a "Notice of Deviation" if we find that a licensee has failed to meet a regulatory commitment.

Hopefully this helps but this is another area where we have used various arrangements at different times and for different issues (e.g., a patchwork). Please don't hesitate to followup if you have more questions.

From: Edwin Lyman [mailto:ELyman@ucsusa.org]
Sent: Wednesday, February 29, 2012 1:18 PM
To: Reckley, William
Subject: Re: Risk management task force

Dear Bill,

Thank you for arranging the meeting yesterday. I found it very illuminating. Could you please forward my thanks to the Commissioner and the other staff members who were present?

While I have your attention, I was wondering if you could clarify something about the current status of SAMGs. My understanding is that they are a voluntary initiative, but I've seen statements in writing that they are a "regulatory commitment" by industry. Could you please help?

Thanks,

Ed

BS

From: Reckley, William [mailto:William.Reckley@nrc.gov]
Sent: Friday, February 10, 2012 02:10 PM
To: Edwin Lyman
Subject: RE: Risk management task force

Great. I will meet you at the guard desk shortly before 3:00. Would you like arrangements for visitor parking?

From: Edwin Lyman [mailto:ELyman@ucsusa.org]
Sent: Friday, February 10, 2012 2:09 PM
To: Reckley, William
Subject: RE: Risk management task force

Bill,

That works for me.

Thanks,

Ed

From: Reckley, William [William.Reckley@nrc.gov]
Sent: Friday, February 10, 2012 1:17 PM
To: Edwin Lyman
Subject: RE: Risk management task force

No problem .. how is Feb 28 at 3:00pm?

From: Edwin Lyman [mailto:ELyman@ucsusa.org]
Sent: Friday, February 10, 2012 9:44 AM
To: Reckley, William
Subject: Re: Risk management task force

Dear Bill,

Thanks for your message. Unfortunately, I will be out of town on that day. I will be available Feb 27-28, the morning of the 29th, and Mar 2, 5-6.

Thanks,

Ed

From: Reckley, William [mailto:William.Reckley@nrc.gov]
Sent: Thursday, February 09, 2012 09:50 AM
To: Edwin Lyman
Subject: RE: Risk management task force

Sorry for the delay but I was out of the office in the beginning of the week. The best time for the Commissioner is currently the afternoon (1:30 – 3:00) on February 24 (Friday). Would this work for you? If you have a conflict, we can search for additional times in late February or early March. Thanks..

From: Edwin Lyman [mailto:ELyman@ucsusa.org]
Sent: Monday, February 06, 2012 10:45 AM
To: Reckley, William
Subject: Risk management task force

Dear Bill,

Dave Lochbaum forwarded me your e-mail regarding a possible briefing on the activities of the risk management task force, which was first suggested to me by Commissioner Apostolakis a few weeks ago. Dave will not be available but I am interested in attending such a briefing. If you could send me some potential dates for the briefing, I'd appreciate it. Thanks so much for your help.

Best regards,

Ed Lyman
Union of Concerned Scientists
(202) 331-5445
elyman@ucsusa.org

Reckley, William

From: Edwin Lyman <ELyman@ucsusa.org>
Sent: Friday, December 27, 2013 12:15 PM
To: Reckley, William
Cc: Skeen, David; Schofer, Fred
Subject: RE: Expedited Transfer Regulatory Analysis
Attachments: image003.png

Bill,

Thanks so much for your prompt reply. I'll look forward to hearing from Mr. Schofer.

I actually had another question that you may know right off the bat, if you don't mind. The staff has endorsed the NEI position paper on the use of FLEX for shutdown and refueling modes. But I've read that paper and it is not clear to me if it involves an commitment that FLEX strategies will be developed that can be used specifically during shutdown and refueling modes. If you could clarify, I'd appreciate it. This has a bearing on the likelihood of mitigation during OCP 1 and OCP 2.

Best,

Ed

From: Reckley, William [William.Reckley@nrc.gov]
Sent: Friday, December 27, 2013 11:41 AM
To: Edwin Lyman
Cc: Skeen, David; Schofer, Fred
Subject: Expedited Transfer Regulatory Analysis

Dr. Lyman –

I am responding to your email below to Dave Skeen. Unfortunately the analysts are not in the office today. We will get back to you prior to the Commission meeting but I believe that it would be a safer assumption to say that we used the same evacuation models in the regulatory analyses in COMSECY-13-0030 as was used in the spent fuel pool study. The COMSECY evaluations used the spent fuel pool study results and then through the scaling and other estimations described in the paper – we adjusted the projected offsite doses and other parameters for the various groups, cases, and sensitivity studies. Although we ran some additional MACCS simulations to help in the estimations, I do not believe we made changes to the evacuations models. Fred Schofer will be back next week and I will confirm with him that we didn't revise the values or otherwise make changes to reflect a different approach to evacuation as was used in the spent fuel pool study. I am in the office the rest of the day if you have any questions. Thanks...

William D. Reckley
Japan Lessons Learned Project Directorate william.reckley@nrc.gov
(301) 415-7490

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From: Edwin Lyman [mailto:ELyman@ucsusa.org]

Sent: Friday, December 27, 2013 12:53 AM

To: Skeen, David

Cc: Uhle, Jennifer

Subject: question on expedited transfer regulatory analysis

Dave,

I hope you're enjoying the holiday season.

I am preparing my slides for the January 6 Commission meeting on spent fuel, which are due tomorrow, and I have a question about the MACCS2 calculation in the regulatory analysis that I was hoping I could get clarified.

In the Spent Fuel Pool Study, the emergency response model that is employed varies depending on whether or not the EPA PAGs will be exceeded outside of the EPZ. In the latter case, an ad hoc evacuation of up to 30 miles is modeled.

In the regulatory analysis, it appears that only one emergency response model is used - Evacuation Model 1 in Table 3. I just wanted to confirm that this is indeed the case and that Evacuation Models 2 or 3 were not used for the high-density pool base case or for the any of the high estimate cases, even though in those cases the PAGs would likely be exceeded beyond 10 miles.

It would be very helpful if the NRC could provide the MACCS2 output files for the cases modeled in the regulatory analysis, which are different from the ones in the SFPS.

Thanks so much for your help on this.

Best regards,

Ed Lyman

UCS

elyman@ucsusa.org<mailto:elyman@ucsusa.org>

Reckley, William

From: Reckley, William
Sent: Friday, December 27, 2013 12:40 PM
To: 'Edwin Lyman'
Cc: Skeen, David
Subject: RE: Expedited Transfer Regulatory Analysis

The FLEX strategies do address shutdown and refueling modes — not so much that separate strategies need to be developed, but that FLEX can address those modes and needs to be maintained during those modes. The performance attributes for the spent fuel pool cooling function (including sprays) are provided in Table C-3 of NEI-12-06.

-----Original Message-----
From: Edwin Lyman [mailto:ELyman@ucsusa.org]
Sent: Friday, December 27, 2013 12:15 PM
To: Reckley, William
Cc: Skeen, David; Schofer, Fred
Subject: RE: Expedited Transfer Regulatory Analysis

Bill,

Thanks so much for your prompt reply. I'll look forward to hearing from Mr. Schofer.

I actually had another question that you may know right off the bat, if you don't mind. The staff has endorsed the NEI position paper on the use of FLEX for shutdown and refueling modes. But I've read that paper and it is not clear to me if it involves an commitment that FLEX strategies will be developed that can be used specifically during shutdown and refueling modes. If you could clarify, I'd appreciate it. This has a bearing on the likelihood of mitigation during OCP 1 and OCP 2.

Best,

Ed

From: Reckley, William [William.Reckley@nrc.gov]
Sent: Friday, December 27, 2013 11:41 AM
To: Edwin Lyman
Cc: Skeen, David; Schofer, Fred
Subject: Expedited Transfer Regulatory Analysis

Dr. Lyman –

I am responding to your email below to Dave Skeen. Unfortunately the analysts are not in the office today. We will get back to you prior to the Commission meeting but I believe that it would be a safer assumption to say that we used the same evacuation models in the regulatory analyses in COMSECY-13-0030 as was used in the spent fuel pool study. The COMSECY evaluations used the spent fuel pool study results and then through the scaling and other estimations described in the paper – we adjusted the projected offsite doses and other parameters for the various groups, cases, and sensitivity studies. Although we ran some additional MACCS simulations to help in the estimations, I do not believe we made changes to the evacuations models. Fred Schofer will be back next week and I will confirm with him that we didn't revise the values or otherwise make changes to reflect a different approach to evacuation as was used in the spent fuel pool study. I am in the office the rest of the day if you have any questions. Thanks...

B10

William D. Reckley
Japan Lessons Learned Project Directorate william.reckley@nrc.gov
(301) 415-7490

From: Edwin Lyman [mailto:ELyman@ucsusa.org]

Sent: Friday, December 27, 2013 12:53 AM

To: Skeen, David

Cc: Uhle, Jennifer

Subject: question on expedited transfer regulatory analysis

Dave,

I hope you're enjoying the holiday season.

I am preparing my slides for the January 6 Commission meeting on spent fuel, which are due tomorrow, and I have a question about the MACCS2 calculation in the regulatory analysis that I was hoping I could get clarified.

In the Spent Fuel Pool Study, the emergency response model that is employed varies depending on whether or not the EPA PAGs will be exceeded outside of the EPZ. In the latter case, an ad hoc evacuation of up to 30 miles is modeled.

In the regulatory analysis, it appears that only one emergency response model is used - Evacuation Model 1 in Table 3. I just wanted to confirm that this is indeed the case and that Evacuation Models 2 or 3 were not used for the high-density pool base case or for the any of the high estimate cases, even though in those cases the PAGs would likely be exceeded beyond 10 miles.

It would be very helpful if the NRC could provide the MACCS2 output files for the cases modeled in the regulatory analysis, which are different from the ones in the SFPS.

Thanks so much for your help on this.

Best regards,

Ed Lyman

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