

**From:** Michael Waters  
**To:** Oleg Povetko; rbenke@cnwra.swri.edu; Tae Ahn  
**Date:** 10/15/04 10:19AM  
**Subject:** RE: Preclosure HP update - Items G06 - G10

(A) I intend to agree that it is not necessary to bring Lane into the Preclosure mix at this time, primarily from a resource coordination standpoint. However, regardless of assigned reviewers, we will need to make sure there is consistency & compatibility between any common source term issues in CLST/postclosure and Preclosure. I suspect most issues are unique and may have different importance with respect to performance objectives. However, I do not want to find out down the road that different review teams accepted/rejected a common source term assumption or method in different ways, without a logical reason.

I would like to review the two reports in general to get a sense of what was done in the CLST areas regarding source terms. Can you point me to extra hardcopies or electronic copies Tae?

(B) For Preclosure, I agree with Oleg and would prefer to use the SAS-2H/ORIGEN-S modules of SCALE as our main source term confirmatory code, as supplemented with other specialized codes (e.g. SOURCES) to address any uncertainty issues or special contents, if necessary. This is still open for discussion and something we are exploring as part of G08. We will obviously need to consider preclosure issues related to confirming inhalation doses, direct radiation doses, and thermal heat loads.

Good discussion.

Thanks,

Mike

>>> Oleg Povetko <opovetko@cnwra.swri.edu> 10/14/04 05:10PM >>>  
Tae,

I am familiar with both reports that you are mentioning. If necessary, in course of work we coordinate with Lane Howard on higher burnup fuel issues. But we already have two HPs assigned to preclosure work and, due to limited resources it would be quite difficult to have an additional HP assigned to the project where both involved Center HPs have already sufficient expertise between them to do the work. Another reason for not involving him is that in both report that you mentioned maximum burnup is 65 GWD/MTU, this is an upper burnup limit allowed in ORIGEN-ARP code. This software package is used to derive spent fuel characteristics but it is limited by commercial fuels only. Since DOE is already reporting some results for 80 GWD/MTU burnup for CSNF, we should have computational tools ready for this high burnup regardless of whether such high burnup values would be allowed or confirmatory calculations will not be found necessary. For burnups higher than 65 GWD/MTU and, for some potential non-commercial fuels that might be needed characterization, SCALE is the only software available to generate fuel characteristics and it would require substantially more modeling than in ORIGEN-ARP. Lane is not using SCALE. I used both SCALE and ORIGEN-ARP in SFPO projects to generate fuel characteristics for some rather exotic fuel types with non-standard characteristics and higher burnups. We can always coordinate with Lane and our management if we need some additional help for higher burnup fuel characterization.

Oleg.

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

>From: Tae Ahn [mailto:TMA@nrc.gov]

>Sent: Thursday, October 14, 2004 1:02 PM

>To: [opovetko@cnwra.swri.edu](mailto:opovetko@cnwra.swri.edu); [rbenke@cnwra.swri.edu](mailto:rbenke@cnwra.swri.edu); Michael Waters

>Cc: Christopher Ryder; Dennis Galvin

>Subject: Re: Preclosure HP update - Items G06 - G10

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>I thought L. Howard included in G-8. He worked on the  
>inventory of high burnup SNF in a CLST Report and the PA Risk  
>Analysis Report. In fact I never met him yet.

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>>>> Michael Waters 10/14/04 12:38PM >>>

>Roland,

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>The summary looks very good!

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>I broke your ground rule (which is a good one) and provided a  
>few edits below without discussing with others first. I just  
>provided filler material and a few additional actions. My  
>revisions are in blue font and hopefully they compliment any  
>other changes. Note that Kobetz is starting to look for  
>leaders of the various issues. I put names in the columns  
>based on a first guess and would like to share responsibility  
>with you all at the CNWRA...due to our part time absence from  
>HLWRS because of budget issues. From the HP team  
>perspective, I think it is kind of arbitrary anyway, since  
>there are only 3 core HPs, and everyone is working the issues  
>collectively, for the most part.

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>If you have alternate ideas, let's discuss. I would go with  
>this list in the next preclosure team meeting, unless you  
>hear any additional comments from Chris, Dennis, or Tae.

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>As requested please be prepared to update everyone on issues  
>G07 through G10, in my likely absence this Monday. Tae will  
>probably want to lead the discussion on G06.

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>Thanks,

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>Mike

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>>>> Roland Benke <[rbenke@cnwra.swri.edu](mailto:rbenke@cnwra.swri.edu)> 10/13/04 02:10PM >>>

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>Mike and Oleg:

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>I got on a Preclosure roll around lunch today. I separated  
>the Preclosure Issues G06-G10 from Tim's master table and  
>started to make edits and add updates, noting some action  
>items from our meeting two weeks ago, etc.

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>Please feel free to make further changes to the attached  
>table -- just let everyone know when you're working on it to  
>avoid a situation where changes are being made by two  
>different people at the same time.

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