

From: Christopher Grimes
To: Gregory Cwalina
Date: Tue, Dec 28, 2004 2:40 PM
Subject: Re: UFM Restart

Nope ... we still haven't established what success looks like. Success is not sending a response to the allegation that further confuses the regulatory responsibilities associated with power level measurement instrumentation. I described this status to Ellis yesterday when I explained my failed attempt to sell a compromise to the ET.

>>> Gregory Cwalina 12/28/04 01:47PM >>>
Chris, can you provide me a timetable for closure of this issue?

>>> Christopher Grimes 12/23/04 02:50PM >>>

I am disappointed that Jerry was surprised by my proposed UFM restart plan. Irrespective of whether there has been a consistent SRXB story, I believe there is an expectation that DE and DSSA have a shared responsibility to resolve the UFM issue. Also, irrespective of whether SRXB's scope of responsibilities is necessary to support the safety evaluation basis for measurement uncertainty updates, the Task Group effort has cast sufficient doubt on the technical adequacy of the safety evaluation basis specifically for Crossflow (& X-Beam) and generally for power level measurements that must be resolved.

In the attached package, WOG has submitted details of their efforts to validate the Crossflow installations. John McInerney told me that they are also preparing an update to the Task Group report that will be submitted in mid-January. Thus, the loose ends of the Task Group snap-shot will have to be resolved one way or another ... and we might as well take the opportunity settle how SRXB and EEIB can work together to establish the technical basis for concluding that there is reasonable assurance that the method of measuring power will provide sufficient margin for measurement uncertainty.

We need a means to take some kind of action on the allegations, the generic communication that will restore credibility to the staff's MURs and the SE basis for the X-Beam topical (and any other measurement uncertainty licensing actions). We need an approach that provides all of the CATS (concerned and affected staff) a fair opportunity to express their diverse opinions and a way to separate that from the factual basis needed to achieve an informed decision on the appropriate regulatory conclusions. To that end, I recommend that Mike & I meet with SRXB and EEIB to discuss the SE basis for UFM and MURs, as well as the Task Group findings. From this discussion, we would define roles and responsibilities to reasonably plan (1) completion of the allegation responses, including any formal non-concurrences the staff wishes to submit; (2) the scope and content of a information notice that would update RIS 2002-03 (as discussed after the ET briefing) which should also clarify roles for future MUR safety evaluation responsibilities; and (3) identify the actions needed to resolve the SE basis for the X-Beam topical. After this meeting, we would test our ability to achieve a shared understanding of the plan for resolving these issues by having EEIB and SRXB explain the plans and commitments to Rich Barrett, Suzie Black and Bruce Boger, before attempting another ET briefing.

If your agreeable to this approach, I'll make arrangements for the meeting. Otherwise, I'll schedule a meeting with Suzie Black next week when she's acting for Brian to decide how to move this issue forward.

>>> Jared Wermiel 12/13/04 01:05PM >>>
Chris,

I was somewhat surprised by your e-mail since it seems to me that it did not recognize some of what I've been saying all along about the review responsibility for UFM, but I will once again state what I believe is my understanding on the subject. I believe this is a consistent story. I will speak for the line organization as SRXB branch chief since I think the task group work has long since been overcome by events and resolution of the UFM concerns is now a line organization responsibility. The task group was responsible

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only for an independent assessment of the UFM allegation and was not meant to have a continuing responsibility for UFM reviews.

Responsibility for reviews of UFM, that is UFM design, performance and operation is and should remain an EEIB function. The device is an instrument and as such, topical reports on UFM like other instruments falls within EEIB areas of responsibility. However, because of the design of UFM and the importance of the thermal hydraulics to their ability to accurately measure flowrate, the review of that aspect of their performance should be performed by SRXB as a support function to EEIB. SRXB does not believe that the UFM can be treated as a "black box" from a thermal hydraulic stand point given what we know about the device and some of the problems experienced with it. It is necessary to understand and agree with the thermal hydraulics in order to know that the baseline flowrate reading has been properly established so that the licensee and the staff can be confident that deviations in the baseline measurement are properly identified and alarmed. For this reason, the task group and now SRXB has taken the position that it has with regard to the allegations- namely that flow profile does play an important role in the ability of the device to accurately measure flowrate and thus the allegor was correct in the concerns he expressed.

As far as the X-beam crossflow topical is concerned, I clearly stated why SRXB could not concur on the topical report SE. The reasons were two fold, 1) the topical report was marked "draft" and neither SRXB nor should the staff in general approve "draft" documents, and 2) since SRXB had not reviewed the thermal hydraulics of the design, SRXB could not concur without doing so. I pointed out that in order to do so, SRXB would need to understand how Westinghouse had addressed the concerns identified with the crossflow device and the issues that arose from the operating experience at Byron, Braidwood and Ft. Calhoun. SRXB can undertake this review to support the topical report SE.

Final disposition of the UFM issue from SRXB's view should proceed as follows. SRXB continues to believe as it has all along that confirmation of accurate measurement of feedwater flow when using a UFM is necessary given what has been experienced. To accomplish this, SRXB continues to recommend a generic letter which requests such confirmation from each licensee using a UFM for any purpose that could impact it's compliance with its licensed power level. Alternatively, if EEIB as the lead responsible branch believes a RIS or revision to the existing RIS adequately addresses the staff position on use of UFM and believes the allegations can not be substantiated, then that decision should be documented and we move on accordingly.

Jerry

>>> Christopher Grimes 12/10/04 04:48PM >>>

After the failed attempt to explain the UFM end game to Jim & Brian, we started to make some progress communicating and understanding, as we attempted to understand the nature of the EEIB "black box" principle and the SRXB thermohydraulics responsibilities (which Jose described as the safety basis the instrument measurements serve).

I attempted to build on this dialog by asking for the two branches to reflect on their roles and craft a more direct response to the allegations. That strategy has been derailed by the allegations that the allegations process has failed to properly record the allegations.

This issue can only be resolved by the concerted efforts of your two branches to clearly define your roles and responsibilities relative to the measurement of reactor power. We have not been able to reconcile your shared responsibilities for the measurement uncertainty finding because of all the finger-pointing and atmospheric distractions. SRXB continues to stand by the allegation responses IPSB crafted, but those responses do not directly address the substance, as Jim and Brian asked (i.e., what role does the proprietary data play and how can the "snap shot" efforts of the Task Team defend). Despite all the hype and discontent, we still have not seen a written position from EEIB on the allegations (however you want to write them). Conversely, while EEIB still staunchly defends the SE basis for Crossflow and the review standard described in RIS 2002-03, SRXB would not concur in the X-Beam Crossflow SE, but has not

established a written position to explain what review standard they consider appropriate for the UFM topical.

While I'm on leave Dec 13 - 17, I challenge EEIB and SRXB to clarify the nature of the disagreement. I think I understand the concept of "black box" instrument calibration that Angelo described, relative to the SE basis for the Crossflow, but I don't understand how we can address the allegations when we treat the instrument as a black box.

Therefore, I request that you get together and decide how you can work together to clarify how each branch contributes to a decision on the adequacy of power measurement practices and verification. When I return, I'll arrange a meeting for DE and DSSA to understand how you would explain the extent to which you can solve the problem in a briefing for the ET that can be accomplished in less than an hour. Look at this as an opportunity to avoid a worse reputation than Fire Protection.

CC: Bruce Boger; Jared Wermiel; Jose Calvo; Michael Johnson; Richard Barrett; Suzanne Black; William Ruland