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FW: NAC-LWT Bias Evaluation

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From: Wren Fowler <wfowler@nacintl.com>
Sent: Monday, August 24, 2020 9:04 AM
To: Devaser, Nishka <nishka.devaser@nrc.gov>; White, Bernie <Bernard.White@nrc.gov>
Cc: Holger Pfeifer <hpfeifer@nacintl.com>; George Carver <gcarver@nacintl.com>; Debi Chapman <dchapman@nacintl.com>; Heath Baldner <hbaldner@nacintl.com>
Subject: NAC-LWT Bias Evaluation

Nishka and Bernie,

After our call last week on RAI 4-3, Holger provided the following and the attached data files. This should close out RAI 4-3. For RAI 4-2, at this time we prefer to leave the language on engineering judgement as is. If this is still an issue, just give me a call so we can work through it some more in a timely manner. We still need to get to the DOT and then Canada before the shipments can begin.

"NAC updated the USL generation documented in Calculation 91150-1060-016 to determine the USL when eliminating the 20% and under enriched data points. The data remained normal and results in a minimum USL of 0.9328, slightly lower than the USL determined when including the low enrichment data points. As the amendment requested enrichment is slightly above the validated range (<1wt%), and the USL equation has a negative slope, extrapolating the fitted USL line yields a USL of 0.93255 at 94 wt% enrichment. Change is ~0.0012 from the previously applied USL of 0.9338 (was EALF controlled). This is not considered a safety concern and all calculated values of keff+2s are below the postulated revised USL of 0.9325.

For a consistent data presentation NAC also regenerated the EALCF correlation without the lower enriched fuel. Minimum USL for this correlation is 0.9329 (i.e., enrichment would become the bounding correlation).”

Thanks.

Wren Fowler

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2 attachments

 **enr_no_low.in**
2K

 **enr_no_low.out**
6K