

From: Mazza, Jan
Sent: Monday, September 20, 2021 11:04 AM
To: Alex Renner
Cc: Ross Moore; John Hanson; Drzewiecki, Timothy; Lupold, Timothy; Siwy, Alexandra; Orenak, Michael; Kennedy, William; Jung, Ian; Hart, Michelle
Subject: RE: Clarification on comment III - Oklo MCA TR

Hi Alex,

We are providing you with a summary of what was discussed for this item during the public meeting on September 16, 2021. Note that this information is preliminary until the meeting summary is finalized.

Table 3-1, "Information Requirements for the ISA Summary," of NUREG-1520 highlights acceptance criteria for an integrated safety analysis (ISA). Items from Table 3-1 that staff identified as relevant to a maximum credible accident methodology for an advanced reactor include:

- ISA method(s) description in Section 3.4.3.2(5)
- ISA team description in Section 3.4.3.2(5)
- Definition of "unlikely", "highly unlikely", and "credible" in Section 3.4.3.2(9)
- Description of accident sequences in Section 3.4.3.2(3c)
- Characterization of high and intermediate consequence accident sequences in Section 3.4.3.2(3c)

In the items identified above, the information in Section 3.4.3.2(9) contain the specific acceptance criteria referred to in Note 2 from the NRC Form 898. During the public meeting on September 16, 2021, staff emphasized that the acceptance criteria in NUREG-1520 work together as an integrated set of criteria and that some criteria in NUREG-1520 (e.g., 3.4.3.2(3c) and 3.4.3.2(5)) reference NUREG-1513, "Integrated Safety Analysis Guidance Document." Acceptance criteria provided in Sections 3.4.3.2(3c) and 3.4.3.2(5) of NUREG-1520, that reference NUREG-1513, highlight additional considerations for completeness of the hazard identification and assessment and are relevant to uncertainty treatment.

We can discuss any additional questions or clarifications during the public meeting on September 21, 2021.

Thanks – Jan

Jan Mazza

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From: Alex Renner <alex@oklo.com>

Sent: Monday, September 13, 2021 9:59 PM

To: Lupold, Timothy <Timothy.Lupold@nrc.gov>; Drzewiecki, Timothy <Timothy.Drzewiecki@nrc.gov>
Cc: Mazza, Jan <Jan.Mazza@nrc.gov>; Ross Moore <ross@oklo.com>; John Hanson <john@oklo.com>
Subject: [External_Sender] Clarification on comment III - Oklo MCA TR

Hello Tim and Tim -

As we prepare for our next interaction, I thought it would be efficient to send an email with a small clarification question.

On comment III on the MCA TR (ML21201A094), the staff stated:

"The MCA TR does not identify the techniques for providing margin to address uncertainties associated with the performance of new and novel features in identifying initiating events/hazards/event sequences. Providing margin to account for uncertainties was identified as a common element among all the approaches for identifying hazards, initiating events, and accident scenarios (see Note 1 and Note 2).

Note 1...

*Note 2: Clarifying examples include (1) generic hazard identification techniques involve the use of guide words and other approaches that reflect the level of certainty regarding hazard-related phenomena and structure, system, and component performance (e.g., risk-prioritization in FMEA), (2) advanced non-light-water reactor hazard identification performed as NEI 18-04 exercises have used PRA and accounted for uncertainty in the assessment of events, (3) **NUREG-1520, "Standard Review Plan for Fuel Cycle Facilities License Applications," provides specific acceptance criteria to address uncertainty associated with the hazard identification approach used as part of the integral safety assessment.**"*

My question is related to Note 2, sentence (3). Could you be more specific on exactly which acceptance criteria you are to exactly within NUREG-1520?

Thank you.

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Alex

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