ISO TC85/SC5/WG8
Nuclear criticality safety
report to ISO TC85/SC5 Plenary
(previous meeting – 7 June 2012)

Conveners: C. M. Hopper
S. Tarle

13 June 2013
Atlanta, Georgia US
ISO/TC 85/SC5 /WG8 Attendance

• 15 participating members
• Representing CA, FR, IN, KR, UK, US
Documents distributed

- Draft preliminary proposal for Nuclear criticality safety dimensions
- Draft WG8 glossary for consideration by ISO/WD4 12749-4
- ISO/WD4 12749-4
- Draft preliminary proposal for *Nuclear criticality safety – Waste*
- Proposed concept for *Nuclear criticality safety – Training of fissile material handlers*
- Proposed concept for *Nuclear criticality safety - Soluble Boron Credit for PWR fuel pools*
Documents Discussed

- ISO 1709
- ISO/FDIS 16117
- ISO/WD4 12749-4
- Proposed standards concepts and preliminary proposals
Work In Progress since the 6 June 2012
St. Denis, FR meeting

• Prepared third preliminary draft for a NWIP for ISO 1709 revision following the receipt and resolution of comments (Neil HARRIS – UK)

• ISO/DIS 16117, *Estimation of the number of fissions of a postulated criticality accident* ballot comments resolved and submitted to ISO for progression as a FDIS (Matthieu DULUC – FR)

• Prepared a preliminary draft for an NWIP ISO standard on *Nuclear criticality safety dimensions*

• Prepared a preliminary draft for an NWIP ISO standard on *Nuclear criticality safety – waste* (Duncan ELLIS – UK)

• A draft purpose and scope statement was developed for the initiation of a NWIP ISO standard on *Nuclear criticality safety- Soluble boron credit for PWR fuels* (Hae Seuk WOO – KR)

• Further drafting of a WG8 nuclear criticality safety guidance for WG8 drafting consistency.
Work In Progress at the Georgia Tech, Atlanta 11 – 12 June 2013 Meeting

• National standards having potential value to ISO standards development were reviewed (Sylvie TARLE – FR, Duncan ELLIS – UK, Calvin HOPPER - US)

• Briefly reviewed the status of ISO FDIS 16117 which is to close August 2013 (Matthieu DULUC)

• Reviewed preliminary draft for an NWIP ISO standard on Nuclear criticality safety dimensions (Sylvie TARLE, BARDELAY, NÉRON DE SURGY – FR)

• Reviewed and concurred with the development of a preliminary NWIP for process operator nuclear criticality safety training

• Review and discussions regarding ISO/WD4 12749-4 Nuclear energy – Vocabulary – Part 3: Nuclear fuel cycle (Calvin HOPPER – US)
Work In Progress at the Georgia Tech, Atlanta 11 – 12 June 2013 Meeting (cont.)

• Reviewed, discussed and suggested content changes to be considered in the third preliminary draft of a NWIP for ISO 1709 revision
• Developed and approved a scope statement for the work of ISO TC85/SC5/ WG8
• WG8 concurred that ISO 1709 should remain an active ISO standard until otherwise revised as the result of WG8 development of a draft preliminary NWIP submittal.
• WG8 systematic review of ISO 14943; 2004 concurs that the standard should remain.
Work In Progress at the Georgia Tech, Atlanta 11 – 12 June 2013 Meeting (cont.)

- Reviewed the use of ISO LiveLink tools for WG8 work.
- Discussed organizing WG8 into topical areas for standards development.
- Identification of potentially needed ISO standards including:
  - Nuclear criticality risk assessment methodology (e.g., accident frequencies and credible initiating event thresholds)
  - Nuclear criticality safety- Soluble boron credit for PWR fuel pools
Difficulties Met

• Identifying ISO LiveLink
  – Transition for WG8
  – Problems requiring resolution (discussed with ISO TC85/SC5 Secretary)

• Disappointment for no OECD or IAEA liaison representation at meeting
1. Neil HARRIS (UK) is to initiate a New Work Item Proposal (ISO Form 4) for the revision of ISO 1709 provided August 2013.

2. Duncan ELLIS (UK) is to progress the preliminary draft for a New Work Item Proposal for an ISO standard on Nuclear criticality safety – Waste, provided to WG8 for review by October 2013.

3. Sylvie TARLE (FR) is to draft, and Calvin HOPPER (US) is to assist, in the development of a proposal for organizing WG8 into standard topical areas identified in ISO 1709 by December 2013.

4. Susan JOHNSTON (CA) and Lon Paulson (US) is to draft a proposal scope for the initiation of a standard on nuclear criticality risk assessment methodology (e.g., accident frequencies and credible initiating event thresholds) by December 2013.
Resolutions (cont.)

5. Matthieu DULUC (FR) will provide the name(s) of OECD spent fuel pool criticality safety task force members to HaeSeuk WOO (KR) and WG8 for consideration in the development of a preliminary draft NWIP on PWR fuel pool storage by June 2013.

6. HaeSeuk WOO will develop a draft NWIP proposal for Nuclear criticality safety of soluble boron credit for PWR fuel pools by the next ISO TC85 joint meeting in Moscow, RU.

7. Lon PAULSON is (US) to share the OECD single unit critical study with Neil HARRIS (UK) and WG8 for consideration for inclusion in ISO 1709.

8. WG8 is to review the “two column guidance” for completeness (e.g., relationships and accuracy of translations) by December 2013.
Resolutions (cont.)

9. WG8 is to provide comments on Version 2 of current draft NWIP proposal for criticality safety dimensions to Aurelie BARDELAY (FR) by October 2013 and to judge the readiness of the draft for NWIP submittal.

10. The UK (Neil HARRIS/Duncan ELLIS) will produce a rough preliminary draft of a NWIP for process operator nuclear criticality safety training.

11. ISO TC85/SC5/WG8 offers thanks to ANSI and the Georgia Institute of Technology W. Woodruff School of Nuclear & Radiological Engineering/Medical Physics Programs for hosting the 2013 ISO TC85/SC5 meeting.
### Current WG8 Standards

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