

Safety Software Central Registry Toolbox Alternatives

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Subtask Team

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- Donna Riggs – Riggs Quality Consulting
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- Gregory Baker – DOE NNSA NA-51
- Dave Thoman – Amentum

Contributions and Input

- Chris Beaman, EHSS-32



Very Brief History of the “Toolbox”

- Established in 2003 as a result of Defense Nuclear Facilities Safety Board (DNFSB) Issued Recommendation 2002-1
- Six codes added initially (ALOHA, CFAST, EPICode, GENII, MACCS2, and MELCOR) with two more added later (EPICode and HotSpot)

Very Brief History of the “Toolbox”

- Existing codes have been updated by the developers
 - New assessments and gap analyses are not being performed
 - New codes or new versions could be added (e.g., MELCOR)
- New codes have been developed
 - Assessments and gap analyses not performed
 - New codes could be added (e.g., COG)
- No federal funding, personnel, etc. to maintain the Toolbox

Very Brief History of the “Toolbox”

- Lots and lots of discussions
 - DOE
 - Various User Groups
 - EFCOG



Very Brief History of the “Toolbox”

- April 2021, EFCOG initiated a subtask focused on how to replace or update the Toolbox
 - Make it useful for user community
 - Plan for the Toolbox to no longer be supported by DOE EHSS-32

- Fall 2021, EFCOG subtask requested new survey information on use, versions in use, and impact to the various sites if no more revisions or codes were added from the Field Offices
 - Set goal to complete the subtask
 - Get input from EHSS-32

Very Brief History of the “Toolbox”

- November 2021, DNFSB meets with EHSS-32
 - Request for additional information
 - How the Toolbox is meeting the original intent
 - Clear that codes in the Toolbox are not the most current
 - New codes not added to the Toolbox
- EHSS-32 began developing a project plan
 - New codes not added to the Toolbox
 - Address necessary changes to the Toolbox method of qualification
 - Asked for help from EFCOG Software Quality Assurance Group

Subtask Team Approach

- EHSS-32 Project Plan due June 2022
- Goal was to complete whitepaper by Spring 2022 EFCOG Meeting
 - Whitepaper completed by subtask team April 2022
 - Present to SQA Group during Spring 2022 Meeting
- Regular meetings with ESHH-32 and Stakeholders
 - Discuss number of alternatives (3-5 was goal)
 - Based on no updated survey information

Subtask Team Approach

- Select three alternatives
 - Identify advantages of each alternative
 - Identify disadvantages of each alternative

The Proposed Alternatives

The Options are not in any preferred order

Option Number	Option Description
1	Eliminate the SSCR Toolbox and treat all codes acquired from the SSCR and updates as “otherwise acquired” software and perform the necessary qualifications steps in accordance with Site’s program.
2	Have a site, or sites, manage the SSCR and perform the audits help implement the chosen alternative
3	DOE HQ, e.g., EHSS could manage a direct support contract or similar vehicle to perform the audits of each code and maintain the SSCR replacement

The Proposed Alternatives

- Establish DOE Complex user group or forum
 - Help implement the chosen alternative
- All Options
 - Require the sites to “acquire” the code and incorporate it into the site’s QA/SQA Program for use
 - Meet DOE O 414.1D and NQA-1 requirements for qualification of safety related software

The Proposed Alternatives

- If Option 2 or 3 is chosen
 - The SSCR would operate much like an evaluated supplier list such as the EFCOG's Master Supplier List
 - List only contains specific type of software
 - Audit software developer's program on 3-year cycle
 - Perform annual evaluation
 - Maintain the list for users

Questions

- Questions???



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