



RADCALC SOFTWARE ADVISORY

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Review of Federal Oversight of Software Quality Assurance for RADCALC

On March 16, 2015 the Defense Nuclear Facilities Safety Board (DNFSB) issued a letter identifying deficiencies in the proper oversight, maintenance, and use of RADCALC. RADCALC is a DOE acquired computer program used to perform regulatory transportation calculations based on isotopic content. DNSFB stated that “these deficiencies could result in vulnerabilities in RADCALC’s calculation of decay heat, radioactivity, and/or hydrogen gas generation, which could result in serious consequences for workers and the public in the event of a transportation accident.” RADCALC Program Management is aware of the issues raised by DNFSB.

The Department of Energy’s Office of Packaging and Transportation (EM-33) is taking the following actions to address the concerns raised by DNFSB and to reestablishing a defensible and pedigreed program to ensure confidence within RADCALC community.

- Communication with registered users informing them of known issues.
- Work with RADCALC Site Administrators to verify registered Users at their Site
- Information Technology representatives at DOE Sites will assist in removing legacy versions of RADCALC.
- Issue Test Instructions enabling the End User to verify their installation of RADCALC 4.1.
- Conduct a thorough verification and validation of RADCALC 4.1 to identify any additional issues.
- Document a compliant, pedigreed NQA-1 program.
- Re-release RADCALC 4.1 with pedigreed documentation and processes.

These actions will provide a documented pedigreed program for RADCALC 4.1.

RADCALC 4.2 is expected to be released in early July 2015. RADCALC 4.2 will address all known issues and incorporate HM-250 regulatory changes.

Need more information?

If you need additional information, please contact any of the following resources;

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