DOE SQA Assessment of HOTSPOT
and
Its Future Inclusion as a DOE Central Registry Toolbox Model

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DOE Safety Software Central Registry Background & Overview

- Established as part of DOE's SQA improvement plan
- Includes specific code versions
- Originally included six codes:
  - ALOHA, CFAST, EPIcode, GENII, MACCS2, MELCOR
- Complies with DOE O 414.1C
- Each code undergoes an evaluation
- Each code has an associated Guidance document
- Supports "safe-harbor" methodology

Why HOTSPOT?

- Used across DOE for EPHAs
- Limited use for safety analysis
- Interest by SCAPA and PNNL
- Previously considered by DOE

HOTSPOT Evaluation Process

- Conducted August 2006 – April 2007
- Multi-disciplinary team
- 10 criteria based on DOE G 414.1-4
- Added model validation criteria

HOTSPOT Evaluation Results

- **Of the 11 criteria**
  - 1 met
  - 8 partially met
  - 2 not met
- **Identified 5 critical recommendations**
  - Add 95th-percentile dose requirement for DOE STD 3009
  - Improve CM,V&V test process, problem reporting to users
  - Enhance user manual and online help

Path Forward

- LLNL is implementing recommendations
- DOE is planning DOE specific training
- Guidance document in process
- Hotspot V2.07 and all minor releases plan to be included in DOE safety software Central Registry – Fall 2007

Future Impact

- Provides "known" quality level
- Hotspot V2.07 and future minor releases satisfy DOE's new requirements
- Minimizes Hotspot user's SQA activities
- Hotspot will meet DOE Std 3009 requirements

More Information

Web Page –
http://www.hss.energy.gov/csa/csp/sqa/central_registry/HOTSPOT/hotspot.htm

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