HAZARD ANALYSES and CRITICALITY SAFETY EVALUATIONS TUTORIAL

Nuclear Criticality Safety Division Wednesday June 16th, 2010 ANS Summer Meeting San Diego, California

Objective:

Effectively utilize Hazard Analysis techniques with criticality safety analysis techniques to produce **high quality** Nuclear Criticality Safety Evaluations (NCSEs) – Tutorial Chair and Moderator **Fitz Trumble (URS SMS)**

8:30 - 11:30 Part 1

- Attributes of high quality NCSEs (overview of NCSE process)
 - o Bob Wilson (DOE-HQ) (20 min)
- Hazard Analysis Tutorial
 - Identify Hazard Analysis Techniques
 - > Julie Johnston and Ron Selvage (LANL Safety Basis Academy) (90 min)
 - How do we use HA to identify pertinent scenarios for criticality safety analyses –
 Chris Dean (NSA) (20 min)
 - o HA and incredibility
 - > Kevin Kimball (Isotek) (20 min)

11:30 - 1:00 Lunch

1:00 - 4:00 Part 2

- Overview of Criticality Hazard Analysis Processes (examples of approaches)
 - DOE regulated approach
 - Ray Reed (URS SMS) 30 min;
 - Todd Taylor (INL) 30 min
 - NRC regulated approach
 - Randy Shackelford (NFS) 30 min;
 - Michael Shea (MOX) 30 min
 - > International -
 - Fred Winstanley (Sellafield, UK) 30 min

A sincere thanks to:

- Our panelists for sharing the information and the effort involved in its development.
- Those companies who supported our panelists participation in the development and presentation of these materials.
- DOE Nuclear Criticality Safety Program for providing support to the LANL Safety Basis Academy participation in the tutorial.
- URS SMS for printing and providing the handouts for the tutorial.