

Unreviewed Safety Questions – Preparation Issues and Lessons Learned

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Preparation Issues

Significant improvements have been made at Los Alamos National Lab (LANL) sites in recent months concerning USQ preparation. A greater percentage of the USQs are being prepared in accordance with Department of Energy (DOE) requirements. This ensures that facility changes that are outside of the authorization basis are prepared as positive USQs for DOE review in accordance with DOE Order 5480.21. Also, the USQDs that are negative are prepared correctly so there is confidence that changes to the facility can be made without additional DOE involvement.

Several key factors must be present for Authorization Basis Reviewers, and therefore sites, to maintain highly successful USQ Programs. If one or more key factor were not present, USQ Program success would be difficult, if not impossible. This paper identifies the key factors that have been found to be required for successful USQ Programs at LANL. There are several secondary influencing factors that contribute to successful USQ Programs but are not to be necessarily an absolute requirement for the success of the Program. A suggested ranking of the secondary influencing factors is provided based on experience at LANL.

Lessons Learned

Institutional sampling of nuclear facilities' USQDs and screens has been conducted formally at LANL on a quarterly basis since 1998 based upon the identification of some sites with deficient USQ Programs. A Memorandum of Understanding concerning the Quality of Safety Basis Documentation between DOE and the UC established the ESH-3 Facility Risk Management Group as the Institutional lead for ensuring that Authorization Basis matters are performed in accordance with current DOE requirements. Based upon the DOE requirements, ESH-3 samples the USQDs and screens at the LANL nuclear facilities. This effort is thorough and requires a team of about eight people from ESH-3 and numerous peer reviewers from the LANL nuclear facility sites. ESH-3 is then in a position to develop trends regarding USQ Program issues that exist (they change over time) and therefore develops lessons learned and identify the path forward for continued program improvement. Lessons learned from recent USQ Sampling are reported here in order of importance relative to significance of issues. Suggested solutions are provided for sites to implement to help ensure continues improvement of their USQ Programs.