

Stanford Linear Accelerator Center (SLAC)

SC&A Review of the NIOSH Site Profile Review

(ORAUT-TKBS-0051, rev. 01, August 2007)

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BACKGROUND

- Site profile of SLAC issued by NIOSH on Aug 17, 2007
- SC&A tasked by Advisory Board to review site profile; conducted May 2010-Aug 2011, and included onsite data capture and site expert interviews.
- SC&A draft report issued on Dec 20, 2011; contained 4 primary findings and 6 secondary findings.

PRIMARY FINDINGS

1. Incomplete basis for external neutron dose adjustments
2. Lack of extremity monitoring and low-energy photon calibration
3. Assessment of internal dose from enhanced radon and thoron in the tunnels
4. Incomplete characterization of internal radiological hazards

SECONDARY FINDINGS

- Incomplete characterization of internal exposure potential from routine operations
- Incomplete claimant medical records for historical workers
- Incomplete basis for environmental external dose from neutron skyshine
- Back extrapolation of occupational environmental photon doses
- Unsupported assumptions for calculation of environmental internal dose from onsite airborne releases
- Lack of adequate and accurate dose records prior to 1974