

**Questions for Office of Management and Budget  
Los Alamos Neutron Science Center**

1. What other accelerator facilities were evaluated in this analysis that reside within the weapons complex and have neutron and proton beams with the required energies, intensities, and pulsed beam structures capable of –
  - a. producing cross section measurements of nuclear weapons materials over the full neutron energy range of interest?
  - b. producing dynamic proton radiographic images of special nuclear materials and high explosives, including measurements with special nuclear materials shocked by detonating high explosives?
  - c. producing static neutron diffraction measurements of weapons components, some which are either radioactive or highly toxic.
2. If there are other such facilities do they all reside in the same place or are they separate - please identify.
3. Stockpile Stewardship
  - a. How many stockpile stewardship milestones rely on LANSCE capabilities and what would be the disruption if other facilities were relied upon?
  - b. What would the NNSA management plan be if new weapons issues arise in future surveillance programs if other facilities were relied upon outside the weapons complex?
4. If such facilities exist and must be modified to perform the experiments and analysis described in (1)
  - a. please estimate the cost for such modifications to handle weapons components that are made of special nuclear materials or considered highly toxic such as beryllium; or that are needed to conduct proton radiographic imaging under the conditions of 1b above;
  - b. please estimate the time to perform such modifications;
  - c. please include in any estimate the impact that such facility may not reside within the confines of a weapons laboratory with its associated scientific staff, this would include recreating critical nuclear weapons science skills; having separate facilities; and
  - d. please estimate the potential loss of a unclassified research at LANSCE in attracting post-doctorates which later become LANL stockpile scientists in the following areas
    - i. Manuel Lujan Center
    - ii. Nuclear Science (WNR) facility
    - iii. Ultra-cold neutron facility
    - iv. Isotope Production Center
    - v. Fast Neutron irradiation facility for nuclear fuels