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Study on Switching from H- to H+ Beam Delivery to the Proton Radiography and Ultra Cold Neutron Facilities at the Los Alamos Neutron Science Center (LANSCE)

Tuesday, 9 May 2023 16:30 (2 hours)

The Los Alamos Neutron Science Center (LANSCE) is a highly versatile H-/H+ 800-MeV linear accelerator that serves five distinct user facilities. Currently, H+ is accelerated through the drift tube linac down a stub line for the Isotope Production Facility at 100 MeV. The other four user facilities at LANSCE use the H- beam accelerated to 800 MeV. The H+ beam had historically been accelerated to 800 MeV for Area A operations but has not done so for over two decades. There are potential benefits to accelerating the H+ beam to 800 MeV to serve the Proton Radiography and Ultra-cold Neutron facilities in terms of potentially higher peak currents, improved emittance, higher ion source reliability, etc. A study was commissioned this year to conduct a cost/schedule/benefit analysis of converting from H- operations to H+ operations for these two facilities. The status of that study will be discussed.

Funding Agency

Footnotes

I have read and accept the Privacy Policy Statement

Yes

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