PROGRESS TOWARDS THE LANSCE RF SYSTEM REFURBISHMENT

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Abstract

The Los Alamos Neutron Science Center (LANSCE) is in the conceptual design phase of a refurbishment project that will sustain reliable facility operations well into the next decade. The LANSCE accelerator was constructed in the late 1960s and early 1970s and is a national user facility that provides pulsed protons and spallation neutrons for defense and civilian research and applications. The refurbishment will focus on systems that are approaching "end of life" and systems where modern upgrades hold the promise for significant operating cost savings. The current baseline consist of replacing all the 201 MHz rf amplifiers, replacing greater than 75% of the 805 MHz rf systems with a combination of high efficiency klystrons and new klystrons of the existing style, replacing four high voltage systems, and replacing all the low level rf cavity field control systems along the accelerator. System designs and requirements will be presented and the project plan will be discussed.

CONTRIBUTION NOT RECEIVED