

The SNS MEBT RF Power Amplifier Solid State Upgrade

Tuesday 8 May 2012 14:00 (30 minutes)

The original vacuum-tube-based rf power amplifiers (four online, two spare) that drove the four rebunching cavities on the Spallation Neutron Source (SNS) Medium Energy Beam Transport (MEBT) structure have been replaced with commercially available 25-kW solid state amplifiers (4 online, one spare). A 4+1 switch matrix permits remote switching of the spare amplifier into any one of the four MEBT rebunching cavities. The fifth and final solid state amplifier was installed in September, 2011, and the system has operated without fault since that time. We describe the integration and operation of the system upgrade.

*Work supported by the U.S. Department of Energy, Office of Science, under Contract No. DE-AC02-06CH11357.

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Session Classification: Session 2