

Design Process used in Building the E-linac Facility at TRIUMF

Doug Preddy

Beamlines Group Leader, TRIUMF, Vancouver B.C. Canada

This talk will examine the strategies used while designing and building TRIUMF's new electron linear accelerator to provide a more reliable machine. Planning for reliability must start when first designing a new facility or designing the upgrades of an existing facility. Equipment selection, material selection, removing electronics from radiation fields, life time of equipment that cannot be removed from radiation fields, ease of installation and maintenance, and numerous other factors are important at the design stage. Identifying sources of failure and mitigating these problems are not always possible at the beginning of a design, but must be constantly looked at as the design evolves. The design process as well as the actual design has changed during the building of the e-linac. This has allowed us to ensure the final installation has taken into account as many of the failure scenarios as can be planned for in advance.

Presentation type: Oral

Preferred Session: #5 Reliability during facility machine design