

# LINAC COMMISSIONING FORM

24-Sep-2001

**Major Category :** DTL Tank 1 + D-plate

**Sub-Category :** Beam sub-category

**Sub-System :** rf set-point

**Objective:** To find the rf set-point of the DTL Tank 1 using Phase Scan/Acceptance Scan and other technique

**Requested by :** Jim Stovall (LANL) and Dong-o Jeon (SNS)

**Date Proposed :** July 2003

**Estimated Time to Complete :** 24 shifts

**Estimated Manpower to Complete :** 72 man-shifts

**Priority/Order:** high / 1

**Basic Equipment Needs :** Fully functioning FE and D-plate

**Special Equipment Needs :** None

**Software/Application needs :** T.B.D.

**Input Beam Requirements :** 2.5 MeV beam up to 50 $\mu$ s pulse, variable beam currents up to the full current

**Other prerequisites :** Aperture in MEBT at the initial attempts

**Correlations Sought :** Time-of-flight vs. rf amplitude/phase (Phase Scan)  
Transmission vs. rf amplitude/phase (Acceptance Scan)

**Procedure:** Obtain optimal design conditions while scanning rf variable space

**Supporting Computations :** None

**Problems Expected :** Possible beam loss due to closed-orbit errors

**Comments:**

**Date Completed LANL:**

**Date Completed ORNL:**

**Results:**

**Problems Encountered:**