Prepared by: C. Carlson
Date: September 6, 2011
Reviewed by: _____ (RSC)
Date: 9/9/11
Approved by: _____
(C-A Dept. Chairman)
Date: 9/9/11

RADIATION SECURITY CHECK-OFF LIST FOR TTB OPERATION WITH PROTONS
September 6, 2011

Protons shall not be transported down TTB until the following checklist items are completed.

____ (ACIG) Two interlocking Chipmunks by multiwire 12MW30 are tested, set to trip at 50 mr/hour, and alarm at 30 mr/hour and are within their calibration perioc.

____ (TOS) Multiwire 12MW30 set for continuous viewing on an analog oscilloscope in the Tandem control room.

____(ACG) Interlock funtion of the two chipmunk by multiwire 12MW30 have been Functional checked.

____ (ACG) Functional test of the Tandem redundant light ion access control system is complete.

____ (ACG) Current limiting devices installed on dipole power supplies 11DH1 and 11DH2, set to limit current to 10% above the 17.5 MeV proton operating point, and functionally tested.

____ (LPT) TTB Radiation Safety Checkoff List for Heavy Ion Operation is complete.

PROTONS CAN BE SUPPLIED BY EITHER MP6 (A) OR MP7 (B)

A. When Protons are from MP6 then:

____ (TOS) Close and RS LOTO MP 7 image slits or equivilant
Tag No. _____ Lock No._____
Person _____ Date _____

____ (LPT) MP6 Tandem interlocks in Light Ion Mode.

B. When Protons are from MP7 then:

____ (TOS) RS LOTO 9DH02 for Protons from MP7
Tag No. _____ Lock No._____
Person _____ Date _____

____ (LPT) MP7 Tandem interlocks in Light Ion Mode.

Once the above items have been completed, the 12FC165 Faraday cup should be inserted and protons delivered to that location to verify the position of the 12MW30 Chipmunks with pulsed beam.

____ (LPT) 12 MW30 Chipmunk positions and trip points set to limit proton intensity into TTB to 200 nA.

When all the above are complete, the 12FC165 Faraday cup can be retracted and protons transported down TTB.

____ (LPT) Tandem cleared to transport protons in TTB.

____ (OC) List completion verified by on-duty operations coordinator.

LPT Liaison Physicist for Tandem (J. Alessi, or designee)
ACG Access Controls Group (J. Reich, or designee)
RCT Radiological Control Division (P. Bergh, or designee)
TOS Tandem Operations Supervisor (C. Carlson, or designee)
DC C-AD Chair (T. Roser, or designee)
RSC Radiation Safety Committee (D. Beavis, or designee)
OC Operations Coordinator
ACIG Accelerator Components and Instrumentation Group (R. Atkins or designee)