Mucool Muon Test Area Longitudinal Shielding

Attachment 5A

7/13/2010

Emittance Mode

Beam to Emittance Absorber in MTA Stub

Base Primary Beam Energy (GeV): 1000.00
Base Primary Beam Intensity (protons/pulse): 2.00E+13
Base Cycle Time (seconds): 57

Primary Beam Energy (GeV): 0.4
Primary Beam Intensity (protons/pulse): 1.60E+13
Secondary Beam Energy (GeV): 0.4
Secondary Yield: 1.00E+00
Accelerator Cycle Time (sec): 6
Protons per hour: 9.60E+15
Pulses allowed by interlocked detectors per hour: 15

Z-Range (ft)	Enclosure Type	Beam Type	Fixed Shielding (e.f.d.)	Removable Shielding (e.f.d.)	Current Shielding (ft)	Limits Cossairt Category	Standard (e.f.d.)	Required (e.f.d.)	Difference (ft)	Possible Solutions	After Solutions	Fail?
0-41	Main Linac enclosure	P	14.9		14.9	7A	15.2	10.6	4.33			
41-55	Linac high ceiling	P	13.3		13.3	7A	15.2	10.6	2.73			
55-103	Linac ramp	P	15.7		15.7	7A	15.2	10.6	5.13			
103-106	Beam stop alcove	P		18.1	18.1	4A	15.0	9.9	8.25			
106-115	Hatch	P		21.7	21.7	4C	16.5	11.4	10.35			
115-147	MTA upstream stub	P	10.0		10.0	4A	15.0	9.9	0.15			
147-187	MTA main hall	P	10.2		10.2	4A	15.0	9.9	0.35			
187-193	Pipe to absorber	P	19.0		19.0	4A	15.0	9.9	9.15			
193-203	Absorber in berm	P	21.7		21.7	4A	15.0	9.9	11.85			

	Name & Date	
Originated	W. Higgins	25-Jun-10
Checked		