

Guidance For Performing Meson Test Beam Facility Walkthroughs

The Meson Test Beam Facility (MTBF) consists of the Meson Test beamline enclosures MT6 Section 1 and MT6 Section 2. The MT6 Section 2 enclosure exists within the Meson Detector Building and is constructed primarily of shielding blocks. Much of the west side of the enclosure is directly adjacent to the MTest portakamps while the downstream end of the enclosure consists of a final beam dump.

The MTBF program consists of a number of different experiments that take beam for short periods of time, typically on the order of one to two weeks. Each time an experiment sets up to take beam, Accelerator Division Radiation Safety Group staff inspect the area to look for issues that may result in adverse radiological consequences. In addition to reviewing the layout of the apparatus in the enclosures it is necessary to inspect the exterior of the enclosures for appropriate integrity and signage.

The following list represents suggested items that should be checked while performing the walkthrough inspection.

Items to check inside the enclosure

- 5 Does the experimental apparatus create a significant interaction length target
- 5 Is any extraneous material (tools, ladders, power supplies, etc.) in or near the path of the beam
- 5 Has apparatus for non running experiments been moved out of the path of the beam
 - The MT6 Section 1 downstream clean room contains a pixel telescope which is part of the facility. It will remain in the beam.
 - MT6 Section 2 contains the following items which will remain in the beam path:
Multiple aluminum frame wire chambers and black paddle photomultipliers
The CALISE detector will remain in the beamline until their run is completed. However, the CALICE "tail Catcher" (large blue cube shaped object) should be rolled out of the beam.
- 5 Is the location of the experimental apparatus covered by an interlocked detector
- 5 Has apparatus been positioned such that it provides shielding for any of the detectors
- 5 Have any of the detectors been moved from their designated locations
- 5 Are the hatches in MT6 Section 2 in position and closed
- 5 Is the Herculite[®] roof of MT6 Section 2 intact

Items to check external to the enclosure

- 5 Are the shielding blocks and associated fencing in place
- 5 Is the barrier between MT6 Section 1 and MT6 Section 2 in place
- 5 Are the Radiological postings in place
- 5 Are the signs prohibiting access on top of the shielding blocks and portakamps in place
- 5 Have any individuals in the Tech area downstream of the final beam dump been cautioned about working in this area during beamline operation

At conclusion of Experiment's Run

- 5 Go to MS1 and lock off M1W1. Note: Wear protective gear as needed.
 - Supply will likely not be breaker off. Observe the current meter to determine if the supply is powering its magnet. If not, press the "green" button to the left of the breaker panel, to turn off current. Then breaker off the supply. If the current meter indicates the supply is outputting current, call the MCR and have the supply turned off before locking the breaker.
- 5 Do not remove RSO lock until AD RSO has signed off the ORC for the next experiment.
- 5 Once RSO lock is removed, make a courtesy call to Dan Johnson or Paul Allcorn to let them know ORC is signed and lock is removed