



To: Patrick Hurh

Date: 31-March-2014

From: Kris Anderson, EC Review Coordinator

Cc: Cory Crowley, Matt Slabaugh, Robert Reilly

Subject: Design Review 48 – Mu2e In-Tunnel Shielding Support Structure for AP30 Straight Section

Design Review 48 involves the design of in-place beamline device shielding and the associated modular structure for supporting the steel shielding stack up. As a result of beam losses in the AP30 area of the reconfigured Debuncher, such shielding is necessary to reduce beam on sky-shine and mitigate unacceptable residual radioactivity rates complicating tunnel access work as well as increasing dose rates to workers.

Due to the nature of the shielding configuration and noting that the steel structure will be partially anchored into the tunnel walls and ceiling, such installations require a review as set forth in ADDP-ME-000132, "Formal Design Review Policy".

Cory Crowley requested the review as the responsible engineer with the review task assigned to Rob Reilly and Matt Slabaugh.

Both Rob and Matt have reviewed the documentation provided with respect to intrinsic design and structural integrity. Their findings were that the shielding support structure appears to be satisfactory and generally conservative. Note that the potential loads in the tunnel concrete walls and ceiling were not reviewed as it was understood that FESS would address these issues. In summary, it was the recommendation of the reviewers to continue forward with the implementation and approval process of this design.

As Design Review Coordinator and acting spokesman for the MSD Engineering Committee concerning review documentation, the Committee feels that the review charge has been met and concurs with the reviewer's findings and recommendation with no further contingencies noted. The review documentation memos will be filed after signoff by the Department Head.

Department Head Concurrence: _____

A handwritten signature in black ink, appearing to be "Patrick Hurh", written over a horizontal line.

Date: 10-5-15

Engineering Design/Installation Exceptions or Contingencies:

Mechanical Support Department Head Directive:

PROCEED AS PLANNED