date: July 21, 2011

to: E. Lessard and R. Karol

from: D. Beavis, C-AD Radiation Safety Committee Chair

subject: The HFT Project and the Radiological Analysis of RHIC

I have examined the RHIC ASEs and safety analysis for any potential radiological impact by the HFT Project at STAR. I conclude that there is no impact to the RHIC ASEs or analysis for Radiological issues.

Some specific comments are:

ASE 2.1 The materials added to the STAR detector do not impact the assumptions for the STAR shield wall for an MCI. The present MCI analysis is for a fault on the high beta quads and losses in the IR cause lower levels outside the shield wall.

ASE 2.2 The sources in the IR for chronic muons is an order of magnitude lower than the collimators. In addition STAR is far from the site boundary compared to the locations used for muon dose at the site boundary.

ASE 3.1 The STAR IR does not have an issue with activation of the adjacent soil. The HFT does not impact that conclusion.

ASE 5.1 The HFT does not impact any of the ACS requirements in the ASE.

Cc:
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