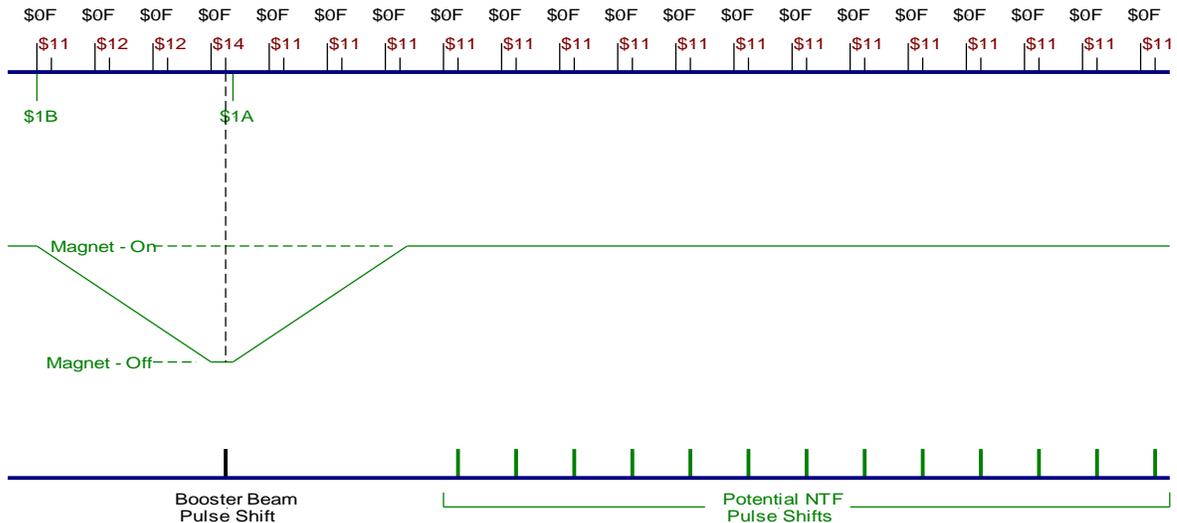


TLG Rule Modification for event \$1B

G. Vogel 12-18-2001

In order to support future operations in which MiniBooNe and NTF will be required to coexist, the ramp time for the NTF 58 degree magnet has been sped up from approximately 200 mSec. rise/fall time to approximately 60 mSec. This nullified the need to place the TCLK \$1B event (which turns off the 58 degree magnet) 3 full 15 Hz ticks ahead of the booster beam reset (\$13, \$14, \$15, \$16, \$17, \$19, \$1C and \$1D) in order to avoid interference. Instead it now only needs to occur a single 15 Hz tick ahead. Therefore, we have changed the TLG FE rule for placing \$1B. It is now placed 1 full 15 Hz tick ahead of the Booster beam reset. It plays out in the timeline 2 uSec. ahead of the \$0F (15 Hz clock event) and approximately 83 mSec. ahead of the associated Booster Beam reset. (Booster Beam resets play out approximately 17 mSec. after the \$0F.)

The 3 attached drawings are examples of the timelines and the associated 58 degree magnet ramp on/off for the original ramp time, the present ramp time without \$1B change, and finally, our present configuration. (Note, the \$14 is the booster beam reset in all cases shown)

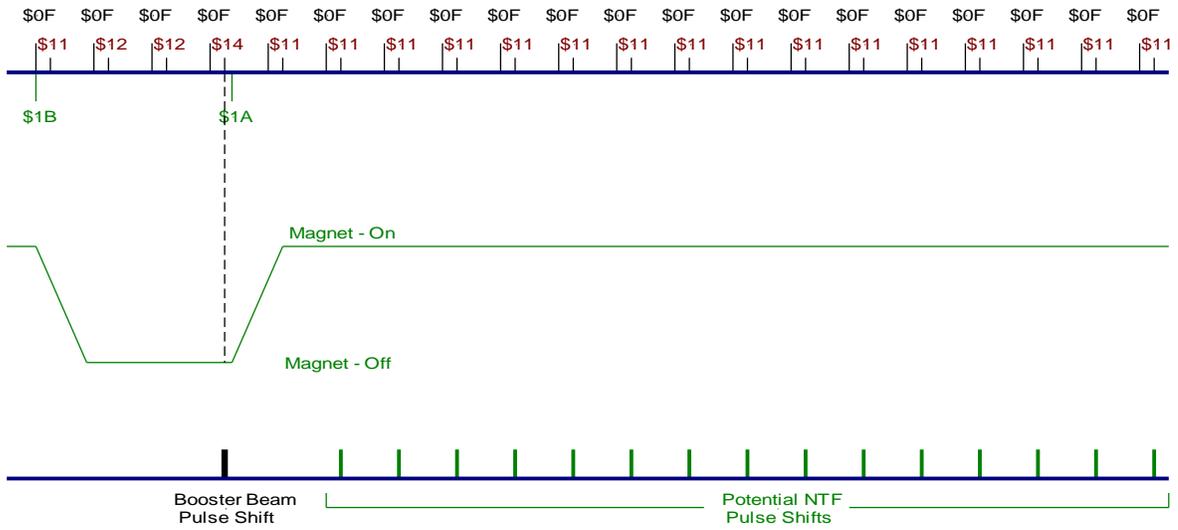


Timeline for previous TLG Rules for placement of \$1A & \$1B events

\$1B - 3 ticks prior to booster beam reset

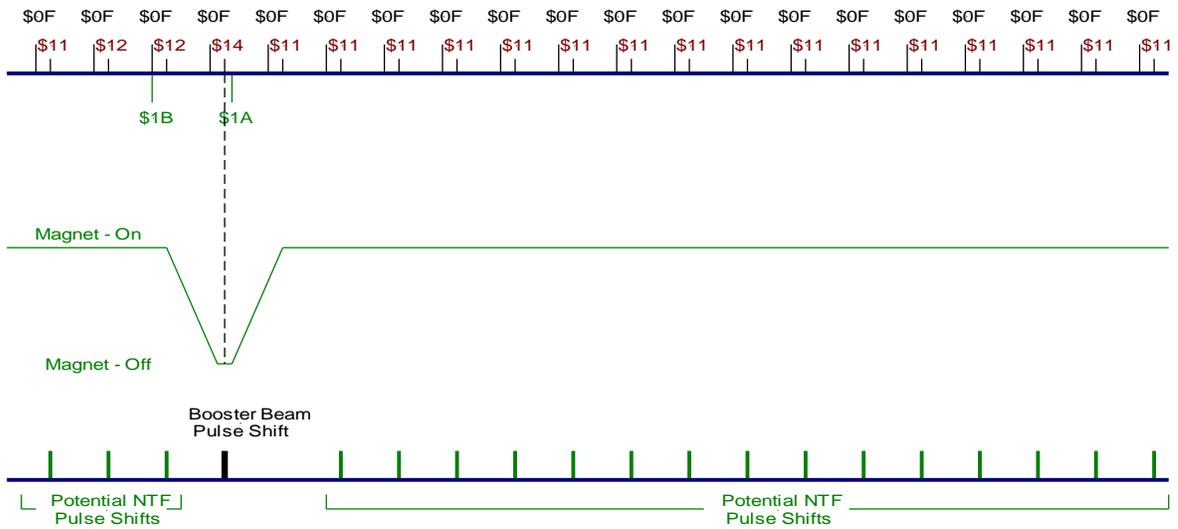
\$1A - 2mS after BB reset if 14 open ticks before next BB reset

(Magnet On/Off shows former rise/fall time)



Timeline for previous TLG Rules for placement of \$1A & \$1B events (with faster magnet ramp)

\$1B - 3 tick prior to booster beam (BB) reset
 \$1A - 2mS after BB reset if 14 open ticks before next BB reset



Timeline for present TLG Rules for placement of \$1A & \$1B events

\$1B - 1 tick prior to booster beam (BB) reset
 \$1A - 2mS after BB reset if 14 open ticks before next BB reset