Step IV Schedule

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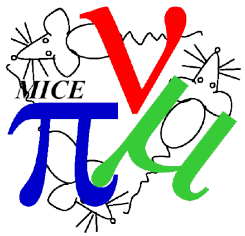

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Step IV, empty with windows + LH2

- Summer + early September 2012 = installation.
- Sep 17-30, 2012 = running with empty LH2 absorber (ISIS run-up + MP); may need more time.
- October 1 - Nov 4, 2012 = filling up LH2 absorber, running with LH2.
- Nov 5-11, 2012 = remove LH2 module.

Step IV, no absorber + flat LiH

- Nov 12-24, 2012 = run with no absorber (nor windows); one week of MP, one week of running.
- Nov 25-30. 2012 = install LiH flat disk; less than a week, but we are going from empty AFC to solid absorber (manageable?).
- Dec 1-23, 2012 = run with LiH flat absorber; almost three weeks + 3 days of MP.
- Dec 24-30, 2012 = dismount LiH disk; how does that usually work with holidays?

Step IV, LiH wedge, alternative scenarios

- Jan 20 - Feb 3, 2013 = install LiH half wedge (45 degrees).
- Feb 4-15(20?), 2013 = run with LiH half wedge; run-up + MP; might need more time depending on the quality of MP.
- Feb 16-23, 2013 = remove LiH half wedge, install full 90 degree wedge.
- Feb 24 - March 24, 2013 = run with LiH wedge (with possible orientation change); can be done in 3 weeks, but one extra week will not be enough to replace the absorber again.

- Alternative: start with a full 90 degree wedge, run from Feb 4 through March 2, 2013; replace absorber with a flat plastic one (March 3-10); run with this absorber for the rest of the cycle (March 11-24).

- March 25-31, 2013 = remove absorber.

Step IV, extra cycle, other considerations

- As time permits: run with LiH half wedge (or flat plastic) absorber + LiH wedge in a different orientation or another flat absorber (Cu?).
- Separately: John assumed 5 good muons per spill when he came up with 23 days of running to get 100k particles. How many muons we expect to see?