

G0 Configuration [Accelerator Perspective]

- ✓ Schedule

- ✓ Machine Configuration
 - ✓ Injector Configuration
 - ✓ RF configuration
 - ✓ extraction configuration

- ✓ Hall-C beamline configuration
 - minimize changes

 - maintain/verify parity quality beam

 - watch out for conflicts

Schedule

	MeV/pass	A	B	C	Comment
Feb 6→Mar 14	~650	3 & 4 pass	4 & 2 pass	install	\overline{PQB}
Mar15→Apr 2	~650	5pass	3pass	1pass commission	PQB
Apr 7→May 1	~650	5pass	3pass	1pass G0	PQB
May 2→May 9	~550	1pass			\overline{PQB}
May 2→May 9	~1130 or ~550		1? or 2?		\overline{PQB}
May 15?→Aug 1?	~350			halfpass	PQB
Aug 1?→Sep 7?	~350	halfpass			

Consequences:

1. Same injector energy from Feb. until Dec.

(a) May 2 through May 9 will run with non-standard setup, but PQB is not an issue during this period.

2. North Linac Energy at ~325MeV from Feb. until Sept.

(a) Special 550 MeV run will ~225 MeV of South Linac RF.

(b) Special 1130 MeV [Hall-B] needs some thought. Not enough RF to do this in one pass, yet two pass running needs ~550MeV/pass or 225/linac.

3. single hall running during half-pass operation, no RF separation of one-pass beam [Until Sept.]

Scheduling Issues:

- Injector configuration need not change from Feb. until Dec. as the linac energy is more or less constant.
 - An effort to establish a solid injector setup after Jan. down will have a big payoff in the next year.
- Have from Feb. to Mar 15 to establish correct injector setup for PQB.
- A need to RF separate one-pass beam [687 MeV] to A & C in Sept.

Hall-C Beamline Configuration

- Modify quadrupole magnet configuration from a triplet to a quadruplet, should provide better control of the beam parameters at the target [Benesch].
- New Cavity BPM electronics: will need beam time to properly commission and train G0 staff as to their operation.
- μ -metal shield 20m of drift from Hall-C pivot to G0 target. At 360 MeV need to watch out for drift due to B_{\oplus}
- Reinstall G0 Diagnostic Girder [wire scanners, OTR, halo monitor...]
- Møller kicker
- Experimental ion chambers

Issues

Energy Feedback with south linac off, FFB energy control needs to be relocated to a RF cavity in North Linac.

Note: G0 does not want to use FFB energy control. Is this true for Hall-A as well? If so slow energy lock in ARC-1 may be sufficient for ~350 MeV running.

G0 girder Need to have antenna BPMs thoroughly checked out, they were problematic last G0 run.