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Recycler bpm Proposal

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Purpose for review

- Expedite decision
- Exploit rapidly approaching October shutdown
- Stop work if someone else is doing the job
- Organize effort and Allocate resources if project is approved



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Design Goals

- Use existing preamps with minor modifications
 - Replaced all 465 preamps two years ago
 - \$250K and 3 weeks of intense tunnel work
- Use existing cables
 - 300,000 feet of cable to 465 bpm's
 - \$200k to pull and terminate, \$150k for cable
- Use commercial hardware to the extent possible
- Use controls preferred VME computer
- Use controls supported front end tools
- Use existing front end software with minimal modifications
- Use existing ACNET interface with minimal modifications



Design goals continued

- Use existing application program with minimal modifications
- Support existing features
 - Allow for future improvements
- Measure .089, 2.5, and 7.5 MHz beam
 - Emphasis on 2.5MHz initially
 - Currently have 7.5MHz bpm system measuring 2.5MHz beam
- Measure beam intensity at each bpm
- Measure injected beam in the presence of stored beam
- Measure stored beam



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Logistics

- Replace 208 logamp bpm's with digital receivers
 - Exploit October shutdown to modify preamps
- Continue operation of remaining logamp bpm's until digital receivers are fully commissioned
- Install new system into temporary rack
 - Move into existing bpm space when logamps are removed



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Outline

- 10-12AM

Martin Hu

Specifications

Jim Crisp

Detectors and Cables

Ralph Kimbel

Digital receiver technology

Peter Prieto

Preamps, Digital Receiver bpm's

- 2-4PM

Warren Schappert

Optimum filter

Duane Voy

Adapting the current front end

Tom Meyer

Programming the GC814

Jim Crisp

Cost, Schedule, Summary