

Minutes, 3/25/04 Tevatron BPM Upgrade Meeting
Stephen Wolbers

This set of minutes, and all future minutes, are or will be deposited in the Beams Document Database as document number 792.

The agenda as announced consisted of:

1. Crate layout/front panel: Bill and Mark
2. Commissioning Plan: Jim
3. AOB.

1. Mark and Bill showed a couple of alternatives for the front panel of the EchoTek board and the diagnostics board that is adjacent to it in the VME crate. The goal of the exercise was to reduce the number of short jumper cables on the front of the crate.

The alternate plan is to change the smb connectors to vertical mount on the EchoTek and the diagnostics board and to connect them behind a front panel. The front panel would then be 2-VME modules wide and would have only 10 or so smb connectors.

We were all very impressed with the idea of having a much cleaner front panel. But the discussion brought up questions about getting at signals easily, maintenance, non-standard EchoTek boards, difficulty or not of short jumpers on the front, etc. In the end we decided to stick with the design of smb connectors on the front of the EchoTek and smb on the front of the diagnostics board and jumpers to connect the two. This involves 16 connectors and 8 cables for each EchoTek/diagnostic board pair.

2. Commissioning Plan - Jim Steimel

The commissioning plan draft outline is found in Accelerator Division document 1083-v1. It will be updated often as we work our way through the issues and fill out the details.

Today's discussion touched on many issues. Jim will update the document to reflect the results of the discussions and decisions that were made.

We discussed at some length the question of the location of the new system in the 27 service buildings. The main question is whether we will rip out the old system to make room for the new one or whether we should install the new system somewhere else in the service building and

make the transition by moving or reconnecting cables. The main argument in favor of removing the old system is that it gives us more than enough space to install the new rack and the proton cables are automatically in the right spot. The pbar cables can be pulled or extended to the proton rack. The arguments for a new location are that we can find space in essentially all the buildings, we can extend the p cables to the MR rack (our current best candidate spot), we can leave the old system in place until we need to make a change, we can leave the BLM connected to the old system (we think) until we want to move it to the new system, etc.

Most people believe that installing the new system in a new location in the service buildings (the MR BPM rack) is very advantageous for commissioning the system. The schedule shows us doing this installation during the shutdown. When the shutdown is over we will cut over service buildings one at a time to the new system, working in tandem with the Tevatron and Controls Departments.

Given the above decision (new rack, new location) we looked at the document. The items A, C, D can almost all be done at any time. E,F,G,H mostly require beam. B can come later.

The BLM readout is a question which we did not know how to answer. We can either move the BLM readout to the new system at the same time we switch the BPM proton signals over, switch it over later, or switch it not at all and wait for the new BLM system. Further discussions with all the experts will have to occur before we can make this decision.

3. AOB.

The photographs that were taken by the service building task force can be found at the following web address:

http://www-cdserver.fnal.gov/cd_fnal/cep/ese/BPM/Survey/Pictures/index.html