Minutes SBS Meeting March 21, 2012

Attendees: Bogdan Wojtsekhowski, Charles Perdrisat, John LeRose, Nilanga Liyanage, Gordon Cates, Oleg Gavrishchuk, Brian Quinn, Vina Punjabi, Mark Jones, Vahe Mamyan, Bob Michaels, Yang Wang, Seamus Riordan, Gregg Franklin, Sergey Abrahamyan, Kees de Jager, Mahbub Khandaker

1. Oleg Gavrishchuk gives talk on HCAL Development, JINR/CMU/JLab activities for February-March 2012
    a. See link for his slides
    b. Summary:
        i. Plan
            1. Tests
            2. Optimization of configuration
            3. Finalize stage 1 of agreement
        ii. Details of test activities
        iii. List of collaborators
        iv. Web reports of results
        v. Cosmic Ray test configurations
            1. Note: blue text are hyperlinks to detailed results
            2. Slide 15 is a summary of the cosmic ray test results
        vi. Materials tests
            1. Pictures
            2. Schematic
            3. Slide 28 is a summary table
        vii. Monte Carlos
            1. GEANT 3 and GEANT 4
        viii. Slide 35 is a summary of all measurements and Monte Carlos
        ix. Lists requirements, preliminary configuration
        x. Conclusions:
            1. HCAL module composition
            2. Production should start soon
    c. Questions:
        i. Kees asks for clarification on “WLS with fast time similar toEJ-299-27
            1. Will try to develop a wave shifter at Dubna with the Eljen properties.
            2. If unsuccessful can use the Eljen material, but it will cost more.
        ii. Nilanga asks for clarification of the trigger location in the tests.
            1. Bogdan gives details
            2. Vetoes on the sides
        iii. Kees asks if there’s a timeline for a detailed design
            1. This summer for the modules
            2. Overall design depends on the experiments

3. Can construct the modules without the overall design

iv. Brian Quinn expresses concern re attenuation across a 15 cm scintillator. Oleg agrees and says it will be tested.

2. Bogdan Wojtsekhowski presents Considerations re the Coordinate detector
    a. See link for his slides
    b. Summary:
        i. Gives specs
        ii. Proposes new solution
        iii. Proposes formulating a task force to pull it all together
        iv. Outlines tasks to change the PMP
        v. Expects PMP changed by 15 September 2012
3. My post meeting thoughts:
    a. What do we need to change the PMP?
        i. A detailed design and cost estimate
        ii. Much more than sketches
        iii. Is there R&D involved?
        iv. Number of elements
        v. How are they mounted and connected?
        vi. How much do they cost? Parts and labor
        vii. Who is doing the work?
        viii. You need a believable timeline too.
    b. Demonstrate, using the detailed design and cost estimate, that the proposed solution is as good or better than the existing one
        i. Cheaper with better performance would be the best
        ii. Cheaper with the same performance is second best
        iii. Cost neutral with better performance is OK.
        iv. Increased cost with better performance is tricky
            1. How much increase in cost? (Remember the $2M ceiling!)
            2. How much better performance?
            3. You said you could do it with the old plan!
        v. Cost neutral with the same performance. Why bother?
        vi. Increased cost with the same performance, FORGET IT!
        vii. Increased cost with reduced performance…

-JJL