

1. Technical Board 15/2/99

Present: J. Christiansen, H. Dijkstra, W. Flegel, N. Harnew, J. Harvey, H.-J. Hilke, B. Koene, J. Lefrançois, R. Lindner, T. Nakada, W. Ruckstuhl (part time), B. Schmidt, U. Straumann, D. Websdale
Excused: D. Lacarrère

Agenda

- TDR Contents
- Magnet
- L0 Latency
- Outer Tracker
- AOB
 - Decisions ahead -> Reviews?
 - Photo album for sub detectors

Summary

TDR contents

Guidelines for the TDR contents were presented (Appendix 1) by H.J.Hilke . They had already been approved globally by our Director of Research R. Cashmore. HJH will participate in the detailed layout of the first detector TDR in order to provide a kind of template for the following ones. Safety questionnaires, which form the basis of safety checks by TIS before the submission of the TDRs, will be distributed to the groups by R. Lindner.

Magnet

W. Flegel presented the status of the magnet and informed the TB about the discussions with industry, the work done at CERN and the first review by the Magnet Advisory Group MAG, 9 magnet experts advising the LHCC. The magnet specified in the Technical Report poses technical problems, which result in higher cost and longer construction phase. A simpler Race Track geometry (Appendix 2) is, therefore, also under consideration. To study possible effects of the reduced field homogeneity on physics and on trigger performance in particular, a first field map for this alternate design is being implemented in SICB. In parallel, work at CERN continues on improving the field homogeneity by additional shimming. To avoid costly duplication of effort, it is important to choose the basic magnet geometry as soon possible.

L0 Latency

H. Dijkstra reported on the latest estimates of the 'unavoidable delays' due to cable length, processing time, etc, resulting in a L0 latency of ~3700 ns compared to the original estimate of ~3000 ns. A possible increase of the length of the L0 shift registers from 128 to 164 cells is being studied in terms of effort required and costs. Discussions continue with all involved groups with the aim to reach a conclusion by mid - March.

Outer Tracker

B. Koene expressed his serious concerns about the present progress of the Outer Tracker project. He explained that the present support base at NIKHEF is significantly narrower than expected and that the situation has become more problematic, as no material suitable for the honeycomb technology has yet been found (Pokalon, as used by HERA-B, is no more produced). A new line of development for long straw tubes has to be built up. Additional effort on the Outer Tracker from other institutes would be very welcome.

AoB

1) Decisions / reviews

Length of Hadron Calorimeter:

The TB agreed that the arguments are clear and undisputed and that the recommendation to be formulated and justified by the Calorimeter group in a written note (after simulation results with higher statistics are analyzed) will be followed.

Cell pattern within Calorimeter:

For the formulation of a recommendation concerning the cell pattern, more simulation is required. The Calorimeter group considers it useful to introduce a review procedure for preparing the final decision; the TB agreed.

Magnet:

We expect further information from industry by end of March and will then ask the MAG experts for advice. HJH expressed interest to follow our review procedure for preparing the decision on the choice of the basic magnet; the TB agreed.

Latency L0:

It was agreed to leave this decision to H. Dijkstra, allowing for one week reaction time after having sent the recommendation to the TB members.

RICH HPD:

The RICH group will prepare a recommendation to the TB. It considers an ensuing review procedure as desirable; the TB agreed.

2) *Photo album.*

The coordinators are requested to send to Tatsuya at regular intervals latest photos on prototypes.

The optional extension of the TB on Friday afternoon has been cancelled.