**CALICE Oversight Committee - Questions**

*Report section 4.2 para 1*

How serious is the loss of studies due to digital readout? Is there a recovery plan? How will you learn about mutual inductance oscillation safety in large systems?

*Report section 5.3*

The successful treatment of a cluster as a m.i.p. suggests that the pixel size is smaller than needed, and the system is overdesigned. Please make a crude study of the effect of doubling the pixel size on (a) physics performance [merge two pixels into 1 in readout to get a quick impression (b) cost – is readout easier?

*Report section 6.1*

Glue: what studies of accelerated aging – how big are the samples? What studies of radiation hardness? Can we see the report sent to LCWS in May?

*Timescale*

Some external factors are pushing things later. What risks are there of losing milestones due to drift beyond Mar 2009?

*Finance*

What are the most significant unknowns affecting cost?
Might you bid for release of unspent working allowance to take some items beyond Mar 2009?

1) Figure 2 left. There look to be some minor discrepancies around the mip peak between data and MC. Is there a small excess of energy in MC compared with data?

2) Figure 4. Given the parameterisation of the data and MC is it possible to tabulate the fitted parameters c, alpha and beta and to see how well these compare between data and MC? (It all looks fine though but this might make it easier to interpret.)

3) Can we explore a little more the consequences (section 4.2) of having only the digital FE for the studies of the ECAL? What does "digital" exactly mean here? Why are studies with a variable threshold not able to reproduce some of the information that an analogue chip would (much more easily) provide?

4) WP3. I note the second sensor design review is now expected Dec 2007 but I think this still implies a very busy schedule for evaluation of the first sensor. The test programme includes, laser, source and testbeam but I would have thought a focus on the results needed for the second sensor design review might be prudent. In particular, I think that as the signal/noise for a minimum ionising particle is not comfortably high, it will be important to evaluate the noise and absolute (mip) calibration as a priority. (ie be sure of getting results with a source since I worry that cosmic runs could take far too long). My worry is that many factor can contribute to making the noise higher than specified and this is difficult to get right in the device simulation. Getting system noise down also takes a lot of effort.
Checking key performance specifications against the device simulation should, to my mind, be the priority, particularly before any further designs are started in earnest.

5) WP4. How consistent is the glue joint aging with that which caused CMS to abandon this method of making the HV contact and led to major concerns in ATLAS? Is the conductive glue the same as those studied in ATLAS? Should the dots be left unpowered for very long durations to check for the CMS/ATLAS aging problems. (Manchester people clearly have all the ATLAS experience to draw on in addressing this.)

5) WP5. It would seem that LDC/GLD vs SiD comparison would be most interesting from a CALICE perspective as the benefits to cost of the SiD solution for the calorimetry must be one of its attractions. Clearly, the angular resolution compared with a large tracking volume is compromised but might UK physicists be able to help see what the SiD solution would cost in terms of calorimetry performance?

Finally, I believe we should congratulate CALICE UK on their progress, the quality of the results presented and the very clear documentation.

A trivial one - can they clarify what the y axis is in Figure 11 In section 7.5.3 there is a comment that some other physics analyses are in preparation. Can they clarify what that means?