M. Longo, 5/16/02

Neutral Calorimeter Status Report

Our present plan is to use the HyperCP hadron calorimeter. This will be preceded by a modest EM detector consisting of PWC planes and lead plates.

The main argument for this design is low cost. The DOE has cut our budget at UM for fiscal 2002 by 10%, to ≈$110K. This will cover a postdoc's salary and 2 months' summer salary for Longo and Gustafson, and nothing else. They have also made it very clear that we are being funded for HyperCP.

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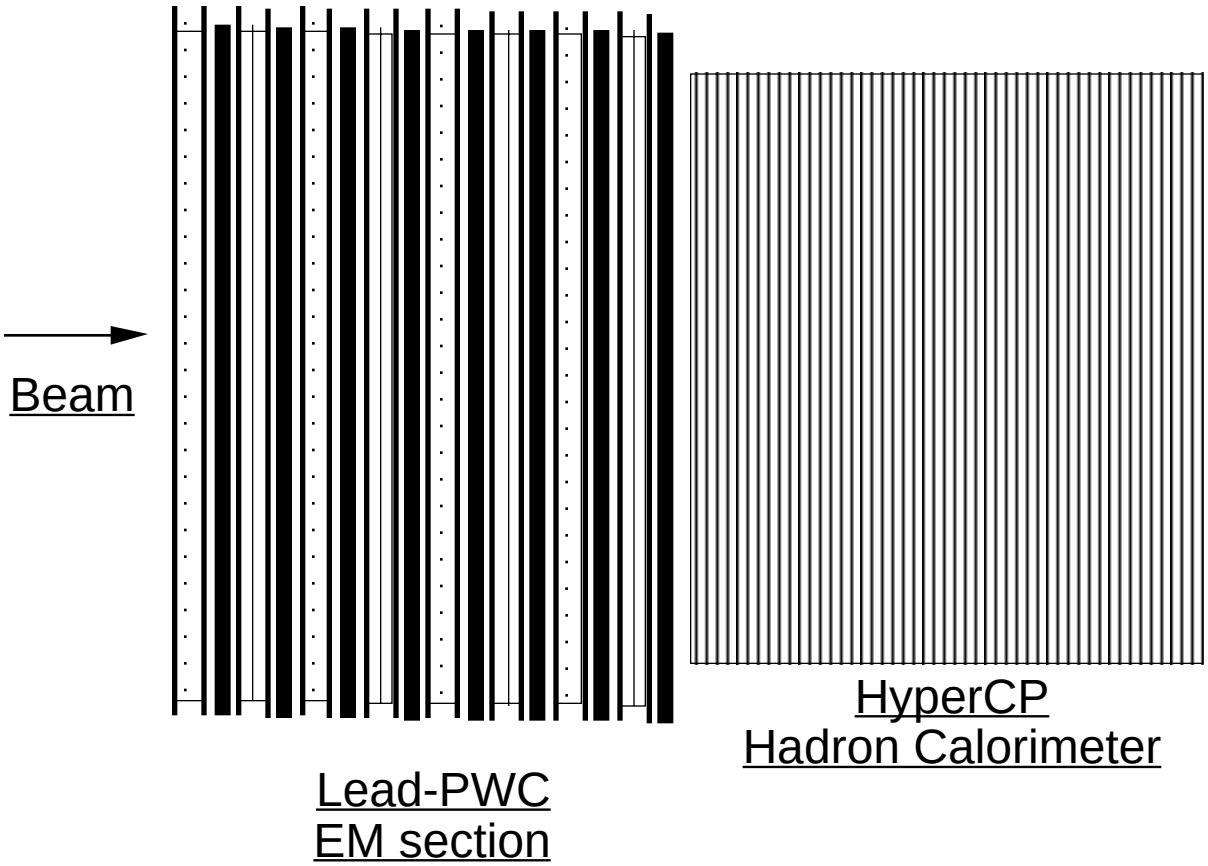
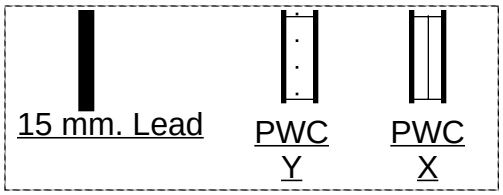
Calorimeter Side View





Stewardship Science Academic Alliances Proposal Status

The Preproposal was approved Feb. 20. The Proposal was submitted in time for the April 1 deadline. No acknowledgement of the proposal has yet been received.

We have requested approx. ≈$180,000/yr. If we don't get this money, it will be very hard for us to do anything on E907.

Issues to be Addressed

- The hadronic calorimeter is the property of the Univ. of Virginia. They have removed the photomultiplier tubes and the covers for the tubes and optical fibers. Some of the fibers seem to be damaged. Considerable work is required to get the calorimeter back in working condition.

- The EM section of the calorimeter is mainly for distinguishing neutrons from photons. Only a conceptual design now exists. We would use lead plates and proportional wire chambers that were built for E613 (about 20 years ago!).

- The electronics for reading out the phototubes and PWCs has to be designed, assembled, and tested. Further progress on design of readouts for EM and hadronic sections await information on where/if the unscattered beam hits the calorimeter. Cables, *etc.*, have to be procured and strung.

- The gas system for the PWCs has to be reestablished. Probably the same gas system that was used for the HyperCP muon detectors can be reused.