

26 October 2006

To: Dennis Skopik
From: Javier Gomez for K. de Jager
Subject: Impact on Hall A 6 GeV physics program of
redirecting designers to the 12 GeV upgrade

Dear Dennis,

The table below shows the projects related to upcoming experiments, the FY07 engineering and design work required to complete those projects and the date at which they must be completed,

6 GeV Projects	Req'd FY07 Eng. & Design (person-weeks)	Req'd Date
Polarized ^3He Family	106	1 Oct 07
Compton Polarimeter Upgrade	16	1 Oct 07
Moller Polarimeter Upgrade	38	1 Feb 08
PREX	42	1 Oct 08

The polarized ^3He family of experiments refers to experiments E05-015, E05-102, E06-010, E06-011 and E06-014. The Compton and Moller polarimeter upgrades are directed to improve measurement of the beam polarization and reduce systematic errors. These upgrades will have a direct impact on the the scientific quality of the parity experiment PREX as well as those experiments using the polarized ^3He target. PREX (E06-002) will measure the neutron skin of ^{208}Pb through parity violating electron scattering. It requires, among other things, the design and construction of a conventional (non-superconducting) septum magnet and associated support structure.

As indicated by the above table, 202 person-weeks are required during FY07 to complete the above projects at their required dates so that the FY08/FY09 experimental schedules could be maintain. Hall A has three designers (Susan Esp, Al Gavalya and Joyce Miller) and 0.5 FTE of an engineer (Ravi Anumagalla) for a total of 182 person-weeks (not accounting vacation time). So, with all its engineering and design personnel working on the 6 GeV physics program, Hall A still has a 20 person-weeks (~ 0.4 FTE) shortfall to meet the foreseen physics program and schedule.

Redirecting Hall A designers to the 12 GeV upgrade effort (0.3 FTE of Al Gavalya and 0.3 FTE of Susan Esp) makes for a total shortfall of 1 FTE making it impossible to keep the foreseen physics program and schedule.