



ACCELERATOR & FUSION RESEARCH DIVISION

November 30, 2000

Dr. S. Peter Rosen
Associate Director for High Energy and Nuclear Physics
Office of Science
Department of Energy
Germantown, MD 20874

Dear Dr. Rosen:

I am writing in response to your letter of November 22, 2000 addressing issues raised in a letter to you (from Mike Zisman and me) dated October 10, 2000. My primary concern is the reduced funding for muon research in the FY2001 budget—a reduction of \$1.52M compared with FY2000. I appreciate the pressures on the high-energy physics budget and, at the same time, the need to provide adequate funding for operation of—and physics at—the B Factory and the Tevatron. Nevertheless, though HEPAP recommended an increase in accelerator R&D, the Neutrino Factory and Muon Collider Collaboration (MC) is experiencing a substantial decrease!

As you know, the MC developed an R&D program that would let us start a Zeroth-order Design Report (ZDR) in three years and a Conceptual Design Report (CDR) in five years. This was designed to put the community in a position where it could initiate a Neutrino Factory, if the science demands it, when the physics results from the present generation of experiments are in hand. The budget for FY2001 will significantly delay our following that course.

Your letter suggests that muon work will have nearly level funding this year as a result of NSF contributions. I must remark immediately that there is no guarantee that the recently submitted NSF proposal will be funded in FY2001. I am hopeful, but hardly assured of funding from this source. Equally importantly, I must emphasize that the time line previously envisioned was predicated on support at a constant level from the DOE augmented (not replaced) by NSF support. The two agencies are supporting very different things—the targetry work, primarily at Brookhaven, and the simulation and cooling work, primarily at Fermilab and Berkeley, are DOE activities, whereas the study of acceleration and the development of superconducting rf, centered at Cornell, are envisioned to be primarily NSF activities.

For these reasons, I believe that reducing muon R&D at this time is decidedly the wrong choice for the DOE, when future options—so necessary to the health of the field—require that we engage in vigorous accelerator R&D now.

Sincerely,

Andrew M. Sessler
MC Spokesperson

Enclosures:

Letter to P.Rosen, by M. Zisman and A. Sessler. Oct 10, 2000
Letter to M. Zisman and A. Sessler, by P, Rosen, Nov 22, 2000

c:

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