

May 11, 2005

Dear Spokesperson of Braidwood:

The Neutrino Scientific Advisory Group, NuSAG, has been charged by NSAC and HEPAP to advise the DOE and NSF by making "recommendations on the specific experiments that should form part of the broad U.S. neutrino science program." We are explicitly charged to address three areas: reactor experiments to study θ_{13} , neutrinoless double beta decay, and accelerator experiments with sensitivity to θ_{13} and the mass hierarchy. For your reference, we attach a copy of the charge. After discussion with the agencies, we are no longer operating under a June 2005 deadline, and our understanding is that our recommendations may be in the form of guidance for the next step in each area, rather than a choice of a single experiment. The NuSAG membership is made up of theorists and experimentalists from nuclear and particle physics -- see the attached roster.

We are writing to request that Braidwood send us information and participate in our first meeting, to be held in Washington, DC May 31-June 2. Specifically, we would like you to send us:

- 1) The most up-to-date technical document describing the experiment,
- 2) A current list of collaborating institutions and collaborators, and
- 3) Your brief assessment of the current status of the experiment (*e.g.*, studying feasibility with initial R&D funding, approved by host country with U.S. groups seeking funding, letter of intent submitted,...)

Because of the short time till our first meeting, we are asking for existing documentation -- there will be ample opportunity for updated input. Please send us what you can gather by Friday, May 20 for distribution to the committee. It is most efficient if you send us links to documents on the web.

For our Washington meeting, we would like a presentation of 35 minutes (+10 minutes for discussion) describing your experiment. Please find (with our apologies for the short notice) someone from your experiment who can give this presentation. We will provide our own introductory talks on neutrinoless double-beta decay and neutrino mixing. This means that your presentation should focus on the unique features, status, and sensitivity goals of your experiment, and how it compares to or complements other efforts. Unfortunately, our venue will be limited in size, so we ask that only one representative from your experiment come to the meeting.

Despite our hurried start, we intend to do a careful job of evaluating the upcoming experiments. We have been asked to provide guidance on double beta decay on a more rapid timescale than the other areas. We intend to prepare recommendations in this area by the end of July, and on the other areas by the end of September. We are thus planning to hold a second meeting in July, and probably a third in September. We realize that it is not only a proposed program of neutrino experiments that is being assembled here, but also a new approach to decision-making. NuSAG's role is not set in stone -- this summer will, to a large extent, show what NuSAG can be and how it should function. Please contact us with questions. We appreciate your participation in this process.

Sincerely yours,

Eugene Beier
Peter D. Meyers