

OAK RIDGE NATIONAL LABORATORY

MANAGED BY UT-BATTELLE FOR THE DEPARTMENT OF ENERGY

Bldg. 6000, MS-6368
P.O. Box 2008
Oak Ridge, TN 37831-6368
(865)574-6124
E-mail: galindouriba@ornl.gov

February 21, 2005

Dear DUSEL Review Committee Member:

My field of research is Experimental Nuclear Physics. I am writing in regards to the S-2 proposal for the Deep Underground Science and Engineering Laboratory (DUSEL) at Kimballton. As chair of the Physics Division Seminar at Oak Ridge National Laboratory, I invited Prof. Raju Raghavan and Prof. Bruce Vogelaar from Virginia Tech to give talks on the Low-Energy Neutrino Spectroscopy (LENS-Sol) detector to measure the neutrino luminosity of the sun and on DUSEL as a multi-disciplinary underground laboratory. The case to locate DUSEL at Kimballton was clearly presented in both seminars and the interest of the topic was evident by the large attendance that included scientists from several divisions of ORNL. An important element of the discussions following the seminars and one especially relevant for this committee related to maximizing the scientific investment in a multi-disciplinary underground science.

Involving the academic and national laboratory research communities in this multidisciplinary endeavor represents a unique opportunity that should strengthen underground science in the U.S. The proximity of Virginia Tech and the mine in Blacksburg, West Virginia, to Oak Ridge National Laboratory, the largest non-defense national laboratory in the U.S., plus the various interaction mechanisms between these institutions that are already in place, such as with the Environmental Sciences Division, make this a potentially strong collaboration ideally suited to fulfill the objectives of DUSEL. This project will help develop advanced experimental measurement techniques in low-energy neutrino science, will help train scientists, and will promote and sustain scientific interactions between the academic community and scientists at DOE laboratories. The location of DUSEL at Kimballton should provide new opportunities to carry out detailed studies of multi-disciplinary underground science. The large limestone mine has extremely large caverns and provides easy access to them. I would like to express my support to this project and if the site is selected, I will work as a member of the Kimballton team to help make this project a reality. I am particularly interested in the development of the LENS-Sol detector designed to measure the real-time low-energy neutrino spectrum from the sun, including the pp-flux.

Sincerely,

Alfredo Galindo-Uribarri
Physics Division

AGU:am