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Office of the Director

August 27, 2007

Dr. Tony Chan
Assistant Director
Directorate for
Mathematical & Physical
Sciences
National Science Foundation
4201 Wilson Boulevard
Arlington, VA 22230

Dr. Dennis Kovar
Associate Director
Office of Nuclear Physics
U. S. Department of Energy
GTN SC-26
19901 Germantown Road
Germantown, MD 20874

Dear Drs. Chan and Kovar:

On July 17, 2006, NSAC was asked by DOE and NSF 'to establish a task force to perform an evaluation of the scientific "reach" and technical options for the development of a world-class facility in the United States for rare isotope beam studies . . . in the context of existing and planned research capabilities world-wide.' The task force was to consider options that would fall within a funding envelope of 'up to half the cost of RIA (Actual Year Dollars).' The cost of the Rare Isotope Accelerator (RIA) was estimated to be about $1.1 Billion in July, 2006. Dr. James Symons of the Lawrence Berkeley National Laboratory agreed to chair the task force, which was established on September 1, 2006.

Following three task force committee meetings, a draft Report was completed by late April, 2007. Dr. Symons presented the conclusions and recommendations in the Report to the Long Range Plan Working Group at a meeting in Galveston, TX, on May 1, 2007. The Report was discussed by NSAC during a meeting on July 26, 2007 and some minor revisions were requested. The final Report with these revisions was submitted to NSAC on August 20, 2007.

The Report details the technical options which were considered by the task force for developing a new world-class rare-isotope beam facility under the budgetary constraints indicated above. An evaluation of the science potential for the favored option is discussed in comparison to other major rare-isotope beam facilities. The Report concludes that a new facility, based on a heavy-ion driver linac, 'will have outstanding capabilities for fast, stopped and reaccelerated beams' and 'it will be complementary to other facilities existing and planned, world-wide.' The Report

recommends that 'DOE and NSF should proceed with solicitation of proposals for a facility for rare isotope beams based on the 200 MeV, 400 kW superconducting heavy-ion driver linac at the earliest opportunity.'

NSAC unanimously accepts the Report and strongly endorses the recommendation which requests that DOE and NSF proceed with a solicitation of proposals for a new world-class Facility for Rare-Isotope Beams. A copy of the final Report is enclosed with this letter.

Sincerely,

Robert E. Tribble
Chair, NSAC

cc: Joseph Dehmer
Brad Keister