



*U.S. Department of Energy
and the
National Science Foundation*



November 5, 2003

Professor Richard Casten
Chairman
DOE/NSF Nuclear Science Advisory Committee
A.W. Wright Nuclear Structure Laboratory
Yale University
New Haven, CT 06520

Dear Professor Casten:

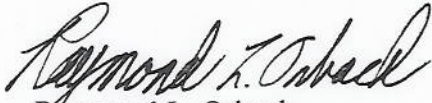
In its 2002 Long Range Plan, the Nuclear Science Advisory Committee (NSAC) identified the scientific opportunities offered by rare isotope beams. The proposed Rare Isotope Accelerator (RIA) facility was recommended as its highest priority for new major construction to address these opportunities. Recently, the German government has indicated that it is prepared to cover the majority of the costs of construction and operation of a new international nuclear physics facility at the Gesellschaft für Schwerionenforschung (GSI) and has invited foreign countries, including the United States, to consider participation in the development of this facility should it be funded and built. Among the capabilities of the proposed GSI facility are rare isotope beams that may address some of the opportunities identified by NSAC.

Given the international character of science and the costs of major scientific facilities today, it is important to optimize research capabilities globally with the resources available. In this context, agencies need to better understand what rare isotope beam capabilities are needed to exploit the scientific opportunities identified previously: 1) what are the capabilities that are unique to each facility, 2) what are the scientific opportunities each facility will offer, and 3) whether there are other U.S. nuclear physics program or national considerations that are relevant to these two facilities.

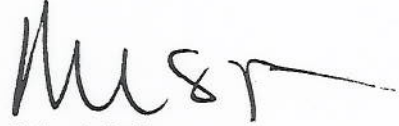
This letter requests NSAC to provide a comparison of the respective opportunities each facility would offer. The NSAC assessment should include an evaluation of the relative costs and benefits, both for the global scientific effort and U.S. national interest, of U.S. investments in the RIA facility and in the GSI facility, including the possibility of extensions or upgrades that extend the scientific reach of the GSI proposal. It is requested that your report be submitted by January 30, 2004.

We appreciate NSAC's willingness to take on this important task and look forward to receiving your report.

Sincerely,



Raymond L. Orbach
Director
Office of Science



Michael S. Turner
Assistant Director
Directorate for Mathematical
and Physical Sciences