



## Department of Energy

Washington, DC 20585

September 13, 2004

Dr. Thomas Kirk  
Associate Laboratory Director  
High Energy and Nuclear Physics  
Brookhaven National Laboratory  
Building 510F  
Upton, NY 11973-5000

Dear Dr. Kirk:

Enclosed is the report of the Science and Technology Review of the Relativistic Heavy Ion Collider (RHIC) program held at Brookhaven National Laboratory on June 30-July 1, 2004. This annual review is an important factor in the Office of Nuclear Physics' annual assessment of the scientific and technical performance of the RHIC program and the laboratory.

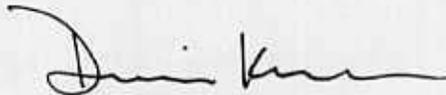
The review found that RHIC facility operations and its research programs have made impressive progress during the past year. RHIC excelled in delivering Gold beams at twice the accelerator design limit, significantly larger integrated luminosities than had been projected, and high statistics heavy ion data sets for all four RHIC experiments. The polarized proton beam performance improved over previous years and, with the new polarized hydrogen jet target operational, data was taken. BNL staff, the RHIC experimenters and the laboratory are to be congratulated for these achievements.

A 20-year plan has been generated by the laboratory that provides an important basis for planning. However, there is a need for discussions with our Office regarding how this plan and the milestones identified will change in light of the anticipated increases in RHIC operational costs and as a result of updated projections for luminosities. Identified in this review was a need for a document that articulates the research plan for the spin-physics program, particularly at 500 GeV, that is more fully integrated with the heavy ion research plan. My staff and I look forward to working with you to ensure that there is a good mutual understanding of what can and cannot be done with available resources and to successfully carry out the planned RHIC program.



I want to thank the laboratory management and staff for the effort and time invested in organizing and carrying out this important review.

Sincerely,



Dennis Kovar  
Associate Director of the Office of Science  
for Nuclear Physics

Enclosures

cc:

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Michael Holland, Brookhaven Site Office

Peter Bond, BNL