

NSAC to recommend closing BNL Relativistic Heavy Ion Collider facility

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(Phys.org)—A panel of experts on the Nuclear Science Advisory Committee (NSAC) has decided to recommend closing the Relativistic Heavy Ion Collider (RHIC) in New York. The move comes after budget cuts for physics research via the Department of Energy, (DOE) in the United States, has led to making hard decisions regarding which



facilities to continue to fund, and which to cut. As of 2007, the DOE was responsible for funding three major nuclear research facilities with a budget standing at \$547 million.

The panel found itself tasked with choosing between three very expensive projects. The first, RHIC, has been in operation for approximately 10 years and revolves around studying what happens when heavy ions are smashed together (inside twin accelerators) and the incredibly hot temperatures that result. Closing the facility would mean shutting down the last big collider in the U.S. The second project, the Continuous Electron Beam Accelerator Facility (CEBAF) in Virginia is currently under renovation. Researchers there accelerate electrons to the point where it becomes possible to study the proton and its particles, e.g. quarks, etc. The third project, currently under construction in Michigan is called the Facility for Rare Isotope Beams (FRIB) – its mission will be to study exotic nuclei.

Ultimately, the decision came down to what made the most sense financially. Money has already been allocated to CEBAF (\$310 million), thus shutting it down would have meant throwing away the initial investment. And FRIB has received a lot of funding from the state of Michigan, thus it was seen as safe. RHIC, on the other hand, because it competes with the Large Hadron Collider, seemed more expendable because research done there might in some ways be replicated.

The committee's recommendation isn't the final word on the matter, of course, but officials at the DOE have in the past tended to follow the guidelines of its own recommendation committee, which in this case will almost certainly mean the shuttering of the RHIC facility. Doing so, many in the field, have lamented, will mean loss of physics jobs, lost research opportunities, and perhaps, a degrading of the edge the United States still holds in nuclear <u>physics research</u>.



More information: www.tvworldwide.com/events/DOE/130128/default.cfm

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