

Secretary Abraham Gives Go-Ahead for BNL Nanoscience Center

June 14, 2001

“On behalf of the Department of Energy, I am pleased today to officially announce our approval to begin the conceptual design of the \$85 million Center for Functional Nanomaterials here at Brookhaven.” With this statement, U.S. Secretary of Energy Spencer Abraham declared last Friday, June 14, that DOE will establish a Northeast center for nanoscience research at BNL, as one of five such facilities to be built around the country under the National Nanotechnology Initiative.

The study of materials the scale of billionths of a meter (or 1,000 times smaller than a human hair), nanoscience is expected to allow researchers to design materials tailored to specific needs, such as strong, lightweight materials, new lubricants, and more efficient solar energy cells.

Abraham announced this good news — BNL’s first

scientific facility construction project since the Relativistic Heavy Ion Collider (RHIC) — at a Lab-wide meeting in Berkner Hall, during the Energy Secretary’s first visit to BNL. Abraham delivered his remarks after touring the Lab with BNL Interim Director Peter Paul, U.S. Representative Felix Grucci (R-NY, First District), and DOE Office of Science Director Raymond Orbach.

The design and construction activities of the nanoscience center at BNL are expected to start in fiscal year (FY) 2004, with commissioning planned for FY2007. The project’s preliminary cost estimate is \$70-85 million. Under DOE’s Office of Science, the conceptual design report will be prepared immediately so that construction funding can be requested from Congress.

A standing ovation followed Abraham’s announce-

At a press conference held after Secretary of Energy Spencer Abraham announced DOE's support for the nanocenter at BNL: (from left) Director of DOE's Office of Science Raymond Orbach, U.S. Representative Felix Grucci, Secretary Abraham, and BNL Interim Director Peter Paul.



ment as the audience of BNL employees, facility users, and other guests showed its enthusiasm for this new scientific facility, which will allow BNL to become a major player in the new field of nanoscience. "Nanoscience offers the potential for a second industrial revolution," Abraham said. "The implications are enormous. That is why we are so serious about America's leading the way in nanoscience." Grucci, a member of the House Committee on Science and a leader on science issues, introduced Abraham, citing the Energy Secretary's strong commitment to science policy from the time when he was U.S. Senator from Michigan, 1995-2001.

"Abraham was widely viewed by his colleagues and most observers as the senator with the most and the best understanding of high-tech policies and issues," Grucci said. As Abraham elaborated, the new center at BNL will be a user facility open to researchers from across the country and around the world that will gain access to its state-of-the-art instruments and equipment through a peer-review process. "When this center is complete, physicists, chemists, material scientists, and biologists will work with computer scientists and engineers exploring the world atom by atom," Abraham said. "You need major facilities for this kind of work, major facilities with the best new



Spencer Abraham (below, left), Peter Paul, and BNL Associate Director for Basic Energy Sciences Richard Osgood.



Secretary Abraham (left) learns about the U7A beam at the National Synchrotron Light Source (NSLS) from researcher Daniel Fischer, NIST; and NSLS Chair, Steven Dierker (right).

technology and the best minds America has to offer," he continued. "We have all of this here at Brookhaven."

In his welcoming remarks, Paul had emphasized the Lab's role in pursuing forefront scientific research, both fundamental and applied, and reinforcing collaborative efforts with other scientists, from both research institutions and industry. "Our motto is 'a passion for discovery,'" Paul told the audience. "We work with a passion for the science and the science-based applications that derive from it for the good of the nation and industry." Abraham acknowledged that nanoscience is still a basic science with no clear applications yet.

But he expressed his commitment to supporting basic science because of its unknown ultimate applications. "What is so exciting about the work we do [at DOE] is that we produce benefits to America and the world that go well beyond the original scope of our mission," he said. "No one really knows where nanoscience will ultimately lead us, but we do know that we are at the beginning of a science initiative that may change the way we look at, and can use, the world around us."

Before the all-hands meeting, Abraham, Grucci, and

Orbach, with the Secretary's wife, Jane Abraham, Frank Crescenzo, Acting Manager of DOE's Brookhaven Area Office, and others had toured some of the Lab's main facilities. After receiving an overview of the Lab from Paul, they listened to a lunchtime presentation by Nora Volkow, Associate Laboratory Director for Life Sciences, on the Lab's positron emission tomography facility and the proposed cyclotron isotope research center. Following lunch, the group toured the RHIC tunnel and STAR detector, accompanied by Thomas Kirk, Associate Laboratory Director for High Energy & Nuclear Physics, and others, and learned about BNL's national security and energy research from Ralph James, Associate Laboratory Director of Energy, Environment & National Security. The visitors were then shown the NSLS by Richard Osgood, Associate Laboratory Director for Basic Energy Sciences, and Steven Dierker, NSLS Chair, including an overview from Osgood of the then-proposed nanoscience center. "With RHIC and with the nanoscience center, which we launch today, Brookhaven is on track to remain one of America's — and the world's — most valuable centers for scientific research," Abraham concluded.

-Patrice Pages

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