

**U.S. NUCLEAR REGULATORY COMMISSION  
NOT OF GRANT/ASSISTANCE AWARD**

1. GRANT/AGREEMENT NO. NRC-27-04-323		2. MODIFICATION NO. M006		3. PERIOD OF PERFORMANCE FROM: 10/1/2004 TO: 9/30/2009		4. AUTHORITY Pursuant to Section 31a and 141b of the Atomic Energy Act of 1954, as amended	
5. TYPE OF AWARD  <input type="checkbox"/> GRANT <input checked="" type="checkbox"/> COOPERATIVE AGREEMENT		6. ORGANIZATION TYPE  Non-Profit		7. RECIPIENT NAME AND ADDRESS OAK RIDGE ASSOCIATED UNIVERSITIES INC ORAU - ORISE MICHAEL HUBBARD P.O. BOX 117 OAK RIDGE, TN 37831			
8. PROJECT TITLE:  U.S. NRC's Historically Black Colleges and Universities Research Participation Program							
9. PROJECT WILL BE CONDUCTED PER GOVERNMENT'S/RECIPIENT'S PROPOSAL(S) DATED August 5, 2004  AND APPENDIX A-PROJECT GRANT PROVISIONS		10. TECHNICAL REPORTS ARE REQUIRED  <input checked="" type="checkbox"/> PROGRESS AND FINAL <input type="checkbox"/> FINAL ONLY <input type="checkbox"/> OTHER (Conference Proceedings)		11. PRINCIPAL INVESTIGATOR(S) NAME AND ADDRESS Oak Ridge Institute for Science and Education Attn: Michael A. Hubbard P.O. Box 117 Oak Ridge, TN 37831			
12. NRC PROGRAM OFFICE (NAME & ADDRESS) U.S. Nuclear Regulatory Commission Attn: Tuwanda Smith Office of Small business & Civil Rights Mail Stop T2F18 Washington, DC 20555 301-415-7394		13. ACCOUNTING & APPROPRIATION DATA APPN. NO: 31X0200 B&R NO: 77P-15-5C1-318 JOB CODE: L2284 BOC NO: 252A OFFICE ID NO: SBC-04-323		14. METHOD OF PAYMENT  <input type="checkbox"/> ADVANCE BY TREASURY CHECK <input type="checkbox"/> REIMBURSEMENT BY TREASURY CHECK <input type="checkbox"/> LETTER OF CREDIT <input checked="" type="checkbox"/> OTHER (SPECIFY) EFT by ccr.gov (See Attach. 30 in Appendix A - "Electronic Payment")			
15. NRC OBLIGATION FUNDS  THIS ACTION _____  PREVIOUS OBLIGATION \$850,000.00  TOTAL \$850,000.00		16. TOTAL FUNDING AGREEMENT  NRC \$1,375,000 This action provides funds for Fiscal Year 2007 in the amount of 0.00  RECIPIENT \$0.00  TOTAL \$1,375,000					
17. NRC ISSUING OFFICE (NAME AND ADDRESS)  U.S. Nuclear Regulatory Commission Div. of Contracts Attn: James Leedom Mail Stop T-7-I-2 Washington, DC 20555							
18. RECIPIENT  <u>Ronald D. Townsend</u> 8/1/07 (Signature) (Date) NAME (TYPED) <u>Dr. Ronald D. Townsend</u> TITLE <u>President</u> TELEPHONE NO. <u>865/576-3300</u>				19. NRC CONTRACTING OFFICER  <u>Stephen Pool</u> 8/30/07 (Signature) (Date) NAME (TYPED) <u>Stephen Pool</u> TITLE <u>Contracting Officer</u> TELEPHONE NO. <u>301-415-8168</u>			
20. PAYMENT INFORMATION  Payment will be made within thirty (30) days after receipt of the billing unless the bill is improper or the recipient has failed to comply with the program objectives, award conditions, Federal reporting requirements or other conditions specified in OMB Circular A-110.  Payment will be made by: _____ Vouchers should be submitted in an original and three (3) copies on form 270 to:  U.S. Nuclear Regulatory Commission Payment Team, Mail Stop T9H4 Attn: NRC-27-04-323 Washington DC 20555  U.S. Nuclear Regulatory Commission Division of Contracts Attn: NRC-27-04-323 Mail Stop T 7I2 Washington DC 20555							
21. Attached is a copy of the "NRC General Provisions for Grants and Cooperative Agreements Awarded to Institutions of Higher Education and Other Nonprofit Organizations". Acceptance of these terms and conditions is acknowledged when Federal funds are used on this project.							
22. ORDER OF PRECEDENCE In the event of a conflict between the recipient's proposal and this award, the terms of the Award shall prevail.							
23. By this award, the Recipient certifies that payment of any audit-related debt will not reduce the level of performance of any Federal Program							

TEMPLATE - ADM001

**SUNSI REVIEW COMPLETE**

**AUG 14 2007**

ADM002

The U.S. Nuclear Regulatory Commission Historically Black Colleges and Universities Research Participation Program (DOE Proposal Number 1027-1027-96) is modified to include the following language (Page 2, end of continued section "ORISE and the NRC—working toward the solution:" :

"ORISE shall provide Historically Black Colleges and Universities, students, and faculty with assistance through mentoring, leadership, facilitation of research & development, training, developmental programs, technical assistance, direct institutional subsidies, program evaluation, fellowship, internships, scholarships, cooperatives, student tuition, travel & housing assistance, and other activities in support of science education and workforce development at NRC. To facilitate outreach and recruitment initiatives associated with the above activities, the NRC may instruct ORISE to purchase various **training materials, recruitment promotional items of nominal value, and place NRC tagline brand-name logo and NRC phone numbers on such items.**"

All other terms and conditions under this agreement remain unchanged.

**The U.S. Nuclear Regulatory Commission  
Historically Black Colleges and Universities  
Research Participation Program**

**Introduction**

**The problem:** Historically Black Colleges and Universities (HBCUs) have traditionally been underrepresented and underutilized in federally-supported research, education, and training (Minorities Education 1986). Although HBCUs comprise only 3 percent of the nation's two- and four-year institutions, they are responsible for producing 28 percent of all bachelor's degrees, 15 percent of all master's degrees, and 17 percent of all first professional degrees earned by African-Americans (Committee on Education and the Workforce, September 2002). The National Science Foundation report, *Land of Plenty: Diversity as America's Competitive Edge in Science, Engineering and Technology* (July 2000), recommends that Congress should significantly expand its financial support of historically black... institutions, and provide colleges with sufficient backing to aid students through grants, scholarships, fellowships, and internships.

**The solution:** Presidential Executive Order 12232 (signed by President Jimmy Carter, August 12, 1980) directed federal agencies to strengthen and expand the capacity of HBCUs to provide quality education. Presidents Reagan, Bush, and Clinton supported the initiative through Executive Orders 12320, 12677, and 12876 respectively. The program was further enhanced on February 12, 2002, when President George W. Bush signed Executive Order 13256 in order "... to advance the development of the Nation's full human potential and to advance equal opportunity in higher education, to strengthen the capacity of historically black colleges and universities to provide the highest quality education, and to increase opportunities for these institutions to participate in and benefit from Federal programs...."

**ORISE and the NRC--working toward the solution:** The Oak Ridge Institute for Science and Education (ORISE) and the Nuclear Regulatory Commission (NRC) have teamed together to respond to the needs of the HBCUs. With the establishment of the HBCU Research Participation Program in 1992, the NRC became an active proponent for research opportunities for HBCU students and faculty. ORISE brought to the team effort over 50 years of experience and expertise in education programs. The NRC program will provide HBCU participants a mechanism to achieve the following objectives:

- Become familiar with research areas and/or relevant needs of the NRC
- Experience scientific, engineering, and other relevant research and development activities related to NRC's mission

ORISE is managed by ORAU, a private, not-for-profit consortium of 88 major research colleges and universities and a contractor for DOE. ORISE is a DOE facility whose mission is to focus on scientific initiatives to research health risks from occupational hazards, assess environmental cleanup, respond to radiation medical emergencies, support national security and emergency preparedness, and educate the next generation of scientists.

### **Activities of the HBCU Research Participation Program**

The NRC HBCU Research Participation Program offers a variety of research opportunities for participants. For example, the summer program is generally conducted at laboratories where faculty, undergraduates, and graduate students engage in on-going research activities. Still other opportunities exist during the academic year. Laboratory scientists may collaborate with HBCU faculty and student teams to continue research projects on a part-time basis at HBCU campuses. The faculty member then serves as research mentor to students on the team.

Both the summer and academic-year components of the program have been successful. Often, HBCU faculty members reenter the research arena and bring projects back to the classroom. As a result, the ultimate goal of the program has been achieved: new technologies have been introduced into the historically black institutions and have been integrated into campus-based instruction and research programs. Students who participate in the program are exposed to cutting-edge research and technology, gain experience in their areas of interest, and are motivated to continue their science and engineering studies.

Opportunities are available for faculty, graduates, and undergraduates through this program. These are described below.

**Faculty Research.** Faculty activities include, but are not limited to, summer and sabbatical research participation, on-campus research appointments, and travel to attend seminars and orientations or to give research presentations.

**Summer Appointments.** Summer faculty participants receive a monthly stipend based on their regular academic salaries or \$3,800-- whichever is greater. Round trip transportation is reimbursed for travel between the participant's home or institution and the location of the appointment.

**Sabbatical Leave:** Sabbatical leave appointments are normally supported in part by the participant's institution. A certified statement regarding sabbatical status from the institution is required as part of the application.

## **Applicant Eligibility**

To be eligible for the program, the following requirements must be met:

- **Undergraduate or graduate student:** must be in good standing at an accredited U.S. historically black college or university

- **Faculty participant:** must be a full-time faculty member at an accredited U.S. historically black college or university

All applicants should be U.S. citizens or legal permanent residents. It is ORISE policy to recruit an applicant pool that reflects the diversity of our nation and to place participants without regard to race, age, gender, religion, color, national origin, mental or physical disability, or special disabled or Vietnam Era veteran status.

## **Applicant Recruitment**

ORISE has been recruiting students and faculty for research programs for more than 50 years. The process begins with ORISE's established network of HBCU faculty members who serve as contact points for information transfer, coordination, and recruitment for the program. Special steps are taken to target those HBCU faculty and students who have backgrounds and experience in NRC areas of interest. Then, ORISE turns to its network of scientists and education coordinators at participating laboratories who locate appropriate assignments for prospective participants.

ORISE staff members also make recruitment visits to HBCUs; these visits may be coordinated with NRC representatives or staff from national laboratories who present information and determine relevant capabilities of the HBCUs. In addition, ORISE staff members regularly attend college and career fairs and make presentations at regional and national conferences and other meetings attended by HBCU faculty and students.

Other ORISE recruitment efforts include the development of brochures, posters, press releases, advertising, and Web pages. Program brochures are written, designed, and printed for mass mailings as well as distribution at professional society meetings. ORISE uses customized mailing lists that target HBCU contacts and selected departments to disseminate NRC program literature. Press releases are sent annually to HBCU campus school newspapers to announce the program and its deadlines. If funding is available, ORISE can place advertisements in a number of journals and periodicals, including *Black Issues in Higher Education*, *National Society of Black Engineers Magazine*, *The Black Collegian*, *Black Excellence*, and *Graduating Engineer*.

## **Reports and Deliverables**

ORISE adheres to NRC's reporting requirements. A summary of these follows.

**Monthly Reports:** ORISE submits a monthly financial report within 21 calendar days of the end of the preceding month. The report includes a line item breakdown of program costs and the financial status for the reporting period.

**Monthly Invoices:** ORISE submits invoices for expenditures within 21 calendar days of the end of time in which services were performed.

**Annual Reports:** ORISE submits an annual fiscal year report within 45 calendar days of the end of each fiscal year. The report includes information required in the Fiscal Year Annual Federal Performance Report on the agency's efforts to assist HBCUs, as set forth in Executive Order 13256. The NRC Project Manager offers guidance on the report format. Examples of the type of information in the report include:

- (1) For the fiscal year reporting period, total dollar amount and number of awards given, and identification of the following: (a) participants and their status (e.g., faculty or student); (b) HBCUs; (c) amount awarded to each recipient; (d) name and location of each research project; (e) research discipline (e.g., engineering, chemistry); (f) award category (e.g., research and development); and (g) related NRC project or activity.
- (2) Narrative information describing the types of activities performed by the participants: significant accomplishments of the participants and any features of the program that could be replicated in other Federal agencies.
- (3) Information regarding participants' research experiences and the benefits to the participants, HBCUs, and participating laboratories.

**Submission of Other Documents:** ORISE provides to the NRC copies of offer letters, along with copies of signed acceptances. Offer letters include the following information: (1) applicant's name, HBCU represented, and affiliation (e.g., faculty or student); (2) length of appointment; (3) monthly stipend rate; (4) name of research activity, location, and discipline (e.g., engineering, chemistry); and (5) name of NRC project this activity supports, where applicable.

**Nuclear Regulatory Commission  
Historically Black Colleges and Universities  
Research Participation Program**

**Itemized Budget**

	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>	<u>Total</u>
<b>Direct Participant Costs</b>						
Stipends	\$205,000	\$205,000	\$205,000	\$205,000	\$205,000	\$1,027,500
Participant Travel	7,000	7,000	7,000	7,000	7,000	35,000
Academic Allowances	8,000	8,000	8,000	8,000	8,000	40,000
<b>Total Direct Participant Costs</b>	<b>\$220,000</b>	<b>\$220,000</b>	<b>\$220,000</b>	<b>\$220,000</b>	<b>\$220,000</b>	<b>\$1,102,500</b>
<b>Direct Operating Costs</b>						
Salaries/Benefits	\$10,700	\$10,700	\$10,700	\$10,700	\$10,700	\$53,500
Employee Travel	3,000	3,000	3,000	3,000	3,000	15,000
Advertising/Recruitment	2,500	2,500	2,500	2,500	2,500	12,500
Site Services	2,100	2,100	2,100	2,100	2,100	10,500
Other Direct Costs	7,200	7,200	7,200	7,200	7,200	36,000
<b>Total Direct Operating Costs</b>	<b>\$24,900</b>	<b>\$24,900</b>	<b>\$24,900</b>	<b>\$24,900</b>	<b>\$24,900</b>	<b>\$124,500</b>
<b>Total Direct Costs</b>	<b>\$245,400</b>	<b>\$245,400</b>	<b>\$245,400</b>	<b>\$245,400</b>	<b>\$245,400</b>	<b>\$1,227,500</b>
<b>Total Indirect Costs</b>	<b>21,600</b>	<b>21,600</b>	<b>21,600</b>	<b>21,600</b>	<b>21,600</b>	<b>108,000</b>
<b>Subtotal</b>	<b>\$267,000</b>	<b>\$267,000</b>	<b>\$267,000</b>	<b>\$267,000</b>	<b>\$267,000</b>	<b>\$1,335,000</b>
<b>Federal Administrative Charge @ 3%</b>	<b>8,000</b>	<b>8,000</b>	<b>8,000</b>	<b>8,000</b>	<b>8,000</b>	<b>40,000</b>
<b>TOTAL COSTS</b>	<b>\$275,000</b>	<b>\$275,000</b>	<b>\$275,000</b>	<b>\$275,000</b>	<b>\$275,000</b>	<b>\$1,375,000</b>

(Rev. 6/17/04)

**Site Services:** Consists of costs associated with operating and maintaining facilities for ORISE work. Site services includes costs such as building and grounds maintenance, utilities, telecommunications, computer desktop support, and mail services. Site services is applied to all direct salary costs for staff occupying space in Oak Ridge facilities.

**Other Direct Costs:** Consists of costs associated with program administration, such as office supplies, and office/operating costs which are a direct distributed cost incurred by the department in which the program work will be done, and includes costs such as senior management salaries and benefits, administrative staff salaries and benefits, copier leases and copying costs, telephone and facsimile costs, etc.

### **Indirect Costs**

**ORAU Overhead:** Overhead is defined as those services necessary for the administration and oversight of ORAU programs that cannot be identified with specific cost objectives, and therefore is distributed to final cost objectives on the basis of total cost. Overhead consists of functions such as accounting and finance; human resources; environmental, safety, and health protection; etc.

**ORISE General and Administrative costs (G&A):** G&A costs are associated with the management, administration, and oversight of ORISE-business activities that cannot be directly associated with a specific project or cost objective. G&A includes functions such as environmental, safety, and health protection; Work for Others contract administration; and senior management.

**Management Fee:** The management fee is a fixed annual amount and is distributed to all ORISE projects. The U.S Department of Energy awards the fee to ORAU for managing ORISE.

### **Federal Administrative Charge**

The Federal Administrative Charge is an administrative fee assessed by the U.S. Department of Energy on all work performed for other Federal agencies and is calculated at 3 percent of total program costs.