

January 25, 2005

The Honorable Rod Paige  
Secretary of Education  
Washington, D.C. 20202

Dear Mr. Secretary:

In response to your letter of December 15, 2004, I am pleased to enclose the U.S. Nuclear Regulatory Commission's (NRC's) Fiscal Year 2004 Annual Federal Performance Report on Executive Agency Actions to Assist Historically Black Colleges and Universities (HBCUs). The enclosed report reflects NRC's continuing efforts to assist HBCUs through our Faculty and Student Research Participation Program. This program is conducted through a Cooperative Agreement with the Oak Ridge Institute for Science and Education. As requested, the NRC's annual report was also forwarded to the White House Initiative on HBCUs.

If you have questions regarding this report or the NRC's HBCU Program, please contact Mrs. Corenthis B. Kelley, Director, Office of Small Business and Civil Rights, at (301) 415-7380 or [CBK@NRC.gov](mailto:CBK@NRC.gov).

Sincerely,

**/RA/**

Nils J. Diaz

Enclosure: As stated

**U.S. NUCLEAR REGULATORY COMMISSION  
ANNUAL FEDERAL PERFORMANCE REPORT  
FISCAL YEAR 2004  
HISTORICALLY BLACK COLLEGES AND UNIVERSITIES (HBCUs)**

**A. SUMMARY OF AGENCY'S PERFORMANCE**

*Goals and Objectives*

The Nuclear Regulatory Commission's (NRC's) HBCU Faculty and Student Research Participation Program is conducted through a Cooperative Agreement with the Oak Ridge Institute for Science and Education. NRC's program enables HBCU faculty and students to conduct technical research and development activities on campus and at Department of Energy (DOE) facilities where a substantial portion of NRC's research and technical assistance activities are performed.

The principal goals of this program are to enhance academic studies in science, mathematics, and engineering and to increase the number of available scientists, engineers, and related professionals. Participants concentrate on research and development work that directly supports NRC's mission.

*Program Activities*

During this fiscal year, the program continued to focus on assigning HBCU faculty, graduate, and undergraduate students to NRC technical assistance projects at DOE laboratories. The program continues to provide HBCU students and faculty opportunities to work with state-of-the-art research techniques and conduct research in a nationally recognized laboratory. The types of projects in which participants were involved included issues associated with synthesis of precursors and models for the immobilization of technetium nuclear waste; assessment of the computer codes used to model the release of radionuclide; signal processing techniques and circuit configuration; experimental and theoretical evaluation of the uncertainty of boiling water reactor; investigating the potential for a model of cardiovascular disease; predicting the atmospheric dispersion of hazardous releases; experiments on the formation of gas hydrates; employing MATLAB software to develop simulation of the physics of an advanced measurement technology in nuclear power. Our emphasis for FY 2005 and beyond will be increasing the number of student participants.

Enclosure

### Total HBCU Awards and Comparisons to Previous Fiscal Year

During Fiscal Year 2004, a total of \$397,868 was available for the NRC's HBCU Program. The actual amount expended was \$244,451 and involved 19 recipients (9 faculty and 10 students) from 7 different HBCUs. The remaining \$153,417 will be expended during Fiscal Year 2005 as work is completed for on-campus research projects that were initiated in Fiscal Year 2004. For Fiscal Year 2003, a total of \$272,288 was expended for participation by 17 recipients (11 faculty and 6 students) from 9 different HBCUs.

### **B. SUMMARY OF TOTAL AGENCY AWARDS BY CATEGORY**

Attachment A presents the total awards (i.e., amount expended).

### **C. TABLE OF FY 2004 AGENCY AWARDS BY INSTITUTION AND CATEGORY**

Attachment B presents a listing of agency awards to each HBCU by category.

### **D. FY 2004 NARRATIVE**

Attachment C is NRC's HBCU recipient list, which includes their major field of study, location of research project, and award amount.

**SUMMARY OF TOTAL AWARDS TO HBCUs, BY CATEGORY: FY 2004**

**1. U.S. Nuclear Regulatory Commission**  
**AGENCY**

**2. Corenthis B. Kelley /RA/** **Director, Office of Small Business and Civil Rights**  
**NAME/SIGNATURE OF REPRESENTATIVE** **TITLE**

**3. TOTAL FUNDS FOR AWARDS TO INSTITUTIONS OF HIGHER EDUCATION (IHEs)**  
**\$4,793,451**

<b>CATEGORY</b>	<b>FY 2004 Total Funds to IHEs+</b>	<b>FY 2004 Total Funds to HBCUs*</b>	<b>Funds to HBCUs as % of Total Funds to IHEs</b>
<b>1. Research &amp; Development</b>	<b>\$4,793,451</b>	<b>\$244,451</b>	<b>5%</b>
<b>2. Program Evaluation</b>			
<b>3. Training</b>			
<b>4. Facilities and Equipment</b>			
<b>5. Fellowships, Traineeships, Internships, Recruitment, and IPAs</b>			
<b>6. Student Tuition Assistance, Scholarships, and Other Aid</b>			
<b>7. Direct Institutional Subsidies</b>			
<b>8. Third Party Awards</b>			
<b>9. Private Sector Involvement</b>			
<b>10. Administrative Infrastructure</b>			
<b>11. Other</b>			
<b>Total</b>	<b>\$4,793,451</b>	<b>\$244,451</b>	<b>5%</b>

**Nils J. Diaz, Chairman, U.S. Nuclear Regulatory Commission**  
**Agency Head (Typed)**

**/RA/ Nils J. Diaz**  
**Agency Head (Signature)**

**+IHE = Institutions of Higher Education**

**\*HBCUs = Historically Black Colleges and Universities**