

DOE Notes

Undergraduate Research Program at DOE Labs

A new program offers undergraduate science and engineering students challenging research appointments at five DOE laboratories. Up to 300 students will spend one term during the next academic year in energy-related research at one of the following participating laboratories: Argonne National Laboratory (Argonne, IL), Brookhaven National Laboratory (Upton, NY), Lawrence Berkeley Laboratory (Berkeley, CA), Oak Ridge National Laboratory (Oak Ridge, TN), and Pacific Northwest Laboratory (Richland, WA).

"This program is the first major step in a broad-based DOE initiative to create science education centers at these five labs," said Energy Secretary John S. Herrington. The centers will expand DOE's efforts to help prepare more pre-college and undergraduate students for careers in science, engineering, and math.

Open to undergraduate juniors and seniors, the program will emphasize hands-on scientific and engineering investigations. The curriculum will include seminars, workshops, and training on advanced scientific instruments. Faculty/student research teams are encouraged, and efforts will be made to arrange for academic credit for the students.

Research opportunities are available in: biomedicine, chemistry, materials science, engineering, reactor physics, atomic physics, nuclear physics, high energy physics, environmental science, mathematics, geoscience/geochemistry, computer science, energy systems, and waste technology.

Detailed information and application forms are available from: Student Semester Research Program, Office of Energy Research, ER-44, U.S. Department of Energy, Washington, DC 20585; telephone (202) 586-8949.

Call for Coal Research Proposals

The Department of Energy has again called on the nation's academic community to submit new fundamental research ideas for coal science and technology. The call for proposals marks the eighth year that the DOE has targeted federal funds specifically for basic coal research in U.S. colleges, universities, and affiliated research institutes.

"For coal, as well as our other energy resources, there is no better way to ensure our continued competitiveness than through an aggressive educational, training and research effort carried out on our nation's campuses," said Energy Secretary John S. Herrington.

In the past seven years of the Energy Department's university coal research pro-

gram, more than 200 grants, totaling nearly \$33 million, have been made to 70 institutions. This year, the department expects to select about 30 new projects eligible for \$5.3 million in federal grants, including \$400,000 in grants earmarked for historically black colleges and universities.

The 1987 program includes eight technical areas: coal science, coal surface science, reaction chemistry, advanced process concepts, thermodynamics, engineering fundamentals, environmental science, and fuel cells.

First Clean Coal Projects Under Way

Agreements were signed between DOE's Energy Technology Center (Morgantown, WV) and American Electric Power Service Corporation (AEP) of Columbus, OH, and between DOE's Energy Technology Center (Pittsburgh, PA) and Coal Tech Corporation of Merion, PA for the first two joint government-industry clean coal technology demonstration projects.

AEP's project, to be located at the currently idle Tidd Plant on the Ohio River, will use pressurized fluidized bed combustion to remove 90-95% of sulfur dioxide from coal combustion gases before they leave the boiler. The technology is also expected to increase the plant's power output

and reduce nitrogen emissions. The project is estimated to cost \$167.5 million, DOE's share being \$60.2 million. Construction will begin by the end of this year with the three-year operating phase starting in early 1990.

The Coal Tech project, to be located at the Keeler Boiler Manufacturing Company plant (Williamsport, PA), involves replacing a standard oil burner with an innovative coal combustor. Attached to the outside of a boiler, the combustor will remove ash and other impurities before they can build up as energy robbing deposits. Sulfur would be captured inside the combustor, and nitrogen oxides would also be reduced.

The total cost of Coal Tech's 25-month project is estimated at \$785,984, DOE's share being 50%. Other contributors to this project include the Pennsylvania State Energy Authority (\$200,000), Pennsylvania Power and Light (test coals), and Keeler Boiler (use of site and boiler).

These projects are the first of nine to complete negotiations. DOE anticipates completing the remaining negotiations by early summer. The DOE Technology Centers in Morgantown and Pittsburgh will oversee the government's participation in all the projects.

American Institute of Physics 1988 Science Writing Award in Physics and Astronomy

This year's AIP Science Writing Award, a single prize of \$3,000, is intended to stimulate and recognize distinguished writing that improves children's understanding and appreciation of physics and astronomy.

Entries must be articles or books, written in English or English translations, dealing primarily with basic science, physics, astronomy or related subjects directed at children, from preschool ages up to high school ages.

Entries must have been available to and intended for young people; must be written by citizens or permanent residents of the US, Canada, or Mexico; and must have been published in the US, Canada, or Mexico between November 1, 1986 and October 31, 1987.

The deadline for submitting entries materials is November 10, 1987.

For complete details, contact:

Public Information Division
American Institute of Physics
355 East 45th Street
New York, NY 10017