

constructed, at its own expense, the turbine generator portion. The rest of the cost—\$50 million—was borne by the AEC. The Duquesne Light Company will operate the plant for the Atomic Energy Commission.

The pressurized water reactor plant uses ordinary water to moderate the nuclear fission process; the water, under pressure, is circulated through the reactor core to remove heat produced by the atomic fission. The hot water is then pumped through heat exchangers in which steam is produced which will be used, when the reactor plant is in full operation, to power a steam turbine that will provide electricity.

During the initial start-up test, the reactor operated at a power level of about 25 kilowatts of heat. No electricity was generated. In the course of the last 3 weeks numerous tests have been made to determine the nuclear characteristics of the reactor and to test satisfactory operation of the reactor components. When these tests have been completed, the power level of the reactor will be increased gradually. At full power the plant is expected to produce 60,000 kilowatts of electricity which will flow into the system of the Duquesne Light Company.

The reactor core contains 14 tons of natural uranium in the form of a "blanket" surrounding some 165 pounds of highly enriched uranium. There are 32 enriched uranium fuel elements, each with its own control rod, and 113 natural uranium elements in the core. The 32 control rods regulate the nuclear fission or heat producing process. They are made of hafnium metal, which was selected because it readily absorbs neutrons and thus affords accurate regulation of the fission process.

United States, Britain, and Fusion Power

It has been reported that Britain has made a major advance toward the peaceful use of fusion power. But nuclear authorities and members of the government so far have refused to confirm this report. A recent issue of the British newspaper, the *Manchester Guardian*, included the following statements in a front-page story.

"The publication of details of Harwell's most recent successes in thermonuclear research is being held up in response to United States representations. . . . It is being suggested that the United States Atomic Energy Commission is unwilling to stomach publicity for a resounding British achievement at a time when its own reputation in the United States is steadily declining. . . .

"It is only fair to add that collabo-

ration between Britain and the United States in the particular field is close and apparently effective. . . . As a result of this collaboration United States scientists can expect to take some of the credit for the success of the British research."

The United States and Britain exchange information on their work in fusion power, and they are therefore both governed by the same declassification guide; together they decide what is to be published and what is to remain secret. The guide is reviewed periodically and it was last reviewed in June. Any new review will have to be ratified by both countries before information is released by either. Confirmation of an H-power development might depend in this sense on U.S. agreement.

The United Kingdom Atomic Energy Authority, advised by Sir John Cockcroft, head of the Harwell Research Institute, has stated that neutrons have been produced at very high temperatures, that they probably are the result of the fusion of atoms, but that just possibly they may have been produced by other means.

Nordic Institute

The five Nordic countries have set up an organization to strengthen cooperation in nuclear physics. One of the main objectives of the organization is the establishment of the Nordisk Institut for Teoretisk Atomfysik (Nordic Institute for Theoretical Atomic Physics) in Copenhagen in a building which will be erected by the Danish Government in connection with the existing premises of the Institute for Theoretical Physics of the University of Copenhagen. Among the further activities planned are exchange of Nordic scientists, organization of symposia, and visits of scientists from other countries to Scandinavian physical institutions.

The Nordic Institute will provide facilities for a number of younger physicists from the member states so that they may receive advanced training in theoretical nuclear physics. In addition, the institute will serve as a gathering place for physicists from Scandinavian and other countries.

The new organization is governed by a board composed of theoretical physicists delegated by the five countries. Niels Bohr has been elected the first chairman of the board.

Until a formal agreement has been established by the participating governments, the organization is functioning on an interim basis. The Nordic Institute started its activities on 1 October, using facilities provided by the Copenhagen Institute for Theoretical Physics. For

the interim period C. Møller has been appointed director of the institute (during his absence on a visit to the United States, T. Gustafson is acting director), assisted by G. Källén, B. Mottelson, and S. Rozental. On 1 February, L. Rosenfeld will join the staff of the institute as a permanent member.

STIP Interagency News Letter

The fifth semiannual Interagency News Letter prepared by the AAAS Science Teaching Improvement Program was issued on 1 November. The News Letter is a direct result of a resolution adopted by the October 1955 Conference on Improvement of Science Teaching, sponsored jointly by the National Science Foundation and the AAAS. This resolution called on the AAAS to investigate the possibility of publishing a news letter reporting the activities of various professional organizations and governmental agencies in regard to the improvement of the teaching of science and mathematics and to the recruitment of additional personnel in these fields. The first of these news letters appeared in April 1956.

In the current issue of the News Letter an attempt has been made to condense the report of each organization in order to reduce the bulk and expense of the final product. Special emphasis has been placed on new projects not previously listed and on progress reports. The report is for the most part restricted to the activities of the national professional societies, except in certain cases where programs of special importance are involved. Twenty-five separate reports are included.

A limited number of single copies are available. Requests should be directed to the assistant director of STIP, J. R. C. Brown, AAAS, 1515 Massachusetts Ave., Washington 5, D.C.

Papers for International Nuclear Congress

The Atomic Energy Commission invites scientists to contribute papers to the Second International Conference on the Peaceful Uses of Atomic Energy (Geneva, Switzerland, 1-13 September 1958). Abstracts of not more than 500 words should be mailed by 1 January to the Technical Director, Office for International Conference, 736 Jackson Place, NW, Washington 25, D.C.

Special AEC panels will review all abstracts. Those accepted will be forwarded to the United Nations secretary-general for the conference for final review and, if selected, will be included in the agenda. Complete procedures for

preparing and submitting abstracts and final papers, as well as the conference agenda, will be furnished on request by the technical director.

Library of Science Program for Young Adults

The Library of Science, New York, comprising some 40,000 scientists, educators, and related professionals, has started a new program for gifted and science-minded young people of high school age. The new Young Adults' Division will endeavor to bring to young people—on their own level—the type of reading material the Library of Science provides for its regular members.

The stimulus for the new program came from the members of the Library of Science who responded to an initial test mailing by enrolling more than 3000 charter members in the Young Adults' Division. Membership is now open to all young people of high school age who are sponsored by their parents or other adults.

New Antenna at Illinois

An antenna reflector 28 feet in diameter has been erected on top of the Electrical Engineering Building at the University of Illinois to receive signals coming by way of the moon from the Signal Corps Laboratory at Ft. Monmouth, N.J. A possible application would be to use the moon to reflect television signals from any point where the moon is visible to any other point. Another would be to reflect control signals from the moon to guide a rocket part way around the curvature of the earth, or start it on a path going even farther. In the process, dispersal of energy is tremendous: of 40,000 watts transmitted from New Jersey, only about 100 reach the moon, and one-millionth of one-billionth of one watt is received back in Urbana-Champaign.

Grants, Fellowships, and Awards

Bacteriology. The \$1000 Eli Lilly Award, which is given annually to a microbiologist, will be awarded to a person who is less than 35 years of age on 30 April 1958 and who has performed outstanding research in bacteriology or its related fields. The award committee is composed of representatives of the Society of American Bacteriologists, the American Association of Immunologists, and the American Society for Experimental Pathology. Nominations should be sent before 15 January to Dr. Arthur Kornberg, Department of Microbiology,

Washington University School of Medicine, Euclid Avenue and Kingshighway, St. Louis, Mo.

Genetics. The André Dreyfus Foundation, Rio de Janeiro, Brazil, invites applications for its International Genetics Prize of 150,000 cruzeiros. The award is intended to support the development of research programs, travel for purposes of research, or publication of research results. Applicants should submit a *curriculum vitae*, a list of publications, and a detailed plan of the research program proposed or a copy of the manuscript being offered for publication. Applications and supporting documents must be received before 31 January by Jenny Dreyfus, Secretária Geral da Fundação-Prêmio André Dreyfus, Rua Belfort Roxo 40, apto. 502—Copacabana, Rio de Janeiro, D.F., Brazil.

Gerontology. The Inter-University Training Institute in Social Gerontology of the University of Michigan has announced 35 faculty fellowships for a summer training seminar in social gerontology to be held at the University of Connecticut, 4–29 August. The awards are open to college faculty members who are trained in one of the social sciences and who are actively interested in developing programs in social gerontology at their institutions. The stipend is \$500; travel costs and living accommodations on the university campus are also paid. For information, write to Dr. Wilma Donahue, Director, Institute for Social Gerontology, 1510 Rackham Building, University of Michigan, Ann Arbor, Mich.

Librarianship. The Medical Library Association will award eight scholarships of \$150 each to students accepted for the approved courses in medical librarianship during the summer sessions of the following institutions: School of Library Service, Columbia University; Division of Librarianship, Emory University; University of Illinois Library School; and the School of Library Service, University of Southern California. Applications for scholarships should be made to the library school at the time of application for enrollment. Sufficient time should be allowed for the school to pass upon credentials and forward applications for scholarships to the Medical Library Association. The association's closing date is 1 March, and candidates must have been accepted for admission by the library school.

Mechanics of Fluids. The Humanities Fund, Inc., New York, has announced the \$3000 Boris A. Bakhmeteff graduate fellowship for the support of research of an original and creative nature in the general field of mechanics of fluids. For information, write to Dean William Allan, School of Technology, City College of New York, New York 31, N.Y.,

who must receive completed application forms by 15 February.

Ophthalmology. The National Council to Combat Blindness is accepting applications for its 1958–59 Fight for Sight grants-in-aid, research fellowships, and summer student fellowships. Application forms, which must be submitted by 1 March, may be obtained from the Secretary, National Council to Combat Blindness, Inc., 41 W. 57 St., New York 19, N.Y.

Psychiatry. The Society of Biological Psychiatry is offering an annual award that has been made possible by the A. E. Bennett Neuropsychiatric Research Foundation. The award consists of traveling expenses to the society's annual meeting, expenses at the meeting, and an honorarium of \$250; it will be given to a young investigator for an unpublished report of recent research. Papers should be sent in quadruplicate to Arthur A. Ward, Division of Neurosurgery, School of Medicine, University of Washington, Seattle 5, Wash.

Psychometrics. The Educational Testing Service has announced two research fellowships in psychometrics leading to the Ph.D. degree at Princeton University. The stipend is \$2650. Undergraduate preparation may consist of a major in psychology with supporting work in mathematics or a major in mathematics with some work in psychology. A candidate must either have taken the Graduate Record Examinations in 1957 or register by 3 January to take these examinations on 18 January. Fellowship applications must be received before 3 January by the Director, Psychometric Fellowship Program, Educational Testing Service, 20 Nassau St., Princeton, N.J.

Secondary School Teaching. The Shell Companies Foundation, Inc., has announced that fellowships will be provided for special study next summer to 100 high school teachers of physics, chemistry, and mathematics. Half the recipients will attend summer sessions at Stanford University, and half will go to the Cornell University. Fellowship teachers receive allowances for travel, tuition, living expenses, and \$500 in cash to offset the loss of other summer earnings. Teachers in the United States and Canada with 5 years' experience and known leadership ability are eligible. Applications should be sent before 1 February to the two universities. Teachers living west of the Mississippi River should write the School of Education, Stanford University, Stanford, Calif. Teachers living east of the Mississippi should write the School of Education, Cornell University, Ithaca, N.Y.

Statistics. The department of statistics at the University of Chicago has established a program of postdoctoral awards