

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 re-sounding 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