general program of assistance in the field of education for the purpose of alleviating the shortage of trained nuclear scientists and engineers.

The new program will be administered by the Oak Ridge Institute of Nuclear Studies, under the supervision of the Oak Ridge Operations Office of the commission. The institute now administers the AEC's special fellowships in radiological physics, the special fellowships in industrial hygiene, and the ORINS graduate fellowship program.

Applications will be processed before 1 Mar. 1957. About 150 fellowships, carrying stipends of $1800, plus tuition and dependency allowances, will be awarded to students registered in, or accepted by, a college or university where a program of graduate study in nuclear energy technology has been developed that is comparable to the 1-year course of study at AEC schools. Because of the time required to review applications and select fellows, it is expected that only a limited number of fellowships will be awarded for studies in the current academic year.

Fellowships will be awarded on a 1-year study basis and options to renew them for an additional year will be considered only under special circumstances. The final selection of candidates will be made by a committee of representatives of ORINS and the commission. Details of the program, including the criteria for acceptance of candidates, will be announced later.

■ The National Wildlife Federation has announced that there will be available for the school year 1957–58 a series of graduate fellowships and undergraduate James Hopkins scholarships in conservation education. Application for these fellowships and scholarships must be on file at the office of the National Wildlife Federation, 232 Carroll St., NW, Washington 12, D.C., *by 13 Dec. 1956.* An applicant's research program must have the approval of a director or departmental head of the applicant's university.

The scholarship funds are available to exceptionally well qualified students and may be used for the normal expenses of an undergraduate. The fellowships are designed to support research studies in the field of conservation education. Awards will be made to individuals who can show records of accomplishment in this field and who are qualified for, and preferably accepted for, graduate school studies.

These fellowships and scholarships are supported in part by the sale of the Wildlife stamps issued annually by the National Wildlife Federation, by a permanent grant yielding a limited endowment, and by other income available to the federation, the amount of which cannot be determined before the beginning of the year. Awards granted in the past have ranged from $500 to $1000.

■ The International Academy of Proctology has announced its annual prize contest for 1956–57. The best unpublished contribution on proctology or allied subjects will be awarded $100 and a certificate of merit. Certificates also will be awarded to physicians whose entries are considered of unusual merit. This competition is open to all physicians in all countries, whether or not they are affiliated with the academy. Entries of not more than 5000 words, typewritten in English, must be submitted in quintuplicate, *before 1 Feb.* to the International Academy of Proctology, 147–41 Sanford Ave., Flushing, N.Y.

■ The U.S. Public Health Service has announced that awards of more than $700,000 for a 4-year investigation into the causes of cerebral palsy and mental retardation have been made to the Yale University School of Medicine and to Brown University. These awards mark the beginning of a large coordinated research program which, during the next 10 to 20 years, will attempt to identify factors responsible for such disorders as cerebral palsy, mental retardation, blindness, and deafness.

Brown and Yale universities are the first of a dozen or more institutions that are expected to join in this research program. Yale's grant for the first year is $107,799; Brown is receiving $97,633. Under present plans, more than $1 million yearly will be awarded to medical institutions under the program, which will be conducted by the National Institute of Neurological Diseases and Blindness.

In the Laboratories

■ The Carbide and Carbon Chemicals Company, a division of Union Carbide and Carbon Corporation, has announced plans for a new development laboratory. The facilities, when completed in mid-1958, will bring together a majority of the scientists and engineers now working in the separate buildings of Carbide's development laboratories in South Charleston, W. Va. In recent years, the Chemicals Company has launched an average of 15 new chemicals a year; it also produces plastics and resins marketed by Bakelite, another division of Union Carbide. Last year the two divisions accounted for nearly 50 percent of the corporation's $1.187 billion sales.

The development department, for which the new facilities are being built, is concerned with turning laboratory chemicals into commercial products and in developing feasible industrial processes. Its staff is made up of organic chemists, physical chemists, and chemical engineers. The new center will include a main laboratory building, a high-pressure laboratory building, a plastics pilot scale building, and separate facilities for studies utilizing gamma radiation and radioactive tracers.

■ To consolidate and expand programs of basic research in the fields of chemistry, physics, and nuclear energy, the Mine Safety Appliances Company, Pittsburgh, Pa., has formed a new wholly owned subsidiary, the MSA Research Corporation. The new organization will handle basic research projects for the parent firm as well as for MSA's domestic and overseas subsidiary and affiliated companies. In addition, it will perform similar activities under contracts with government agencies and private industry.

Principal laboratories of the research firm will be at Callery, 30 miles north of Pittsburgh. C. B. Jackson has been selected to serve as vice president and director of research. He has been research director of MSA's operation at its Callery, Pa., plant and of a subsidiary, the Callery Chemical Company.

■ An Air Force contract for $2,229,970 has been awarded to North American Aviation, Inc., by the Air Matériel Command for research to determine the adaptability of new titanium alloys for supersonic aircraft and missiles. This is the first separate titanium research contract ever awarded the company, which has previously done such research as part of its regular airplane production contracts. The work will be done in the firm's Los Angeles plant.

The contract will run for 3 years and will involve the testing and evaluation of new titanium alloys that with heat treatment can reach a tensile strength of 170,000 to 180,000 pounds per square inch. This represents a 40- to 50-percent increase in strength over titanium alloys now in use. The research group hopes to form these new alloys in a soft condition, when they will be as easy to work as present low-strength alloys, and then heat-treat them to get high-strength properties. This technique has been used on steel and aluminum for many years.

■ Construction has begun on the Plum Brook Research Reactor Facility of the National Advisory Committee for Aeronautics, near Sandusky, Ohio. The new facility will be used by NACA in the study of problems of aircraft nuclear propulsion systems. The reactor unit will be staffed and operated by the NACA Lewis Laboratory, of which it is a part.