

ANS NEWS

1958 Winter Meeting

Chauncey Starr, President of the American Nuclear Society, announced that Dr. L. R. Hafstad, Research Vice President of General Motors Corporation, and Walker L. Cisler, President of the Detroit Edison Company, will serve as general chairmen of the 1958 annual meeting. This meeting first to be held by the Society in Detroit and will run December 8th through 10th at the Sheraton-Cadillac Hotel. The three-day meeting will draw 1,400 engineers and scientists from the United States and Canada with representatives from European and South American countries.

Highlight of the meeting will be a complete report on the United Nations Second International Conference on the Peaceful Use of Atomic Energy just concluded in Geneva, Switzerland. Twenty-four technical sessions have been arranged featuring approximately 175 papers covering all phases of nuclear science and technology, including the development of nuclear rocket motors.

Alfred Amorosi, Technical Director of Atomic Power Development Associates, Inc., has been appointed local program chairman. His committee has arranged top speakers from the Atomic Energy Commission, leading nuclear research organizations, universities, and the electric power industry to present the latest information on America's progress in the nucleonic field.

Mr. Amorosi stated that, "The Detroit meeting of the American Nuclear Society will be the most important of the sessions to date, primarily because we now have so much more information available for a full-scale report on America's nuclear progress. Field trips are being planned to the Enrico Fermi Atomic Power Plant near Monroe, Michigan, and the University of Michigan Phoenix Memorial Project, including the Ford Test Reactor on the north campus at Ann Arbor, for members attending the technical conference."

Local Sections

Washington, D. C. New officers and directors for 1958-1959 are: President, George L. Weil, Consultant; Vice-President, Corbin C. Allardice, International Bank; Secretary, David H. Weiss, ACF; and Treasurer, Howard G. Hembree, USAEC. The following Committee chairmen were also chosen: Urner Liddel,

National Institutes of Health—Education; John C. Robinson, Martin Company—Membership; and George A. Anderson, ACF—Program.

Pittsburgh, Pennsylvania J. W. Conrad, Public Relations Chairman for the Pittsburgh Section reports the following tentative schedule for Fall: November 11, Park Schenley Restaurant; December 3, Park Schenley Restaurant, joint meeting with AIChE section; February 21, 1959, all day educational seminar for teachers and college-level people, 300 expected to attend. Dr. E. Litchfield, Chancellor of the University of Pittsburgh will be the speaker at the luncheon. George Weddell, of the Westinghouse Bettis plant is Special Events Chairman.

Personnel

Frank E. Myers was appointed Associate Director of Argonne National Laboratory. Dr. Myers has been the Head of the Department of Physics at Lehigh University located at Bethlehem, Pennsylvania, since 1947. He also was Head of the Department of Physics and Dean of the Graduate School since 1956.

Dr. John J. Livingood has resigned as director of the Particle Accelerator Division, Argonne National Laboratory, to devote full time to basic research problems as a member of the Laboratory's Physics Division.

Since 1954, Dr. Livingood has been in charge of developmental activities for a 12.5 billion electron volt particle accelerator to be built at the Laboratory. The basic design for the Argonne particle accelerator has been completed under Dr. Livingood's direction and work now is underway on the engineering architectural phase.

Louis H. Thacker and *John W. Stephenson* have joined ASTRA, Inc. in Raleigh, North Carolina. Mr. Thacker, a Staff Member at the Los Alamos Scientific Laboratory, was formerly associated with E. I. du Pont de Nemours & Company, Inc. at Savannah River, South Carolina, and the Oak Ridge National Laboratory. Mr. Stephenson recently completed his graduate work in Nuclear Engineering at North Carolina State College.

Carl Larsen has been appointed Director of Public Relations at the University of Chicago, from Executive Assistant of Public Information at Argonne National Laboratory.

Frank Miles, Associate Editor of *Nuclear Science and Engineering* is acting Editor for the next several months while *James Beckerley*, Editor, is recovering from a surgical operation.

Dr. Albert V. Crewe has been appointed Director of the Particle Accelerator Division of the Argonne National Laboratory, Dr. Roger H. Hildebrand, Associate Laboratory Director for High Energy Physics, announced September 8, 1958.

Dr. Crewe has been Technical Director of the synchrocyclotron at the University of Chicago and an assistant professor on the University's faculty in the Department of Physics and Enrico Fermi Institute for Nuclear Studies.

Deaths

Dr. Ernest O. Lawrence, 57, died in Palo Alto, California, August 27, 1958. Dr. Lawrence is best remembered for his invention in 1929, of the cyclotron, and its subsequent development into a most effective tool for nuclear research.

Dr. Lawrence's final illness began while he was representing the United States at the recently concluded Geneva talks on the detection of nuclear tests, to the success of which he made significant contributions. This was typical of the many responsibilities which he unselfishly accepted as advisor to and representative of his government.

Gordon Dean, 52, died August 15, 1958, in a plane crash on Nantucket Island, Mass. He was the second chairman of the United States Atomic Energy Commission.

Geneva Notes

Alton P. Donnell of Atomic Power Development Associates, Inc., *Robert W. Hartwell*, of Power Reactor Development Co., and *Harvey A. Wagner* of Detroit Edison Co., gave a progress report at Geneva on the Enrico Fermi fast reactor. Their appraisal was given on the fast reactor as part of a panel discussion at the Geneva Conference. The panel was led by *Dr. Norman Hilberry*, Director of Argonne National Laboratory.

The paper on the Enrico Fermi fast reactor stated that "from a safety standpoint, we are confident that a properly designed plant can operate with no hazard to the public." The three authors further stated, "We have renewed confidence that both capital costs and fuel cycle costs can be reduced in the second or third generation reactors so as to make the fast breeder truly competitive in the long range."

A special panel to discuss plans for constructing Nuclear Power Plants in the United States, consisted of *Dr. Norman Hilberry*, Director of Argonne National Laboratory; *R. F. Brower*, Vice-President of Consolidated Edison Company of New York; *R. J. Coe*, Vice-President, Yankee Atomic Electric Co., Boston, Massachusetts; *Robert W. Hartwell*, of Power Reactor Development Company, Detroit, Michigan; and *Raymond D. Maxson*, senior consulting engineer, Commonwealth Edison Company, Chicago. *Dr. Hilberry* predicted that within 15 or 20 years the public utilities of the United States may be generating four times as much electrical energy as they are generating today, and their costs are increasing. He stated further, "What the actual period of time will be before the use of nuclear fuels becomes imperative in the United States is not clear, but a guess of 20 to 25 years does not seem to be at all unreasonable."

R. F. Brower reported on the Indian Point Nuclear Plant, and pointed out that Consolidated Edison Company of New York received the first power reactor

construction permit issued by the AEC, and said that "Erection of the containment sphere will begin this month [September] and the construction schedule calls for completion and pressure testing in June, 1959. It is expected that Indian Point will be made critical late in 1960."

R. D. Maxson reported on the Dresden Nuclear Power Station, and pointed out that the Dresden Plant, a 180,000 kilowatt all-nuclear unit located 50 miles southwest of Chicago, is being financed entirely by private industry. He stated that "target completion date is the end of 1959, with critical tests and low power operation scheduled shortly thereafter; power operation is scheduled for mid-1960." A full description of the Dresden station is contained in a conference paper: "The Dresden Nuclear Power Station," by V. A. Elliott, R. D. Maxson, V. D. Nixon, and J. W. Merryman.

R. J. Coe reported on the Yankee Atomic Nuclear Plant. He stated, "It is planned as a pressurized water plant with a capacity of 134,000 kilowatts." The Yankee installation is expected to cost about \$50,000,000, Coe said. A full discussion of the Yankee Plant is contained in a conference paper: "The Yankee Atomic Electric Plant," by W. E. Shoupp, W. C. Woodman, and R. J. Coe.

Dr. Stephen Lawroski, Director of the Chemical Engineering Division of Argonne National Laboratory, reported at Geneva a new and cheaper method of producing pure uranium hexafluoride from uranium ore concentrates. Dr. Lawroski said in a technical paper that this development has led to the processes selected for use in a new uranium refinery to be completed in 1959 at Metropolis, Illinois, by the General Chemical Division of Allied Chemical and Dye Corporation. In the new process uranium ore concentrate containing about 70% uranium is treated with hydrogen gas, hydrogen fluoride gas, and finally by fluorine gas. The impure uranium hexafluoride resulting from this treatment is purified by distillation. In the new method, a fluidized bed technique is used to carry out the three chemical reactions. In the older method of producing uranium from ore concentrates the uranium was purified by solvent extraction involving dissolving uranium in nitric acid and treating this solution with an organic solvent. The new method saves several chemical conversion steps and results from several years of experience at Argonne National Laboratory from studies of fluidized bed techniques and fractional distillation methods of reprocessing irradiated nuclear fuels.

"*Development in Pyrometallurgical Reprocessing*" (UN-1795), by *Milton Levenson* and *John H. Schraidt*, was delivered at the Geneva Conference by Levenson.

ANS Membership Potential—38,000

Surveys sponsored by the Commission have provided the first detailed estimates of technical manpower requirements in nuclear science and technology in

industry, in universities and colleges, and in Commission and Commission contractor activities.

In these categories, a total of 34,700 technical personnel was reported in the fall of 1957 including 18,750 engineers, 13,500 scientists, and 2,550 technical managers. It is estimated that additional workers in organizations not surveyed or not responding to questionnaires would raise this total to almost 38,000.

Of the 34,700 actually reported, the Commission and its contractors employed about 68 %, private industry employed some 18 %, and the remaining 14 % were in college and university atomic energy activities.

College and universities will have an estimated 5700 scientists and engineers devoting at least part of their teaching and research time for the 1960-1961 academic year to atomic energy activities, according to final results from the Commission's survey of academic manpower requirements. For the 1957-1958 semesters, the total was estimated at 5400. (Ref.: *24th Semiannual Report of AEC*, pp. 116-117, July 1958).

Octave J. DuTemple
Executive Secretary

ANNOUNCEMENTS

ANS members may obtain free copies of the hearings held February, 1958, by the Research and Development Subcommittee of the Joint Committee on Atomic Energy (JCAE) on Physical Research As It Relates to the Field of Atomic Energy. Requests should be made to the JCAE, Room F-88, United States Capitol, Washington 25, D. C.

Atomic Industrial Forum. Annual Conference, Shoreham Hotel, Washington, D. C., November 10, 11, 12, 1958. Contact: Conference Manager, AIF, 3 East 54th Street, New York 22, N. Y.

Metallurgical Society of the American Institute of Mining, Metallurgical and Petroleum Engineers Fall Meeting. Carter Hotel, Cleveland, Ohio, October 27, 28, 29, 30. Nuclear Metallurgy Committee to hold symposium on fabrication of fuel elements. Contact: Metallurgical Society of AIME, 29 West 39th Street, New York 18, N. Y.

Institute of Radio Engineers. Sixth Annual Meeting, Professional Group on Nuclear Science, Villa Hotel, San Mateo, California, November 6-7. Contact: H. Malcolm Ogle, General Electric Company, San Jose, California.

Four Courses in Radiological Health. New York University-Bellevue Medical Center Post-Graduate Medical School, New York, N. Y.: Radiochemical Analysis, November 10-21; Introduction to Radiological Health (full time), January