

state & society

Energy scene in Washington is shaken up as ERDA arrives

The long-awaited Energy Research and Development Administration becomes a reality this month—3 months after the act creating it was signed into law by President Gerald Ford. During these three months the agencies whose programs are being incorporated into ERDA have been struggling, amidst considerable confusion, to ensure an orderly transition of programs, funds and personnel. The Administration, meanwhile, has had its hands full trying to fill a variety of posts created by the new law as well as the post of Administrator of the Federal Energy Administration left vacant by the firing of John C. Sawhill.

At this writing the shape of ERDA has by no means been set. What appears certain is that the Atomic Energy Commission, itself created by an act of Congress in 1954, will be erased from the roster of government agencies. In its place will be ERDA and the Nuclear Regulatory Commission, the latter taking over AEC's regulatory and licensing functions. Named as ERDA's first Administrator is Robert C. Seamans Jr., a 56 year-old engineer who, in his distinguished career, has been a professor at MIT, Deputy Administrator of NASA, Secretary of the Air Force and, most recently, President of the National Academy of Engineering. Former astronaut and AEC Commissioner William A. Anders, 41, has been named to head the NRC. Dixie Lee Ray, AEC Commissioner and Chairman, has been appointed Assistant Secretary of State for Oceans and International Environmental and Scientific Affairs—a post that was created in 1973 but never filled. And most recently, Frank G. Zarb, 39, has been nominated to head FEA. He is associate director of the Office of Management and Budget and Executive Director of the recently formed Energy Resources Council.

ERDA has a budget of \$4.1 billion in FY 1975. According to the legislation, ERDA has the mandate to develop and increase use of all energy sources to meet present and future needs, to increase productivity of the national economy and strengthen its position in international trade, to make the nation self-sufficient in energy, to advance the goals of restoring, protecting, and enhancing environmental quality, and to ensure public health and safety. To carry out these goals the ERDA Admin-



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istrator will have a Deputy Administrator and six Assistant Administrators, all appointed by the President and subject to the approval of the Senate. ERDA picks up all programs in AEC that are not given to NRC. In addition ERDA includes the Office of Coal Research, fossil-fuel energy research, the Bureau of Mines "energy centers" and synthane plant, and underground electric power transmission research from the Department of the Interior. A portion of the NSF's solar heating and cooling devel-

opment and geothermal power development goes to ERDA, as does the Environmental Protection Agency's research, development, and demonstration of alternative automotive power systems.

Energy council. The ERDA legislation, while stopping far short of the extensive reorganization hoped for by some people (PHYSICS TODAY, September 1973, page 77), is a major step toward the Administration's goal of creating a Department of Energy and

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Study urges a continued ZGS program

It is desirable that the Zero Gradient Synchrotron at Argonne National Laboratory remain in operation through mid-or-late FY 1979 to allow full development and use of its capabilities and to permit completion of research programs now under way. This was the conclusion stated in the recently released "Report of the AEC-NSF Study of the Future Role of the ZGS." Despite its continuing high productivity, ZGS is a possible candidate for elimination because the national high-energy physics budget may require closing some existing facilities to divert operating funds to new ones planned for the end of the decade.

The study committee that prepared the report was organized as a result of a request by the Office of Management and Budget to evaluate ZGS physics programs and suggest the earliest reasonable closing date and most efficient shutdown procedure. It comprised representatives of the NSF Science and Technology Policy Office, the physics

section of the NSF Research Directorate and the AEC Division of Physical Research. The committee established and consulted with two subpanels, one consisting of practicing high-energy physicists and the other composed of experienced accelerator laboratory administrators.

Immediate shutdown of ZGS is considered scientifically and technically unwarranted because its research projects in lower-energy regions are, in the committee's view, extremely valuable. The polarized proton capability is unique and important in studying the strong interaction, and the hadron-physics program, concentrating on resonances in the low-energy region, is recognized as outstanding. The neutrino program using the 12-foot bubble chamber (the largest operating in the intermediate-energy range) and the soon-to-be-completed Booster provides independent information on low-energy neutrino physics and complements the higher-energy neutrino programs at the

Brookhaven Alternating Gradient Synchrotron and the Fermi National Accelerator Laboratory.

Evaluating the ZGS as part of the national high-energy physics program under the assumptions of a constant-value budget for that program and the probable introduction of new facilities commencing operation about FY 1980, the committee made the following recommendations:

► Mid-to-late FY 1979 is the earliest reasonable ZGS closing date; it may be desirable to intensify its operation until then.

► Shutdown should be announced two to three years in advance to allow completion of work in progress; special severance policies should be adopted to retain key personnel and ensure a smooth and efficient final running period.

► The programs at the Brookhaven AGS, the Stanford Linear Accelerator Center and the Cornell Electron Synchrotron, as well as the ZGS, should be reviewed to determine which facility or segment of a facility should be phased out if it is necessary to make funds available to operate a new one. This review should occur within two years so that if any accelerator must be closed, sufficient advance notice for a FY 1979 closing date can be given.

► The Booster accelerator, which will increase beam intensity by a factor of four, should be completed as planned by the end of FY 1976. It is needed for completion of the neutrino program and will accelerate the hadron-physics program.

► If a shutdown is necessary, the scientific and economic factors in relocating the bubble chamber and re-establishing the polarized proton capability at the AGS should be carefully studied; it is emphasized that the capability for accelerating polarized protons cannot be re-established at any other high-energy physics accelerator without further technical development, and may not be possible at all. —DG,

Senior staff shuffle announced at NSF

Several senior positions at the National Science Foundation have been filled from within the ranks. Lowell J. Paige has been named acting deputy director by director H. Guyford Stever, filling, on a temporary basis, the position vacated by Raymond L. Bisplinghoff. Bisplinghoff, an aeronautical engineer, became chancellor of the University of Missouri at Rolla on 1 October after serving as NSF deputy director for four years. Paige continues to serve as assistant director for education, a position he assumed in October 1973.

Also appointed to key NSF positions are Eldon D. Taylor, who becomes as-

sistant director of administrative operations, and Joel Snow, who becomes director of the Office of Planning and Resources Management. The function of Taylor's and Snow's offices were previously combined in one Office for Administration, which was headed by assistant director Thomas Jenkins. Jenkins resigned this summer to become assistant vice-president for academic planning and resource management of the statewide University of California system. Taylor came to NSF in 1973 as deputy to Jenkins. Snow, a theoretical physicist, has been at NSF since 1966 in a variety of positions, most recently as deputy assistant director for science and technology in the Research Applications Directorate.

In another personnel shift, Thomas O. Jones, deputy assistant director for National and International Programs, will fill in on an acting basis for assistant director Thomas B. Owens who has headed that program since 1970. Owens left NSF to become director of graduate affairs and research at the American U. Robert E. Hughes, Cornell Materials Science Center director, was nominated as Owens's successor.

David foresees adversary process in science advice

An apparatus for science and technology within the White House inevitably will be established, although its form is not certain, according to former Presidential Science Adviser Edward E. David Jr (now executive vice-president of Gould Inc in Chicago). But regardless of its form, its role in determining the direction of science and technology, and science-based policy, will not be nearly as dominant as it once was, he told us recently. Instead we will see an adversary process between various federal elements.

David, who was science adviser to former President Richard M. Nixon until January 1973, feels that recent presidents have not wanted problems to be raised in public, although raising them internally was considered proper. Recently, former Presidential science adviser James Killian, who headed a National Academy of Sciences study of science advice (PHYSICS TODAY, August, page 61), proposed that an annual report be prepared on problems to which scientists and engineers should address themselves. A first draft of such a report actually was prepared by the Office of Science and Technology under David's direction. Contributions were received from a variety of people in the government outside the Executive Office; for example, experts on agriculture were consulted. By the time the first draft had been circulated through the Office of Management and

Budget and the Domestic Council, it was shredded, David told us. "Scientists and engineers and others with an intellectual turn of mind are always looking for places where more mortar is needed in the system, where there are promising accomplishments to be had if a push could be made. But that sort of thing is not acceptable as a public utterance because it tends to focus on the inadequacies of present programs and policies. It is a form of criticism. Science thrives on that; it is poison in politics." It is true, however, "that in the days of the 'Sun King,' President Kennedy or President Eisenhower, this sort of thing would have been more acceptable. But certainly not in the Johnson days or the Nixon days." Future presidents will presumably behave similarly, David believes, because the Executive branch will be under heavy attack for the rest of the decade. The natural reaction will be defensive.

We are entering an era that will be more adversary in feeling, David maintains, with less willingness to discuss issues openly. There will be fighting among the various segments of government: the future science-advisory apparatus in the White House, the Congressional Office of Technology Assessment, possible special advisers to the judiciary branch, and the National Academy of Sciences. Actually, such an arrangement might be healthier than the previous arrangement in which "an elite group of people in the White House have tried to speak for all of us." Although David would prefer to have policy for science and technology arrived at in a "businesslike, scholarly way," he doubts if this will be possible for the next ten years. —GBL

Eight new members of National Science Board

All of the eight nominees for positions on the NSF National Science Board have been confirmed by the US Senate and have taken places on the board after swearing-in ceremonies. The 24-member board determines policies and programs for NSF. The new members include Jewel P. Cobb (dean of Connecticut College), Norman Hackerman (president of Rice University), Saunders MacLane (University of Chicago and vice-president of the National Academy of Sciences) and Grover E. Murray (president of Texas Tech University).

Also sworn-in were Donald B. Rice Jr (president of the Rand Corporation), L. Donald Shields (president of California State University, Fullerton) and James H. Zumberge (chancellor of the University of Nebraska, Lincoln) and William N. Hubbard (president of the Upjohn Co).