The canceled plants, with a total cost of about $42 million spread over several years, represent a relatively small portion of the AEC's civilian power program—which will exceed $200 million in the coming fiscal year—but the crucial spot they occupy in the development of atomic power makes them of considerable concern to the Joint Committee. The avowed goal of the AEC is the development of competitive atomic power in high-cost areas, such as the Far West and New England, by 1968, a deadline which officially still stands. Some members of the committee fear, however, that without any formal announcement, the deadline is not being regarded too seriously, and that if the atomic power program is not accelerated, the goal is more likely to be unattainable until the early 1970's, especially in view of developments which have brought markedly lower costs for the conventional production of power.

The cutback in the civilian program is particularly nettling for the committee's Democratic majority, who devoted a considerable portion of their time during the Eisenhower Administration to fighting economy designs on the AEC's civilian program. The fact that the Eisenhower Administration prevailed—the experimental power plant program went from $149 million in 1958 to $12 million in the last Eisenhower budget—was the subject of one plank in the Democratic platform. The plank, belaboring the Eisenhower Administration for its "no new starts" policy on development of natural resources, was matched by campaign speeches assuring an expanded program of atomic development, and the committee's Democrats expected that, with their own party in the White House, their struggles against budgeteering would be considerably lessened.

The Joint Committee has, since its inception in 1946, vigorously assumed an unusual role as the Executive's partner in the management of the nation's nuclear development. It has come to regard the rapid development of atomic power as a holy objective which must be shielded against virtually any conflicting interests.

Arousing its ire to a considerable extent is the fact that, while the Administration has pulled the brake on the experimental power plant program, it is asking Congress for a sizable boost in AEC funds for space work. The requests for nuclear rocket propulsion rose from $43 million in the current fiscal year to $74.8 million in the new budget; Project SNAP, aimed at developing atomic power systems for communication satellites, reconnaissance systems, and space probes, received about $50 million this year and is budgeted for $71.9 million next year. Ironically, the committee itself has been a principal source of pressure for expanding the AEC's space activities, but its intention was not to accomplish this at the expense of the civilian power program.

Space Funds Increased

The AEC, which will be in the uncomfortable position of having to defend before the committee budgetary cuts which it really does not favor, offers the explanation that its budget was developed in line with an Administration directive for all agencies to "postpone the initiation of deferrable projects." The application of "deferrable" to a key part of the atomic power program is not likely to be well received by the committee.

The possibility that the Administration has decided to stretch out the atomic power program is suggested in a speech that was given last December by Alvin M. Weinberg, director of the Oak Ridge National Laboratory and a member of the President's Science Advisory Committee.

Noting that various studies on a national energy policy are now under way, Weinberg stated that "until now we have established government policy with respect to nuclear energy rather independent of our policy toward oil, our policy toward coal independent of our policy toward natural gas. We have thereby unwittingly created a hierarchy of energy sources: at the top of the heap, graced with lavish government subsidy, is nuclear energy, followed not very far by hydro and oil; at the bottom is coal, on which the government spends less than $20 million a year. . . ."

The development of a "unified approach to our country's energy policy," he continued, "could mean that nuclear energy as only one of many competitive energy systems may get a smaller share of the government's purse than it now enjoys, and that the short-term emphasis must be on nuclear systems that can do better than 6 mills/kwh" (the lowest projected price for atomic power).

Over the long range, Weinberg said, the importance of atomic power is unquestionable. Coal reserves are finite and "when we need nuclear energy, we shall need it on a very large scale and that we are therefore justified in spending an appreciable fraction of our country's research budget on continued development of long-range nuclear energy systems."

"I would therefore venture to predict," Weinberg declared, "that an over-all energy policy will place more emphasis on the very long-term nuclear energy systems, though possibly less over-all emphasis on nuclear energy as a whole as compared with other energy sources."

The views expressed by Weinberg are not unrepresentative of thinking now going on in the Administration among those who have to decide the order of priorities on various goals. They are not likely, however, to sit well with the Joint Committee, which has guided atomic power development with a crusading spirit and which will not yield easily to a sudden shift in the timetable. —D.S.G.

Exchange Pact: No Progress Reported in Talks on New East-West Agreement

Discussions of a new Soviet-American exchange agreement have now gone into their third week without any signs of progress on major issues.

The talks, which are being conducted in Washington, are regarded as a good barometer of Cold War weather, since they deal, among other things, with the sensitive issue of direct American contact with large segments of the Soviet population.

The previous agreement, governing cultural, scientific and educational exchanges, ran for 2 years, and expired without renewal on 31 December. Exchanges now in progress are tacitly considered to be still governed by that agreement, and they have been continuing without difficulty.

In the talks now under way, the principal American goal is an expansion of information activities inside the Soviet Union. In this area, the United States is at an extreme disadvantage, since the Soviets have little difficulty in circulating their publications and films here, while any counter effort by this country is carefully regulated by Soviet authorities.

Some hope for a more generous So-

viet position on this issue has been aroused by recent talks between President Kennedy and Alexei Adzhubei, son-in-law of Premier Khrushchev and editor of *Izvestia*, as well as talks between Kennedy's press secretary, Pierre Salinger and the Soviet press chief, Mikhail Kharlamov. These discussions, which are outside of the present exchange negotiations, have produced no tangible results, nor have they been reflected in any change in the Soviet bargaining position.

In trying to change that position, the principal leverage available to this country is what seems to be the chief Soviet interest in the exchange program: American science and technology. From the start of the program, the Russians have displayed an eagerness to work out agreements that will take their specialists to American laboratories, industrial plants, and farms.

The State Department, which runs the exchange program, frequently finds itself under attack for what is regarded as extreme pettiness in dealing with Soviet requests to visit various establishments in this country. It does not deny that it occasionally puts up what seem to be nonsensical barriers for Soviet visitors (such as refusing to permit a Soviet medical delegation to visit a new hospital in the Washington area) but under the tit-for-tat rules that regulate the exchange game, such pettiness is regarded as the only device for putting pressure on the Soviets to open doors for American visitors.

The issue of exchange of information, which has long nettled the officials who run the program for this country, is a matter of considerable concern to President Kennedy, who has publicly emphasized his desire to give the Russian people a non-Soviet view of the United States.

At the outset of the talks, there were expectations that agreement could be reached if the Soviets would relax their stand a bit, but there now seems to be determination on the American side of the bargaining table to win from the Soviets more than a few tokens.

An element of uncertainty in the conduct of the negotiations lies in the appointment of a new Soviet ambassador, Anatoly F. Dobrynin, whose date of arrival has not been announced. It would be a coup for the new ambassador to wrap up a new agreement in a happy fashion for all parties shortly after his arrival.—D.S.G.

Announcements

Recipients of the Thomas Alva Edison Foundation's National Mass Media awards include:

Best children's science book: *Experiments in Sound*, by Nelson C. Beeler.

Best science book for youth: *The Atoms Within Us*, by Ernest Borek.

Best science television program for youth: *Watch Mr. Wizard*, NBC.

Special radio program citation: *Medical Milestones*, American Medical Association.

The proceedings of the international symposium on **numerical weather prediction**, held in Tokyo from 7 to 13 November 1960, have been published by the Meteorological Society of Japan. The 600-page volume covers summary reports, short-range forecasts, tropical cyclones, meso-scale phenomena, general circulation of the atmosphere and long-range forecasts, and panel discussions. (MSJ, c/o Japan Meteorological Agency, Otemachi, Tokyo. $15)

The following exhibitions are available through the Smithsonian Institution's traveling exhibition service:

The Beginnings of Flight. A historical survey of aircraft development. Includes 65 photographs mounted on 43, 5-by-2-foot aluminum panels; models in Plexiglas cases of a balloon, airplane, and rocket towers; and an antique flicker machine containing film taken of the Wright brothers' flying demonstrations in Italy, France, and the United States. Space, 100 running feet; weight, 3757 lb; rental fee, $150.

Physics and Painting. Compares and contrasts artistic and scientific conceptions from the Middle Ages to present day, developing a parallel between the artists' representation of mass, weight, movement, and light and the physicists' definitions of the same phenomena. Nine wall-hanging panels, each 4 by 4 feet. Space, 70 running feet; weight, 400 lb; rental fee, $125.

The Image of Physics. Photographic study of a series of experiments showing the relationship of a bouncing ball to the surface its strikes, the path traveled by an asymmetrical body (here a wrench) when thrown, and water waves. Space, 140 running feet; weight, 807 lb; rental fee, $100.

Charles Darwin: The Evolution of an Evolutionist. Follows Darwin through his early years, his experiences as a naturalist aboard H.M.S. *Beagle*, and the period of provincial family life and scholarship. Includes an evaluation of Darwin's contribution to science. Mounted on 20 hanging panels, each 4 by 6 feet. Space, 150 running feet; weight, 1567 lb; rental fee, $100. (Traveling Exhibition Service, Smithsonian Institution, Washington 25, D.C.)

Films

Short Term Visual Memory; 18 minutes, black and white, free loan. An experiment in visual perception, demonstrating the existence of a temporary information storage in the seeing mechanism. Film viewers may participate by testing their own visual memory of items flashed on the screen. (Bell Telephone Laboratories, 463 West St., New York 14)

Manufacture of Dies; 11 minutes, color, free loan. Outlines steps in the manufacture of lamination dies from oil-hardening, high-carbon, high-chrome tool steel. (Syndicated Films, 1022 Forbes St., Pittsburgh 19, Pa.)

The Master Element; 29 minutes, color, free loan. Covers conservation, control, and utilization of America's water resources. (American Waterways Operators, Suite 502, 1025 Connecticut Ave., Washington 6, D.C.)

Human Gastric Function; 18 minutes, color, free loan. A partial record of an extensive investigation of gastric fistula. Covers the stomach's complex responses to different psychological states and stresses. (Film Center, Smith Kline & French Laboratories, Philadelphia, Pa.)

Television

Meet the Professor, ABC-TV; series; 2:30 P.M. (E.S.T.) Sundays. Illustrates the differences in teachers and methods. The 25 February production will feature Richard I. Evans, professor of psychology at the University of Houston, interviewing Carl G. Jung. Evans will also discuss his ideas in the areas of social psychology and personality theory.

Thresholds for Tomorrow, NBC-TV; 10 March, 7:30 P.M. (E.S.T.). Outlines of current research on the atom, DNA, the sea, miniaturization, and computer technology, and its potential usefulness to mankind.