

Rockefeller's comment caused Representative James Symington (D-Mo.) to wonder "if you think the President might have his way in this respect."

The Vice President's reply skirted the question: "That is an interesting question. You were there and heard him express himself on the subject. I think he probably understands better than most the importance of the relationship between the Congress and the Executive . . . he wants to cooperate." Later, in a hearing Rockefeller explained that the President's intention

was that the science adviser submit an annual report on the state of science and technology to the Congress via the President, although no such requirement is mentioned in the bill.

Still another foggy area is the future of the science policy apparatus set up by Stever in the NSF. The White House has assured foundation officials that it will be able to remain active; this is taken to mean that NSF will retain its present science policy budget of \$6 million and most of the staff of the Science and Technology Policy

Office and the Energy R & D Policy Office, although the two offices could, under one of several schemes now contemplated, be moved out of the director's office and placed under a new assistant director for science policy.

In any event, Stever told the House committee, passage of the Administration bill would relieve him of two-thirds of his workload without affecting his pay. Said Stever, "You can see this will be a very pleasant position to be in."

—ROBERT GILLETTE

Nuclear Power: Westinghouse Looks to Washington for a Customer

The idea of the federal government getting into the electric power business, as it has done for instance through the Tennessee Valley Authority, has been an anathema to many political conservatives. And it is an idea that normally receives short shrift from the Administration of a Republican President like Gerald Ford. But the times are not normal, and the Administration is at least listening to a proposal by a major nuclear supplier for the government to buy several nuclear plants—in the expectation, but not the certainty, that they would be resold to utilities. And the issue thus raised as to whether the government should buy some facilities to speed the growth of nuclear power is sharpened by still more ambitious proposals pending in Congress.

For several weeks now the Federal Energy Administration (FEA) has had under review a proposal by the Westinghouse Electric Corporation for the government to buy four floating nuclear power plants (FNP's) at \$435 million apiece. The plants would be manufactured at Westinghouse's Offshore Power Systems (OPS) facility at Jacksonville, Florida (*Science*, 15 March 1974), with all four to be delivered in the 1980's, the first in late 1981. Without these government orders, no FNP's are likely to be produced at OPS before 1984, when the Public Service Electric and Gas Company of New Jersey is supposed to take delivery on the first of four that it has ordered.

In Congress, there are at least two pending bills to create a new federal agency or authority which, among its other functions, could buy nuclear power plants for sub-

sequent lease and resale. A measure sponsored by Representative Ray Thornton (D-Ark.), a member of the energy subcommittee of the House Science and Technology Committee, would have at least 20 nuclear plants so built. The government would either enter into a preconstruction lease-purchase agreement with a utility or proceed on its own and order a plant for which a purchaser would later be sought. If none were found, the government would operate the plant. Thornton, who will try to have the Joint Committee on Atomic Energy hold hearings on his bill this year, views the Westinghouse proposal as quite compatible with his own—the four FNP's could be among the plants ordered by the government under his bill.

Representative John M. Murphy (D-N.Y.), ranking Democrat on the energy and power subcommittee of the House Committee on Interstate and Foreign Commerce, is sponsoring a bill to create an Electric Power Production Authority. Besides making and guaranteeing power-plant construction loans, this authority could also order plants, either coal-fired or nuclear, for subsequent resale.

These proposals by Murphy, Thornton, and Westinghouse find much of their inspiration, or their justification, in the fact that there is now real doubt whether the President's goal of 200 nuclear plants by 1985 can be achieved. (A total of about 250 plants is the goal if the President meant—his words were ambiguous—that there should be 200 *in addition* to the 55 already operating.)

As of June 1974, utilities had contracted

to build some 225 plants. Today, 63 of those plants are under construction, and the preconstruction licensing process has begun for another 76. But 14 projects have been canceled and 123 have been delayed, in some cases for 5 years or more, with completion dates deferred to as late as the 1990's. Problems in financing and uncertainty about future power demand are responsible for many of the deferrals and cancellations.

In sum, if the 1985 goals are to be met, strong federal action may be required. Furthermore, if the government adopts an ambitious longer-term goal of, say, 1000 plants by the turn of the century (as has been talked about), the need for such action, possibly including government purchase and operation of plants, may be perceived by many nuclear power advocates as all the more compelling.

The Westinghouse OPS project at Jacksonville has been predicated on projections of a strong continuing demand by utilities for nuclear plants. Once built and expanded to its maximum design size, the OPS facility could produce 4 or 5 FNP's a year, or 40 to 50 each decade. Moreover, similar facilities could be built on the Great Lakes and the Pacific coast. According to the OPS concept, the FNP's would be towed to their final designations, which would be either offshore sites within massive breakwaters or sheltered sites within estuaries or river systems.

The trouble is, the only company to order any FNP's has been New Jersey Public Service, and even this customer has asked for a 5-year deferral on deliveries. As a result, last December OPS had to dismiss all but 300 of its 800 employees and give up plans for immediate construction of the FNP manufacturing facility. The Westinghouse proposal to the FEA represents an attempt to put OPS back on track and avoid delay in producing the first FNP's.

Westinghouse representatives in Washington mentioned the idea of the government's ordering some FNP's to the first two heads of the FEA, William Simon and

John Sawhill. Neither showed any interest. But, in April, Robert E. Kirby, only recently elected board chairman and chief executive officer of Westinghouse, had better luck when he called on Frank Zarb, the present FEA administrator. Zarb was at least interested enough to ask Kirby to submit a formal proposal, which Kirby did on 15 May.

If the FEA gets behind the Westinghouse proposal, then it will be up to President Ford and the Congress to decide what to do about it. Whatever the proposal's prospects, the Natural Resources Defense Council, a public interest law group, has written Zarb to say that preparation of an environmental impact state-

ment may be necessary. Important environmental questions remain to be answered about FNP's, even apart from the difficult questions that have been raised about nuclear power generally.

Any proposal for the government to buy nuclear plants, for resale or whatever, will face enormous obstacles. One is fiscal: to carry out even the Westinghouse proposal would involve a capital investment approaching \$2 billion, which might or might not be fully recovered. Another obstacle could be fears within the utility industry that, once the government has embarked on a policy of buying plants, it would be in the nuclear power business for good. And, to that, might be added

cries of "creeping socialism" from conservative ideologues. Finally, antinuclear power forces, such as those led by Ralph Nader, would strongly oppose government purchase of nuclear plants, as they would any other step to make the country heavily dependent on nuclear power.

But, if the nation is indeed committed to a huge growth of nuclear power, the Westinghouse proposal may be something of a harbinger. It may presage the time when the government will be faced with other and much more insistent requests from the nuclear supply industry that it shore up production any time demand from the utilities should falter.

—LUTHER J. CARTER

Alaska's Pipeline Road: New Conflicts Loom

Fairbanks. In what may be a classic case of the tail wagging the dog, many Alaskans are beginning to believe that the construction road built next to the trans-Alaska pipeline ultimately may have a greater long-term impact on their state than the pipeline itself. At least six companies have petitioned the Alaska Transportation Commission for permits to run tour buses up the haul road, and the federal Bureau of Land Management has circulated a draft "multiple-use" plan for the right-of-way north of the Yukon River. Both proposals have drawn fire from state officials, land use planners, Alaskan native groups, and environmentalists.

Critics of the open road proposals point out that the road between the Yukon River and the Prudhoe Bay oil fields traverses the Brooks Range and hundreds of miles of virgin tundra, both among the nation's last untouched wildlife habitats and its most fragile ecosystems. State Highway Commissioner Walter Parker has called the question of opening access to the Arctic via the haul road "the biggest land use decision we have to make."

Native residents of some interior villages are more specific—they see an open road north of the Yukon River as the most significant threat to traditional native subsistence life since the appearance of the white man. In the sparsely settled interior

and arctic regions, there may already be more native hunters than the land can support. It seems certain that any increased hunting pressure will reduce the game available, forcing even more of the natives into the cities.

Alaska's governor, Jay Hammond, seems to share the critics' fears about the road's environmental and social impact. At the recent "Earthcare" conference sponsored by the Sierra Club and the National Audubon Society in New York, Hammond told reporters that "Access is going to have to be restricted. . . . It's unfortunate that it's being built, but that was a decision taken under a previous adminis-

tration. Maybe what we need is a state refuge [surrounding the road] 10 miles wide and 800 miles long."

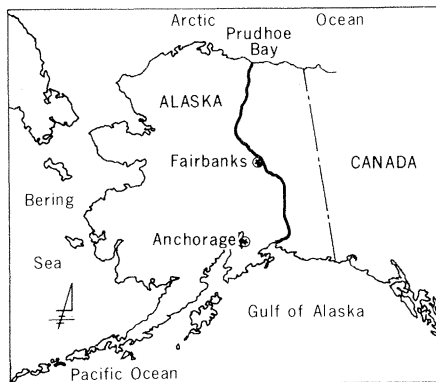
Hammond emphasized his concern about damage to the fragile tundra from sportsmen's all-terrain vehicles: "If we turn the ATV's loose in that country, forget it. . . . Many of the natives are horrified at that prospect."

The origin of the problem lies in a 1971 agreement between the state of Alaska and the Alyeska Pipeline Service Company in which Alyeska, as part of the total pipeline "package," agreed to build a "state highway" from the Yukon River to Prudhoe Bay.

The Trans-Alaska Pipeline Authorization Act, passed by Congress in 1973, tacitly ratified the road agreement between the state and Alyeska.

The problem is that while Alaska is a vast land area, most of it is inaccessible except by aircraft, small boat, or foot. On the other hand, most of the state's relatively small population is concentrated in a few urban areas. More than a third of the state's people live near Anchorage, while many of the rest live near Fairbanks, Juneau, Nome, and Ketchikan. Areas of the state accessible by road are occasionally inundated with recreation-seeking city dwellers.

In some parts of the state accessible by roads, officials believe that fragile streams are becoming choked with silt and their banks eroding simply because too many people are walking and standing along them. "During the salmon season on the Kenai Peninsula [in south central Alaska] the streams are lined with fishermen," says David Jackman, cochairman of the Federal-State Land Use Planning Commission for Alaska. "Unfortunately we're not even concerned about the fish anymore."



Disputed segment of pipeline road runs north from Fairbanks to Prudhoe Bay.