House and Senate versions would then be reconciled in conference. Indications are that the senators will not seriously dispute the cutoff of implementation funds.

Perhaps, as one observer suggested, the cutoff "gets everybody off the hook." The cut of implementation funds suspends the most controversial part of the science education program. NSF will have time to reassess all parts of the program but will be permitted to continue development of projects. Some of the pressure will be off Teague and his committee to intervene directly in agency operations. Nevertheless, the agency has been given an unmistakable signal of Congressional concern; if NSF or the scientific community needed evidence that criticism of federal science was not just the work of a few sharpshooters, the action of the Appropriations Committee amply provides it.—JOHN WALSH

White House Science Adviser: House Committee Mulls Ford Bill

President Ford has sent a science advisory bill to the House Committee on Science and Technology, thereby formalizing his decision last month to reestablish a science adviser in the White House. The bill, however, was drawn up in a bit of a hurry just before committee hearings were set to begin and remains to be filled out in detail. The lack of legal embroidery also apparently reflects continuing disagreement among Ford's staff about the scope of authority to be vested in the new job and about the degree of access Congress will have to the science adviser.

The Administration bill, moreover, differs dramatically from legislation worked up during the past 2 years by the committee itself. The House version, sponsored by the House science committee chairman, Olin E. Teague (D–Tex.), and the ranking minority member, Charles Mosher (R–Ohio), contains a long preamble setting forth a national science policy together with sections that would centralize management of federal civilian research under a new Department of Research and Technology Operations. The bill would also create not a single science advisory post in the White House but a council of five persons. In spite of these differences committee sources believe that the final legislative product due out in late summer or early fall will closely resemble what the President wants. That, as Ford explained it to a group of congressmen on 22 May, is a single science adviser, backed by a staff of about 15 professionals and an annual budget of around $1.5 million. Ford also was said to want the science adviser to be subject to Senate confirmation and have rank "comparable to" that of a cabinet member.

The Science and Technology committee began a leisurely series of hearings on the bill on 10 June. The first witness—committee members preferred to call him a "guest"—was Vice President Nelson Rockefeller, whom Ford had asked several months ago for advice about science advice.

Rockefeller was remarkably candid about the way the bill—which had come across his desk only the previous afternoon and had been sent on to committee members that evening—had been drawn up. Rockefeller explained that Ford had rejected the idea of a council, at least partly, in order to avoid complaints from the scientific community about a council's makeup and whether it was sufficiently representative. "There are many fields of science and technology to choose from," Rockefeller said. "The more you include, the more those not included feel they are left out . . . and you create difficulties."

The alternative was to pick a single head of an office, designated in the Ford bill as the Office of Science and Technology Policy, with up to 15 professional staff picked from representative fields.

(Rockefeller's original recommendation had been for an office with five assistant directors "selected on the basis of concerns of the moment"—oceanography, world food problems, and so on. This idea, apparently, implied a larger staff than Ford wanted.)

Why fifteen? The Vice President said, "I really think this was kind of drawn out of the air. To tell you the honest truth, I think it was a 'not too big, not too small' type of [decision], to give evidence that the Administration is serious, but that they are not trying to compete with Guy Stever [director of the National Science Foundation] or the other departments."

The Administration bill does not spell out the size of the staff or the budget, but instead would merely authorize such personnel and money "as may be necessary." Nor does the bill confer a formal title that would connote cabinet rank; instead, it would create an Office of Science and Technology Policy headed by a "director" and "deputy director." The director would, the bill says, be regarded as the President's chief adviser on science-related matters with respect to:

▶Scientific and technological aspects of major national policies, programs, and issues.

▶The adequacy and effectiveness of federal science and technology policy.

▶Utilization of science and technology in addressing important national problems.

▶Coordination of science and technology activities of the federal government.

▶Other matters, as the President may direct.

All this struck some members of the House committee as a bit vague. Important areas not mentioned in the bill, for example, are the science adviser's role in assembling the federal R & D budget and in matters of military research; the latter is at present not in the ken of the official science adviser, NSF director Guyford Stever, and many committee members, as well as former science advisers, are anxious to rectify this.

Yet another point unmentioned in the Administration bill is the matter of Senate confirmation. House and Senate science committee members want the science adviser to be subject to Senate confirmation, as this would open the way to periodic recall to explain or account for White House policies; balanced against this accessibility is a President's traditional inclination to keep the family linen under the cover of executive privilege.

Ford, as it happens, had previously told the visiting congressmen in May that he favored Senate confirmation, as a means of imparting congressional sanction to his appointee but not to make him a conduit for internal White House conversations and disagreements.

Noting that the bill had not mentioned this sensitive subject, Representative Mosher asked the Vice President whether Ford still favored Senate confirmation.

Said Rockefeller, "Well, I would say the President is. That doesn't necessarily mean everybody in the White House."

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 subsequent 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