plant. That would cost some $40 million and push back the start-up by 3 years. If DOE neither adds cooling towers nor "develops a plan to adequately mitigate for impacts to fish and wildlife resources, then the Department of the Interior may choose to refer this project to the Council on Environmental Quality," Interior warned.

DOE's plans have also come under fire from critics who have questioned the need for a rapid increase in plutonium production. For example, George Rathjens, professor of political science at MIT, said in comments on DOE's draft impact statement that anticipated plutonium requirements have been reduced because of recent decisions such as scaling back the MX program and cancellation of the Clinch River breeder reactor. "With these changes there is not likely to be any need for reactivation of the reactor in the near future, and possibly ever," he said.—**COLIN NORMAN**

For Some, NSF May Mean Non-Sufficient Funds

Changes in National Science Foundation (NSF) administration of research funds are producing unpleasant surprises for some grant applicants. New policies intended to meet criticism leveled in past years are apparently causing NSF to come up short on funding for some regular clients.

Since NSF spreads its grant awards over the fiscal year, which began on 1 October, NSF officials say that it is still too early for a detailed assessment. However, university sources cite several instances in which applicants have been given signals that their proposals would be funded and then informed that the money had run out.

The phenomenon appears to be most pronounced in the foundation's engineering directorate. NSF officials say that several factors have apparently combined to put special pressure on engineering grants this year.

- The number of applications for research grants in engineering increased substantially this year because of cutbacks on research funds in other agencies, notably the Department of Energy, creating what one official called "proposal pressure."
- Of the 200 new Presidential Young Investigators Awards to be made by NSF this year, 100 will be given by the engineering directorate. The awards are being initiated with the purpose of inducing promising young researchers to pursue university careers. Engineering schools have reported shortages of faculty as able graduates have increasingly chosen jobs in industry. The new awards typically amount to $50,000 a year. Total research funds available to the engineering directorate will be reduced by the amount required to fund the awards.
- Engineering is also affected by the general instructions to all NSF program managers and review committees from foundation director Edward A. Knapp to give more favorable treatment to requests for funds for instrumentation and research manpower in grant applications (*Science,* 2 December 1983, p. 990). NSF officials say that Knapp was reacting to a tendency within NSF in recent years to stretch grant funds by skimping on funds for instrumentation or research personnel on grants approved. Knapp, in effect, told program managers that if a proposal is a good one and the requests for instrumentation and personnel are justified, the grant should be set at a level high enough to finance them. The likely result of making larger grants is that the total number of grants awarded will decline despite an increase in research funds well above inflation for NSF.

The research budget for the engineering directorate amounts to about $120 million this year, up from about $101 million last year. The average grant in engineering was some $62,500 in 1983. NSF's acting assistant director for engineering, Carl W. Hall, says that no accurate estimate on average size of grants this year can be made at this point, but that an increase of 10 percent on average would not be surprising.

The coincidence of a higher number of applications, initiation of the new blood awards, the trend toward larger grants, and perhaps a desire on the part of NSF management to venture into new areas of research seem to be falling most heavily on senior investigators, including those with long relationships as principal investigators for NSF, who are unlikely to take disappointment docilely.—**JOHN WALSH**

Carnegie Plan Promotes Prevention of Nuclear War

The Carnegie Corporation plans to spend $5 million to $7 million annually on a new program devoted to the prevention of nuclear war. The money, which will be awarded as grants, is believed to be the largest expenditure by a nonprofit institution for this purpose.

The program is intended to promote the sharing of information among weapons experts, political and behavioral scientists, and policy analysts within and outside government. According to Avery Russell, public affairs director at Carnegie, specific uses for a major portion of the money are still under discussion.

The program, however, has already awarded grants to Stanford and Harvard. In December, Stanford's Center for International Security and Arms Control received a $906,000, 4-year grant. The money will be used to support two or three fellowships annually for midcareer scientists interested in arms control and to fund a project on the management of potential crises between the United States and the Soviet Union. Harvard's John F. Kennedy School of Government received a $494,000, 1-year grant in June that will be used to host interdisciplinary seminars on ways to reduce the risk of nuclear war and support research on the topic.

Russell said that the program arose in part from a desire to support experts who, on their own time, have been working on nuclear arms issues. The experts "have been doing this avocationally. We're trying to pay them in their off time. We want to bring the best talent to this overriding concern," Russell said.

Carnegie is undertaking the new program after its endowment did particularly well in the stock market last year, raising its pool of available grants from $13 million in 1983 to $20 million in 1984. The new program is headed by Frederick Mosher, a 20-year veteran of the Carnegie, and is one of several initiatives being made by David A. Hamburg, who became president about a year ago. In the past, the foundation has focused primarily on education and social justice.

—**MARJORIE SUN**