

first served".

Now that word of the new regulations has percolated to the universities, the Engineering Board's objective of increasing the amount of postgraduate study seems well on the way to being achieved. The Engineering Board has set itself a target for this year of 435 research studentships and 535 advanced course studentships, and gives the impression of being prepared to spend more in future years if only it can attract suitable applicants.

In science subjects, where the rules are unchanged, the target for the award-making season is virtually the same as last year — 769 research studentships and 435 advanced course studentships. These awards are made on the nomination of university and polytechnic departments on the basis of quota allocations by the various subject committees of the Science Research Council. Even so, there is some evidence that the volume of applications is greater than in 1979.

The parallel operation of these two systems is likely to throw an interesting light on the workings of the quota system. Although (outside engineering) the quotas are fixed by the SRC subject committees after a necessarily subjective estimate of the capacity of individual departments to provide training in research, many of those who wish to see a further concentration of research support on departments with high reputations have regarded the quota system as an impediment to change. Would-be engineering research students are in the circumstances more free to decide where to settle, for which reason a comparison of the distribution of research students in science and engineering will be of some interest when the award-making process is over.

Applications for postgraduate awards have also increased under the SRC's scheme for Cooperative Awards for Science and Engineering (CASE) although a relaxation of the rules may again have helped. CASE studentships involve research projects worked out in partnership by a university department and an industrial company, which in previous years have had to be approved by the SRC before a student award can be made. For the first time this year, university departments have been allowed to nominate a student while seeking approval for a project, although an award remains conditional on the students' performance in the degree examinations.

The target for CASE studentships this year is 760, but clearly the SRC would again spend more if there were a sustained demand. It is, however, something of a surprise that the council has been able to build up to 700 awards a year in less than a decade of CASE studentships.

The apparent buoyancy of demand for postgraduate awards is somewhat at odds with reports that many new graduates are this year more anxious to find permanent

jobs than to remain in research. By the end of the summer, it is also possible that much of the demand may have melted away. One of the hazards of the process is that awards offered are not always taken up, sometimes because applications are made in duplicate. The SRC's record of this kind is that of a husband and wife who each made sixteen separate applications.

### NPT review conference

## Smooth start

The Second Review Conference of the Non-Proliferation Treaty (NPT) got off to a smooth and predictable start in Geneva last week. From the opening declarations which delegates to the conference were making in the first six working days, it is plain that the non-nuclear weapons states which are parties to the treaty will be urging that the nuclear powers have made too little progress too slowly towards strategic disarmament, and that the restrictions imposed on trade in nuclear materials in recent years are both a violation of the treaty and discriminatory against developing countries.

Delegates from nuclear weapons states are however heartened that these protests have been couched in moderate language. For their part, the nuclear weapons states (the Soviet Union, the United Kingdom and the United States) have been making much of the report on the comprehensive test-ban negotiations submitted to the Committee on Disarmament at the end of July and of the Committee on Assurance of Supply set up under the International Atomic Energy Agency and due to hold its first meeting at the end of September.

Procedural matters appear to have caused so far the few anxieties that have flitted across delegates' minds at Geneva. As planned by the preparatory conferences, however, the Iraqi delegate was in the end appointed chairman of the conference. It has been agreed that most of the work will be done by two committees which met for the first time on Tuesday and which are concerned respectively with progress towards disarmament and security of supply.

Work on the drafting of the conference report will begin next week, and although everybody seems reconciled to the notion that the report will refer to the discontents of the non-nuclear powers, it was hoped last week that a consensus document would be agreed.

For the most part the nuclear powers presented a united front in their formal speeches, drawing attention to the need to strengthen the NPT system and to the detailed character of the report on the comprehensive test-ban negotiations. At one point, however, the Soviet delegate did seek to embarrass the United States by pointing out that Salt II would by now have been ratified had it not been for the United States Congress.

The discontents of the non-nuclear powers, expressed in several of the formal statements, were eloquently put by Mr Domingo Siazon, the leader of the Philippine delegation, who argued forcefully that restrictions on the supply of nuclear materials devised in the past few years by nuclear suppliers were a violation of the NPT, and that signatories of the treaty such as the Philippines, having signed in good faith, had every reason to expect that the nuclear powers would honour their undertaking to provide nuclear materials, fuel and equipment, without discrimination.

It is planned that the review conference will end on 5 September.

### Windmill power

## UK gets wind

Windmills seem to be on the march in Britain. Officials at the Central Electricity Generating Board (CEGB) will embark this summer on the choice of a site for a large windmill which the board plans to order in 1983 and commission by 1985.

The decision to buy a windmill, announced last week, seems to indicate that the board has decided to take wind power seriously. It is the first piece of alternative energy technology to be bought by the board, Britain's sole electricity utility, on a commercial basis. The early announcement of the plan is intended to stimulate British industry to develop an improved machine by 1983.

The CEGB's plan is to choose a site where other windmills could be built later to assess the characteristics of windmill arrays. It is prepared to spend about £10 million on building ten 1-MW machines. The first windmill will be a 1-MW machine, probably of horizontal axis, with a blade span of no less than 200 ft suspended 150 ft above ground. While industry is busy working on new designs to compete for the order, the CEGB will be gaining operating experience on a smaller 100-kW machine which it hopes to buy as soon as possible.

The apparent sudden interest in wind power has been stimulated by recent developments in the United States. Hamilton Standard, an American company which has pioneered wind-turbine technology, has recently claimed to have designed a windmill which could bring down the cost of wind-generated electricity to as little as 1–2 pence per kWh. Previous best estimates of cost have been about 3–4 pence per kWh.

Undoubtedly, these low estimated costs have stimulated interest in wind power within the CEGB. It is too soon to know what part windmills will eventually play in the pattern of the CEGB's electricity generation. Intermittent generation is an obvious problem unless pumped storage is available. The CEGB says that the chief contribution will be in saving fuel.

Costs of generating electricity from