NUCLEAR POWER

Perm any Two from Three

THE first result of the Ministry of Technology's determination to reorganize the nuclear power industry emerged this week with the announcement of the formation of a new company to design and build nuclear power stations. The ministry has decided that there shall be two such companies in place of the three consortia which exist at present. The company announced this week will be controlled by the three companies which made up the Nuclear Design and Construction consortium, and there will also be a shareholding by the Industrial Reorganization Corporation and, for the time being at least, by the Atomic Energy Authority. The most important holders of stock in the new company will be Babcock and Wilcox and English Electric, each of which will take 25 per cent of the share capital. Taylor Woodrow, the civil engineers, will take 4 per cent, and the IRC will hold 26 per cent. The remaining 20 per cent will be held by the Atomic Energy Authority, although the intention is that this share will eventually be sold to the nuclear fuel company which also forms part of the reorganization plan.

The announcement means that the NDC consortium will now be not a consortium but a company, with its shares owned by the same firms which originally formed the consortium. In order to fit in with the ministry's plans, the other two consortia, Atomic Power Constructors Ltd, and the Nuclear Power Group, will have to be boiled down into a single company, with its shares owned by at least some of the companies which now make up the consortia. On the electrical side, the mergers are already well under way, and it seems likely that the crucial issue will be to arrange agreement on the rationalization of the boilermaking side of the industry. Three boilermakers are involved—Clarke Chapman, John Thompson, and International Combustion. The three companies are already negotiating, and the expectation is that the talks will lead to the formation of a single boilermaking group to form the core of the second design and construction company. It would then be possible for the combined boiler-making company to come together with the AEA and the IRC to form the second company.

A smaller shareholding in the second company might perhaps be found for Fairey Engineering, which at the

moment forms part of APC. But there is no compelling reason for the inclusion of electrical companies, if the Central Electricity Generating Board is serious in its intention to move away from turnkey contracting. The new company could easily contract work out to electrical companies, and this may well be the pattern decided on. It is also improbable that civil engineers will take a large holding in the new company.

There are still some uncertainties. The IRC intends that the 20 per cent shareholding taken by the AEA will be sold to the fuel company, but the AEA gives the impression that it would be interested in retaining a share of some sort in the company. The IRC intends to dispose of its shareholding to "one or more of the other shareholders", and says that it is not the intention that the AEA should be given a chance of buying these. Thus, if all goes as the IRC intends, the AEA will be left with no shareholding at all in the two companies.

The other doubt is about the strength of the new company. For one thing, it is doubtful whether its capital value will be large enough to give it a proper backing in world markets. The IRC will not say exactly what it is going to pay for its 26 per cent share of the equity (and indeed this is uncertain until the full details of the company are worked out) but confirms that it would be around £1 million. This means that the total capital value of the company will be less than £4 million, little enough when dealing with international contracts worth perhaps £80 million, in competition with General Electric (USA) and Westinghouse. The other doubt arises because the new company has very little work to do; much will depend on whether it wins the contract for the nuclear power station at Hartlepool. Fortunately, this does seem likely to happen. The CEGB has agreed to let NDC announce that it is negotiating design and construction details for the Hartlepool station. Although this does not mean that NDC—the new company, in fact—has the Hartlepool contract sewn up, it does suggest that it has by far the best chance of winning it.

As soon as the new company is set up, it will be free to recruit staff from the AEA. Because it is the first in the field, the new company may well gain an advantage. The IRC is quite unrepentant about this, and goes as far as to hope that it will encourage the other companies to agree quickly to merger terms. An announcement can be expected quite soon.

PUGWASH, 1968

Pugwash in Good Shape

from our own Correspondent

Nice, September 16

JUDGING from the atmosphere among the old hands at this year's Pugwash Conference, the eighteenth, Pugwash has generated a new lease of life. For one thing, its finances are now on a sound footing. In the past year, national groups have guaranteed annual contributions well above the previous shoestring level. The Russian and American groups, for example, have doubled their contributions, and although this system in part relies indirectly on money from national governments, it has not yet compromised the organization's independence. It has meant, however, that

Professor J. Rotblat has been able to forget the thoughts he had of resigning from the secretary-generalship. Furthermore, Pugwash can now afford a full-time executive secretary, Dr C. F. Barnaby, and central offices in London as the result of the generosity of an American supporter, Mr W. Schwarz of Chicago.

Except for Dr T. Nemec, the secretary of the Czechoslovak Pugwash group who has been travelling abroad this summer, the Czechoslovaks invited were not at Nice to appreciate the support the Pugwash conference provided for them. One conjecture was that they had absented themselves through fear of worsening their

conditions at home; silence and protest could have been equally dangerous. The three East German members were also absent, having been refused visas by the allied authorities in Berlin—a happening with which Pugwash is familiar.

After the initial plenary session, notable for revealing that both the Russian and American groups fall into two camps over the issue of the deployment of anti-ballistic missile systems, the conference divided into four private working groups. One dealt with the ritual theme of the basic issues of disarmament, the others with regional disarmament, current problems—in other words, Vietnam, Czechoslovakia, the Middle East and Nigeria—and the fourth with technical and scientific manpower in developing countries. The proceedings of the working groups are private.

None the less, it is clear that Pugwash still suffers from the pretence, belied so often in the past by some of its statements, that when scientists act as diplomats and politicians they do it scientifically and therefore better. Social scientists who are increasingly a part of Pugwash could be heard complaining at those who prefaced their remarks with “But as scientists . . .” or “With scientific objectivity . . .” and the like. But the social scientists, of course, have yet to be recognized as more than useful sources of the odd piece of information by many of their colleagues, and the perhaps inevitable preoccupation with the paraphernalia of diplomacy and diplomatic language makes it idle to pretend that a Pugwash conference is any longer just a simple meeting of scientists to discuss straightforwardly political issues. It has often been said that Pugwash participants speak as individuals, not ambassadors, which can be taken seriously only by believing that some members from all countries are extraordinarily content with the policies of their governments.

Naturally enough, Czechoslovakia was uppermost in everybody's mind and overshadowed all other issues. The working groups spent hours debating the issue and thrashing out a report acceptable to all sides. The general feeling seems to have been that two strong but opposed reports would help no one, but that a unanimously agreed compromise, however unsatisfactory to individuals, might help the Czechoslovaks.

By Sunday morning all the working groups had reached significant agreement and their reports were presented in plenary sessions. As expected, there was an appeal for the negotiation of a treaty of general and complete disarmament, but more realistically the working groups urged that recent events should not be used as a pretext to postpone discussions on the deployment of ABM systems. There were also renewed suggestions for a comprehensive test ban treaty which was considered to be feasible now that nuclear and natural seismic events can be distinguished, for declarations that nuclear powers would not attack non-nuclear powers, limitations on the sale of conventional arms, and at least token cuts in conventional arms and military expenditure.

The working groups, and indeed the conference as a whole, seemed to welcome the British Government's initiative in raising the issue of biological weapons at Geneva. Because biological weapons are not yet operational and because they are, once developed, a poor man's weapon, there are enough incentives to hope that the major powers could reach agreement on their control now. One interesting point that emerged from one of the papers was that there is already a

procedure for investigating in some circumstances the alleged use of chemical or biological weapons. A country which considered itself attacked could call in the World Health Organization on the grounds that it was suffering a public health emergency, and WHO would eventually identify the source. The working group on regional arms control discussed such ideas as regional security commissions, a European security commission along the lines of the Economic Commission for Europe, for example, restriction of the sale of conventional arms to small countries and the old ideas of setting up nuclear free zones and neutral zones. The failure of so many countries, and in the eyes of Eastern European members especially the failure of West Germany, to ratify the non-proliferation treaty was seen as a major stumbling block to progress along these lines.

The working group on scientific manpower in the developing world stressed the importance of self-reliance and of concentrating on problems of local importance. It thought the policy as in France of allowing service overseas as an alternative to national military service should be extended and it put forward the idea of an international science corps at post-doctoral level.

The report of the working group on current problems raised most of the emotion. The report has a sentence on Vietnam to the effect that “As a precondition for peace, it is of the first importance that there should be a full and unconditional stoppage of the bombing of North Vietnam. It is increasingly clear that only this will lead to progress in the talks in Paris”. And on Czechoslovakia: “We were unanimous in the belief that the situation should be resolved as rapidly as possible by the efforts of the governments concerned and by adoption of measures which would include the withdrawal of foreign troops from Czechoslovak territory and would let the Czechoslovak people, with whom we all feel great sympathy, continue to run their own affairs”.

In the open session, the debate on this part of the report was repeatedly attacked. For example, Professor Paul Doty from the United States wanted to add the words “. . . unimpeded by whatever changes may have been instituted by the occupation”. Another called for a more precise condemnation on Vietnam and for a sentence asking that the withdrawal of troops from Czechoslovakia should come first. At one time it seemed as if the report might be withdrawn and replaced by a simple statement that the problems had been discussed.

The optimists at Pugwash believe that the concessions made on all sides were as great as could be hoped for. Few were happy about the Czechoslovak situation, but were glad that Pugwash has not broken over it. And only the completely blinkered will leave with exactly the opinions with which they arrived. At the final session of the meeting, Dr Nemec, the sole Czechoslovak present, said his compatriots would recognize the report as a painful compromise but believed it would help them. He asked that scientists should assist Czechoslovak scientists and students abroad, but also explain that their place was in Czechoslovakia. He asked for all possible scientific cooperation, and Academician Millionshchikov of the USSR, the president of the meeting which is to take place in Georgia next year, took it on himself to pass on everything which had been said.