COMECON

● The recent concern in the West about the dangers of nuclear power evoked a uniform and perhaps predictable response from the Comecon media; such fears, it is alleged, are the result of political scare-mongering and/or capitalist negligence. The nuclear power plants that are designed and built in the Comecon bloc on the basis of Soviet R&D, it is claimed, constitute no hazard to health or the environment.

This confidence, although it may be excellent propaganda, hardly constitutes a sound basis for planning an energy policy which is heavily committed to a change-over to nuclear generation as rapidly as construction and logistical problems permit. (It is estimated that by 1980, some 10% of the generating capacity of the whole Comecon bloc, including Cuba and Mongolia, will be nuclear.)

The risk of accidental pollution, however, is appreciated by the planners. When the Institute of Radioecology and Nuclear Technology was founded two years ago at Kosice, Czechoslovakia, systematic research was begun, not only into the prevention of accidental escapes of radioactivity, but also into the ecology of living organisms in an environment polluted by radioactive waste. According to Milan Zaduba, the Director of the Institute, this is the only research institute in the world making such a study. This unique position, however, will not be maintained for long, since future plans for the institute envisage the gradual transformation of its activity into a programme of multinational cooperation with institutes in the Soviet Union, Poland, and the GDR.

● Bulgaria, as one of the less-developed members of Comecon, has a science and technology programme which is closely coordinated to that of the Soviet Union. At present, there are more than 30 agreements between the two countries involving 17 Bulgarian and 48 Soviet ministries and 20 bilateral working groups. To date, the flow of information has been largely in one direction, the Soviet Union having supplied Bulgaria with two-thirds of her machinery, equipment and complete plants, and with over 6,500 complete sets of technical and scientific documentation.

The flow of information, however, is now becoming somewhat more balanced. Uses are being found for Bulgarian technical documentation and a number of Bulgarian innovations are being introduced into

various branches of Soviet industry. Recently, a joint Soviet-Bulgarian Institute, Interprograma, was founded in Sofia, to develop software for automated control systems for production and management. The name of the institute is reminiscent of numerous Comecon projects and co-

ordinating centres, such as Interkosmos and Interatominstrument, and suggests that the new institute may possibly be expanded, in the future, into a similar multinational body.

The same possibility is also suggested by the recent agreement setting up Intervodochistka, the Comecon international R&D corporation dealing with problems of water conservancy and purification. Under this agreement, Bulgaria is charged with producing the various digital automated units which the corporation will need. From the communique issued by the 80th session of the Comecon Executive Committee in April, it would appear that Bulgaria's responsibility will be extended to providing similar equipment for other branches of the economy.

● Poland's inland waterways have been a matter for concern over a number of years, but it was not until January 1976 that a government decision finally settled the long-standing debate as to whether the waterways were worth modernising and developing at all. By this time, a number of weirs and locks had become urgently in need of repair, but in some cases, the conflicting demands of other sectors (notably the Ministry of Agriculture) have meant that repair work has had to be abandoned. Moreover, during the years of neglect, the waterways had become a convenient means of dumping industrial effluent and sewage, and now only 53% of effluent is treated at all,

the rest being allowed to discharge into rivers and lakes. Some 28% of the total length of the rivers is said to be "beyond economic utilisation".

At present, water consumption in Poland is 13,000 million cubic metres per annum, and is expected to rise to 18,000 million cubic metres in the next few years. While the civil engineers are struggling to produce a rational scheme for the renovation of river installations to cope with modern traffic, plans are also being discussed for the reduction of pollution. Suggested remedies include the use of more easily soluble detergents and pesticides, the recycling of agricultural effluent, and the development of water-saving technologies. One factory, the new Gorazdze cement works in Opole province, however, seems unlikely to add to the pollution problem. Although this plant is sited near the Odra, it needs the river as a means of transport only; the raw materials are prepared by a dry pulverisation process. "The advantages are obvious," commented *Dziennik Ludowy*. "Where there is no water, there is no effluent."

● According to Yu. Maksarev, the Chairman of the State Committee of the Soviet Union on Inventions and Discoveries, one in three of all patent applications in the world is made in the socialist countries. To cope with this vast flow of invention, the Comecon countries are at present engaged on working out a system to improve the national patent information systems of the member countries and also, by means of "division of labour, cooperation, and the centralisation of individual information processes", to increase the volume of information exchanged between member countries.

According to Maksarev, invention in the Comecon member countries is based on a study of world patent information. This study has not, it would seem, had any marked effect on the type of information patented by the Soviet Union, which, with some 100,000 'author's certificates' published in the last three years, is responsible for the majority of Comecon inventiveness. A close study of these 'certificates' reveals that in a significant number of cases, the novelty would be insufficient for a patent to be granted in any Western country, being at best the type of innovation which would be registered as a 'utility', and at worst simply minor modification which, in the West, would be incorporated as an unregistered factory improvement.

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