

at which the slugs will be sold and bought back, and Sir Ian thought the overseas purchasers may well prefer to get rid of their slugs at a short rate of irradiation rather than otherwise. That price must be settled as part of the contract, and in conclusion Sir Ian, pointing out that the changes are marginal and that plutonium is produced initially in this type of reactor, emphasized that the costs on the defence side must be incurred anyhow, and expressed the hope that no suggestion would get abroad that we are making fundamental changes in these reactors and hinder the development of a promising and vital civil nuclear programme.

### Developments in Nuclear Energy

In a written answer in the House of Commons on July 14, Sir Ian Horobin, for the Minister of Power, stated that the Safety Branch of the Atomic Energy Authority is being strengthened in accordance with the recommendations of the Fleck Committee, and the Government is preparing legislation to implement the policy of licensing and inspection which he had outlined on February 10. Also in a written answer, the Prime Minister said on July 15 that experimental work on thermonuclear fusion at the Atomic Weapons Research Establishment at Aldermaston is directed towards a better understanding of the mechanism by which high gas temperatures can be achieved. The encouraging results to date do not alter earlier predictions about the probable time-scale of the development of thermonuclear power. The Atomic Energy Authority is recruiting some additional staff for this work. Replying for the Prime Minister on July 17, Mr. R. A. Butler said that the agreement under negotiation with the Euratom Commission is likely to contain provisions similar to those in the agreement with the Italian Government, which provide for the supply of fuel by the United Kingdom and for assistance in the manufacture of fuel elements in Italy in due course. The role of the Euratom supply agency is a point to be taken into account in these negotiations and the Commission has given assurances that it does not intend to erect any obstacles to the development of nuclear power in its member countries. Pressed further on the point, Mr. Butler said he hoped that British technical contact with the Euratom Commission would be close.

### Engineering Research

In an oral reply in the House of Commons on July 1, Mr. H. Nicholls, Parliamentary Secretary to the Ministry of Works, representing the Lord President of the Council, said that to get its research results across to members, particularly at the shop-floor level, the Production Engineering Research Association had developed an effective liaison and advisory service, on which one-third of its resources were spent. Short instructional courses on new production techniques were held in the Association's Melton Mowbray laboratories, which had been attended by about 1,650 persons during the past year, and a mobile unit had provided 150 practical demonstrations in members' works. About 3,000 technical inquiries were answered each year. He undertook to see whether the connexion between East Kilbride, engineering firms and universities in Scotland was sufficiently close. In reply to a further question, Mr. Nicholls said that for some years the Mechanical Engineering Research Laboratory had

sponsored at universities, and itself conducted, research on heat transfer under various conditions of steam condensation and it had been demonstrated that condensation of steam on cooling surfaces as separate drops had great advantages in speed over normal film condensation. Chemicals had been developed which when applied to brass or copper surfaces produced this 'drop' condensation, and the method had been tried to some extent in industry. If it proved really successful the size of condensers would be halved.

### Distribution of Industry

In introducing the Distribution of Industry (Industrial Finance) Bill, which was generally welcomed and received an unopposed second reading in the House of Lords on July 15, Lord Mancroft said that since the Distribution of Industry Act was passed in 1945 the pattern of unemployment in the country had changed. In some places in the development areas Government-financed factories were at present themselves providing work for nearly 200,000 people, apart from work provided by firms attracted to those areas without Government assistance; but in other places outside the development areas unemployment had become high and might remain high. The Government believed it was as important to assist those places as to assist the development areas, and accordingly the Bill proposed to extend the powers given to the Treasury under the present Act to make grants or loans to industry in the development areas to include places outside those areas where the Board of Trade was satisfied that the money would assist to reduce a high rate of unemployment which might otherwise be expected to continue. The Bill would also enable grants or loans to be made to undertakings engaged in trade or business as well as in industry, and Lord Mancroft explained that the Bill purposely did not define either the places or the undertakings which would be covered. This was to ensure the maximum flexibility, and Lord Mancroft said that banks, insurance companies, hire purchase companies, hotels and office organizations generally might be included. He undertook to look carefully into a technical point raised by Lord Conesford regarding the bearing of the Bill on the proper distribution of industry. Viscount Hall, in welcoming the Bill, quoted the Board of Trade estimate that expenditure on factory building of £70 million under the original Act over twelve years represented 90 per cent of expenditure under that Act and that loans had totalled £6,900,000.

### Fuel Abstracts

ASKED for a statement in the House of Commons on *Fuel Abstracts* on July 2, Mr. H. Nicholls, as representing the Lord President of the Council, said in a written answer that before deciding to discontinue *Fuel Abstracts* the Department of Scientific and Industrial Research consulted the Ministry of Power, the National Coal Board, the British Coal Utilization Research Association and other organizations. Careful examination showed that the various sections of *Fuel Abstracts* were covered wholly or in part by other abstracting organizations. Discussions have taken place with the National Coal Board as to ways and means of arranging for abstracting organizations in Britain to extend their present coverage and for the provision of some form of joint index. The Society of Chemical Industry is increasing the