than £250,000 of that allocation could be spent on the museum and library. The target for 1973-74 is £365,000, of which about £90,000 will go in grants and to the units for the history of medicine at Oxford, Cambridge and University College London. It seems that the advisory panel feels that as the trustees wish to devote more funds in future to the promotion of study in the history of medicine the remaining £275,000 this year, and, possibly relatively less subsequently, will not be sufficient to finance the upkeep and development of both museum and library. The panel thinks it is important to develop the latter as a major source of information, not only about medical history but also about more modern medicine.

Museum collections have to be catalogued, maintained and well exhibited, all of which require time, effort and money. The trustees obviously believe that they cannot provide these and so justify the permanent loan of their collection to the Science Museum. There, they feel, the collection can have the care and attention it deserves.

This may be so, but the transfer of what was part of a charitable institution to the care of one funded by public money, regardless of the initial financial assistance proposed by the trust, must come under close DES scrutiny, especially when the time comes that the Science Museum needs more space for its total, ever increasing collection.

Cooperation in coal research

John Wilson

DISCUSSIONS now in progress between the National Coal Board (NCB) and the Office of Coal Research in Washington should lead to closer collaboration between Britain and the United States on research into better ways of using coal. Mr Leslie Grainger, NCB Member for Science, says that an agreement may soon be reached which will allow British access to the results of American research.

Naturally, the NCB's position at these discussions would be greatly strengthened if it were undertaking a substantial development programme of its own. The Board needs to set up pilot plants to test processes already studied in the laboratory and if this were done Britain could form a very useful partnership with the United States.

Formal proposals for such development work were to have been made to Lord Carrington, Secretary of State for Energy, but they have been delayed by the general election. The arguments in

favour of setting up the pilot plants are so strong, however, that they will probably be accepted by whichever party is returned to power.

The urgency with which Mr Grainger views these development plans may be judged from the massive increase in the money he thinks they deserve. In November last year he felt that about £20 million would be sufficient for the next five years. Now, barely three months later, he believes that perhaps twice that amount should be spent. That is the sort of money, he says, which must be made available—and quickly—if British industry is to compete in this new technology by the mid 1980s; the Office of Coal Research has already received \$400 million.

The processes which the board wants to see developed to the pilot plant stage include the gasification, liquefaction and fluidised bed combustion of the coal. It has already carried out much of the preliminary research on these projects and American interests have used its facilities. The Environmental Protection Agency, for example, has successfully burnt American coals in a fluidised bed combustion system at the NCB's Stoke Orchard Laboratories, Cheltenham, in some cases paying entirely for specific tests.

The Office of Coal Research, too, has been studying fluidised bed combustion systems at Leatherhead, Surrey, in conjunction with British Petroleum. It hopes to use the knowledge gained here to build a pilot plant at some 30 MW in the United States. The board would like to match this effort with a similar scheme of their own, possibly at Grime Thorpe, Yorkshire, where suitable back-up facilities are already available. This would cost approximately £2 million. Another alternative would be for the board to persuade the Americans to build their larger plant in Britain.

But in any case, Mr Grainger believes that much of the future development of fluidised bed combustion will take place in the United States because American electricity production, unlike British, is expanding. Fluidised bed combustion would thrive on an expansion of generating capacity based on a low grade fuel, and it can also greatly reduce the emission of both sulphur and nitrogen oxides in the flue gases. The keener edge to the environmentalist lobby in the United States and vast reserves of low grade coal combine to make fluidised bed combustion a more attractive proposition there.

The NCB hopes that any technical information gained by the United States in its development of fluidised bed combustion, or any of the other processes, will be re-exported back to Britain. Clearly, this sort of cooperation is the

only sensible way for industrial societies to solve their energy problems.

Family planning: a safer pill

Sally Owen

A NEW 'pill', containing an ultra-low dose of hormones, is expected to set a new standard of safety for oral contraceptives. Ovranette, which has been medically approved by the Family Planning Association, contains only one-third the amount of hormones in existing low-dose pills.

John Wyeth and Brother Ltd, manufacturers of the new pill, consider the lower hormone content to be an important step forward in oral contraceptive formulation, in line with the recommendation of the Committee on Safety of Drugs in 1969 that oral contraceptives should not contain more than 50 µg of oestrogen.

For some years now a small increase in the risk of blood clotting has been associated with the oestrogen in oral contraceptives. It is felt probable that doses lower than 50 µg a day make this increase even more minute. Following the committee's recommendation several low-dose contraceptives were brought to the market, most of them containing 50 µg of oestrogen.

Ovranette contains 30 µg oestrogen and 150 µg progestogen, which means that a monthly intake of about 11 mg oestrogen is reduced to 3.78 mg. This new pill should reduce the hazards of blood clotting not only because of its low oestrogen content but also because of the low dose and special nature of the progestogen involved.

Ovranette contains a progestogen called norgestrel which is not converted to oestrogen in the body. In fact it is actively anti-oestrogenic, reversing some of the changes brought about by oestrogen. It is thought therefore that the increase in blood clotting will be reduced even further.

One of the problems posed by low-dose oral contraceptives has been the unacceptable levels of breakthrough bleeding or spotting between normal menstrual periods. In clinical trials Ovranette compared well with other combined oral contraceptives, in that the incidence of intermenstrual bleeding was low. The cycle length among trial patients was invariably 28 days, with an almost unchanged menstrual flow. Other side effects, such as feelings of nausea, breast tenderness and depression, were less evident in trial patients who had been taking a pill containing larger amounts of hormones.