Of the three types of accelerator that Dr Adams's group could have considered, the missing magnet design is in a sense the obvious choice. It is the most technologically flexible, which is important if the machine is to be extended in energy beyond the limit of the 200 GeV Batavia accelerator in the United States, which is already nearing completion.

Moreover, the decision to boost the maximum energy by a factor of four or more can be left to depend on the results of the first round of experiments. In the "missing power" type of machine as at Batavia or the fixed energy type as in the original CERN proposals the options are far more limited, although the Batavia accelerator can, of course, be extended up to 400 GeV if required.

The inspiration for the new proposals no doubt derived from the rapid progress in developing superconducting magnets, notably at the Rutherford High Energy Laboratory in Berkshire.

GENERATORS

Breakdown in Detail

LACK of attention to detail in the design of 500 MW generating units was largely responsible for the plant breakdowns that led to voltage reductions last December. This verdict of the Select Committee on Science and Technology is clearly spelled out in the committee's first report to Parliament this session (HMSO, 20p) and follows chiefly from evidence given to the Select Committee by representatives of the Central Electricity Generating Board (see *Nature*, **225**, 496; 1970). Other faults exposed in the report are hairline cracks and defective welds in the boilers and "malicious damage".

The Select Committee began its investigation after the Minister of Technology had said in a written reply that he thought an official inquiry would not help. But Mr Arthur Palmer's committee decided that a brief fact-finding inquiry was in order and, although the report can find little room for major recommendations, it tells a sorry tale of annoying faults that eventually caused sixteen 500 MW generators to fail, and reduced power in the grid on five separate occasions.

The only remedies that the committee can suggest are that the CEGB should place design contracts with boilermakers before the final contracts for steam-raising plant are finalized, and that every effort should be made to test plant before it actually generates electricity into the national grid. Placing design contracts in this manner will, in the committee's opinion, encourage the setting up of strong design teams, who could be called on whenever precise data are needed for development work. As far as testing is concerned, however, the committee recognizes that little can be done to test large components on full load before they are installed in power stations, but it welcomes the plans for wider testing of the 660 MW sets which are now being developed.

Evidence submitted to the Select Committee by Mr E. S. Booth, the CEGB's member for engineering, also pointed to the possibility that some of the failures were caused by tools and other foreign bodies being deliberately left in vital parts of equipment. But both he and Sir Stanley Brown, chairman of the CEGB, said that site discipline is an intractable problem and, although methods have now been devised for detecting foreign bodies in plant, little can be done to prevent such occurrences.

The other major headache of the CEGB—corrosion of mild steel nuts and bolts in magnox reactors—also came under the Select Committee's scrutiny. It seems that the operating temperatures have now been reduced in all the affected reactors, and output has been cut back by a total of about 500 MW. But despite these setbacks, the reactors should enjoy at least their economic life. The committee believes, with the benefit of hindsight, that nuclear engineering teams need strengthening by people interested in corrosion problems of all kinds, and with the technical competence to handle them, and it also recommends that all items of equipment whose corrosion properties cannot be predicted with certainty should be removable.

HOVERTRAIN

New Track for Roskill

A NEW aspect to the discussion of where best to site London's third airport has been introduced by the recent disclosure that tests on a hovertrain capable of 300 miles per hour are to begin later this year on an experimental track just north of Cambridge. If successful, this would mean that an airport anywhere within a hundred mile radius of London could be reached in less than half an hour from the centre of the city. This may be the signal to banish the new airport once and for all from the heavily populated areas around London.

Engineers at Tracked Hovercraft Ltd, a subsidiary of the National Research Development Corporation, expect to carry out the first trial runs at the end of October 1970. The first three miles of track should be completed within the next two months and a further four miles will be constructed by the end of next year to permit the test vehicles to reach their cruising speed of 250 miles per hour.

The Roskill Commission investigating the question of London's third airport may now wish to extend the scope of its inquiry to include new technological developments. Tracked Hovercraft points out that the site at Foulness could be linked to the centre of London by a 25 minute hovertrain service to King's Cross, shuttling 100 passengers every two minutes in vehicles about the size of a standard railway carriage. The hovertrain would be driven by a linear induction motor, which is preferred to the French propeller driven model on the grounds of being quieter and more versatile.

Tests on the French hovertrain are already in progress at Orléans. With the foundations being laid now for a third airport at Paris, to the north of the city, the talk of a possible hovertrain link to the centre of Paris seems more than a flight of fancy. But although the technical feasibility of air cushion transportation is already well established, commercial viability seems to be a tougher proposition. The British Hovercraft Corporation, which makes the 150 ton SRN4 hovercraft, announced last week that it would be closing its factory at Itchen, Southampton, for lack of orders. The fifth model of the SRN4 is half complete and seems to be without a

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