

NATIONAL INSTITUTE FOR RESEARCH IN NUCLEAR SCIENCE

GOVERNING BOARD

Minutes of the meeting held at No. 5, Old Palace Yard, Westminster, London
S. W. 1 on 10th December, 1962

Present: Lord Bridges (Chairman)
Dr. J. B. Adams
Professor J. M. Cassels
Sir John Cockcroft
Professor P. I. Dee
Professor B. H. Flowers
Sir Alan Hitchman
Sir Harrie Massey
Sir Harry Melville
Sir Keith Murray
Sir William Penney
Sir John Wolfenden
Professor A. W. Merrison
Dr. T. G. Pickavance
Dr. J. A. V. Willis (Secretary)

Apologies for absence were received from Sir Robert Aitken, Professor Brambell, Sir William Hodge and Professor D. H. Wilkinson.

1. MINUTES OF THE LAST MEETING

The Board approved the minutes of the meeting on 22nd October, 1962.

2. COMMITTEES:

Visiting Committee - D.S.I.R. Research Studentships: With reference to Minute 7 of the Rutherford Laboratory Visiting Committee meeting of 2nd November, 1962. Sir Harry Melville said that he assumed that the Committee were not expecting any further action by the D.S.I.R. to assist students working at the Rutherford Laboratory, and Sir Harrie Massey confirmed that they were not.

The minutes of the other committees, which had been circulated, were noted without discussion.

3. PROGRESS AT THE RUTHERFORD LABORATORY - Paper 62/13

Dr. Pickavance presented his report which is summarised in paper NI/62/13. In response to questions he said that there was now confidence that the Nimrod vacuum vessels would be initially satisfactory. Their life under irradiation remained to be proved, but would only be known after the accelerator had been used extensively. With reference to the small amount of work going on on superconductivity applied to high magnetic fields, he confirmed that there was close contact with the work at R.R.E., Malvern.

4. PROGRESS WITH THE ELECTRON LABORATORY - Paper 62/14

4.1 Professor Merrison said that the Cheshire County Planning Committee had now reported favourably to the Ministry of Housing and Local Government on our application for outline planning approval for the Daresbury site. Some local objections were however being maintained. Professor Merrison had arranged a meeting with the local objectors in

January, but he thought that the Minister might order a public enquiry, which would cause a very serious delay.

The Board expressed their great concern at the possibility of delay and considered how they could help. The Chairman asked Sir John Cockcroft if he would press the Minister for Science's Office to emphasise the urgency to the Ministry of Housing and Local Government, and said that he would also talk to the Permanent Secretary of the latter Ministry. He also asked if Sir John Cockcroft and other members of the Board would be prepared to take part in meetings with the local people which Professor Merrison was arranging.

4.2 Reporting on progress on the buildings, Professor Merrison said that he was greatly impressed with the work which the Risley architects and civil engineers had done in the initial planning stage and was now discussing with them the conditions under which they might act as the consultants on the construction stage. He expected to bring a definite proposal to the Board for decision soon but at present several points were still under discussion, e.g. -

- (a) he was determined that all staff engaged full-time on the job should be on the site;
- (b) the suggested charges seemed to be high.

Professor Merrison said that Risley could offer a quick and efficient service. After discussion the Board agreed that the next stage should be submission of a detailed proposal for using the services of Risley. At this stage they decided against also considering the alternative of a private firm of architects.

4.3 Professor Merrison said that the main parameters of the machine had been settled. The first model magnet had been delivered but was not made to adequate tolerances. Enquiries about the second model had been sent to 12 or 13 firms in a determined effort to find a British firm which would do the job well, but in reserve there were two firms, one American and one continental, fully capable of doing it.

Professor Merrison confirmed that in due course more detailed project reports would be submitted.

5. THE RATE OF CONSTRUCTION OF THE ELECTRON LABORATORY - Paper 62/16

The Board considered paper 62/16. This gave estimates of the total cost of the Electron Laboratory agreeing approximately with the Treasury approval. The rate of expenditure forecast in the paper, however, was much quicker than had been allowed for in the five-year forecasts and in the 1962/63 estimates. It corresponded to a construction period of four years rather than five, and would indicate a total N.I.R.N.S. expenditure on nuclear physics exceeding the limit (as we understood it) laid down by the Minister for Science by £150,000 in 1963/64 and by £1,090,000 in 1964/65.

Sir William Penney emphasised the gap between the total N.I.R.N.S. expenditure expected to be approved by the Treasury for the four years 1963/64 to 1966/67 and the total for the same period which would be required if this latest forecast of the progress with the Electron Laboratory were to be fully realised. Precise figures could not be given because the amounts which the Treasury will approve will depend upon the outcome of the argument on the base line for the 2% per annum increase. Nevertheless the gap could amount to over £2 million assuming that the progress was so good that the shadow cuts provided for in the first three years had to be eliminated. In addition, some of the Electron Laboratory buildings cut out in order to keep within the total approved sum would have to be added later. Probably no very serious discrepancy would arise in 1963/64, but there could be great difficulty in 1964/65. Some warning should therefore be given to the Treasury during discussion of the 1963/64 estimates, assuming that the Board wished to press forward the attempt to build the Laboratory in four years.

... to the Board, and subject to the Board's decision, to be submitted to the Secretary of State for approval.

There was general agreement on the advantage of building the Laboratory as quickly as possible for reasons of economy as well as for scientific reasons; and the Board decided that the Treasury ought to be informed during the current discussions on the estimates, that the latest forecasts indicated that they might later wish to seek approval for some acceleration of expenditure, and that this would be considered in more detail next Spring in connection with the five-year forecasts 1 1964/69. In the meantime, no commitment of accelerated expenditure would be made. The Board were not prepared at present to give any actual figures for a possible acceleration, and did not at this stage wish to alter the five-year forecasts or the 1962/63 estimates already prepared.

6. COMMITTEES FOR THE ELECTRON LABORATORY - Paper 62/15

The Board gave general approval to the proposals made in paper NI/62/15. They decided to invite Sir James Chadwick to be the first Chairman of the Advisory Committee, and to ask him, if he accepted, whether he would be willing to attend meetings of the Board.

The Board invited Professor Cassels to be the first chairman of the Experimental Facilities Committee, and to suggest about six names for membership, in consultation with the other Northern universities. It was agreed that the Experimental Facilities Committee should in time assume the functions of a visiting committee for the Electron Laboratory.

It was agreed that the future university of Lancaster and the possible University of Chester should be kept in touch with the development of the Electron Laboratory, and encouraged to make use of it if they wished.

J. A. V. Willis,
Secretary.