

NATIONAL INSTITUTE FOR RESEARCH IN NUCLEAR SCIENCE

GOVERNING BOARD

Minutes of the meeting held at the Rutherford High  
Energy Laboratory on May 24th 1961

Present: Lord Bridges (Chairman)

Professor F. W. R. Brambell  
Professor J. M. Cassels  
Sir John Cockcroft  
Professor P. I. Dee  
Sir Alan Hitchman  
Sir William Hodge  
Sir Harrie Massey  
Sir Harry Melville  
Professor R. E. Peierls  
Professor D. H. Wilkinson  
Dr. T. G. Pickavance

Dr. J. A. V. Willis (Secretary)

Apologies for absence were received from Dr. J. B. Adams,  
Sir Robert Aitken, Sir Keith Murray, Sir William Penney and  
Sir John Wolfenden.

Dr. F. A. Vick took part in the discussion on the Atlas Computer (item 5).

1. Minutes of the last meeting

The minutes of the meeting on March 9th 1961 were approved subject  
to the following amendment:-

INSERT AFTER MINUTE 6:- (and re-number the following paragraph)

"7. Common Seal

The Board approved the design sketched in paper  
NI/61/7 for their common seal. "

2. Matters arising out of the Minutes

(a) Application of the Common Seal

The Secretary said that the seal had now been made. The  
Board authorised Sir Alan Hitchman to authenticate the application  
of the seal as alternate to the Chairman, and authorised  
Dr. Pickavance and the Secretary as the officers, one of whom must  
also authenticate the application.

(b) Siting of the proposed 4 GeV Electron Synchrotron

The Chairman said that one other matter arising from the  
previous minutes was the siting of the proposed 4 GeV electron  
synchrotron. The Liverpool/Manchester area had been agreed upon  
subject to the Glasgow 100 MeV electron linear accelerator being



approved. However, the latter had not been approved, and the siting of the 4 GeV machine therefore had to be further considered. Sir John Cockcroft, Sir Harrie Massey and Professor Wilkinson accepted the Chairman's request to study the siting, consulting Professor Dee and others concerned, and to report to the next Board meeting.

3. Progress at the Rutherford Laboratory

Dr. Pickavance's report is summarised in paper NI/61/8. The Chairman commented on the progress with the vacuum chamber, and Dr. Pickavance agreed that the satisfactory construction of the chamber was now much more assured, though the timetable was still a source of serious difficulty. In reply to a question, he agreed that there might be a delay which could affect the date of return of the hydrogen bubble chamber from C.E.R.N., but he would not like to change that date at present.

4. 4 GeV Electron Synchrotron

The Board considered the revised estimates prepared by the Institute staff as requested at the last meeting, and set out in paper NI/61/9. They decided that a contingency of £240,000 should be added to the capital cost estimate, making the total £3m. Secondly, the provision for a computer should be deleted and replaced by a statement that computing facilities would be required, but would not be needed separately if a nearby university had a powerful computer and could make time on it available. Thirdly, the additional non-recurring capital items; i.e. the external electron beams and hostel and flats for visitors should be shown in the summary as well as in table 4.

ACTION 1 The Board decided that a proposal for the electron laboratory should be prepared for submission to the Treasury, on the basis of the estimate in paper NI/61/9 revised as indicated in the above paragraph.

5. Helium Bubble Chamber

Sir John Cockcroft said that the proposal detailed in paper NI/61/10 had been considered and recommended by the Physics Committee. A strong scientific case for the helium bubble chamber had been made a year ago when the design study was under consideration, and this should be the basis for the submission of the scheme for Treasury approval if the Board adopted it.

The question whether funds for nuclear physics projects should be allocated on a national basis was raised in connection with the present position of the Glasgow electron linear accelerator proposal. It was recognised that comparison of the linear accelerator and helium bubble chamber proposal was difficult: for example, the linear accelerator would be a new research facility for a university whereas the bubble chamber would be part of an existing national facility. Nevertheless, the Chairman said that he considered that further thought should be given to this issue before a final decision was taken to proceed with the helium bubble chamber proposal. He was uncertain what would prove to be the best way of handling this difficult matter, and would have to consider the whole question very carefully. He undertook to keep those concerned informed of any developments.



The Board agreed to leave the matter with the Chairman for the present; Professor Wilkinson, however, expressed his great concern and restated his view that there was no basis for a close comparison between the two proposals.

6. Atlas Computer

In Sir William Penney's absence, Dr. Pickavance summarised the proposals in papers NI/61/11 and NI/61/12. He drew attention to the possibility that as requirements for computers increased and additional Atlas or similar computers became available in universities, the A.E.A. might take this one over.

Dr. Vick showed a plan of the proposed site just across Fermi Avenue from the entrance to the Rutherford Laboratory. This site could be re-incorporated in the A.E.R.E. without difficulty if necessary later.

Sir William Hodge said that the Royal Society had just appointed a committee to assess university computer requirements. They might also make suggestions about siting future computers. Four members were common to the proposed Institute Committee, namely - Dr. Wilkes (Chairman), Sir William Penney, Dr. Kendrew and Sir Harrie Massey. In reply to the Chairman, Sir William said that he did not think that there would be any confusion between the work of the Royal Society Committee and that of the Institute Committee. Since it was to be the function of the latter Committee to control and manage the use of the Harwell Atlas, the Committee's name should be chosen to indicate this.

It was agreed that a D.S.I.R. representative, to be nominated by Sir Harry Melville, should be added to the Committee membership listed in NI/61/12.

One point made concerning paragraph 4(2) of NI/61/11 was that the computing service group would not necessarily write whatever programmes users might request.

ACTION 2

The Board approved the setting up of a committee to supervise the NIRNS Atlas computer project, with a title chosen to indicate this function. They approved the membership proposed in paper NI/61/12 subject to the addition of a D.S.I.R. representative to be nominated by Sir Harry Melville.

+ ITEMS 7 AND 8

OVER

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Rutherford High Energy Laboratory,  
Harwell.

2nd June, 1961.



14th September 1961

NATIONAL INSTITUTE FOR RESEARCH IN NUCLEAR SCIENCE

GOVERNING BOARD

Minutes of the meeting on May 24th 1961

I much regret that minutes 7 and 8 were omitted by error from the duplicated copies of the draft minutes as circulated to members. These two minutes therefore still require confirmation, which I hope may be given at the meeting on September 18th.

The text is as follows:-

7. Financial Powers of the G.P.C.

The Chairman said that paper NI/61/13 proposed the proper authorisation of the General Purposes Committee to give financial approvals.

ACTION 3: On the understanding that all appropriate matters would be referred to them, as hitherto, the Board adopted the draft resolution proposed in paper NI/61/13 as follows:-

The Institute hereby authorise their General Purposes Committee to approve on their behalf any expenditure and any financial commitments which are within the powers of the Institute themselves. This authorisation is to have effect both as to the past, and in future until it is rescinded. The General Purposes Committee is the Committee as constituted under that name by the Institute on the 28th of May 1957, and as changed from time to time by the Institute in the past and in future.

8. Research Reactors

Sir John Cockcroft said that the recommendations on the covering page of NI/61/14 were made by the Research Reactor Committee. Sir Harry Melville agreed with the proposal, and drew attention to the generous action of A.E.I. Ltd. He suggested that the value of their contribution should be assessed and reported to the Board for information.

ACTION 4: The Board approved the support by the Institute of university work with the A.E.I. Merlin reactor under arrangements controlled by the Research Reactor Committee, as proposed in paper NI/61/14.

J. A. V. Willis  
Secretary

Rutherford High Energy Laboratory  
Harwell.