

High
A. E. R. E.
DIRECTORS' OFFICE

19 MAR 1957

NATIONAL INSTITUTE FOR RESEARCH IN NUCLEAR
SCIENCE

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N.I.(57)1st Meeting

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Minutes of the first meeting of the Governing Board held at the University Grants Committee, Belgrave Square at 11 a.m. on Tuesday, 12th March, 1957.

Present:- Rt. Hon. Lord Bridges - (in the Chair)

Professor P.M.S. Blackett
Sir David Brunt
Sir John Cockcroft
Professor J. Diamond
Mr. John Gridley
Professor H.S.W. Massey
Dr. H.W. Melville
Sir Philip Morris
Professor N.F. Mott
Sir James Mountford
Professor R.E. Peierls
Sir Donald Perrott
Dr. B.F.J. Schonland
Sir George Thomson
Dr. D.H. Wilkinson

Mr. P.J. Searby - (Acting Secretary)

1. Introductory

The Chairman welcomed the Members of the Governing Board and expressed his pleasure that all those who had been invited to serve had agreed to do so. He stated that he had arranged that the first meeting should take place without a fixed agenda in order that all matters relevant to the Institute could be discussed informally.

2. Name of the Institute

The Chairman said that provisionally the title "National Institute for Research in Nuclear Science" had been adopted. Members might wish to consider before the next meeting whether they wished to suggest any alternative. Dr. Schonland suggested the shorter title "Rutherford Institute" as a possibility. It was agreed that Members should consider this question and a decision could be taken at the next meeting.

3. Terms of Reference

The Chairman circulated a note (copy attached) containing:-

- (a) An extract from the statement made by the Financial Secretary to the Treasury in the House of Commons on the 14th February in which the setting up of the Institute was announced. (Copies of this statement had been sent to Members.)
- (b) An extract from proposals put to Ministers outlining possible terms of reference for the National Institute.

It was agreed that the Institute would adopt (a) as their formal terms of reference and would take note of (b) for their guidance.

4. Financial Arrangements

The Board noted that the finances of the Institute would be provided mainly by grants through the Atomic Energy Authority from the Lord President's Atomic Energy Vote and that provision had been made in Estimates under a separate sub-head. It was agreed that a note on financial arrangements should be prepared for the next meeting.

5. Site of First Accelerator

The Chairman said that there were two main matters requiring immediate decision. The first of these was the determination of the precise specifications for the large accelerator, proposals for which had been discussed between the A.E.A. and Universities for some time. The second matter was the site for this accelerator. This could be either at Harwell or elsewhere, and the decision would affect a number of the other important decisions the Institute would soon have to take. It was therefore important to reach an early decision.

In the course of discussion the following points were made:-

- (i) The advantages of the Harwell site included the suitability of the chalk subsoil for the heavy machine involved, the immediate availability of a site, and adequate supplies of power and water, without the need for securing planning consent etc., and the existence of other facilities at A.E.R.E. (which would be made available for the Institute and would thus permit the Institute to make an immediate start at its first main site). The Institute would also benefit from having an existing scientific establishment adjacent to their own facilities.
- (ii) On the other hand, Harwell was not ideally situated geographically for the convenience of the largest number of Universities, nor was it necessarily desirable, despite the advantages that there might be in having a single centre at which the maximum possible exchange of views between physicists could take place, to concentrate all research work on nuclear science in one area.
- (iii) It was essential to make an immediate start if possible on work on this large accelerator. The immediate availability of a site and services at Harwell was, therefore, a strong point in its favour.
- (iv) It was important to determine whether, if the decision were taken to site the first accelerator at Harwell, this would necessarily imply siting other machines there also. Would it be feasible for some of the Institute's other facilities, which would be built later on, to be situated elsewhere? There was general agreement that complete centralisation was not necessary. It was too early to be definite, since the course of future developments was still uncertain, but it was improbable that it would be appropriate to site a second accelerator at Harwell. Duplication of the ancillary facilities for a second accelerator would probably be required wherever that machine was built.

- (v) It would, however, be some years before a decision to build a second accelerator would be taken. A more immediate prospect was a demand for research reactors for use by University staff. It would probably be undesirable to build any more such reactors at Harwell; some existing facilities there could be made available to the Institute. There might be a case, which would no doubt be discussed by the Board, for building a reactor for use by Northern Universities. If so, such a reactor would probably be situated at a point most convenient for them.

Summing up the discussion the Chairman said that the general consensus of opinion was that the first accelerator should be built at Harwell. This decision did not imply any decision that all the Institute's facilities would be concentrated at Harwell and there was indeed a presumption that subsequently certain facilities owned and operated by the Institute would be for use by Universities and others would be sited elsewhere. It was important that this decision should be announced in such a way as not to commit the Institute on future policy or to convey the wrong impression. He proposed that a draft statement should be prepared and circulated for the agreement of the Board before their decision was announced. This was agreed.

6. Appointment of Physics Committee

The Chairman said that it was important to examine urgently the proposals that had been made for a large accelerator. This could best be done as the first task of the Physics Committee of the Institute which it would be necessary to set up. He proposed the appointment of such a committee which would contain a number of physicists on the Governing Board and additional Members with particular experience in the field.

It was agreed that the Committee should consist of:-

Professor Blackett
Sir John Cockcroft
Professor Massey -
Professor Mott -
Professor Peierls
Sir George Thomson
Dr. Wilkinson
and
Professor Dee, Glasgow University
Professor Skinner, Liverpool University
Mr. D.W. Fry, Harwell

Sir John Cockcroft was invited to be Chairman of the Committee, whose first task would be to examine proposals and designs for the construction in this country of a large accelerator and to make recommendations to the Board at their May meeting on the specifications for such a machine and the action required to bring it into being. It was agreed that the Physics Committee should have power to invite anyone they wished to attend their meetings. /Since the meeting, Dr. Pickavance of Harwell has been appointed as temporary Secretary to the Committee./

7. Status and Functions of the Institute

The Chairman said that the Governing Board could be said to be an emanation of Central Government since all the Members were appointed by Ministers. They need not, however, necessarily adopt the same practice as any other emanation of the Crown. Their main aim was to facilitate a partnership between the Atomic Energy Authority, Universities and others (e.g. D.S.I.R., industry) for the purpose of carrying out research in the nuclear field. To ensure full and free partnership, it seemed important that as far as possible the staff of the Institute should be obtained by secondment from the Atomic Energy Authority and the Universities. If the Institute's staff were recruited for life it might be difficult to maintain an effective partnership with the requisite flexibility of operation. There was general concurrence with these views, though it was pointed out that there might be some practical difficulties and it might, on occasions, be desirable to depart from this general rule; for example some permanence among the administrative staff might be necessary if the proper relationship of the Institute to both the Authority and the Universities were to be maintained.

There was general discussion of the relationship between the Institute and the Universities. It was agreed that it was essential that the character of Universities should not be destroyed and that the existence of independent Physics Departments in Universities should be maintained. Provided, however, University Departments had adequate staff there should be no difficulty in their providing staff to participate for a period in the activities of the Institute. It would, however, be necessary to stress to the University Grants Committee that the existence of the Institute made it important for there to be a high ratio of staff to students in Physics Departments.

Reference was made to the future of those Physics Departments at present operating large scale nuclear machines. Would these machines be replaced and would other Universities without such machines be provided with them now that the Institute had been set up? Dr. Melville explained that the present policy of the Government was that the Department of Scientific and Industrial Research should maintain the existing machines and should finance the building of machines of a similar capacity in other Universities where appropriate.

It was agreed that all these matters would have to be examined in greater detail at a later stage when the functions of the Institute were more closely defined.

8. Future Business

X The Chairman said that it had already been agreed that a paper should be prepared on the general financial arrangements of the Institute. He suggested that a further paper might also
X be prepared on problems of staffing. He would undertake, after discussion with representatives of the Universities and of the A.E.A., to produce papers on these subjects.

The Chairman also suggested that it would be essential at some stage to set up a small Personnel Committee which should presumably consist of one of the Vice-Chancellors, Sir John Cockcroft, one of the Physicists on the Board and probably himself as Chairman, to consider the senior posts in the Institute.

After discussion it was agreed that the formation of this Committee and the senior posts which would have to be created should be discussed at the next meeting of the Board when it would be possible to examine staff requirements in the light of greater knowledge of the activities of the Institute.

X It was also agreed that Sir John Cockcroft would prepare a paper setting out details of the facilities at A.E.R.E. that it was likely could be made available for use by the Institute. This paper might also indicate the various lines along which the activities of the Institute might develop. When this paper had been examined it would be desirable to consider in greater detail the administrative arrangements that would be necessary.

9. Press Statement

The Chairman suggested that to avoid constant enquiry from the Press as to the activities of the Institute, it would be advisable to issue a Press statement announcing that the first meeting of the Institute had been held. The composition of the Governing Board was being announced in Parliament that day and it would be appropriate to issue a Press Statement shortly after. A draft statement was discussed and, as amended, agreed. [This has since been issued to the Press.]

10. Reports to Ministers

The Chairman said that it would be appropriate for the Governing Board to submit reports to Ministers from time to time on their activities.

11. Future Meetings

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NOTED
The next meeting of the Governing Board was arranged for Friday, May 17th at 11 a.m. in the Board Room, Treasury Buildings, Whitehall. Further meetings of the Board were provisionally fixed for 11 a.m. on Wednesday, June 19th and for the afternoon of Friday, July 19th. Members were asked to keep these dates free. If there were not sufficient business to justify a meeting at any time, Members would be informed as soon as possible.

15th March, 1957

- (a) Extract from a statement by the Financial Secretary to the Treasury in the House of Commons on Thursday, 14th February, 1957 announcing the setting up of the National Institute for Research in Nuclear Science.

"..... The main object of the Institute will be to provide, for common use by universities and others, facilities and equipment which are beyond the scope of individual universities and institutions carrying out research in the nuclear field."

- (b) Extract from proposals put to Ministers outlining possible terms of reference for the National Institute

- "..... 1. To operate, and when necessary provide, facilities which are beyond the scope of individual institutions such as large accelerators, nuclear reactors and special laboratories in the nuclear sciences and related fields for the use of University and other research workers.
2. To encourage appropriate use of its facilities by scientists of colleges, universities, the Atomic Energy Authority and industrial laboratories.
3. To co-operate with the Atomic Energy Authority in the solution of specific problems which utilise the Institute's unique facilities or the special talents of its staff.
4. To make use of the Institute as an important auxiliary in the training of scientists and engineers and otherwise to assist in the dissemination of scientific and technical knowledge."