

NATIONAL INSTITUTE FOR RESEARCH IN NUCLEAR SCIENCEGENERAL PURPOSES COMMITTEE

Minutes of the meeting held at the office of the Royal Fine Art Commission, 5, Old Palace Yard, Westminster on Friday the 21st April, 1961.

Present:-

Lord Bridges - Chairman
Sir Robert Aitken
Mr. A. E. Drake
Dr. F. A. Vick
Professor D. H. Wilkinson
Dr. T. G. Pickavance
Mr. P. Bowles
Dr. J. A. V. Willis - Secretary

An apology for absence was received from Professor Peierls.

1. Minutes of the last meeting

The Committee approved the minutes of the meeting held on February 10th 1961. Comments were made on the following points:-

Minute 2 The investigation mentioned has been completed for one of the contracts, and is well in hand for the other. A written report will be submitted.

Minute 5 It was reported that the Treasury had now agreed to the placing of the fixed-price contract with Marston Excelsior at £1,200,000 and to the revised total estimate of £11.2 million for Nimrod.

Minutes 10 and 11 It was reported that the site of the heavy laboratory and office block had been levelled, and tenders had been invited for the buildings on a "package" basis. The estimated cost of the office building had been reduced to £90,000. Dr. Drake said that he had been satisfied on the need for 10,000 sq.ft. of office building, after further information had been submitted as requested by the Committee.

Minutes 12, 13 and 16 The Secretary reported that contracts had now been signed for the purchase of 21 houses, and 5 more were under negotiation. Houses built on our own sites could not begin to become available before 1962. It would probably be necessary to ask the committee for authority to buy some further houses in the mean time.

2. Financial Statement Paper 61/16

Comment was made on one or two items in Schedule II of the financial statement, in particular the contract with Alsatian Security Ltd., for the services of dog handlers and dogs. The Secretary said that substantial thefts of copper had occurred. The loss was the responsibility of the contractor, but some delay to the construction was involved and anxiety had been caused about possible increase of theft to a really damaging extent. The arrangement was temporary pending completion of the fence. The Chairman said that he had

approved this proposal after enquiring into it.

It was agreed, particularly in view of the revised approval powers considered later in the meeting, that an additional column should be added to Schedule II in future stating by whom each item was approved.

3. Nimrod Vacuum Chamber Paper 61/17

After the details given in the paper had been discussed, members asked whether it was now considered certain that the chamber would work as planned. Dr. Pickavance and Mr. Bowles said that this was now almost sure, and confirmed that their main worries now related to production details and dates. Now that the fixed price contract was agreed, it was necessary to see that the contractor did not hurry unduly, before production difficulties had been overcome, although at the same time the completion date of the whole machine was likely to be delayed by the vacuum vessel. Dr. Pickavance said however that he could not delay other components, or related projects such as the R 2 building extension because of expected delay over the vacuum chamber.

Mr. Bowles said that there would be a large number of points of production technique to settle - perhaps 40 or 50 - and in reply to a question he said that these should be solved within the fixed price, although, as recognised in the estimate, there might be actual changes in the specification, which would increase the price. It was also noted that substantial current research effort from the Rutherford Laboratory was being used in the solution of the problems, and the cost of this was not charged against the capital grant.

4. Delegation of Approval Powers Paper 61/18

The Chairman said that at some future time it might be appropriate for the Institute to assign financial responsibilities to one member of the Governing Body, or to appoint a Finance Officer. At present, however, while possible changes in the arrangements for financing the Institute were under discussion, he would be content to continue to deal as Chairman with approvals of the kind indicated in the paper.

The Committee considered the proposals in the paper to be in general satisfactory, and broadly in line with the arrangements in the AEA. The following points were however agreed:-

- (a) Amenity schemes over £2,500 are to be referred to the London Office of the AEA.
- (b) Travel abroad by university staff need not be referred to the Director, Rutherford Laboratory for approval when it forms part of the work under a university agreement, and is covered by the terms of the agreement.

ACTION 1 Subject to the amendments (a) and (b) above, the Committee approved the proposals in paragraphs 3 and 4 of Paper NI/GP/61/18.

Before considering approval of a sum for foreign travel in 1961/1962 the Committee asked for a report on the cost in the past year. They also considered that the cost of long-term postings abroad should be treated separately, and not included in the sum approved for ordinary foreign travel.

5. Approval Powers on the Oxford Electrostatic Generator Project
Paper 61/19

One correction was made to this paper: capital payments by the Institute will be re-charged via Oxford University, not directly to the D.S.I.R.

The Committee agreed that the delegation of approval powers on this project should be determined by the management committee of the project.

6. Review of Building Plans Paper 61/20

This paper was taken as a report for information.

7. Centralised cooling scheme Paper 61/21

In the discussion of paper 61/21 it was pointed out that the scheme does not cover the whole laboratory area. The scheme proposed is estimated to use all the spare capacity of the main cooling towers. The possibility of mist from the towers was also mentioned. This would occur, but the additional amount due to the present scheme would be very small.

ACTION 2 The Committee approved the scheme proposed in paper NI/GP/61/21 at a total cost of £17,250 including fees.

8. Plant Store Paper 61/22

Mr. Bowles described the need for a storage building in place of space no longer available at Didcot depot. He also made a report on the tenders, which had now been received. He asked for approval to accept the tender of Beecham Buildings Ltd. at £32,663. The tenders by Chivers, were slightly lower but the Beecham building had more floor space, was cheaper to maintain, was more versatile in its uses, and had better windows. Subject to detailed review by the Contracts Department the Committee considered that a case had been satisfactorily made for selecting the Beecham tender. In view of the satisfactory tenders, and the small amount of fees presumably needed, they approved a smaller sum than was asked for in the paper.

ACTION 3 The Committee approved the proposal in paper NI/GP/61/22 at a total cost of £40,000. Subject to the usual reference to the Contracts Department they approved the acceptance of the tender by Beecham Buildings Ltd.,

9. Roads, Car Parks and Paths Paper 61/23

In the discussion of Paper 61/23 Mr. Bowles reminded the Committee that the standard of construction of the car parks had been cut down to a thin layer of asphalt on ashes. The experts predicted that the standard would not be satisfactory, but he thought it a worth-while experiment. Even this sort of construction cost £30 per car parked.

It was agreed to omit the tarmac carpet on the concrete roads, in order to make a saving of some 10% in the cost of the roads.

It was agreed that the detailed alignment of the main access road and fence at the east end of the site should be discussed further with Dr. Vick before work there was started.

ACTION 4 The Committee approved the scheme proposed in paper NI/GP/61/23 at a total cost of £63,565, less an amount to be agreed with the AEA London Office, due to the omission of tarmac dressing on the concrete roads.

10. Extension to Control Room Paper 61/24

It was reported that after the paper had been sent to the Committee it had been concluded that the extension ought to be charged to the main Nimrod project, and therefore came within the powers of the Nimrod project Committee. Nevertheless, Dr. Vick having no objection, the Committee considered it. It was agreed that the extension was necessary, and that the cost per sq.ft. though high, was adequately explained.

ACTION 5 The Committee approved the extension of the control room proposed in paper NI/GP/61/24 at a total cost of £14,375.

11. Development of the "parasitic area" Paper 61/25

In putting forward the case for developing the "parasitic area" Dr. Pickavance made it clear that this was not the second main experimental area, which he would expect to propose after actual experience of experimental work with Nimrod. It was agreed in discussion that the developed "parasitic area" would permit more efficient deployment of the beam equipment and experimental equipment even if only the first £1 million worth of beam transport equipment were available. The estimated £334,000 worth of beam transport equipment therefore need not necessarily be associated with the scheme.

The Committee considered that the proposed development was required for the better use of Nimrod, but since detailed scientific consideration were involved, and the amount of money was large, they asked for the views of the Visiting Committee to be ascertained.

ACTION 6 Subject to endorsement of the requirement by the Visiting Committee, and subject to further development of the estimate the Committee approved the extension of the parasitic area building, as proposed in paper NI/GP/61/25 at a cost provisionally estimated at this stage at £200,000 plus £30,000 fees.

12. Roofing in of hard-standing adjacent to the main Nimrod experimental Area. Paper 61/26

The Committee considered the need for extending the area available for detecting apparatus and ancillary equipment, as described in the paper and explained by Dr. Pickavance. They agreed that this work, for which preparations had been made in the original scheme, should be put in hand now, since planning of the layout of beams now showed it to be necessary. The estimated cost, only roughly estimated at this stage, appeared to the Committee to be high, considering that the floor foundation was already there. £6 per sq.ft. was suggested as more appropriate than £7 in the circumstances.

ACTION 7 The Committee approved the proposal in principal. They noted the present provisional cost estimate of £71,500 plus fees, and agreed that they would be prepared to take by correspondence a paper revising the estimate if necessary.

13. Spectrograph Magnet for the P.L.A. Paper 61/27

Dr. Pickavance described in some further detail the spectrograph magnet proposed in paper 61/27. It would be complementary to the high-resolution multi-gap magnet designed in co-operation with Manchester University, being more of a general-purpose magnet suitable for protons and secondary particles (e.g. deuterons) from the PLA and particularly suitable for many experiments on elastic and inelastic scattering with polarised protons.

ACTION 8 On the understanding that details of the design would be fully discussed with users, the Committee approved the proposal in paper NI/GP/61/27 for a single channel spectrograph magnet at a total cost of £30,000.

J.A.V. Willis,
Secretary,
Rutherford High Energy Laboratory,
Harwell.

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