

NATIONAL INSTITUTE FOR RESEARCH IN NUCLEAR SCIENCE

GENERAL PURPOSES COMMITTEE

Minutes of the meeting held in the Board Room, Treasury Buildings, Whitehall at 11 a.m. on Thursday October 22nd 1959

PRESENT:-

Lord Bridges (in the chair)
Professor R. E. Peierls
Sir Donald Perrott
Professor D. H. Wilkinson
Mr. P. Bowles
Mr. G. W. Dixon
Dr. J. A. V. Willis (Secretary)

Apologies for absence were received from Mr. D. W. Fry and Sir James Mountford.

1. Minutes of the last meeting The Committee approved the minutes of the meeting on July 29th, NI(GP)(59) third meeting.
2. Revision of the Nimrod estimate, and Nimrod contract approvals

The Committee considered paper (59)31 together with papers (59)29, 43, 44 and 45 in which specific requests for contract action on Nimrod are made.

- 2.1 Magnet In addition to the detailed information given in paper (59)31 Dr. Pickavance in reply to questions confirmed that the designs now took advantage of all the lessons from the coil failures on the Cosmotron. He was also asked whether it was necessary to use non-magnetic materials in the redesigned octant end structures, since field correcting devices would be needed in any case. He said that it was desirable in order to minimise the corrections required, and this was agreed. In connection with the revision of Messrs. Sankey's contract, Mr. Bowles said that more than half the steel had now been bought at less than the estimated cost, and the price for the balance was about to be fixed. The uncertainty on this account would therefore soon be eliminated.

ACTION 1 The Committee took note of paper NI(GP)(59)45 and approved the increase in the value of the contract with Joseph Sankey & Sons Ltd from £1,394,000 to £1,488,529

Mr. Bowles introduced paper (59)29, asking for approval for the purchase of five spare magnet sectors. He said that since this paper had been drafted, the price on the main contract had been fixed, and it was necessary to amend the amount requested for the five additional sectors to £21,600 rather than £20,000.

ACTION 2 The Committee took note of paper NI(GP)(59)29 and approved the purchase of five additional magnet sectors as Nimrod spares. They approved the increase in Messrs. Joseph Sankey's contract of £21,600 to cover the cost of these five sectors. This increase is additional to that approved in Action 1.

2.2 Vacuum System

The Committee took note of the large increase in the development cost of the vacuum chamber. They recognised that the cost of manufacture could not yet be re-estimated. It might be increased either directly owing to increased complexity of manufacture or through a need for multiple tooling to recover time. At present, however, there was no clear indication of any increase in production cost and the estimate had not been raised on this account.

ACTION 3 The Committee took note of paper NI(GP)(59)44 and approved the proposal to increase the financial limit of the contract with Marston Excelsior from £100,000 to £230,000.

2.3 Power Supplies

During the consideration of the revision of the power supplies estimate, attention was drawn particularly to the smallness of the sum of £20,000 now allocated for further development connected with the rate of rise of magnetic field near injection. Dr. Pickavance replied that this development could only be carried out after the first operation of the accelerator. At present he did not know what it would involve but it was clear that the very large saturating choke originally planned would not be needed. The Committee accepted the figure of £20,000 as a very rough estimate.

Mr. Bowles outlined the additional requirements for the power supply equipment recommended after consideration of a serious failure of the Bevatron power supply in conjunction with engineers from Berkeley and from Lloyds Register and the Factory Inspectorate.

ACTION 4 The Committee took note of paper NI(GP)(59)43 and approved the recommended additions to the English Electric and Brown Boveri contracts at a cost of £34,000.

Secretary's note Approximately £32,000 of this sum is on the English Electric contract and £2,000 on the Brown Boveri contract.

2.4 Buildings

The Committee noted that the revised estimate for Mechanical and Electrical services included provision for future minor developments, and they approved this.

2.5 Revised Estimate

Turning finally to the total revised estimate shown on page 3 of paper (59)31, the Committee approved the new figure of £8,298,000. Sir Donald Perrott said that he would not be going to the Treasury for approval of this figure, as the previous figure had recently been approved. He suggested that for the next meeting a revised estimate including a contingency figure should be submitted. This was agreed.

Two minor points made with regard to the table on page 3 of the paper were, firstly that in note (g) the words "at this stage" should read "before this stage" and secondly that in the breakdown of building estimates "Architects" means building and civil engineering. (Not Architects' fees).

ACTION 5 The Committee approved the revised estimate of £8,298,000. They asked for the inclusion of a realistic contingencies figure in future estimates.

3. Nimrod Quarterly Statement

The Committee took note of paper (59)30. In appendix II they noted the expected under-spend of £515,000 in 1959/60, with a correspondingly increased expenditure in 1960/61.

(Secretary's Note. The Secretary stated at the meeting that the increased figure of £3,320,000 in 1960/61 had been included in the estimates submitted to the AEA on Sept 1st. This was incorrect. The figure submitted was £2,500,000.)

4. Quarterly Statement of the Nuclear Equipment Project Committee

At the Chairman's request Dr. Pickavance explained the formation of the Nuclear Equipment Project Committee and stated the terms of reference as given on the last page of paper (59) 34.

He confirmed that the Nuclear Equipment Project Committee was to carry out nominated projects, not to decide on projects, nor to supervise the experimental programme. The Committee welcomed the formation of the N.E.P.C. and approved the form of their quarterly report, based upon that of the Nimrod Project Committee.

5. Quarterly General Financial Statement

The Secretary said that schedules I and II of paper (59)33 were quarterly accounting statements on a commercial basis. Schedule III was a statement of commitments and expenditure, not reported by the Nimrod project committee or the N.E.P.C., while Schedule IV was the quarterly review of the progress of expenditure in relation to estimates.

The Committee decided that they would only require to see the commercial accounts annually, and that they did not require the top half of schedule III at present.

With regard to schedule IV, they noted the estimated under-spend not only on Nimrod, but on several minor items also, and asked Dr. Pickavance to expedite any work that he could.

6. The Control of Expenditure

The Chairman said that paper NI(GP)(59) 34 described a sensible system based on that of the AEA. The proposed delegation of powers from the Committee was in most cases the same as at present. He thought that the system might need some changes from time to time but that the present paper would make a suitable start.

The Secretary drew attention to note 7 of the paper which explains that the arrangements for approval of building items are still under discussion because of the recent introduction of the AEA Southern Works Organisation. Sir Donald Perrott agreed to discuss any problems arising from this with Dr. Pickavance and the Secretary outside the meeting.

ACTION 6 The Committee approved the proposals for control of expenditure set out in paper NI(GP)(59)34

7. Heavy Liquid Bubble Chamber

Dr. Pickavance introduced paper NI(GP)(59)35. He reminded the Committee that the Board had decided that if this project were sponsored, it should be by the Institute. At the Board's request, therefore, the Physics Committee had investigated the proposal very thoroughly, and had now recommended it.

Dr. Pickavance said that since the preparation of paper (59)35, he had discussed methods of management with Professor Massey. Professor Massey would prefer the ordering of capital equipment to be done by the Institute (through the AEA). It would therefore be appropriate for the financial management to be done by the Institute, and if the project were approved, he would propose to make it a nominated project of the Nuclear Equipment Project Committee, on which University College representatives would sit for this purpose. Current expenses at University College would be covered by a University agreement similar to that already in operation.

The Committee decided to adopt the project and approved the suggested method of management.

ACTION 7 The Committee endorsed the proposal in paper NI(GP)(59)35 and instructed the Secretary to prepare a paper, including a realistic contingency figure, for submission to the AEA and the Treasury for approval of this project.

8. Prefabricated office accommodation

Dr. Pickavance explained the need for additional office accommodation as set out in paper (59)36. Mr. Dixon assured the Committee that the prefabricated buildings would be of pleasing and solid appearance, and would have a normal life of 40 - 50 years. The cost of about £3 to £4 per sq.ft. inclusive of services and furniture was based on firm quotations for the buildings.

ACTION 8 The Committee took note of paper NI(GP)(59)36 and approved the proposed scheme for accommodation for 120 non-industrial staff at a total cost of £45,000.

9. Pulse Analyser for the PLA

ACTION 9 The Committee took note of paper NI(GP)(59)38 and approved the proposed purchase of a pulse analyser at a cost of £12,000.

10. Contract for Phase II Buildings

The Committee took note of paper NI(GP)(59)37 and notwithstanding Messrs. Chivers' revised offer at a slightly higher price, they confirmed their previous decision to place the contract with Chivers. Mr. Dixon said that apart from the great inconvenience of having another contractor on this particular job, he thought it most unlikely that a lower price could be obtained elsewhere.

The committee took note of the action of the Rutherford Laboratory Building Committee in reducing the Phase II scheme to keep the estimate within the existing approval (NI (GP)(59) first meeting Action 3)

ACTION 10 The Committee approved the placing of the contract for the Phase II building and civil engineering work with Messrs. Chivers.

11. Building for Ancillary Maintenance Services

ACTION 11 The Committee approved the proposal in paper NI(GP)(59)42 for an ancillary maintenance services building at an estimated total cost of £37,000. They approved the placing of the site work, roads, foundations etc. with Messrs. Chivers, at an estimated cost of £10,000, but called for competitive tenders for the supply of the buildings.

12. Preparatory work for future extension of Nimrod Experimental Area

ACTION 12 The Committee took note of paper NI(GP)(59)41 and approved the proposed tunnel at an estimated cost of £10,000.

13. Modification to Coseners House

ACTION 13 The Committee approved the proposals in paper NI(GP)(59)40 to modify Coseners House at a cost of £9,500 and to place a contract with Messrs. Chivers, the lowest tenderers, for the building work at a fixed price of £5,230.

14. Staff Complement 1959/60

ACTION 14 The Committee noted the numbers on NIRNS complement as shown in paper NI(GP)(59)39. They authorised an increase in the 1959/60 complement from 43 to 55.

15. Next Meeting . The date of the next meeting was not fixed.

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

2nd November, 1959.