

NATIONAL INSTITUTE FOR RESEARCH IN NUCLEAR SCIENCE

GENERAL PURPOSES COMMITTEE

Minutes of the Meeting of the General Purposes Committee held in the Board Room, Treasury Buildings, Whitehall, at 2.45 p.m. on Friday, October 24th, 1958.

Present: Lord Bridges (in the Chair)
Professor R. E. Peierls
Sir Donald Perrott
Professor D. H. Wilkinson
Mr. P. Bowles
Mr. D. W. Fry
Dr. T. G. Pickavance
Dr. J. A. V. Willis (Secretary)

1. ABSENCE

An apology for absence was received from Sir James Mountford.

2. MINUTES OF THE LAST MEETING

2.1 The Committee approved the minutes of their third meeting of 1958.

2.2 With reference to hostel arrangements the Chairman said that as the Board had now approved the recommendation to take over Cosener's House, formal arrangements with the A.E.A. should be made accordingly.

With reference to the alterations to Cosener's House, the Secretary said that a proposal and estimate would be submitted to the next meeting.

2.3 With reference to the magnet power supply, Mr. Bowles reported that the contractual negotiations with the English Electric Co. had been satisfactory and on a comparable basis the cost of the equipment of the new type was actually less than that of the old. The details were complicated and he proposed to put them in the form of a report to the Committee.

3. QUARTERLY FINANCIAL STATEMENT

Dr. Pickavance introduced paper N.I.(G.P.)(58)16, and pointed out that the estimated cost of the plant had increased by £90,000 to £5.15 million, due to an increase in the estimated cost of the injector. Other changes in the plant estimate resulted from no longer treating the cooling system as a separate item, but including it partly in the injector and partly in the vacuum system. The estimated cost of the building showed a small decrease of £16,000 as compared with last quarter and Dr. Pickavance pointed out that this was due in part to the elimination of certain features, the bubble chamber room, the hydrogen plant room and the beam tunnels. The purpose of this change was to leave more flexibility for later developments. In reply to Professor Wilkinson, Dr. Pickavance said that proposals for more suitable beam tunnels would be brought in due course before the appropriate technical committee.

Turning to Appendix II, Dr. Pickavance said that the estimates of the expenditure in 1959/60 on plant had altered slightly since the last meeting but not fundamentally. It was still estimated that we would want to exceed the forecasts made a year ago of expenditure in 1959/60 by about the same amount as we would underspend in 1958/59. The latest estimate of the amount of expenditure in 1959/60 on contracts already committed was £1.44 million, and contracts likely to be placed in the next three months would require an

additional expenditure of 0.28 million. Thus if no more money were to be available than the £1.7 million included in the forecast made a year ago, we should by the time of the next meeting have committed all the funds available for 1959/60 and would not be able to place any more contracts for about a year. The Chairman said that this was a situation that we must clearly not get into, and we should therefore know now if there was going to be no more money. Sir Donald Perrott said that he was confident that expenditure would be approved in excess of the amount included in the forecast estimates a year ago. The estimate which he was putting forward (including buildings) was £3.44 million as on the bottom line of Appendix II. He thought that the Treasury might seek to make some cut in this but he did not think that a drastic cut would be made and he advised the Committee to proceed on the basis that the money which would actually be needed would be available. The Secretary said that he had asked the A.E.A. to increase the estimate to the figure of £3.52 million shown in the top table of Appendix II. The Committee, however, agreed with Sir Donald Perrott that the actual expenditure was likely to fall below the estimate and that the figure of £3.44 million need not be increased.

ACTION 1 The Committee authorised the Project Committee to proceed with the contract action and construction on the assumption that the additional funds actually required in 1959/60 would be available.

Turning to Appendix IV, Dr. Pickavance said that advance approval was desired for placing a contract for power cables for site services by competitive tender at a price not exceeding £30,000 by more than 10%. In reply to a question, Mr. Bowles said that one of the firms from whom a tender would be invited was outside the "price ring".

ACTION 2 The Committee approved the placing of a contract for power cables by fixed priced competitive tender as indicated above.

4. PROPOSED EXTENSION TO THE PROTON LINEAR ACCELERATOR BUILDING

Dr. Pickavance, introducing paper N.I.(G.P.)(58)17, said that more space was found to be wanted for the proton linear accelerator. In the first place the triode valves which it had been intended to use had proved unsatisfactory and it became necessary to use the klystron valves which had been under development simultaneously as an insurance. These were very much larger than the triodes. In addition more space was needed for analysing magnets and for additional cooling plant found to be necessary by experience of the performance of the drift tubes. It had already been decided to replace the previously proposed earth shielding bank on the South side of the accelerator by a concrete wall and it was now proposed to use the space thus released for the additional accommodation. Since the cost of this addition would now fall at a time after the proposed handover to the Institute, it was thought appropriate to seek the finance through the Institute.

Professor Wilkinson suggested that this extension was part of the initial cost of the accelerator and asked whether it was not intended that the A.E.A. should complete the accelerator before handing it over. The Committee however, agreed that this was not fundamental provided that there was no change in the amount of effort which the A.E.R.E. would devote to the project, and Mr. Fry assured the Committee that this would not be affected.

ACTION 3 The Committee approved the proposal in paper N.I.(G.P.)(58)17 for an extension to the proton linear accelerator building at an estimated cost of £16,000 in 1959/60.

5. EQUIPMENT FOR NUCLEAR RESEARCH ON THE PROTON SYNCHROTRON

Dr. Pickavance introduced paper N.I.(G.P.)(58)18, detailing certain

expenditure on equipment for nuclear physics research which, contrary to previous expectation, needs to be incurred in 1959/60. The two motor generators were known about long ago, but there was confusion at first over the point whether they should be regarded as part of the cost of the synchrotron, since they are to be used temporarily for testing the magnet octants. The other two items are equipment for use with the large hydrogen bubble chamber, and it was not known even by the bubble chamber consortium that these would be wanted until a very short time ago. The Committee agreed that this bubble chamber was most important for the laboratory, and that the equipment requested should be provided. They considered however, that it was unlikely that more than half the estimated £200,000 would be spent in 1959/60.

ACTION 5 The Committee approved the advancement of the sum of £100,000 for experimental work to the year 1959/60, to cover the cost in that year of the motor generators, hydrogen gas compressors and ancillaries, dump tank all described in paper N.I.(G.P.)(58)18.

6. ESTIMATE OF RECURRENT EXPENDITURE 1959/60

The Committee took note of paper N.I.(G.P.)(58)19. With regard to the small item of £100 entertainment allowance included in the direct expenditure, the Secretary explained that this was the amount which had been recommended by the Personnel Committee as the entertainment allowance for the Director, Rutherford Laboratory. It was for items not provided for under Civil Service and A.E.A. regulations for ordinary staff. The Chairman said that there was no intention to be niggardly in this matter and the £100 was subject to review, if necessary.

In the break-down of the estimate of the cost of services provided by the A.E.A., Professor Peierls queried the inclusion of £60,000 for nuclear physics research on the proton synchrotron. The Secretary explained that this item included the cost of research equipment and that the £60,000 represented the cost of developing and making the items detailed in paper N.I.(G.P.)(58)18.

7. CONTROL OF EXPENDITURE

Introducing paper N.I.(G.P.)(58)20, the Chairman said that this contained a series of suggestions about the control of expenditure, the object in each case being to provide the General Purposes Committee with full opportunity for control without overburdening them with unnecessary detail. With regard to capital expenditure, Sir Donald Perrott suggested that in the case of competitive tender the limit above which reference to the General Purposes Committee would be normal might be raised to £10,000. This was agreed. With regard to A.E.R.E. services, it was agreed that where the Director, Rutherford Laboratory feels it necessary to ask the A.E.R.E. for special treatment it should normally be sufficient for him to obtain approval of the Chairman rather than wait for a meeting of the General Purposes Committee.

ACTION 6 The Committee approved the proposals in paper N.I.(G.P.)(58)20 with the two amendments noted above.

With regard to paragraph 4 of the paper, Dr. Pickavance said that it was his intention to make a quarterly report of expenditure committed by him under delegated authority very much on the lines of the quarterly report now presented on expenditure on the 7 GeV project. The Chairman said that this would do very well to start with and the Committee would see as time went on how much detail they wanted.

Arising out of the item relating to University Agreements there was a short discussion on patents policy. Sir Donald Perrott said that in his opinion the Institute's policy on patents should be based on that of Universities rather than that of A.E.A. This was generally agreed and the Secretary was instructed to enquire into the practice of Universities and to prepare a paper on patents policy for a future meeting.

8. DATE OF THE NEXT MEETING

It was agreed to hold the next meeting on February 4th 1959 at 2.45 p.m.

Professor Peierls said that he would be out of the country from February to May and suggested that the Chairman might wish to nominate a substitute for him for that period.

J. A. V. Willis.
Secretary.

Rutherford High Energy Laboratory,
Harwell, Berks.

6th November, 1958.

Circulation:-

Lord Bridges
Sir James Mountford
Sir Donald Perrott
Prof. R. E. Peierls
Prof. D. H. Wilkinson
Dr. R. Aitken
Prof. N. F. Mott
Prof. H. S. W. Massey
Prof. J. Diamond
Sir George Thomson
Mr. J. C. Gridley
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