

NATIONAL INSTITUTE FOR RESEARCH IN NUCLEAR SCIENCE

GENERAL PURPOSES COMMITTEE

Minutes of the meeting held at the office of the Royal Fine Art Commission, 5, Old Palace Yard, Westminster on Friday October 7th, 1960.

Present:-

Lord Bridges (in the chair)
Mr. A. E. Drake
Sir James Mountford
Professor R. E. Peierls
Professor D. H. Wilkinson
Dr. F. A. Vick
Dr. T. G. Pickavance
Mr. P. Bowles
Dr. J. A. V. Willis (Secretary)

1. Minutes of the last meeting

The Committee approved the minutes of the meeting on May 12th, 1960.

2. Matters arising out of the Minutes

Minute 8 Electronics Development Contracts

The Secretary said that as requested he had discussed the basis of charge with the A.E.R.E. In the particular case of the multiple correlation recording equipment the proposed equal division of the cost did seem to be reasonable, but it was impossible to assess accurately in advance the value which the A.E.A. and the Institute would respectively get from these development contracts. It was therefore, proposed to arrange a joint technical review of past shared electronic development contracts periodically, and to adjust the proportion which the Institute was prepared to pay towards proposed future contracts in the light of past experience. On the specific question asked as to whether the Institute would share in the profits in any cases where the design rights proved valuable, the Secretary said that the value of these rights to the A.E.R.E. had in the past proved to be small. It had been concluded that the public interest was adequately served by the A.E.A. collecting any profits, and that a mechanism for transferring a due share to the Institute would not be justified.

3. Matters dealt with by Correspondence

The Chairman said that on behalf of the Committee he had approved the recommendations made in papers 60/26, 27, 28, 29, 31, 32, 33, 34, 38 and 43. All these had been referred to the committee by correspondence before approval, except paper 33, on which owing to urgency he had only been able to consult the A.E.A., and one point in paper 38, where he had given covering approval for a contract already placed.

4. General Financial Statement

In the discussion of paper 60/35 the following points were made by Members:-

- (a) The cut in the grant for 1959/60 shown in Schedule 1 was made as a result of the second quarterly review of expenditure in October 1959. At the third quarterly review in January 1960 an underspend of £370,000 on Nimrod even in relation to the reduced grant was forecast, but in the event, the reduced grant was overspent (by £61,000). This appeared to indicate bad forecasting.

(Secretary's note It is true that the third quarter forecast was inaccurate. Among the usual heavy fourth-quarter payments there were in particular two large payments totalling over £200,000 which had seemed sure to fall in the following year.)

- (b) The large underestimate (£212,000) on the A.E.R.E. services in 1959/60 was commented upon.

(Secretary's note At the time of the review which formed the basis of the revised grant, only two quarterly bills had been received. The charges in the second half-year exceeded those in the first half year by almost £400,000.)

- (c) It would be helpful if in the future references to financial sanctions were added to the list of new commitments.

5. Estimates

The following points were made and decisions taken in the discussion of the draft estimates (paper 60/36).

- (a) It was agreed that the provision of £20M in "future years" for the second site should be deleted, as expenditure in the next three years is not involved, nor does the figure refer to an already determined scheme. Further, one member felt strongly that the figure of £20M was unduly specific in the present state of knowledge.
- (b) It may not be necessary to include provision for the Oxford electrostatic generator (page 4 item D 1). The money is to be recovered from the D.S.I.R., and is shown in "Amounts Recoverable" (page 1). It is for the Treasury to decide whether both these entries should be deleted from the estimates, Mr. Drake agreed that if necessary he would amend the estimate accordingly.
- (c) Mr. Drake proposed to make a "shadow" cut of £430,000 in the capital estimate, in addition to the cut already made as stated in note 1 on page 1. The Chairman said that the staff would be trying hard to keep up to the planned rate of progress and expenditure. Mr. Drake said that he would not feel embarrassed if as a result of the shadow cut, it proved necessary to ask for a supplementary vote. On this basis, the Committee accepted the shadow cut.
- (d) It would be helpful if in future estimates the non-capital expenditure were analysed as far as possible under the usual vote headings.

ACTION The Committee approved the draft estimates as shown in paper 60/36, subject to deletion of the forecast for the second site, in the knowledge that the A.E.A. intend to make a shadow cut of £430,000, and subject to such minor further changes and corrections as may be found necessary in discussion with the A.E.A. and the Treasury.

6. Staff Complement

Dr. Pickavance introduced paper 60/37, outlining the changes which had taken place and the new work which had been undertaken since the estimates of a year ago, and explaining the basis on which the figures had been prepared. He asked for approval of the complement for 1961/62. The forecasts for 62/3 and 63/4 were given for information only. He pointed out that somewhat lower staff totals had been assumed in the estimates in calculating recurrent expenditure, but the totals shown in the present paper were those which he believed we should strive to reach (without lowering our standards) in order to perform satisfactorily the programme of work which we had undertaken.

The following points were made in discussion:-

- (a) Approval should be given to the gross complement figure, leaving Dr. Pickavance free to allocate vacancies. The breakdown in the table shows how the gross figures are arrived at, and such a breakdown is necessary internally for management purposes.
- (b) The actual strength on 30th September was 424. In addition there are some 50 in the recruitment "pipe line" (some of whom will leak out and not finally join our staff). Statements of the current strength will be circulated periodically to the Personnel Committee.
- (c) The number shown in the table against engineering services is lower in 1961/2 than in 1960/1. This is because it is expected to move men in 1961/2 into the Nimrod engineering and operation section, to gain experience in preparation for operations.
- (d) No physicists are shown against "new accelerators - NIRNS", whereas in the previous forecast 33 were shown. This is explained in note 5C. When a second site starts it will need a separate complement. Some experienced people from the Rutherford Laboratory may go on to this complement, but their places at the Rutherford Laboratory would need to be filled.
- (e) The numbers shown in the theoretical group are based upon the requirement for work on the accelerators, beam handling, data handling and computer. It was agreed that policy on possible Institute theoretical nuclear physics staff should now be considered, and that Dr. Pickavance and Professor Peierls should call together a group to draft proposals for consideration by the appropriate Institute committee.
- (f) It was confirmed that the figures in 1963/64 provide for technicians to assist university physicists working with Nimrod.

ACTION 2 The Committee approved the total complement of 672 for 1961/62 and took note of the forecast figures of 778 for 1962/63 and 839 for 1963/64.

7. Banking Arrangements

ACTION 3 The Committee took note of paper 60/39 and authorised the Chairman and Secretary to make detailed arrangements for opening the bank account.

8. Housing

In connection with paper 60/40 the Secretary asked that in view of the additional early requirement, and on the advice of the A.E.R.E. housing authorities, the Committee would approve the purchase of a limited number of houses in the open market at prices agreed by the District Valuer and not exceeding £3,000. The Committee considered that if this was done, the aim should be to re-sell these houses to the Institute tenants, within a few years rather than to keep ownership of a scattered miscellaneous collection of houses.

ACTION 4 The Committee provisionally approved the target of 130 houses subject to this target being periodically reviewed in the light of changing circumstances, and approved

- (a) The purchase of six houses from Abingdon Borough Council at an approximate cost of £14,400.
- (b) The purchase of up to 20 houses at prices approved by the District Valuer and not exceeding £3,000 each.
- (c) Negotiation with Local Authorities to provide if possible up to 20 small houses for rent by the Council to our tenants.
- (d) Negotiations for building 30 houses on a site or sites to be obtained.

9. Heavy Laboratories

In the discussion of paper 60/41 Dr. Pickavance gave details of the space needed for testing magnets, quadrupoles, high voltage separators etc., and for accelerator development. The cost of the building per square foot (£8. 5/- including the cranes) was then discussed in relation to somewhat similar, high buildings at Winfrith (£6. 10/- per sq ft.) and Springfields (£5. 10/- per sq. ft.) It was thought that the heavy floor and crane supports probably accounted for much of the difference but it was agreed that if possible competitive tenders should be obtained for the complete building including these items, rather than have such work done by extension of the present contractors contract.

ACTION 5 The Committee approved the scheme put forward in paper 60/41, subject to competitive tender for the complete building if possible.

10. Nimrod Quarterly Statement No. 11

The Committee took note of paper 60/30. It was agreed that the next statement, due shortly, should be circulated as soon as it is ready.

11. Nimrod Vacuum Chamber

Dr. Pickavance said that the development of the vacuum chamber was still causing difficulty, and it was necessary to ask for a large transfer from the contingency to continue the development work as detailed in paper 60/45. However, the first of the production run of eight outer chambers was about to start, the prototype having moved on from the first set of jigs. It was agreed that a further report should be made at each meeting.

ACTION 6 The Committee approved the increase of the limit of liability on the development part of the contract with Marston Excelsior Ltd., to £498,000, the increase of £100,000 being met from the Nimrod contingency allowance.

12. Magnet plunging mechanisms

ACTION 7 The Committee approved the placing of a contract with Messrs. Towler Bros. for two magnet plunging mechanisms as recommended in paper 60/44 at a total cost of £25,000.

13. Bubble Chamber Services

Dr. Pickavance and Mr. Bowles gave further details of the proposals in paper 60/42. It was agreed that this further information should be written out in the form of a request to the Treasury for the increased funds, and that copies should be circulated for information as an addendum to paper 60/42. £20,000 of the increase is for a sub-station serving other plant in the vicinity also. It was thought that this should be transferred from this scheme and charged against the provision for site services. The increase required for the bubble chamber services is therefore £275,000 plus £15,000 contingencies.

ACTION 8 The Committee approved in principle the increased estimate of £275,000 plus £15,000 contingency for the bubble chamber plant room subject to the submission of a more detailed explanation to the A.E.A. for the Treasury.

J. A. V. Willis,
Rutherford High Energy Laboratory,
7th October, 1960.

Circulation: to Members of the General Purposes Committee
to Members of the Governing Board for information only