

NATIONAL INSTITUTE FOR RESEARCH IN NUCLEAR SCIENCE

GENERAL PURPOSES COMMITTEE 11 a.m. Feb 10th

Expected: Lord Bridges: Drake: Peierls: Wilkinson:
Pickavance: Bowles: Willis:

Paper No

Last meeting Main matters arising covered in agenda.

Things dealt with by correspondence Take without discussion?

1. Financial Statement (Willis) Information. Heavy underspend 1960/61 (schedule 1)
2. Nimrod statements (Bowles) Information. The request for approval of increased estimate is on the next paper.
3. Nimrod Vacuum Chamber and Estimate (Bowles) Approval sought for contract action (para 11) and increase in estimate (para 12)
The R2 extension building (paper 7) may be regarded as an addition to the main Nimrod scheme. This would make a further addition to the estimate.
4. Beam Transport (Pickavance) Information for G.P.C. (and Treasury ?) as requested.
5. Electricity Supply (Bowles) Approval required (Treasury ?) to ask Electricity Board to proceed. Also provisional approval for our expenditure est. £100,000.
The proposed provision is rather ample.
6. Surface Water Drainage (Bowles) Approval requested (G.P.C. and A.E.A.)
7. 7A Nimrod Staff Accommodation (Pickavance) Accommodation for Nimrod previously under-estimated.
Approval requested £243,000.
8. Heavy Laboratory (Pickavance) Already approved, but we wish to change the site. Present paper suggests that this would add to the site cost, and we do not expect the Committee to accept the paper fully as it stands.
But we urgently request approval to spend £15,000 on levelling the new site. This is required for the next item too.
9. Office accommodation (Willis) The scheme is not yet in a state for final approval, but we request approval to level the site (above) and approval in principle for the scheme. We would then seek competitive "package deal" bids for this and the heavy lab building.
- 40.11 Vineyard Houses (Willis) Approval requested.
- 44.10. (Paper not issued - Coseners House flats - planning permission refused)
- 12 A.W.R.E. houses - (Willis) Approval requested.
13. Entertainment allowance (Willis) Approval requested.
14. C.V.D. (Pickavance) Approval requested for £21,000 contribution.
15. Housing (If you accept it) (Willis) Approval requested for land and 24 houses.

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, February 10th, 1961

Present: Lord Bridges - Chairman
Mr. A. E. Drake
Professor R. E. Peierls
Professor D. H. Wilkinson
Dr. T. G. Pickavance
Mr. P. Bowles
Dr. J. A. V. Willis - Secretary

Apologies for absence were received from Sir James Mountford and
Dr. Vick.

1. Minutes of the last meeting

The Committee approved the minutes of the meeting on October 7th 1960.

2. Matters dealt with by correspondence

The Chairman said that after referring to the Committee by
correspondence, he had approved on their behalf, the recommendations made
in the addendum to paper 60/42 and in papers 60/45 (30/9/60), 60/45 (1/11/60)
(the latter being a duplicated number for which the Secretary apologised)
60/46, 60/47 and 60/48.

The Committee noted that a further report is to be made on the contracts
with Z. D. Berry and N. G. Bailey which have been extended after the approval
of paper 60/45 dated 1st November 1960. Mr. Bowles said that enquiries were
not yet complete, but that he would make the further report as soon as possible.

3. Financial Statement Paper 60/1

The Committee noted the forecast in schedule 1 of the paper that the
Treasury grant for 1960/61 will be underspent by about £1½ million. The
Secretary said that in November 1960, after the second quarter review, he
had consulted the Chairman and Mr. Drake and it was concluded that we were
still over-estimating the rate at which the capital schemes can be pressed
forward. The "shadow cut" for 1961/62 had therefore been increased from
£430,000 to £830,000 as shown in schedule IV.

In schedule II references to financial sanctions by the Committee had
been included as requested at the last meeting. The items below £10,000 had
been approved after reference to the Chairman. The Committee approved the
accounts reproduced in Schedule V, subject to any minor corrections found
necessary during audit.

4. Nimrod Quarterly Statement Paper 60/2

The Committee took note of Nimrod Quarterly Statements Nos. 12 and 13.
They did not approve the revised total estimate of £11.229 M shown in
Statement 13, in view of the later (and lower) estimate in paper 60/3 (below).

5. Nimrod Vacuum Chamber and Estimate Paper 60/3

- 5.1 Mr. Bowles said that Marston Excelsior had now made a firm quotation of £1,200,000 for the complete vacuum vessel to a specification which had now been agreed, subject to a clause providing for further negotiation if either the specified method of manufacture proved to be basically wrong, or if it should prove necessary to undertake health precautions not at present expected. This clause was under discussion with the Director of Contracts A.E.A.
- 5.2 In discussion, it was made clear that the agreed specification did not merely provide for manufacture by stated methods, but also included performance requirements. It was agreed that as indicated in para. 4. of the paper some possibility remained that a chamber meeting these requirements might be unsatisfactory in some way, but that the change to a fixed-price contract would not affect the chance of this. The contract should, however contain a suitable break clause to limit the direct financial loss due to such a calamity, if it should occur.
- 5.3 Mr. Bowles said that some problems remained to be solved which would result in minor amendments to the contract with some increase in cost estimated at £120,000 in para 12 of the paper. The total estimate for the vacuum vessel was therefore £1,320,000 which exceeded the provision, including contingency, for this item in the present approved estimate by £505,000. If the estimate were increased by £505,000, the contingencies on the other items would remain unchanged. It was agreed that the contingencies on the other items should be kept realistic, but that they should be further reviewed in the light of the latest information to see whether any should be reduced to provide a contribution to the extra provision required for the vacuum vessel.

Mr. Bowles said that he thought that about £100,000 could be found in this way. It was agreed that the further review should be sent to Mr. Drake, and that in this instance he would discuss the increase in the estimates with the Minister for Science's Office, and at his discretion with the Treasury, notwithstanding that the amount of increase is such that the A.E.A. could approve it.

ACTION 1 The Committee approved the placing of a contract with Marston Excelsior for the whole vacuum vessel, including development, tools, prototype and production at a price not exceeding £1,200,000.

ACTION 2 The Committee approved an increase in the Nimrod estimate by an amount not exceeding £505,000 to be agreed by Mr. Drake after consideration of further information to be provided from the Rutherford Laboratory.

6. Nimrod Beam Transport Plant Paper 61/4

Dr. Pickavance said that paper 61/4 was an instalment of the more detailed information which had been promised before most of the money was committed on this scheme.

In discussion, it was agreed that the beams listed in para. 2 of the paper are not immutable. For example, the specification of "2-2.5 GeV/c" momentum in beam (c) would be better omitted.

It was recalled that it had been agreed with the Treasury to keep the first provision of beam equipment within a cost of £1M. If necessary the beams listed will have to be curtailed, or even reduced in number. A further scheme for beam equipment should only be submitted when we can be precise as to what is wanted.

It was agreed that the small amount of civil engineering work involved in the present scheme (as shown in the appendix to the paper) need not be dealt with separately from the plant.

ACTION 3 The Committee took note of paper NI/GP/61/4 and gave approval for continued contract action (in accordance with the agreed procedure on financial control) within the approved sum of £1M.

7. Electricity Supply Paper 61/5

Mr. Bowles outlined the reasons for the proposed additional power supply, as stated in the paper. He said that he was quite sure that it was right to put two new 132KV transformers on or near the Rutherford Laboratory site. The choice of 30 MVA units might be questioned, but only a limited number of sizes were made. The supply would be under-loaded for several years, but it was normal practice to plan at least five years ahead.

ACTION 4 The Committee approved in principle the provision of electricity supplies as proposed in paper NI/GP/61/5.

8. Surface Water Drainage Paper 61/6

In discussion of paper 61/6 it was made clear that the proposed scheme was for normal surface water drainage, and was made necessary by the increased development of the Rutherford Laboratory site, and by the inability of the A.E.R.E. drain at present used to deal with even the present loading. The proposed new drains could not be discharged into the low level drain from the Nimrod area as this would interfere with the protection to the magnet room and experimental area in case of exceptional rain, for which this low level drain was provided.

ACTION 5 The Committee approved the scheme for surface water drainage proposed in paper NI/GP/61/6, at a cost not exceeding £63,000.

9. Proposed Extension to Building R2 Paper 61/7 with addendum.

Dr. Pickavance explained the need for additional accommodation mainly but not entirely for Nimrod staff, owing to the large increase in numbers found to be necessary since the original planning of the site. He also emphasised the advantage of having them close to the accelerator. The Committee accepted these points, but noted the estimated total cost of £7/15/- per sq ft. Recent examples of laboratories which had cost £6 to £7 per sq ft. and offices which had cost a little over £4 per sq ft. were quoted. Dr. Pickavance said that owing to the siting and adaption of adjoining buildings, the proposed building was not suitable for a "package deal" contract, but that method was proposed for other buildings to be discussed later in the agenda.

It was agreed that further details of the proposal should be sent to Mr. Drake, for his consideration.

The relationship of the requirement to the Phase I Nimrod scheme was discussed. The Committee concluded that it should be regarded as a separate scheme.

ACTION 6 The extension to Building R2 proposed in paper NI/GP/61/7 was approved in principle, but Mr. Drake was invited to examine the estimated cost.

10. Heavy Laboratories Paper 61/8

Dr. Pickavance said that it had at first been proposed to make the heavy laboratories an extension of the Arcon building and Treasury approval had been given on this basis. After a review of the development of the Laboratory as a whole, however, it was now proposed to put them (and also the office building next on the agenda) to the south, rather than to the

east of the present built-up area. In discussion, it was agreed that the general advantages of this change were to keep these buildings closer to Nimrod, and to open the way to further convenient building areas further south. A special advantage for the heavy laboratory was that it would not be necessary to match the architecture of the Arcon building, so competitive bids for "package deal" buildings could be used. The price to be paid for these advantages was that the site required levelling, and new roads and site services were required. Together, these items were estimated to cost £45,000, but this would cover both the heavy laboratories and the office building, and also would partly open up the further area to the south referred to above. It was expected that a substantial contribution towards this expenditure might be obtained from favourable prices in "package deal" contracts which would be practicable on this site.

ACTION 7 The Committee approved the amendment of the heavy laboratories scheme, by re-siting to the south of building R.1, and by seeking "package deal" tenders.

ACTION 8 The Committee approved the levelling of the site proposed for the heavy laboratories and the proposed adjacent office block, at an estimated cost of £15,000.

11. Additional Office Accommodation Paper 61/9

In discussion of paper 61/9, the Committee thought that some further assurance should be given that adequate allowance had been made for sharing office space, or not needing any, by people whose main work was in laboratories. Dr. Willis said that some grades, for example scientific assistants were not taken to need any office space. The allowance made for abnormal sharing (beyond that assumed in the civil service standards) was 3,100 sq ft. Wherever possible, the calculation had been checked by looking at the space actually occupied by present staff, and the extent of overcrowding, and the result appeared to support the calculation. It was agreed that further information on this matter should be submitted to Mr. Drake.

The cost estimate for the building provided by the S.W.O. was regarded as high, and it was agreed that package deal tenders should be sought.

ACTION 9 The Committee approved the proposed office building in principle, subject to the submission to Mr. Drake of further information on the need for 10,000 sq. ft. The estimate of £100,000 was not approved.

12. Houses - Vineyard site paper 61/11

The Committee regarded the houses proposed in paper 61/11 as expensive, but recognised the need for a small proportion of better houses.

ACTION 10 The Committee approved the purchase of eight plots at the Vineyard Abingdon at a cost not exceeding £12,000 and the letting of a contract by competitive tender for eight houses at a total cost not exceeding £33,000.

13. Houses at Newbury paper 61/12

ACTION 11 The Committee approved the purchase of up to six houses at Newbury from the A.E.A. as proposed in paper NI/GP/61/12 at a total cost not exceeding £16,000.

14. Entertainment Allowance paper 61/14

ACTION 12 The Committee approved an entertainment allowance of £500 for the Director, Rutherford Laboratory for the year 1961/62.

15. Common Valve Development Paper 61/14

The Committee agreed that it was advantageous to make use of C.V.D. The proposed method of working through and in co-operation with the A.E.R.E. Electronics Division was considered most suitable. It was agreed that the proportion of Institute interest in individual items should be re-considered with the A.E.R.E. from time to time.

ACTION 13 The Committee approved the arrangements for using C.V.D. as proposed in paper NI/GP/61/14, and approved the contribution for 1961/62 on the basis proposed in that paper, the estimated amount being £21,000.

16. Housing Requirements paper 61/15

The Committee gave preliminary consideration to this paper which had been circulated only recently. A plan and photographs of the proposed site at South Queensway, Didcot, were shown. It was agreed that the proposal for these 24 houses should be submitted to the Treasury. It should deal specifically with the proposal for 24 houses at Didcot, but should mention the total number of houses proposed for information at this stage.

The Committee realised that site costs are lower in Didcot than elsewhere in the area, but were not in favour of putting a high proportion of houses in Didcot.

ACTION 14 The Committee approved the proposal to build 24 semi-detached houses at South Queensway Didcot as proposed in paper NI/GP/61/15, subject to the inclusion of further details of size and cost in a case for financial approval to go to the Treasury.

Rutherford High Energy Laboratory,
Harwell.

J. A. V. WILLIS
Secretary

20th February, 1961.