

27th January, 1964.

NI/GP/64/9

NATIONAL INSTITUTE FOR RESEARCH IN NUCLEAR SCIENCE

GENERAL PURPOSES COMMITTEE

Recent Ministerial Correspondence on N.I.R.N.S. Finance

Note by Finance Officer

1. Extracts are enclosed of correspondence Chief Secretary, Treasury - Lord President - A.E.A., concerning the Institute's grant for 1964/65 and the level of future expenditure.

Grant for 1964/65

2. In the absence of any adverse comment from the Treasury on the letter of 21st January, the correspondence is regarded as justifying the present plans, reported in NI/GP/64/1, to spend £8.2M in 1964/65 at the Nuclear Physics Laboratories. It will, of course, be necessary to keep a close watch on the trend of expenditure and seek authority to overspend when it seems that D.N.P.L. expenditure will inescapably exceed £1.75M during the year.

Level of future expenditure

3. It will be noted that the Lord President continues to oppose the Chief Secretary's contention that, by 1968/69 at the latest, N.I.R.N.S. expenditure (excluding Atlas expenditure) should be brought back substantially to the 2% pattern. 1968/69 falls outside the four years covered by a recent paper by the Lord President dealing with N.I.R.N.S. finance, but the following comparisons are relevant:-

	<u>1967/68</u>	<u>1968/69</u>
2% pattern	£7.7M	£7.8M
Rock bottom figure	£8.3M	-
Rational "	£9.0M	-
1964/69 forecast (including future schemes)	£9.9M	£10.4M
Current forecast (including future schemes)	£13.2M	£13.3M

Letter from Mr. R. A. Thompson (Office of the Minister for Science) to
Mr. H. C. Hudspith (A.E.A.)

FIN/124

21st January, 1964.

Dear Hudspith,

You will recall that at the final estimates meeting taken by Bell there was a long discussion on the provision that should be made for NIRNS for 1964/65. Reference was made to the exchange of letters between the Chief Secretary and the Lord President, and I attach copies of the relevant extracts from those letters.

The letters themselves went much wider than NIRNS, or than the subject of nuclear physics. The Chief Secretary's letter asked for economies on science expenditure, and made various suggestions how these might be achieved. One of the alternatives concerned NIRNS expenditure in 1964/65 and in later years and it is, of course, this part of the letter and the corresponding part of the Lord President's reply which are now copied to you.

It was recognised at the estimates meeting that these weighty matters might remain unresolved for some time. Meanwhile it was necessary to conclude the estimates discussion; and since the difference between the two sides, though important in principle, was one of only £200,000 in 1964/65, it was agreed, after lengthy discussion, that a deadlock might be avoided if we, or our side, agreed that provision of £8M should be made for NIRNS expenditure exclusive of ATLAS; and the Treasury, on theirs, should take a reasonable view if this turned out to be insufficient. The Treasury had the feeling that the programme as outlined by NIRNS, and expected by NIRNS to cost £8.2M, might well be possible with expenditure of £8M. The building programme at Daresbury might progress more slowly than NIRNS thought, and result in a spend somewhat below £8.2M.

In these circumstances, it was agreed, after both sides had consulted their masters, that provision of £8M should be made in the 1964/65 estimates (exclusive of ATLAS) on the understanding that this was without prejudice to the position of either the Lord President or the Chief Secretary in respect of the unresolved difference of views expressed in the correspondence between them.

Our understanding of the effect of this agreement is that the £0.2M difference between what NIRNS asked for and what they have been granted should be regarded as a shadow cut on the £8.2M programme. If, in the event, and despite all reasonable economy, the progress of expenditure during the year indicates that somewhat more than this is likely to be spent because physical progress is more in line with expectations before the operation of this shadow cut, there should be consultation between the NIRNS, A.E.A. and this Office with a view to discussion of the matter with the Treasury. If that point were reached, we would expect the Treasury to consider sympathetically the exercise of virement, if there were savings on other subheads, or, if there were not, a supplementary estimate.

I am writing this letter so that NIRNS may plan accordingly for 1964/65 and I hope it gives them the basis for this.

Yours sincerely,

R. A. Thompson

Extract from letter from Chief Secretary, Treasury, to
Lord President dated 14th November, 1963.

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3. I said I would send to you one or two suggestions for compensating relief, while recognising that you might wish to propose other and better possibilities.

4. First, there is the field of nuclear research, where very heavy demands on our resources could easily develop. You mentioned at our meeting that you attached higher priority to the Clinical Research Centre than to greatly increased nuclear research expenditure. I have now seen your papers ERP(63)3 and 4 on this subject. I would find it possible to accept the full Clinical Research Centre at a cost of £6.7M and a running cost of £1.2M, if we were able to agree:-

(a) that on the proposed new C.E.R.N. machines we should defer any commitment to a design study until after the proposed discussions with the U.S. and U.S.S.R. (paragraph 6 of your paper);

and (b) that the provision for N.I.R.N.S. in 1964-65 should be £8M, representing an increase of 17 per cent, instead of the 2 per cent agreed with my predecessor as recently as July 1962. This would be on the understanding that by 1968-69 at the latest N.I.R.N.S. expenditure would be brought back substantially to the figure which would have resulted from the 2 per cent rate of growth agreed in 1962.

I do not believe that an arrangement on these lines would be politically difficult, and it would undoubtedly coincide with the views of a large section of scientific opinion on the proportion of expenditure being devoted to nuclear research. "

Extract from letter from Lord President to Chief Secretary, Treasury,
dated 6th January, 1964.

"As regards NIRNS, the machines employed in nuclear physics are expensive to construct and to operate. Once the particle beams are produced in these machines, however, the research work using the beams can be done comparatively cheaply. Consequently, if the funds available were cut only marginally - from £8.2M to £8.0M - the loss in terms of research would be out of all proportion to the saving.

The figure of £8.2M for 1964/65 is, I am assured, a severely cut figure. It assumes that only four research programmes will be conducted on the NIMROD accelerator out of seven really good projects put forward by universities. This under-use is barely tolerable next year which is the first full year of operation of the machine. Since this accelerator has cost some £11 million, we could be criticised very severely if it were used less than this.

Slowing down of construction of the Electron Laboratory, which has been so greatly delayed already, could not be justified simply to defer the expenditure of £200,000. If you were to impose this cut of £200,000, it would have to fall on the experiments on the proton linear accelerator which is the only other activity at the NIRNS establishment. The research would be cut by half, or more, causing great frustration in university physics departments whose programmes would be severely mutilated.

I am afraid I also have serious objections to your other conditions which would mean that, by 1968/69, NIRNS expenditure should be reduced to £7.8M. By that time all the NIRNS machines will be available for a balanced programme of research and you will recall that in my recent paper I asked for £9 million in 1967/68 as an adequate provision; the rock-bottom figure was £8.3M. In these circumstances, it would be unrealistic for me to say that the Institute could operate on £7.8M in 1968/69.

For all these reasons I do not think your proposals as regards NIRNS are practicable."
