

B/SR/012

28th September, 1962

Mr. C. Jolliffe,
Deputy Director (Grants),
Department of Scientific and Industrial Research,
State House,
High Holborn,
LONDON, W.C.1.

Dear Jolliffe,

British National Hydrogen Bubble Chamber

1. Thank you for your letter of 21st September, with which I agree. The Governing Board will decide their attitude on 22nd October, and Willis will let you know the result. In the meantime it would help if you could send me anything you have, other than what has appeared in Bubble Chamber Management Committee papers, which would give us an idea of what we are letting ourselves in for at C.E.R.N. One particular point which we should settle is whether it would be up to N.I.R.N.S. or D.S.I.R. to pay for the return of the chamber to the U.K. I thought that the original grant provided for return shipment, and if this is so we should, of course, be willing to let you pay!
2. The next stage of the track analysis programme is now becoming clearer. Butler and the other people concerned, including ourselves, have come to the conclusion that there will be a firm requirement for four on-line track analysis machines in the "second generation" (the present D.S.I.R. sponsored programme being defined as the first generation). One of the advanced machines is already being built at the Rutherford Laboratory as part of our own programme, in a collaboration with C.E.R.N., and the other three will be needed at approximately annual intervals beginning in 1964/5. The four, together with the machines of the existing D.S.I.R. programme, would be able to cope with all the bubble chamber pictures planned to be available to the U.K., a quarter coming from C.E.R.N. and three quarters from Nimrod. The approximate cost would be £30,000 for each machine plus £40,000-£70,000 each for either a direct data connection to an existing computer or a small intermediate computer bought specially for the job (a choice being dictated by local conditions at the site of each machine). The siting would be chosen by agreement with the seven present analysis groups; discussions so far indicate that they would all be happy to share on this basis.

Clearly, N.I.R.N.S. are involved in this because most of the pictures will come from Nimrod, but a quarter will come from C.E.R.N. which is your concern. Moreover, the D.S.I.R. Nuclear Physics Sub-Committee in its "forward look" assumed that support would be forthcoming from D.S.I.R. for future track analysis equipment, and we have assumed this in framing the N.I.R.N.S. financial forecasts. It would be administratively tiresome for N.I.R.N.S. and D.S.I.R. to share in detail the cost of any programme finally approved. I

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suggest that the best course would be for N.I.R.N.S. to provide the first new machine (on which work will need to start within the next few months) in the expectation that D.S.I.R. would finance one of the remaining two. No final decision will be needed on the second machine for a year, and on the third for two years, and of course they would have to be justified at the time.

If you agree that this is a good basis on which to start, I can get the wheels turning for N.I.R.N.S. to consider the first machine on its merits, in anticipation of a discussion of the principles at the next meeting of the D.S.I.R. Nuclear Physics Sub-Committee.

Yours sincerely,

T. G. Pickavance

c.c. Mr. L. B. Mullett
Mr. M. Snowden
Dr. J. A. V. Willis