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Rowstock 377 Ext: 7

24th May, 1960.

PERSONAL

Professor Richard Wilson,  
Department of Physics,  
Harvard University,  
Cambridge 38,  
Massachusetts,  
U.S.A.

Dear Dick,

Thank you for your letter. The electron synchrotron which Jimmy is sponsoring is in the discussion stage, together with a rival proposal from Glasgow for a 2-3 GeV electron linear accelerator. A proposal for a design study for either machine is about to be put to the Governing Board of the National Institute (in June). It is not known whether the Government will grant construction funds - a request for them will have to wait for a detailed case to be put, with cost estimates, and obviously this is the object of the design study. It will not be possible to build both machines, and a choice will have to be made before very long. My hunch is that the synchrotron will win the day. The machine would be built by the Institute and the universities in collaboration, and would be put in an Institute laboratory for use by the universities. The siting of this laboratory will also have to be decided, but has not yet been argued much. The possibilities are between Liverpool and Manchester or near Glasgow. Again, my guess is that the Liverpool - Manchester area is likely to be chosen - with Jimmy and Merrison at Liverpool that area should be very active.

As you see, there are still some uncertainties. However, a start in December 1961 and finish in 1966 should be possible if the various hoops are negotiated without excessive delay.

Our machine is going well, and should be finished by mid-1962. We have all our magnet blocks, and the shielded machine room is finished and occupied. The injector is taking shape, and the ion gun has produced 600 KeV protons. Nuclear research has started on the P.L.A. at 30 MeV, and will extend to 50 MeV in a month or two. The machine is being run about 100 hours per week, and several active groups from Harwell and the universities are using it. We hope to extend the machine - eventually to the pion region (shades of 1955!).

The possibilities in this area are therefore definite and useful, and from a strictly selfish point of view I hope they will attract you. Denys hopes to build up a big effort in the Clarendon, divided about 40 : 60 between nuclear structure (using a new electrostatic machine now with the Treasury for approval) and elementary particles using our machine.

Please let me know if you need any further information. I look forward to seeing you at Rochester this summer, and over here next year.

Best wishes to Andrée and yourself,

Yours sincerely,

T. G. Pickavance