IMPERIAL COLLEGE OF SCIENCE AND TECHNOLOGY

(UNIVERSITY OF LONDON)

DEPARTMENT OF PHYSICS

Head of Department and
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February 4, 1959.

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Telephone: KENSINGTON 5111

Your ref. :

Our ref. :

Dr. T.G. Pickervance, A.E.R.E., HARWELL, Nr. DIDCOT, BERKS.

Dear Pickervance,

Birmingham Hydrogen Bubble Chamber.

I am wondering if we should discuss this project following our separate visits to Birmingham. The following are some of my views and comments:

- (1) There are three years to complete the project so it should be a chamber of advanced design which would also give useful information as a prototype for a very long term development.
- (2) Consideration should be given to the use of a vertical magnetic field in view of Alverez's comments.
- (3) I feel the proposed size is too small, only twice the volume of the new chamber, at present the size dictated of the capacity of the Birmingham liquifier. Personally I would aim for a rectangular chamber 75 cm in the beam direction.
- (4) I think the Birmingham people have also got their .
 eye on CERN but I don't think this would be encouraged,
 nor would it be possible.
- (5) Would it be possible for the Institute to engineer and build this new chamber under the guidance of, and with the help of, the Birmingham people? Skinner chatted with me yesterday about the project, he favours this suggestion. It is probable that Liverpool will not support the present Birmingham scheme.

continued

(6) I think Moon was hopeful that we would support his proposal on February 20th and that there would be very little discussion. I don't feel happy enough about the project to do this so I would like to hear your views before I write to Moon. Perhaps we should have a chat on the phone.

Yours sincerely,

C.C. Butler.