

NUCLEAR EQUIPMENT PROJECT COMMITTEEHEAVY LIQUID BUBBLE CHAMBER

Minutes of the Final meeting of the Heavy Liquid Bubble Chamber Section of the Nuclear Equipment Project Committee held at the Rutherford Laboratory on Thursday 25th November, 1965.

Present: Mr. L.B. Mullett - Chairman
 Mr. A.G. Ashburn
 Mr. A. Miller
 Mr. H. Rudkin
 Mr. G.E. Simmonds
 Mr. M. Snowden
 Mr. H.S. Tomlinson
 Mr. F.M. Telling - Secretary

1. The Chairman remarked that with the Heavy Liquid Bubble Chamber now in the initial operating stage it was a convenient time for the Management Committee to discuss any outstanding technical and financial points with a view to formally winding up the Committee. An appropriate note would then be drafted for submission to the Nuclear Physics Board.
2. A statement on the technical aspects of the Bubble Chamber given in paper NEPC/Part III/P59 was noted. Additional points made in discussion were:
 - 2.1 Trial runs had shown the need for a direct chamber liquid filtration system that could be applied during operation.
 - 2.2 Some looseness of the outer covering of the coil insulation had occurred during the initial operation of the magnet. This had been brought to the contractors attention. This looseness had not perceptibly increased during further operational tests.
 - 2.3 A slight scratch in one of the highly stressed windows had been noted. This particular window although adequate was lower in surface compression than the second window.
 - 2.4 The original specification had made provision for the use of propane. During the design and construction stages a shift of emphasis towards the fluoro-carbon liquids had however been made. In the light of present knowledge a reappraisal of the safety precautions would require to be made before propane could be used.
 - 2.5 Every effort would be made to bring up to date the technical drawings and records particularly with respect to the main design parameters. A review of the spare parts for the project would also be carried out. It was agreed that Mr. Walker would co-ordinate these requirements with the UCL team.
3. The Agreement with University College for the operation of the Heavy Liquid Bubble Chamber had recently been extended for a further period. From 1st January, 1966 the U.C.L. staff covered under this Agreement would be reduced to two engineers, who would continue with the project until 30th September, 1966. Mr. Tomlinson would be leaving the project on 1st January but would be available on a consultancy basis. It was noted that Dr. Henderson proposed using the Bubble Chamber for an experiment next February and the full U.C.L. team would be available for that period.
4. An assessment of the final project costs given in paper NEPC/Part III/P58 was tabled for discussion. It was noted that the current commitments were:

	£
Plant	331,862
Buildings	41,000
R & D	99,000
	<u>471,862</u>

The approved estimate was £474,000 and this gave a balance of £2,138 to cover any final adjustments in prices and possible contractor claims. The payments recorded to date amounted to £450,913. There was every expectation that the final costs would be a few hundred pounds less than the approved estimated.

5. A technical run would be made on the Bubble Chamber for approximately a week commencing 3rd December. Following this run a final report would be prepared on the project for submission to the January meeting of the Nuclear Physics Board. The report would include a brief description of the Bubble Chamber together with some suitable photographs. A concise graphic presentation of the commitments made against the approved estimate would also be included.

6. The Chairman wound up the meetings of the Committee by warmly thanking all those whose efforts had contributed towards the success of the project.

F.M. Telling

Scientific Administration

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