

## INDUSTRIAL COLLABORATION

### Visit of Representatives of the British Nuclear Forum

1. On Thursday 19 September 1968 thirteen representatives of the British Nuclear Forum visited the Laboratory for discussions on the scope for collaboration between the Laboratory and member firms. A list of those attending, and their respective organisations, is shown in the attached appendix.
2. In the morning the visitors met the Director and the Division Heads over informal discussions at which the main activities of the RL were outlined, together with our policy regarding collaboration with UK industry. It was emphasised that we had close connections with accelerator and nuclear physics laboratories throughout the world; such connections could be of value to firms wishing to explore export markets. Following the discussion the majority of the visitors opted for a tour comprising: Nimrod display area; MCR; Experimental area; K13 experiment; Hydrogen BC; Superconductivity and HFBC projects. Four of the visitors preferred to visit selected areas.
3. In the afternoon the discussions were continued and the following points were noted:
  - (i) The BNF were anxious to strengthen their links with the RL regarding industrial collaboration. Information concerning the major activities at similar laboratories overseas would be of particular assistance, especially early warning of new projects. It emerged that the firms interested in the Canadian TRIUMF project could be helped by our close link with senior members of that project and the presence in the RL now of three of their physicists.
  - (ii) Favourable consideration would be given to suitable staff from UK industry visiting the RL on an attachment basis to gain an appreciation of the needs of high energy physics and the technologies employed. The Laboratory would have to ensure however that various interested firms were given comparable opportunities in this respect.
  - (iii) The BNF should consider engaging an engineer/physicist of high calibre who could tour nuclear physics and similar laboratories both in the UK and overseas. Such a scheme would enable information on current technological requirements and future trends to be obtained at the

earliest possible opportunity and information would then be available to all members of the BNF. This method of close contact with scientific laboratories was undoubtedly used to advantage by organisations in the USA, e.g. through the Office of Naval Research.

- (iv) Carrying out an HEP programme involved many engineering problems. The RL had a broad spectrum of professional staff dealing with many aspects of technology and BNF representatives seeking our help were asked to make personal contact with such staff.
- (v) In the case of CERN contracts our knowledge of their requirements was available to interested firms and we could also put them in touch with the appropriate CERN staff. It was emphasised that there was no substitute for direct contact with CERN staff and that any delegation to CERN must include representatives who could speak with authority on technical and commercial aspects. The RL is anxious to help firms who seek advice on fulfilling their CERN orders, whenever we can do so without disregard to the propriety due both to CERN and industry. For example, the RL may be able to assist by making available unusual test equipment. The RL was also willing to help firms who wished to do market assessments in fields covered by our work.
- (vi) One of the problems confronting UK industrial firms was long-term planning and this required the dissemination of information of use to higher management rather than at the project engineer level. The RL agreed to consider holding a suitable symposium to this end in conjunction with BNF. It was thought that such a gathering would comprise a selected audience of about 120 and the main theme would be technological trends in the field of accelerators and their utilization rather than on current applications.
- (vii) It was agreed that we would communicate with the BNF and keep them informed generally of current and future trends at our Laboratory and other nuclear physics laboratories, particularly CERN. Consideration would be given to producing a suitable brochure at fairly regular intervals. (BNF agreed to send us copies of brochures they had produced to publicize the industrial achievements and potential of members firms).

4. Following the general discussion the visitors continued with their tours of selected areas and discussions with our specialist staff. Mr Greenhalgh thanked Dr Pickavance and his staff for arranging such a useful meeting.

F.M. Telling

Visit of representatives of the British Nuclear Forum1. Representatives attending

A.L. Gray and T. Hussey	Elliott Process Automation
Dr P.H. Morton and E.T. Adams	Imperial Metal Industries (Kynoch)
Messrs Horton and Carruthers	Lintott Engineering
J.D. Griffiths	Nuclear Enterprises
J. Lessels	Spemby Technical Products
J. Iliffe	Torvac
A.V. Hemingway and R. Wright (part-time)	Tube Investments
D.C. Shaw	20th Century Electronics
G.H. Greenhalgh	Secretary-General BNF

2. Suggested Topics

Nimrod MCR  
K13 Experiment  
Hydrogen Bubble Chamber  
High Field Bubble Chamber Project  
Superconductivity  
Measuring machines and computer  
Beam handling components  
Electronics for HEP  
Plunging mechanisms  
New hydrogen target  
Particle detector manufacture  
High vacuum activities  
Polarised targets  
Cryogenics  
Manufacturing services