HARWELL bulletin

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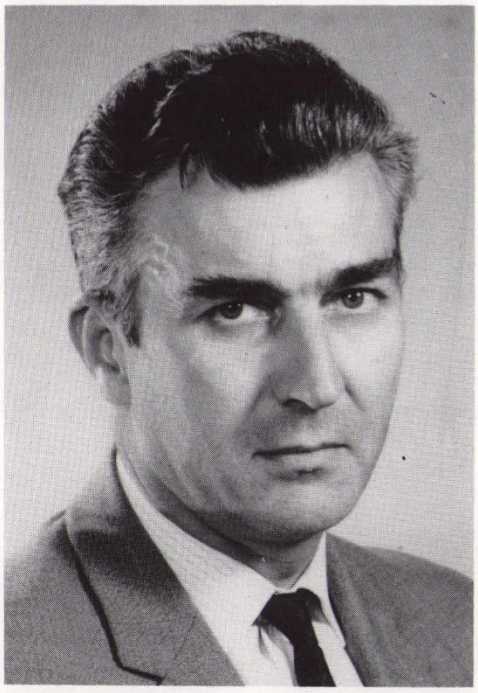
OFFSHORE ENERGY – HARWELL and the new Board

The special Bulletin issued earlier this week gave details of the new Offshore Energy Technology Board (OETB) announced by the Secretary of State for Energy on 6 May. Further information was given by Dr. Marshall at a Press Conference held at the Department of Energy immediately after the announcement. The items of special significance to HARWELL are summarised below:

- Responsibility for offshore oil and gas R & D has been transferred from the Ship & Marine Technology Board (Department of Industry) to OETB (Department of Energy)
- OETB will advise the Secretary of State for Energy on R & D programmes designed to ensure the safety and efficiency of offshore operations and on improving the competitive position of British industry in this field
- The Chairman of OETB is Dr. Walter Marshall and one of the Board Members is Dr. L.E.J. Roberts (HARWELL's Programme Director, Non Nuclear)
- The OETB budget for this year is £5.5M (including £4M transferred from SMTRB) and is likely to increase in the future
- OETB will be delegating executive actions to the Marine Technology Support Unit, HARWELL, whose staff will be increased to cope with the new responsibilities
- Independently of the above changes Dr. Marshall announced that the staff of the Energy Technology Support Unit, HARWELL, will also be increased in the coming year. The ETSU report on Geothermal Energy is to be presented shortly, followed by another on Windpower.

The terms of reference of the OETB are given on page 2.



CERN LABORATORIES I and II – to be unified

The 'CERN Courier' for April 1975 carried the following announcement:

"At a special session on 21 March, the CERN Council appointed Dr. J.B. Adams and Prof. L. van Hove as Directors-General of the organisation for a period of five years beginning 1 January 1976. Dr. Adams will be responsible for the administration of CERN, for the operation of the equipment and services and for the construction of buildings and major equipment. Professor van Hove will be responsible for the research activities of the organisation.

"When the Council approved the construction of the 400 GeV proton synchrotron in 1971, it set up a second Laboratory. The two Laboratories were to be unified when the accelerator was completed. The SPS (Super Proton Synchrotron) is due to be commissioned during 1976 and the Council has decided that the Laboratories should be unified from January of that year when the present Director-General of Laboratory I, Prof. W. Jentschke, will have completed his five-year term."

John Adams (left), who was the AEA's Member for Research from 1966-69 and previously the first Director of the Culham Laboratory (1960-67), left Britain in 1969 to become Director of the then 300 GeV Accelerator Project at CERN, and Director-General of CERN Lab II in 1971.

Leon van Hove joined CERN in 1961 as Head of the Theoretical Physics Division, and has twice served as Director of the Theoretical Physics Department (1966-68 and 1972-74). He was also President of the Scientific Directorate of the Max Planck Institute of Physics and Astrophysics in Münich from 1971-74.

OFFSHORE ENERGY TECHNOLOGY BOARD — terms of reference

To advise and assist the Secretary of State for Energy on how best to evaluate, promote and secure technological developments leading to improvements in:

(i) the efficient and economic exploitation of the oil and gas resources on the UK Continental Shelf;

(ii) the standards laid down by the Department in pursuance of its statutory responsibilities for safety; and

(iii) the competitiveness of British industry in the field of offshore oil and gas.

In particular, the Board will:

(a) identify those areas which, on grounds of safety and/or commercial opportunity, will most benefit by research and development support by the Department of Energy,

(b) advise on the objectives, priorities and balance of research and development programmes to support the Department's policies within the broad allocation of funds available, and

(c) review progress made.

CHEMICAL EMERGENCIES — film in Cockcroft Hall

Some of the work of the HARWELL Hazardous Materials Service is featured in an ICI film, 'Incident Rendered Safe', to be shown in the Cockcroft Hall on Thursday 15 May at 1.30 p.m. and on Tuesday 20 May at 12.15 p.m.

The film was made by Millbank Films Ltd. with the aim of assisting industry, fire services etc. to avoid accidents involving dangerous chemicals and to cope with such accidents should they occur.

HARWELL ENGINES — make a 'Royal' visit to London

Fellows of the Royal Society and their guests expressed considerable interest in four HARWELL engines on show at the annual Royal Society Soirée held at 6 Carlton House Terrace last evening (8 May). The exhibit entitled 'Friction-less Stirling-Cycle Engines' comprised a Thermo-mechanical Generator running on propane gas and powering a small TV set and three operating models of Fluidyne, the liquid piston engine.

The Electronics & Applied Physics Division staff demonstrating their inventions at the Soirée were Mr. Ted Cooke-Yarborough, Dr. E. Franklin, Dr. Colin West, Mr. John Geisow and Mr. Rodney Howlett. The exhibit was prepared by the PR Design Studio in association with the Model Shop (Engineering Division) and the Glassblowing Unit (Chemistry Division).

The complete exhibit will be on show at the HARWELL Restaurant in the week beginning 12 May.

Three other Fluidyne models have been on show in the 'Tomorrow's World' exhibition at the Design Centre since 11 March and are being seen by some 800 visitors *each day* (33,546 to 1 May). This exhibition will remain open until 7 June.

ENERGY — on the crest of a wave

In an article in the 'New Scientist' of 1 May, Malcolm Woolley and Jim Platts consider that wavepower could be Britain's contribution to the repertoire of unconventional energy systems. Sir Christopher Cockerell, inventor of the hovercraft, became interested in wave energy in 1972. In 1974 he formed Wavepower Limited in Southampton. The company set out to study various wavepower devices and to prepare the ground for the commercial development of wave energy systems.

Public debate has concentrated on the high specific powers and high mechanical efficiencies of particular locations and devices. While there is immense power available in the Atlantic, it is not necessarily economic to tap it. Power in the North Sea is contained in a comparatively narrow band of wavelengths.

The rocking boom concept by Stephen Salter, University of Edinburgh, has had much publicity recently. Laboratory tests show great promise of a device with a basic efficiency of more than 50 per cent over an adequate range of wavelengths around Britain's coastline.

Wavepower Limited aims to develop a wavepower device that is simple, cheap and made up of small mass-produced units. They investigated a chain of floats, hinged together, with waves travelling down the chain. Pumps on the hinges absorb power from the relative rotation of adjacent floats. Tests indicate energy efficiencies of the same order as those obtained by Salter's rocking boom. What matters is a comparative assessment of cost-efficiencies. Simple estimates are encouraging but more detailed work is needed before a sound judgement can be made. Direct generation of electricity is the most obvious foreseeable application of wavepower in Britain.

NUCLEAR-POWERED MERCHANTMEN? — not yet

'The second report on the Nuclear Ship Study' prepared by the Government's interdepartmental Nuclear Ship Steering Group, was published at the end of April.

According to the report the adoption by Britain of a commercial nuclear ship programme still seems to be some years away in spite of the quadrupling of oil fuel prices during the past 18 months. Although on economic grounds the weight of evidence now favours the commercial adoption of nuclear propulsion - particularly for container ships - major uncertainties still exist. These include future prices for bunker oil and nuclear fuel. Costs may also arise by carrying out safety requirements 'not yet fully defined'.

The conclusion is that 'further consideration of the economic aspects must await resolution. The next stage of the study must be a more detailed examination in conjunction with industry'.

Safety and operational aspects of nuclear merchant ships indicate that the problems are complex but not insoluble, the report adds. But a major obstacle would be the acceptance of nuclear ships in the ports and territorial waters of other countries. ('Financial Times', 1 May)

MANAGEMENT CHANGES – O & M and Staff Surveys

With Mr. B.S. Phillips' return to the Group Secretary's Department, the O & M and Staff Survey team has been placed in his charge. Under his leadership the team will carry out Staff Surveys (principally of Category 'B' staff) and O & M investigations.

In the case of scientific divisions and other areas closely concerned with the scientific and technical programme of HARWELL, because of his background and experience and the need to co-ordinate Programmes and Planning work and the Management by Objectives schemes relating to Category 'A' staff with Staff Surveys, Dr. J. Butterworth is to have overall responsibility for guiding staff efficiency work.

DIARY OF EVENTS 1975

Theoretical Physics Division Seminar	Prof. J. Beeby (Leicester)	'Quantum mechanical scattering of atoms from surfaces'	Tuesday 13 May at 2.00 p.m. Conf. Room, Bldg. 8.9.
Joint Computational Maths. and Applications Seminar	M.J.D. Powell	'Some global convergence properties of a variable metric alogorithm for minimization without exact line searches'	Thursday 15 May at 2.15 p.m. Education & Training Centre.
Nuclear Physics Division Colloquium	Dr. C. Clement	'The value of spectroscopic factors in understanding single-particle properties of nuclei'	Thursday 15 May at 3.30 p.m. Conf. Room, Bldg. 8.

EVENTS AT RUTHERFORD LABORATORY

Nimrod Lectures	Prof. C. Michael (Liverpool)	'Resonance production at high energies'	Monday 12 May at 11.30 a.m. Lecture Theatre, R22.
	Dr. P.V. Landshoff (DAMTP Cambridge)	'Large p_T and the quark structure of the nucleon'	Monday 19 May at 11.30 a.m. Lecture Theatre, R22.

OUTSIDE EVENTS

Oxford Univ. Colloquium	Dr. H. Lamberton (SERL, Baldock)	'High power gas lasers'	Friday 16 May at 4.15 p.m. Lindemann Lecture Theatre, Clarendon Laboratory, Parks Road, Oxford.
Dept. of Engineering Science Colloquium	Dr. C. P. Buckley (Oxford)	'Non-linear viscoelastic behaviour of solid polymers'	Friday 16 May at 2.15 p.m. Engineering Laboratory, Parks Road, Oxford.

EVENTS AT INSTITUTION OF ELECTRICAL ENGINEERS

Electronics Division	*Colloquium: 'Computer simulation of communications systems'	Monday 12 May at 10.30 a.m. IEE Savoy Place, WC2.
	*Colloquium: 'Civil applications of underwater acoustics'	Tuesday 13 May at 2.30 p.m. IEE Savoy Place, WC2.

*Tickets available up to time of opening from:
Secretary (Ref. LS(MA)), IEE Savoy Place, London WC2R 0BL.

STOP PRESS

TEMPORARY CLOSURE OF ACCESS – to B.351

The access road leading from Street Fifteen to B.351 will be closed to traffic for approximately three days starting on Monday 12 May, by the operation of a crane handling pre-cast concrete units. Access to B.351 and B.351.15 will be via Street Seventeen.

HARWELL – MAN ALIVE – on BBC2

The 'Man Alive' programme on BBC2 at 9.25 p.m. on Thursday 15 May is entitled 'The waste remains and kills'. There will be reports from Windscale and Pitsea. Dr. Ned Franklin (NPC Chairman) and Dr. Frank Feates (HARWELL Hazardous Materials Service) will be amongst those taking part in a studio discussion.

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APPENDIX

SPRING HOLIDAY – 1975

Monday 26 May and Tuesday 27 May will be observed at this Establishment as paid holidays for both non-industrial and industrial employees.

Industrial employees who are required to work during the holiday break will be notified individually. They will receive holiday pay in addition to earnings for the work done, calculated on the agreed basis.

Attention is drawn to the rules regarding forfeiture of holiday pay for absence without leave immediately before or after the holiday period. A shift worker failing to report for rostered duty during the holiday is liable to forfeit holiday pay.

Industrial Pay Arrangements

Week ending 18 May 1975 Pay for this week will be issued on normal days and times. Bonus scheme returns are required by Computer Section by noon on Tuesday 20 May 1975. In order to meet this deadline Supervisors are requested to submit the relevant paperwork to Work Study Department as soon as possible; they should consult with their local Work Study Officers who will advise on the times to be met.

Week ending 25 May 1975 Pay for this week will be issued on normal days and times. Urgent action is required on the bonus scheme returns and therefore Supervisors are requested to ensure that all paperwork is in the hands of the Work Study Officers by 8.30 a.m. on Thursday 29 May 1975.

Week ending 1 June 1975 The normal pay arrangements will apply.

Annual Leave and Overtime over the Spring Holiday period, payment by GIRO Cheque instead of by Cash and Leave Advances

Employees wishing to take part of their annual leave over the Spring Holiday period, or who will be working overtime during that period, or wish to be paid by GIRO cheque instead of by cash, or require a leave advance of pay to be included with normal pay, should submit their applications and overtime authorisations on the appropriate forms to the Group Office, Hangar 9 at least 7 days before pay is to be issued. The usual arrangements for Late Advances will, however, apply.

Weekly paid Non-Industrial Arrangements

Weeks ending 18 and 25 May and 1 June 1975 The normal pay arrangements will apply.

Payment by GIRO Cheque instead of by cash, overtime claims and leave Advances over the Spring Holiday period

Employees wishing to be paid by GIRO cheque instead of by cash or who require a leave advance of pay to be included with normal pay over the Spring Holiday period should submit their applications on the appropriate forms to the Wages Officer, Building 150 at least 7 days before pay is to be issued, as should overtime claims. The usual arrangements for Late Advances will, however, apply.

Monthly paid Non-Industrial Arrangements - May Salaries The normal end of the month arrangements for the payment of salaries will apply.

Cash Office

The Cash Office will be closed during the Spring holiday but otherwise the normal times of opening will apply.

Canteens and Hostels

The Restaurant, Building 532 will be closed from 2.15 p.m. on Friday 23 May to the morning of Wednesday 28 May, but meals will be available in Icknield Way House for those who remain on duty during the holiday break. Tickets should be purchased before noon on Friday 23 May, from the Hostel Reception Office. The cost of lunch or dinner will be 55p. Normal catering services will be resumed on Wednesday 28 May. During the period starting with the evening meal on Friday 23 May and ending with the evening meal on Tuesday 27 May, meals will be provided in Icknield Way House for hostel residents on site who remain at the Establishment for the holiday (including those from Ridgeway House). Residents at Rush Common will be notified separately of holiday arrangements affecting this hostel. Hostel residents requiring meal tickets for guests may obtain them at a cost of 55p each from the Hostel Reception Office, before noon on Friday 23 May.