

Obituary: Professor R. N. Pryor (1921-1979)

Professor R. N. Pryor, A.R.S.M., B.Sc., C.Eng., F.I.C.E., F.I.Min.E., F.I.M.M., who died on 14th July, 1979, after a short illness, was President of the Institution of Mining and Metallurgy for the session 1978-1979. In 1968 he was appointed Professor of Mining at the Royal School of Mines, Imperial College of Science and Technology, London, and since 1974 had been Head of the Department of Mineral Resources Engineering.

Bob Pryor was born in 1921. He saw war service with the Chindits in India and Burma, and was a captain in the Royal Engineers. He graduated from the Royal School of Mines with first-class honours in 1948, and then worked with the Rio Tinto Co. Ltd in Spain, becoming chief mining engineer. From 1960 to 1966 he was employed in the RTZ London office as mining-engineer consultant on potash, lead-zinc, copper pyrite, and nickel projects; he returned to Spain in 1966 as general manager of the Rio Tinto Patina project, Huelva, until taking up his chair at the Royal School of Mines.

He undertook consultancy projects worldwide and, besides numerous reports, was the author of many technical papers, including three that were published in the *Transactions of the Institution of Mining and Metallurgy*: 'Mining of cupreous stockwork ores at Rio Tinto, Spain' (for which he was awarded the Consolidated Gold Fields of South Africa Ltd Gold Medal

for 1960), 'Sampling of Cerro Colorado, Rio Tinto, Spain', and 'Minerals industry education: the new disciplines'.

He was elected to student membership of the Institution of Mining and Metallurgy in 1940, and transferred to Membership in 1950 and to Fellowship in 1957; he was first elected a Member of Council in 1964, and appointed a Vice-President in 1975. He was chairman of the Mining Industry Editorial Board from 1974 to 1977, and Chairman of the Qualifications Committee from 1973 to 1977.

These and other activities in the Institution were only a part of his deep involvement in the mining profession; for instance, in the year preceding his presidency of the Institution, he was President of the Royal School of Mines Association, and in 1977/1978 he was awarded the title of Socio de Honor de la Asociacion de Ingenieros de Minas de Espana for his contributions to the development of Spanish mining — the first time the award had been made to a foreigner. His presidential address, delivered when he took office at the Annual General Meeting of the Institution in 1978, was entitled 'Towards a minerals policy', and was an expression of his commitment to the future growth and development of the minerals industry and the engineering profession in the service of mankind.

Weld pool metallurgy

A high level of current interest in welding characteristics and behaviour and in the properties of welds was amply demonstrated by the large attendance at The Welding Institute's 1978 Conference on 'Trends in Steels and Consumables for Welding' and by the overwhelming number of papers offered for the International Conference on 'Arc Physics and Weld Pool Behaviour' in May 1979.

From 15th to 17th April, 1980, an International Conference on 'Weld Pool Chemistry and Metallurgy' is to be held in London to draw these topics together and, by an association of the disciplines of chemistry, metallurgy, and physics, to present the latest knowledge and understanding of how the weld behaves during the operation of welding processes.

The Conference will be an important event for all involved in the metallurgy or chemistry of welding and in the development of welding processes and consumables, and for welding engineers and metallurgists who need to be brought up to date with the latest information both about the reactions taking place in the weld pool and their effect on weld properties and defects, and about the influence of the properties of consumables on welding behaviour.

Papers are anticipated from research and development laboratories, equipment and consumables manufacturers, universities, and other organizations working on aspects of weld pool behaviour. The following is a list of some of the topics on which papers are expected.

Gas-metal reactions

The behaviour of gases in welding and their role in the formation of defects

Slag-metal reactions

How slag and gas-metal reactions determine weld compositions and properties

Physical properties of fluxes, coatings, and slags

How these physical properties are influenced by flux or coating composition and how they affect welding behaviour

Weld-pool motion and stirring

Segregation in weld pools and grain refinement of welds.

Further information is obtainable from Manager Communications, The Welding Institute, Abington Hall, Cambridge CB1 6AL, England.

Mine ventilation

The First International Mine Ventilation Congress was held in September, 1975, in Johannesburg, South Africa, at the University of the Witwatersrand. It was organized by the Mine Ventilation Society of South Africa. More than 60 professional papers were presented to 555 delegates and associates.

A committee of international representatives was formed at that meeting and it was decided that similar conferences should be organized at intervals of four years.

The Second Congress has been planned to follow the lead of the South African Congress in examining the state of the art in mine ventilation today. The Congress will deal with ventilation topics in coal, metal, and non-metal mines.

The Congress will be held from 4th to 8th November, 1979, in Reno, Nevada. The language of the Congress will be English.

The paper selection committee has chosen papers from Australia, Belgium, Bulgaria, Canada, the Republic of China, Czechoslovakia, France, Germany, India, Japan, Poland, Romania, South Africa, Sweden, United Kingdom, United States, and Yugoslavia — from industry, government, and education, in an attempt to provide an overview of the state of the art in ventilation design and practice in the world today.

Three pre-conference short courses are planned:

Radiation Short Course, 2nd to 3rd November

Course Director: Robert T. Beckman (U.S.A.)

Computer Aided Analysis of Mine Ventilation Systems, 2nd to 3rd November

Course Director: Dr R. V. Ramani (U.S.A.)

Short Course on Mine Cooling, 1st to 3rd November

Course Director: Dr Austin Whillier (South Africa)

Further information is obtainable from 2nd IMVC Registrations, c/o Continuing Education/C&I, University of Nevada-Reno, Reno, NV 89557, U.S.A.

Occupational accidents and diseases

The IXth World Congress on the Prevention of Occupational Accidents and Diseases will be held in Amsterdam from 6th to 9th May, 1980.

The Congress is being organized by the Safety Institute (Veiligheidsinstituut) of the Netherlands, with the co-operation of the authorities and services concerned in the Benelux countries and in collaboration with the International Social Security Association (ISSA) and the International Labour Office (ILO) with headquarters at Geneva.

The central theme of the Congress is 'Recent developments in the prevention of occupational risks within the enterprise'. An international exhibition of modern occupational safety equipment, devices, clothing, and other

safety means is being organized in the framework of the Congress. Other special events dealing with the prevention of accidents at work will be arranged in connection with the Congress.

The previous world congresses were held in Rome in 1955, Brussels in 1958, Paris in 1961, London in 1964, Zagreb in 1967, Vienna in 1971, Dublin in 1974, and Bucharest in 1977.

Further information can be obtained from: Benelux Organising Committee, IXth World Congress on the Prevention of Occupational Accidents and Diseases, Veiligheidsinstituut, Postbox 5665, 1007 AR Amsterdam (Netherlands).

Rock mechanics

The 21st U.S. Symposium on Rock Mechanics is to be held at Rolla, Missouri, from 27th to 30th May, 1980.

Those interested in submitting a paper to this meeting are requested to submit a brief abstract (less than 200 words) for the printed programme, and an extended abstract (1000 to 1500 words), including if possible one or two graphs, for the use of the reviewers compiling the sessions.

This symposium is intended to cover the broad interests of the rock-mechanics community, and papers are solicited on, but not restricted to, the following topics: rock fragmentation; ground support, both artificial and by design; coal mining; *in situ* methods; rock-property measurements; rock instrumentation; rock modelling and analysis; explosives; geothermal conditions; oil-field conditions; tunnelling; drilling;

earthquake prediction; underground storage; subsidence; and general rock mechanics.

Papers are encouraged in the area of rock mechanics related to ground control and the implications of state and federal regulations on the associated technology. Also encouraged is the submission of papers oriented towards industrial applications and towards education in rock mechanics.

The following dates have tentatively been set:

Symposium	May 27-30, 1980
Abstracts due	November 30, 1979
Selection of papers	December 31, 1979
Papers due	February 28, 1980

For further information contact David A. Summers, University of Missouri-Rolla, Rock Mechanics & Explosives Research Center, Rolla, Missouri 65401, U.S.A.

Protection against noise

An International Symposium on the Protection of Workers Against Noise will be held in Dresden (German Democratic Republic) from 27th to 30th November, 1979.

This symposium, jointly organized by the Central Institute of Occupational Safety of the German Democratic Republic and the International Labour Office, will discuss the following items:

- (1) Equipment design (noise emission measurement methods and standards; reduction of noise at the design stage; major design problems; specific design of diesel engines, agricultural machinery, textile machinery, and ventilation machinery);
- (2) Noise control in the working environment (machine layout; enclosures, booths, baffles, coatings, and other sound-absorbing measures and evaluation of the effectiveness of these measures; acoustically isolated areas; remote control; work organization; methods of measurement, evaluation and monitoring of noise in the working environment including through simplified methods);

- (3) Occupational health aspects (effects of impulse noise; combined effects; epidemiological studies; noise and fatigue; criteria for determining hearing impairment; establishment of exposure limits based on health criteria; health supervision: pre-employment and periodic medical examinations and tests; conditions under which audiometric testing is carried out);
- (4) Noise prevention policies and programmes — legal, social and economic aspects (national and international approaches to legislation and standard setting; application of emission and exposure limits; hearing conservation programmes; workers' education; social and economic benefits of programme implementation).

Further information is obtainable from International Labour Office, Occupational Safety and Health Branch, CH-1211 Geneva 22, Switzerland, or Internationales Symposium 'Schutz der Arbeiter vor Lärm', Organisationsburo, Postschliessfach 105, DDR 8020 Dresden.

Management of mineral resources

A joint meeting of the Institution of Mining and Metallurgy, the Society of Mining Engineers of AIME, and the Metallurgical Society of AIME is to be held in London from 27th to 30th May, 1980. The topic will be 'National and international management of mineral resources'.

World supplies of most mineral raw materials and fuels are believed to be relatively limited, both for the long term and, occasionally, for the short term also. Long-term shortages of these raw materials, accompanied by rising prices, in real terms relative to other commodities, may be caused by technical inability to find and develop new supplies or to devise methods of substitution; or they may be caused by conservation measures, in particular energy conservation; or by demand instability; or by financial and political constraints on investment in otherwise promising areas for search and exploitation.

Short-term difficulties may be caused by political unrest in producing countries, by transport problems —

e.g. in war conditions — or by active boycott or restriction of exports by producing countries, either as a defensive measure to conserve resources for those countries' own industries or as a political weapon.

The aim of the plenary sessions is to examine the problems of consumer countries and companies in relation to such shortages, to consider where and how they are most vulnerable, and in regard to which minerals, to hear the problems that producers face in meeting such shortages, and to discuss the role of governments in equating demand and supply. The extent to which the European Community and the U.S.A. are justified in depending on 'free market' conditions and whether they should be involved in stimulating home production, stockpiling, marketing schemes, etc., should be considered, as well as the effect that such schemes would have on producers.

Further information can be obtained from The Secretary, Institute of Mining and Metallurgy, 44 Portland Place, London W1N 4 BR, England.

INFACON 80

During 1970 various South African institutes and associations agreed to organize an international ferro-alloys congress. It was recommended that this should be made a continuing forum, where ferro-alloy people could meet and discuss matters of mutual interest.

The result was INFACON 74 in Johannesburg, an outstanding success according to the participants.

IPFEO, the Institute of Western European Ferro-alloys Producers, now extends a cordial invitation to participate in INFACON 80, which is to be held from 13th to 16th October, 1980, at the Palais de Beaulieu,

Lausanne, Switzerland.

Four days will be devoted to technical sessions covering ferro-alloy technology, including the following topics:

- 1 Raw materials
- 2 Production
- 3 Energy: sources and conservation
- 4 Pollution: regulations, composite costs, and innovations in construction equipment
- 5 Applications, trends in consumption.

Further information is obtainable from IPFEO, 20 Avenue de la Gare, 1003 Lausanne, Switzerland.