UPDATE: MP&EM BOARD ACTIVITIES

The Minerals Processing & Extractive Metallurgy Board of IOM3 arranged a highly topical and successful Conference entitled “Emerging Trends in Minerals Engineering” focusing on the latest developments in MP&EM to improve efficiency and reduce costs. The event was held at the IOM3 London HQ, 297 Euston Road over 12 – 13 December 2016. There were 24 interesting and relevant presentations including the keynote by Professor Sam Kingman on the Use of Microwaves in Minerals Processing and a poster display. There were 49 attendees and the conference dinner at 297ER was enjoyed by all. The Conference was sponsored by Behre Dolbear and Anglo Asian Mining Plc. (Read more on page 2)

Tony Francis, other IOM3 members, industry leaders, financiers and NGOs attended the APPG meeting at the Palace of Westminster on 2 November 2016 presided over by Sir Henry Bellingham MP on “The Role of Mining in West Africa Post Ebola”. (Read more on page 3)

The first MP&EM Board meeting of 2017 was convened at the London offices of IOM3, 297 Euston Road, on 26 January.

Those IOM3 members with an interest in MP&EM are reminded that the technical journal representing our discipline is IMM, Transactions C now published by Taylor & Francis and free to download via the website. The journal publishes high quality refereed papers at the leading edge of MP&EM, MP&EM Trans C

The MP&EM annual report for 2016 is available to all IOM3 members from the website.

CPD facility on the IOM3 web site is available for members to keep their records updated.

NOTES FROM THE EDITOR

This will be my last edition as Editor of the MP&EM Newsletter! I will be handing over to Mike Cave and Mike Butler (MP&EM Board members) who will be the new joint editors of this newsletter.

I’ve really enjoyed putting together these newsletters and hearing from our readers. I look forward to reading the upcoming editions from Mike and Mike!

A big thanks to Tony for his insightful updates and Mike Brooks for his contribution to this edition.

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The current downturn in commodity prices, though showing some signs of recovery, continues to cause serious problems for many mining companies, severely constraining investment in the mining and minerals sector. Mining companies have focussed on driving down costs and increasing efficiency. The need for innovation is more crucial than ever to achieve these objectives.

The Minerals Processing and Extractive Metallurgy division arranged the 2 day conference, “Emerging Trends in Minerals Engineering”, providing a forum for researchers and innovators in the Minerals Engineering field to present their work to an international audience from both academia and industry. The event encompassed the latest research and developments in the fields of minerals processing, extractive metallurgy and geometallurgy.

The conference took place in the “Knowledge Quarter” of London at the Institute of Materials, Minerals and Mining at 297 Euston Road.

The Conference was opened by Professor Stephen Neethling of Imperial College who put the programme together and Tony Francis, Chair of the MP&EM Board. The key-note presentation was given by Professor Sam Kingman of Nottingham University on the use of micro-waves in minerals processing. There followed 23 high quality papers in 7 sessions over the 2 days. The subjects covered were varied and included the latest developments in geometallurgy, flotation, leaching, grinding, gravity methods, mineralogy, CCS, analysis, process modelling, plant control and contracting on a range of precious and base metals, diamonds and industrial minerals. A central theme throughout the conference was improving process efficiencies through innovation.

The list of the presentations is given on the event website, ETIMP Programme.

There were 49 delegates from over 10 countries who all contributed to the lively question and answer sessions after each presentation. The discussions continued during the excellent conference dinner at 297 Euston Road provided by the IOM3 caterers and enjoyed by all present.

It is planned to include refereed papers from the Conference in a future edition of the IMM Transactions C for Mineral Processing & Extractive Metallurgy.

The Board is in the early stages of organising Geometallurgy 2017 scheduled for late 2017.

Tony Francis
THE ROLE OF MINING IN AFRICA POST EBOLA

Tony Francis, other IOM3 members, industry leaders, financiers and NGOs attended the APPG meeting at the Palace of Westminster on 2 November 2016 presided over by Sir Henry Bellingham MP on “The Role of Mining in West Africa Post Ebola”.

Tobias Ellwood MP, UK Foreign Office Minister for the Middle East and Africa, Mr Bob Cutler of Dawnus Plc, H.E. the Guinea Ambassador to the UK and Louis Silva of GB Minerals were invited speakers. The main conclusion of the meeting was that in a post Brexit UK, trade and investment deals should be easier to finalise between the UK and other nations and HMG was ready and willing to facilitate the process with advice and funding. The Ambassador from Guinea and a representative from Sierra Leone in attendance confirmed that their relevant agencies were available to assist potential investors, the latter also thanked the UK Government for its sustained assistance to Sierra Leone over the years. This highlighted the historical links between many nations, not only in West Africa and the UK which could and should be utilised post signing Article 50. The Minister said that there will be enormous opportunities for UK entrepreneurs who are prepared to travel, look for local partners and make deals. TF asked whether the practices outlined in the EITI agreement would have to be followed as it is unlikely that the Chinese and Indian parties who are considerable investors in African mining and associated infrastructure projects would comply. The Minister replied that EITI would be followed but also that deals will have to be made with the Chinese and others, this is already under way as evidenced by the Hinckley Point contract.

Tony Francis
About the Speaker

Ian Duncan has been involved in the uranium industry for much of his working life starting in 1971 with Western Mining Corporation (WMC) as Operations Manager for Australian minerals exploration becoming Managing Director (WMC) of Olympic Dam Corporation Pty Ltd involved in the commissioning and operation of the world’s largest copper/uranium deposit and ultimately President (WMC) Olympic Dam Marketing Pty Ltd until 1996.

From 1997 to 2001 he undertook post graduate studies at Oxford University and addressed the relationship between society and the disposal of radioactive waste. His doctoral thesis is based on technology and sociology and defined original work in public attitudes to siting, NIMBYism, fears of radiation, waste management and “forward time”. Since 1996 he has been consulting in the field of ‘the interface between society and the disposal of radioactive waste’ and promoting nuclear power for electricity generation.

He has also held many other positions including Member of the SYNROC Steering Committee based on ANSTO and ANU invention and research and Vice Chairman and Chairman of the London based Uranium Institute, now the World Nuclear Association.

In 2015 he was appointed to the Independent Advisory Panel, National Radioactive Waste Management Project, Australian Government, Department of Industry and Science and contributed to material covered by the South Australian Nuclear Fuel Cycle Royal Commission. A further project will be to consider the management and disposal of the radioactive wastes that would arise if nuclear power generation were to be adopted in Australia.

Australian Academy of Technological Sciences and Engineering (ATSE)

Ian opened his talk by conveying goodwill to IOM3 from ATSE which is one of Australia’s four learned bodies. He presented a small gift which Tony Francis, Chairman of the Mineral Processing and Extractive Metallurgy Board was pleased to accept and who asked Ian to convey his thanks to the ATSE on behalf of IOM3.

(continued overleaf...)
Site Selection for Australia’s domestic Low Level Waste (LLW)

Ian commented briefly on the site selection policy for LLW in Australia under which communities are invited to offer sites to be considered for the development of a national radioactive waste facility. Site characterisation studies are then undertaken to determine if the site is suitable including groundwater levels and flows; groundwater characteristics; geology, rock type and landform; surface water flows; surface water characteristics; air quality, dust and meteorology; flora and fauna; heritage sites; transport routes. In return for the site being selected, funds will be provided for local projects that create lasting economic or social benefits. Further information on this project is available at [www.radioactivewaste.gov.au](http://www.radioactivewaste.gov.au)

South Australian Nuclear Fuel Cycle Royal Commission

Australia produces uranium for use in other countries’ nuclear power stations but currently does not have any base load nuclear power stations of its own. Ian briefly explained why it is so important to close the nuclear fuel cycle by providing a safe means of disposal of the spent nuclear power station fuel. Studies are already underway to consider the management and disposal of the radioactive wastes that would arise if nuclear power is adopted in Australia. The world’s nuclear industry is watching this process as one aspect of the study is to consider the import into Australia of other countries’ High Level Waste (HLW). Some discussion followed regarding the worldwide quantities of HLW currently awaiting processing for final disposal and alternative disposal methods.

UK Performance on Site Selection for final disposal of LLW

This year marks the 40th Anniversary of the publication of the “Flowers” report.

*Sir Brian Flowers was a highly regarded British nuclear physicist who worked both in his country’s nuclear weapons program as well as in its civilian nuclear power program. He was appointed by the government to conduct an inquiry into the long-term environmental implications of nuclear power, within the context of the UK Royal Commission on Environmental Pollution.*

This report instigated much UK activity into the selection of possible final nuclear waste disposal sites and the conceptual and detailed design of such facilities, but work was stopped in recent years after the expenditure of considerable funds.

* Presentation by Dr Ian J Duncan DPhil (Oxon), FTSE, FIEAust
* Article by Mike Brooks
WE WOULD LIKE TO HEAR FROM YOU!

We’re always interested in hearing from our members! If you would like to share a story, publish an article or just provide some feedback on the newsletter, please get in touch! All enquiries can be sent to our editor:

**Mike Cave**

**Email: mikecavepyro@gmail.com**

HOW DO I JOIN?

Individual membership of the MP&EM Division is achieved by joining the Institute of Materials, Minerals and Mining. You can join IOM3 online at www.iom3.org/join to get immediate access to member benefits, or you can complete our printed membership application form. For details of membership grades and professional qualifications visit: [www.iom3.org/membership](http://www.iom3.org/membership)

Company membership: More information about Industry Affiliate membership and an application form are available at: [www.iom3.org/ias](http://www.iom3.org/ias)