

British Tunnelling Society

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NEWSLETTER January 2004

Contract 250	Up line	4,663m
	Down line	4,405m

INTRODUCTION

This is the first Newsletter which is not going out with Tunnels & Tunnelling International. It is being sent out to members who have given Gavin Bowyer their e-mail address and will be placed on the website by 15th January 2004. If you wish your own copy please e-mail Gavin. Bts@ice.org.uk

In the past the newsletter was written some five weeks before you received it with T&TI and it was not therefore up to date. Under the new system it is being written only a few days before it is sent out and news items can be added a day before.

The Committee has also agreed to increase the number of issues and for this year the Newsletter will be issued every two months on or before 15th of the January, March, May, July, September and November.

The next NEWSLETTER will be forwarded by e-mail and placed on the website on 15th March 2004.

CHANNEL TUNNEL RAIL LINK

Since the last Newsletter, in October 2003, there have been a number of milestones on the CTRL. In the three months to the end of the year three drives were completed.

Contract 240 December	Up line	4.61km	10 th
	Down line	4.68km	3 rd December

Contract 320	Up line	2.5km	2 nd October
	Down line	Completed in March	

The progress on the other four drives at 31st December was:

Contract 220	Up line	7,159m
	Down line	6,264m

About 3.1km of tunnel remain to be excavated on the four drives and all four drives are expected to be completed in the next two months. Approximately 92% of the total length of bored tunnel have now been completed, compared to 61% at 15th September 2003 when the last Newsletter was written.

HIGH WYCOMBE SEWER

Amec completed the 3.3km long 3m diameter sewer tunnel between the Thames Water High Wycombe Sewage Treatment Works and Little Marlow on 12th January 2004. The tunnel, which was completed in about 8 months was driven in chalk with a Lovat EPB TBM at depths of up to 90m.

FUTURE MEETINGS and EVENTS

From January 2004 all meetings start at the Institution at 18.00 unless stated. Flysheets on the details of the meetings are circulated in advance in T&TI and details are also posted on the website a month or so in advance of the meeting.

15th January 2004

A86 West Project, Paris

19th February 2004

Joint meeting with IMMM South Division (MinSouth)- Old Cliffe Hill Quarry Tunnel

18th March 2004

Tunnelling Experience in Switzerland - Steg/Raron Section: Lötschberg Tunnel

15th April 2004

Harding Lecture - Sir Alan Muir Wood "Ahead of the Face"



The final breakthrough of TBM 1 - CTRL Contract 240 (courtesy of QA Photos Ltd. and Rail Link Engineering)

OBITUARY

Amco Corporation plc have recently reported the sad death of their Chief Executive Henry Schmill. His death in Germany on 14 September 2003, at the age of 77, followed a protracted illness which he fought with characteristic bravery. A private funeral was held in Germany and a memorial service was held in October at Wakefield Cathedral. Henry formed Amco in 1970 initially working for the National Coal Board on the construction of shafts, drifts and roadways. The firm expanded into other engineering fields with the decline in the mining industry. Henry was a character once met, never forgotten!

TUNNEL DESIGN AND CONSTRUCTION COURSE

Following the success of the BTS Design and Construction Course last July, the Committee has agreed to hold a course this year in June/July. Details will be distributed to members, placed on the website and further details will be given in the March Newsletter.

JOINT CODE OF PRACTICE FOR RISK MANAGEMENT OF TUNNEL WORKS IN THE UK

The Joint code of Practice with the Association of British Insurers, which was launched at Underground Construction 2003 is available from the Secretary at £10 per copy and £2 postage. The Code of Practice can also be purchased at the ICE Bookshop or on line the website, under "Press Release"

GOSSIP

Following the death of Henry Schmill, Stuart Gordon continues as Executive Chairman of the Amco Group and its subsidiary companies which include Dosco Overseas Engineering Ltd., and civil engineering,

tunnelling and mining contractor Amalgamated Construction Co. Ltd.

Amalgamated Construction has recently reorganised, under Chairman and Chief Executive David Jackson, into two operating divisions – Capital Projects, headed by Mark Turner, and Infrastructure Services, under Richard Instone.

There seems to be a complete lack of any news of members. Surely with the completion of some of the tunnelling works on the CTRL there is some movement of staff. Any interesting news about members to rodneycraig@compuserve.com

ANNUAL DINNER 2004

This years Annual Dinner will again be held at the Brewery, Chiswell Street, London ECI on Friday 7th May 2004.

The format will be much as last year with a showcase of the Tunnel Industry Award applications during the pre-dinner reception followed by the feast in the Porter Tun Room.

After dinner, our guest celebrity speaker will present the awards, following which there will be ample opportunity to network or enjoy the band, which is promised to be just a little quieter this year.

Ticket application may be booked on the website from the end of February or hard copies received from the Secretary.

TUNNELLING INDUSTRY AWARDS 2004

Once again, the search is on for the best in our business.

Award Categories

There are six categories:

- A) Major Project Award** – UK or overseas tunnelling project or project with significant underground works element demonstrating exemplary features or innovative techniques, systems or elements
- B) Small Project Award (up to £5m)** – Criteria as Major Project Award
- C) Achievement through Innovation Award** – An innovative process or idea that led to a significant improvement in the work or a significant saving on programme or costs associated with a tunnel project
- D) Excellence in Tunnel Design Award** – An element of either temporary work design or permanent design associated with tunnel work which demonstrates excellence in terms of

buildability, cost saving, or innovative design technique

E) Machinery/Materials Award – An award to a material or machinery manufacturer who shows innovative use of existing materials or equipment or the use of new materials or machinery that advances the quality of construction of tunnels

F) Safety and Environmental Excellence Award – An award for the best advancement in the safe construction of tunnels; the achievement of a significant reduction in the environmental impact during construction or improvement of improvement of safety in tunnels in use

How to Apply

Full rules and entry forms are available on the BTS website or from Tunnels & Tunnelling International. To enable us to include information about entries in T&TI, applications **MUST** be received by **Friday 13th February 2004**.

Presentation of Awards

The Awards winners will be announced at the BTS Annual Dinner on 7th May 2004, when the winners will be presented with their much coveted certificates by a guest celebrity (watch this space)

UNDERGROUND CONSTRUCTION 2003

The number of delegates attending the Underground Construction 2003 conference was again disappointing with 212 registered. Good attendance from overseas but more support required from UK firms and particularly from the client side. The length of the conference was reduced from three to two days, which helped the exhibitors as previously the third day had been quiet. The feedback from exhibitors was generally very positive.



Your Committee seem to have enjoyed themselves at the BTS stand

TUNNEL LOBBY GROUP

The AGM of the All Party Parliamentary Group for Underground Space took place in October 2003 with Lawrie Quinn MP remaining as Chairman. The AGM was followed by a presentation on CTRL by Alan Dyke of Union Railways. About a dozen Parliamentarians attended all or part of the meeting and some lively debate ensued in the discussion afterwards. It was useful to hear MPs expressing the views of their constituents. It was also very valuable for us to have a forum for discussion and explanation. For example we were able to mention the BTS promoted independent group looking into the CTRL tunnel collapse in east London.

The dates for the 2004 programme have yet to be fixed. However, it is likely that the programme up to the summer will include a visit to Heathrow's Terminal 5, a presentation on tunnel fires and a visit to the sewers in the City of London.

The BTS kept up their profile at the Associate Parliamentary Engineering Group December reception with about half a dozen of us circulating and networking with Parliamentarians and others from all sectors of the engineering industry. We will ensure our attendance at their meetings continues.

Further information from Helen Nattrass
h.nattrass@sir-robert-mcalpine.com
Tel 02078085141

HEALTH AND SAFETY

Consultation on New Vibration Regulations

HSE has published two consultative documents on proposed new regulations and guidance implementing European Physical Agents (Vibration) Directive.

The Control of Vibration at Work Regulations will require employers to take action to prevent their employees from developing diseases caused by exposure to vibration at work from equipment, vehicles and machines.

Two distinct types of vibration hazard are covered by the proposed Regulations:-

- **Hand-arm vibration** affects people who use hand-held or hand-guided power tools and those workers holding materials that vibrate when fed into machines. Long-term exposure to high levels of hand-arm vibration can lead to a range of disabling conditions including vibration white finger, permanent loss of feeling in the fingers and painful joints in the hands, wrists and arms.
- **Whole-body vibration** occurs when people are sitting or standing on industrial machines or

moving vehicles which transmit vibration and shocks into the operator. Long-term exposure to high levels of whole-body vibration is associated with low back pain.

The proposed Regulations will specify levels of vibration exposure where employers will be required to take action to control risks (the exposure action values): and where they must prevent further daily exposure (the exposure limit values).

The Regulations must come into force by July 2005 to implement the European Directive on time. UK negotiators played a significant role in developing a much more practical Directive than was originally proposed. In particular:-

- The original proposal included a whole-body vibration exposure limit value which would have placed severe restrictions on industry. The UK negotiated a substantial increase in the exposure limit value to a more acceptable and workable level. HSE is working with industry to collect more data on whole-body vibration levels but initial indications are that most agricultural and industrial work activities should be able to comply with the exposure limit value.
- The UK also negotiated a transitional period for the exposure limit value up to 2010 (with a further four years to 2014 for the agriculture and forestry sectors), for work activities where older machinery may be an obstacle to compliance.
- The UK also insisted on an option for averaging exposure over a week to allow high exposure on one or two days to be offset by low exposure on others.

Substantial HSE guidance on the Regulations is also being put out for consultation. Much of the guidance reiterates messages in HSE's existing publications and stresses the importance of simple, common sense control measures to reduce exposure.

There are two separate Consultative Documents as the two forms of vibration affect distinctly different work activities. Comments should be sent to HSE by **March 31st 2004**.

The documents are:-

- 1) **Proposals for new Control of Vibration at Work Regulations implementing the Physical Agents (Vibration) Directive (2002/44/EC) Hand-arm Vibration (ref no CD190)**
- 2) **Proposals for new Control of Vibrations at Work Regulations implementing the Physical Agents (Vibration) Directive (2002/44/EC) Whole-body vibration (ref no CD191)**

Both are available on HSE's website www.hse.gov.uk/consult/index.htm or free as hard copies from HSE Books, PO Box 1999, Sudbury, Suffolk, CO10 2WA, tel: 01787-881165 or fax: 01787-313995.

INTERNATIONAL TUNNELLING ASSOCIATION

The next ITA meeting is in Singapore from 22nd to 27th of May 2004. The title of the conference is "Underground Space for Sustainable Urban Development ". The registration fee has an Early Bird Rate before 1st March 2004, so book early for the discount. www.ita2004.com

DELEGATION FROM CHINA - 6-7 November

In early November 2003, at short notice, the Institution of Civil Engineers (ICE) was asked to arrange a meeting with British tunnelling experts and site visits to tunnelling projects for a visiting Chinese delegation from the China Highway Engineering Consultant & Supervision General Co. and the Development Planning Committee of Guangdong Province. The ICE contacted the BTS for assistance.

On 6th November representatives of the BTS gave an afternoon presentation covering contracting procedures, tunnelling techniques and major UK projects. The presentations were given by Anthony Umney of Faber Maunsell, BTS Chairman, David Court of Edmund Nuttall Ltd, BTS Vice Chairman, Roy Slocombe of Herrenknecht International Ltd, and David Gutteridge of Mott MacDonald. T&TI provided a useful delegate pack which included an issue in Chinese and a CTRL special supplement.

The following day the seven strong delegation visited the Elstree to St John's Wood Cable Tunnel, in London, with EDF NATIONAL Transco, the client, and KBR, their consultants.

The delegation were very pleased with the friendly and professional reception they received and the ICE congratulated the BTS at their rapid response to the request. The opportunity to show the expertise of the British Tunnelling Industry, demonstrated again the benefit of our having a committed learned society.

WORKING GROUP ON REGISTRATION

The Working Group on Registration and Competence (Peter Jewell (Chairman), David Court, Peter South, Eddie Woods and David Hobson) presented its findings to the BTS Committee at their November meeting. It has become clear that the Society must keep abreast of any developments regarding members' obligations to be formally qualified for their jobs, and to be able to demonstrate their competence and continuing professional development (CPD), and inform members accordingly.

To aid this process, the Committee has recognised the need to conduct a survey of its members to identify the full range of backgrounds, qualifications, skills and experience which they represent, and the jobs which they do. Please look out for a questionnaire on this which will be distributed shortly.

December 2003 marked the introduction of the UK SPEC (UK Standard for Professional Engineering Competence) which replaces SARTOR, and which defines the routes for professional engineers of all disciplines to become registered as Chartered Engineers. UK SPEC places a stronger emphasis on CPD than SARTOR, or its predecessors, although it stops short, at present, of introducing mandatory revalidation of professional registration. The Institution of Civil Engineers is currently reviewing UK SPEC to establish how it wishes to see it implemented. No doubt the other 40 Licensed Professional Engineering Institutions are doing likewise. The BTS Working Group foresees a role to continue to keep the membership aware of issues on this front which may affect them.

CONFERENCES

Don't forget to look at the back pages of Tunnels & Tunnelling International and World Tunnelling for the conferences coming up over the next two years. Also the International Tunnelling Association website www.ita-aites.org

Safe and Reliable Tunnels, Prague, Czech Republic, 4 to 6 February 2004. tunnelsymposium@cur.nl

Bauma 2004 Munich, Germany, 29 March to 4 April 2004. www.bauma.de

North American Tunnelling Conference, Atlanta US, 17 to 21 April 2004. www.auca.org

ITA-AITES 2004, World Tunnel Congress and 30th ITA General Assembly, Singapore 22 to 27 May 2004. www.ita2004.com

ITA-AITES 2005, World Tunnelling Congress and 31st ITA General Assembly, Istanbul, Turkey 7 to 12 May 2005. **CALL FOR PAPERS – Abstracts by 1st March 2004** www.ytmk.org.tr