

SGT NEWS



SPRING MEETING EXPLORES MELTING DEVELOPMENTS

The Society's Spring Meeting was held at the Park House Hotel, Shifnal, Shropshire from Wednesday 12 to Friday 14 May. The meeting followed the single topic of glass melting, with sessions on batch, melting, conditioning and pollution.

The conference began with an evening reception, organised by the London Section and sponsored by Borax Consolidated. Borax has strong links with the London Section, playing host to several evening lectures at the company's headquarters. The reception was held in the exhibition room adjoining the conference area. As well as Borax, Emhart (UK), Engelhard, SEPR Ceramics, Sorg, Stein Atkinson Stordy and TECO Europe provided exhibits and information on

their latest products and services.

The keynote lecture on innovation in glass melting was given by Dr J L Barton of Saint Gobain Recherche. He used a selection of patents literature to highlight trends in the development of furnaces, in particular accelerating heat exchange, fusion and refining.

BATCHING EMPHASIS

The following session was chaired by Mr D Rotherham and discussed batch. Mr D Barlow from British Glass reported on progress made in recycling bottles and meeting the EC Packaging Directive's target of 60% by the most cost-effective means. Bottle banks are working very well but there is still a need to increase their number and educate the householder to deposit all glass containers.

Mr R England of PLM Redfearn Glass continued the cullet theme, comparing the costs with raw materials. The development and commercial implementation of the cullet/batch preheater was then reviewed by Dr B -H Zippe of Zippe Industrieanlagen and Mr R Pabst of Vetropack. The pilot plant heating half of the batch at St Prex, Switzerland offered energy savings of 10%-15% and payback in just over four years.

Doghhouse designs were reviewed by Mr R D Argent of Frazier-Simplex, particular attention being paid to minimising the concerns of individual customers.

MELTING INNOVATION

The session on melting was chaired by Mr H S Johnson of King, Taudevin & Gregson. Mr P Chapman of KITG looked at areas where furnace repairs have been undertaken, in particular the throat, regenerators, crowns and arches. Mr H Holt of SAS read a paper by authors from sister company Stein Heurtey which looked at the melting furnace, the choice of fuels available and their impact on the environment.

A group of authors from SEPR then presented a paper on the dramatic results obtained from introducing a high zirconia fused cast refractory into high wear areas of a lead crystal melting furnace. Reject rates for finished products were drastically reduced and the return on investment took only nine months. Separately, Mr J P Hartley summarised the clinic meeting debate on increasing furnace life to 15 years.

CONDITIONING THEME

The final session of the first day looked at glass conditioning and was

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LOCAL SECTION CONTACTS

For details of forthcoming local section events in your area, contact the appropriate Honorary Secretary. All SGT members and non-members welcome.

London

— Mr M C Brew,
United Glass Ltd,
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6NY. Tel 0727
59261.

Midlands

— Mr R W Fisher,
Sismey and Linforth,
Unit 94, Heming Rd,
Redditch, Worcester
B98 0AE.
Tel 0527 29810.

North East

— Mr J Henderson,
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Throckley, Newcastle
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4775.

North West

— Dr D J Bridson,
Pilkington Glass,
Prescot Rd, St Helens,
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Scottish

— Mr D A Rennie,
United Glass Ltd,
Glasshouse Loan,
Alloa FK20 1PD.
Tel 0259 218822.

Yorkshire

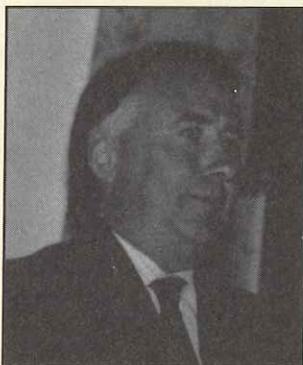
— Miss R M Sales, 20
Blackbrook Drive,
Sheffield S10 4LS.

NEW PRESIDENT

Duncan Rotherham has been elected President of the Society of Glass Technology, taking over from Neil McDonnell at the conclusion of his two year term of office.

After leaving school in 1958, Duncan Rotherham took up articles with a small firm of accountants based in the City of London. And having qualified as a chartered accountant, he gained two years' experience with Trafalgar House in the organisation's Housebuilding and Contracting Division.

In 1970, Duncan joined Rockware as assistant chief accountant and then finance director in 1974. He moved into manufacturing as factory operations director in 1976 for a period of six years, thereafter holding a number of other senior appointments within the company, before assuming his current position of managing director in 1986.



New SGT President, Duncan Rotherham FCA, FSGT.

He has been a regional councillor of the CBI since 1989, a member of Wakefield Training and Enterprise Council Board since its inception in 1990 and chairman of the Wakefield Education Business Partnership since 1991.

Duncan Rotherham joined the Society in 1977 and in 1982, following the death of Wilf Garder, was elected the ninth honorary treasurer, serving in this position until 1991. His period of office was marked by careful attention to the Society's financial affairs and the added responsibility as chairman of the committee controlling the Simpson Bequest. He was elected a Fellow in 1986.





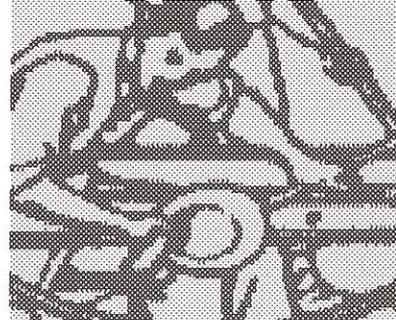
Clinic discussion panel at Shifnal. Shown, from left to right, are Mr J P Hartley (PLM Redfearn), Mr B Heap (Stein Atkinson Stordy), Mr T J Harper (TECO Europe), Dr G J Copley (British Glass), Mr G Gibbs (United Glass), Mr R Montgomery (Beatson Clark) and Dr R Quirk (Pilkington).

chaired by Mr J J S Lomax of United Glass. Mr G M Stanley of BH-F described the creation of a new feeder bowl shape using computer generated models to improve existing designs. Computer power was used by Mr R Sims of Sorg to provide predictive control of working conditions. Disturbances to the thermal homogeneity caused by job changes could be smoothed with a better response than conventional single loop controls.

Optimisation of factors affecting conditioning and the balance between residence time and maximum loading were discussed by Mr G Wray of PLM Redfearn. Recent advances have provided better understanding of the interdependence of furnace and forehearth operations.

POLLUTION IMPLICATIONS

The final day of the conference considered the effects of current and future pollution regulations under the chairmanship of Dr G J Copley of British Glass. Dr R Quirk of Pilkington discussed the problems of balancing the costs of running a commercial flat glass operation, satisfying the 1990 Environmental Protection Act and shoe horning the relevant emission reducing equipment within the confines of an established site. Environmental awareness is not an end-of-



pipe solution but has to be seen as an upgrading of the entire corporate outlook.

Mr R T Montgomery of Beatson Clark illustrated the financial pressures being placed on a relatively small container manufacturer by EPA. Local authorities wish to see a clear sky above factories, which means the adoption of gas. Without some way of accounting for environmental costs, the long-term viability of the industry will be eroded. The options of various furnaces for reducing pollution were summarised by Mr T J Harper and the operating costs were assessed. Individual circumstances must be studied to decide on the appropriate solution but the cold top electric furnace with on-site combined cycle gas turbine power generation came out as the most economic from the figures provided.

The conference closed with a clinic style discussion of issues raised by the earlier presentations. Oxy-fuel melting was thought to be the best solution for future needs, particularly for a greenfield site but the measurement of emissions by mass or concentration by some regulators is considered a brake to further technological progress. The likelihood of some capital allowances as an incentive for investment in emission reduction technology was thought unlikely. The government has established the 'polluter pays' principle, although funds are available for energy saving. The EC generally rewards the first company to adopt new methods. The trend is to the BAT side of BATNEEC.

PRESIDENTIAL ADDRESS

Mr N M McDonnell gave his Presidential Address to a full audience in Shifnal on Friday 15 May. His theme was experiences with United Glass from the early 1950s to the 1990s.

Mr McDonnell started working at UGBM in St Helens, then the company's subsidiary Dilworth & Carr. He joined Group Engineering in the early 1960s and as assistant to Norman Nichols, took part in the development of the Peasley site in 1965. The 1970s were dominated by the modernisation of the Alloa plant, plus the oil crisis and its knock on effects on energy consumption.

competitive market, the human element could not be ignored.

Opportunities for people to move from the shop floor and achieve professional qualifications have to be made available. The industry must attract engineers and technologists in order to maintain its position and generate technological progress. According to Mr McDonnell, to ignore these signs could prove costly.

The beginning of the 1980s saw recession and the emergence of competition from alternative packaging. This led to rationalisation but also to a realisation that the competition was not companies within the glass industry but other materials. Now the market is being attacked, glass is being promoted as a 'friendly' packaging option and further production efficiencies have been sought. NNPB and Verti-flow have helped boost production, while automatic inspection equipment and computer power will soon be interlinked to fully automate the glass container line.

As a prediction for the future, Mr McDonnell saw the eventual demise of the regenerative furnace and its replacement by rapid melting systems feeding individual machines. Automation would exist throughout but in order to remain successful in a



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EMISSION CONTROL

The Society's October symposium will be held at the Ardsley Moat House on Wednesday 6 October. The Engineering Committee has put together a programme dealing with the control of emissions in the glass industry.

Current legislation will be reviewed from both the industry and local authority viewpoints, by Mr B Gibbs of GB Glass and Mr N M Perry of Rotherham Metropolitan Borough Council respectively. Speakers will then discuss emission types (particulate, gaseous and electro-magnetic), their sources within the glass plant and monitoring and control systems. Ian Nicol, manager of Pilkington Glass' Environmental Services and Quality Group will be the conference chairman.

Full programme details and booking forms are available from Jill Costello at the Society.

AGM HIGHLIGHTS

● At the Society's 76th Annual General Meeting, four new Fellows were introduced and presented with commemorative scrolls: Dr Angela Seddon, lecturer at the School of Materials, University of Sheffield; Roy Wright, head of glass technology, Rockware Technical Division; Len England, managing director, Cumbria Crystal; and Dr Diane Holland, senior lecturer at the Physics Department, Warwick University.

● Following a two-to-one vote in favour of affiliation, permission was sought to continue formal discussions with the Institute of Materials.

● Maurice Wallage proposed that the President-Designate nominated by Council, Duncan Rotherham, be elected as President for 1993-94. This was seconded by Dr Peter Hart and carried unanimously by the meeting.