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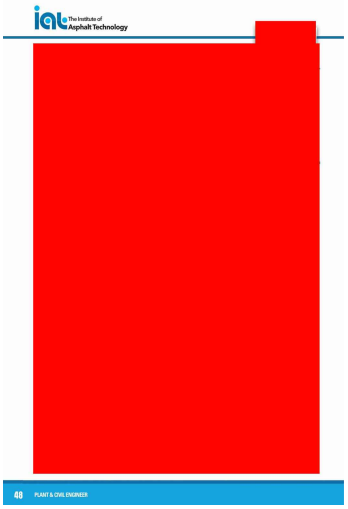

FROM THE DESK OF: LYLE ANDREW, EXECUTIVE DIRECTOR, INSTITUTE OF ASPHALT TECHNOLOGY

Lyle Andrew, IAT

KEEPING YOU INFORMED OF WHAT'S HAPPENING IN THE SECTOR

Welcome to this the first of a regular update from the Institute of Asphalt Technology, the Professional Body for persons working in the field of Asphalt Technology and for those interested in all aspects of the Manufacture, Laying, Technology and Uses of materials containing Asphalt or Bitumen.

There has been a lot happening in the sector over the last few months with many of us getting back to face-to-face meetings, events, site visits and conferences. One of the first such events to mention was the IAT's own very successful Annual Conference which was held in Belfast in May. Thanks again to P&CE for the coverage in their previous edition. The Institute welcomed 250 guests to the Presidents Dinner and 170 Conference delegates the following day at Titanic Belfast.

The success of this event will allow the NI Branch the resources and confidence to bring further training seminars and professional development opportunities to the industry in Northern Ireland with a Training Day planned for later in the year.

TRAINING & DEVELOPMENT

The challenge of attracting and retaining skilled workers at all levels, whether that be asphalt labourers, drivers, technicians, or supervisors is neither new nor diminishing. Many other industries, and indeed disciplines within our sector, can utilise Apprenticeships as a means of recruiting and training new entrants. England now has an Apprenticeship for Road Surfacing Operatives, but different Apprenticeship funding arrangements mean that this is not available within Northern Ireland or the other the devolved nations.

Thankfully other Vocational Qualifications can be provided here and the IAT in NI was pleased to be part of the successful delivery of an NVQ Level 4 Construction Site Supervisor for Highway Maintenance and Repair.

This training programme was supported by CITB NI's Training in Partnership funding which helps the industry to develop, innovate and improve productivity through training initiatives.

Thework-based qualification was designed to build a developmental programme that would provide formal recognised qualifications to improve both knowledge and performance, delivered by People 1st, and further supported by The Mineral Product Association NI (Ltd) and the Institute of Asphalt Technology.

IAT continues to offer other Vocational and Professional qualifications to our members and industry, as well as a range of asphalt specific distance learning courses delivered in partnership with the Institute of Quarrying and University of Derby. Our CPD events, both online and at Branch level, are available to non-members and our Student grade of membership is free of charge for those studying a relevant full-time or part-time course.

THE CARBON CHALLENGE

The Climate Bill for Northern Ireland will require our local authorities with responsibility for construction to plan for net-zero construction. This will pose another major obstacle for our highways sector; one which can best be tackled from a collaborative approach.

I refer to our Conference keynote address by Dr Ian Lancaster who highlighted the contribution that bitumen can make to a sustainable construction environment.

Firstly, bitumen will continue to be a key component in the construction, maintenance and repair of infrastructure (roads, bridges, building, roofing….) due to its unrivalled versatility in terms of flexibility, durability and re-use. The inherent recyclability of bituminous materials means that they can make a significant contribution to the circular economy, while bitumen itself is a sustainable component.

The bitumen industry has a proven track record of innovation that means it is well-placed to cope with the challenges of climate change and increasing performance demands. Incorporation of modifiers to reduce temperature susceptibility, improve flexibility and reduce application temperatures can lead to significant improvements in durability. These innovations can also lead to a reduction in material use by enabling thinner pavement structures. However, it is critical that the bitumen industry continues to work in partnership with key stakeholders to maximise the carbon reduction and climate change mitigation opportunities that these innovations offer.

WARM MIX ASPHALT

In recent weeks we have had announcements from two of the UK's biggest asphalt producers, Tarmac and Aggregate Industries, that they are making Warm Mix Asphalt (WMA) the default material to be supplied from their Asphalt plants.

WMA is mixed 20-40 degrees C lower than traditional hot mix materials allowing for significant reductions in CO_2 emissions by using less fuel to heat the mixes. Lower production temperatures can also reduce binder ageing, potentially extending the service life of the asphalt.

This move follows the introduction last year of a Warm Mix Asphalt Clause (Cl 908) to the Specification for Highway Works by National Highways. This was a significant move by the main client and specification body in our sector to encourage the use of such materials.

Interestingly there is a specific Clause 908NI for Northern Ireland, stating "Warm Mix Asphalt shall not be used without prior approval from the Overseeing Organisation."

The All Party Parliamentary Group on Highways has indicated that if the UK embraced low-temperature manufacture for asphalt production it would cut at least 61,000 tonnes of CO_2 a year.

Other benefits of Warm Mix include reduction of fumes and steam when being laid on site, making it a safer product to lay, as well as allowing the road to be opened to traffic sooner than with hot mix.

It must be said that Warm Mix technology is not considered to be ready to use with Asphalt mixes where chippings are applied at time of laying, i.e. Hot Rolled Asphalt Surface Course, which does tend to be used proportionally more in Northern Ireland.

The main challenge of using WMA on a daily basis comes from whether or not that facility also has to produce HRA Surface Course on the same day, meaning that the potential savings are reduced by switching from Hot to Warm mix temperatures.

I anticipate that DfI Roads will carry out some pilot projects using Warm Mix Asphalt before making it a standard product in their contracts here. Hopefully our suppliers can prove the technology successful as has already been done throughout the rest of UK.