Probe

Contributor Harry Booth looks at the life of an Institute member and describes some challenges and problems encountered at the workplace. The article is one of a series intended to inform as well as to entertain.

Dr Robin Shipp feels he is a comparative newcomer to the world of NDT, yet he is already making a significant contribution to the profession and the Institute, especially in the sphere of training and certification. He started out as a metallurgist. After graduating with an honours degree in materials science from Peterhouse, Cambridge, he embarked on a PhD, investigating stress corrosion failure of high strength light alloys. This was a joint project between the British Non-Ferrous Metals Research Association, which employed him, and the Department of Metallurgy at Cambridge University.

On completing his doctorate in 1970, he obtained a post as a research officer at the CEGB Berkeley Nuclear Laboratories where he spent six years on projects concerned with the behaviour of nuclear fuels. He then moved to the Research Division headquarters in London as liaison officer. It was not until 1979 that he had his first real taste of NDT site work when he was seconded for six months to the Metallurgy and NDT section of the South of Scotland Electricity Board, working at Cockenzie power station. It was there he found his niche. "I like seeing the wider spectrum of different things," he says, "so I thoroughly enjoyed my first involvement with NDT. Although it sounds like a narrow specialism it does involve a range of subjects - metallurgy, physics, chemistry, fracture mechanics. You have a clear idea of the purpose of the job and what people are going to do with the results. So I felt it was the sort of work I could always take an interest in and never get bored."

Not surprisingly then, he stayed with the SSEB another three years as Head of the NDT section based in East Kilbride. It was there he became involved in a piece of work which he looks back on with great satisfaction - the proving of the gas circuits at Hunterston 'A' nuclear power station. The station was twenty years old at the time and the Nuclear Installations Inspectorate had requested a reassurance of their safety. "We believed they were", says Robin, "because we had already done a certain amount of checking; but what we had to do then was mount a whole programme of work to show they really were fit for their purpose". It was quite a huge operation. It meant writing procedures, it meant getting teams of contractors together, it meant arranging the way they reported their work, and so on. It went on for the three years he was there. He adds: "It was satisfying to know you were doing a worthwhile job. It didn't as it happened reveal any faults. The reactors proved to be in good condition. It was a negative result in a way, but with reactors especially it is the sort of result you are looking for."

Apart from the man-management role and technical responsibility in his job at East Kilbride he also had to become involved in the training and certification of SSEB staff. He instituted a programme of training designed to ensure that all practitioners obtained independent certification of their abilities. This involved an extensive programme of training - both basic training for new staff and refresher training for those with experience. Use was made of established commercial courses, but some courses had to be specially designed in conjunction with the Scottish School of NDT at Paisley College.

Training matters also figure largely in his present post as Head of the NDT Quality Assurance Group in the CEGB's Applications Centre, based at Wythenshawe, Manchester. The Centre is a part of the Board's new operational Engineering Division and has national responsibility for NDT development throughout the CEGB. In fact, he was recruited back to the CEGB in 1983 with the main aim of developing and launching its Operational NDT Scheme which is concerned with work at power stations already operating as distinct from new plant. The scheme is intended to provide a framework of standards to regulate the work. It covers the organisation of the local NDT service teams, the training and approval of personnel, and the writing of inspection procedures.

Dr Robin Shipp

Robin confesses that he misses the operating pressures of being in the front line, but derives a different kind of job satisfaction from his present "back room" post - that of seeing young people develop and achieve goals. A typical example of this arose with an innovation to overcome a recruitment problem. Finding it difficult to recruit staff at the level needed for NDT engineers, it was suggested that they dipped into their own pool of bright young men in the industrial grades and train them up to the required standards. "It is easy" he says, "to find NDT operators; you can hire them any day. Engineers are more difficult to find. And we wanted our own staff to have a deeper understanding and wider knowledge of NDT". So they identified five young chaps in the industrial grades with good HNCs, the right motivation, and a lot of potential, and offered them a training course of up to two years; by then it was hoped they would be good enough to promote to NDT engineering grades. Robin adds proudly: "We started this scheme two years ago and it has been a success. Out of the first batch, four have already been placed. Last year we took on another five, and we are doing the same this year. With a corps of 130 NDT engineers throughout the country, about five are needed every year to make up for natural wastage".

Another important aspect of his current post is considerable liaison work with external organisations, in particular the Certification Scheme for Weldment Inspection Personnel (CSWIP) and the new Personnel Certification in NDT (PCN) scheme. He serves on the CSWIP Phase 1 Working Party (which frames the requirements for ultrasonics approvals) and the CSWIP Approval of Courses Panel which involves assessment visits to a wide range of NDT training establishments. He was on the working party which drafted the requirements for PCN magnetic and penetrant approvals, and he serves on the School of Applied NDT Advisory Committee. He is also sometimes called on to deputise for his Manager (Dr MJ Whittle) on the CSWIP Management Board.

In addition he has been an active member of the British Institute of Non- Destructive Testing since 1983. He served for a time on the Publications and Technical Committee, and is currently Vice-Chairman of the Membership, Qualifications and Education Committee. In 1985 he organised and chaired an Institute seminar on data acquisition for automated ultrasonic testing. He has presented several papers on various aspects of NDT at meetings of BInstNDT and other learned institutions. Last year he was registered through the Institute as a Chartered Engineer.

He is keen to improve the status and image of NDT and sees his work on the Membership Committee as a vital part of this effort. "There is", he says "no such thing as a professional NDT engineer at the moment because people come into NDT from all sorts of disciplines, although its very strength lies in the fact that we do get such a wide variety of people from diffeent backgrounds of science and engineering. We are now trying to get BInstNDT itself more widely recognised as a professional institution. So everything we do in terms of getting people accepted as chartered engineers by the Engineering Council is important. My own experience in applying has helped me to understand the difficulties involved. All our own requirements for membership are being tightened up considerably in terms of looking very hard at an applicant's qualifications and experience, and before long we are likely to start interviewing candidates before admitting them to corporate membership. It all helps to improve the status of the Institute and of NDT generally."

As to the future, he sees NDT as becoming a lot more formalised. Whereas it used to be something of a last resort, the need now is to plan NDT into procedures at the very beginning. This means embodying it as part of the overall quality assurance loop when either manufacturing or operating plant.

Much of Robin's spare time is spent with his family; they have three children, two boys and a girl. However, he shyly admits to having one absorbing interest, that of bell ringing at a nearby church. It is a skill he learned from his father, and one that he in turn is passing on to his elder son. Come to think of it, there could hardly be a more appropriate hobby for an NDT specialist whose working life is spent ensuring that everything is as sound as a bell.