

## **Apprentices at Collis Engineering Ltd**

Peter Roberts, the managing director and majority shareholder of Collis Engineering Ltd, started his working life as an apprentice. When he arrived in 1989 as the works general manager at the Alfreton-based railway signalling manufacturer and service provider, the recruitment of apprentices started soon after. “He bought into that,” says the company’s assurance director, Richard Whitehead, “and we have always gone that route”. Collis currently has 10 apprentices in both its manufacturing and civil engineering divisions, with many former apprentices in positions of responsibility. As a result, the company has employees at various levels who have all ingested on the shop-floor its approach to a safe and healthy workplace.

Collis specialises in turnkey design and the supply of signal structures, offering a full design, supply and installation service. The principal manufacturing processes are fabrication and machining of carbon and low alloy steel products. The company employed an average of 100 staff during 2015/16 and is the largest part of the Signal House Group (see box 1).

Richard Whitehead is a Chartered Safety Practitioner and Chartered Quality Professional. He reports to the Signal House board for the group’s three companies on: quality, health, safety and environment (QHSE) systems; the HR function, including the recruitment and training of apprentices; and plant and equipment maintenance. The group’s integrated management system is certified to OHSAS 18001, ISO 9001 and ISO 14001. Richard has an assurance team of three that administers and audits the system. Departmental managers are responsible for day-to-day health and safety management.

### **Apprentices at Collis**

Since 1989, Collis has usually taken on one or two apprentices a year, albeit with a one-off peak of seven in 2014. Apprentices train predominantly in

machining, fabrication and welding. Normally, the maximum number of apprentices working at the company at any one time is 10 or 11; currently there are eight apprentices on the shop-floor, one in civil engineering and one at Toyota's nearby apprentices school. Most apprentices start between the ages of 16 and 22. Nearly all are male; there have been just three female apprentices – two in the office and, on the shop-floor, one female apprentice who won the EEF "apprentice of the year" before family and personal issues prevented her from completing her apprenticeship. There are no female apprentices at the moment. The civil engineering apprentice is the only one to work away from the Collis site.

Collis is currently working with SEMTA (the Science, Engineering and Manufacturing Technologies Alliance, which is a not-for-profit organisation engaged with "engineering skills for the future of the UK's most advanced sectors"), Toyota, NLT Training and Training Services 2000 (two regional apprentice training providers), although the relationship with the latter is coming to an end. The apprentices spend one day a week at college and the other four days at Collis. Although Richard has used a block-release in the past, he believes that a more regular presence at Collis allows the apprentices to familiarise themselves more easily with the company, the shop-floor, their colleagues and their jobs.

"The length of an apprenticeship", says Richard Whitehead, "depends on who you speak to. The training providers like to push it through in three years but the rules of Collis are that it is four years. The training providers want to get the training done, get the qualification and draw all the money. Obviously, we believe you cannot be a qualified and skilled shop-floor worker if you have not done at least four years."

Apprentices train to NVQ level 3, although Collis will sometimes take them beyond this point, for example through HNC and HND, but this is not part of the apprenticeship. Although Collis is "still a little bit in the dark" about the implications of the Government's new Apprenticeship Levy, Richard believes that it might benefit the company's expenditure on level 4 and

other qualifications that are beyond the scope of the current apprenticeship.

### **Pre-employment checks**

Collis selects its apprentices following an interview and references. Apprentices must have a minimum GCSE grade C in English, maths and science. Before apprentices begin at the factory, the external provider will visit and carry out a health and safety audit, liaising with Richard Whitehead and the apprentice mentor. Richard says the process is “quick” and does not “go into massive depth”. Typically, the provider will fill out some pro-forma risk assessments, ask for some background information and check the employers’ liability and other insurance certificates. The provider does not carry out a physical risk assessment for every placement, but will instead check that the company’s assessments are up to date and appropriate for the placement, and that there have been no material changes since the previous assessment and visit.

Richard Whitehead believes these checks suffice because he has worked with the providers over many years and because he is confident of the adequacy of Collis’s arrangements. He is not sure, however, whether such checks would be sufficient for smaller companies that are allocating insufficient resource to health and safety. In these cases, he adds, “it might be said that they don’t get out there often enough”, although he also points out that Collis had just taken on an apprentice who had been told by his training provider to leave his previous employer on health and safety grounds.

### **Starting work**

Whitehead revisits his company’s risk assessments before each apprentice starts, although he adds that it would in any case do this every year as part of the company’s general approach. The risk assessments have “not really” thrown up anything specific for apprentices, he says, beyond what is set out in the legislation and guidance, notably the provision of supervision

and working hours. Nor, with a couple of exceptions, has Collis had to become involved in welfare issues outside of the workplace.

On an apprentice's first day at Collis, the induction training begins at 8.30am with some short safety videos. Richard follows the videos with a power-point presentation applying what the apprentices have just seen to Collis. The presentation looks at the Health and Safety at Work Act, risk assessments, noise, vibration, PPE, work at height, fire and emergency, first aid, spill response and welfare.

A colleague in Richard's department then carries out most of the health and safety training, including manual handling issues, at the end of which there is a short test to check knowledge retention. There is no pass or fail. Apprentices will normally score eight or more marks out of 12; should the mark be lower, the trainer will go back over any areas that need revisiting. The induction, which lasts between two and three hours, also covers issues such as banking details and confidentiality agreements.

The apprentices are then provided with PPE, after which they embark on a shop-floor tour. Collis does not mark its PPE to distinguish apprentices from other employees. Richard's own apprenticeship was in a tool room at a factory with 1,500 workers and he remembers "standing out like a sore thumb" in his green overalls. Regardless, he is neither opposed nor in favour of distinguishing PPE for apprentices. Collis is small enough, he explains, that everyone knows everyone.

Collis uses an external occupational health provider to carry out surveillance covering skin (dermatitis), hearing and hand arm vibration syndrome and, for welders and painter, lung function tests. Apprentices undergo the tests upon starting work and at 12-monthly intervals. Although the surveillance has not thrown up any problems with apprentices, it is a useful benchmark for the company.

In terms of guidance and advice, Whitehead says Collis will use local colleges and training providers as well as SEMTA, where his working

relationship with a particular contact has proved extremely positive. He has also found useful information in the HSE's guidance on apprentices. Nor are there any areas in which Richard believes there is a need for additional guidance. Collis has been running apprenticeships for 28 years and, coupled with his own experience, he believes "we have a pretty good handle on what is required".

### **Mentoring at Collis**

Collis has a shop-floor-based "apprentice mentor", who is responsible for all the apprentices aside from the civil engineering and Toyota apprentices. He is their first port of call, responsible for supervision, and carries out some liaison with the training provider. The apprentices are instructed to approach their mentor in the first instance, although he will also proactively walk around to check on what the apprentices are doing.

The apprentice mentor is a plater-welder and, as such, he will provide advice on welding and fabrication, although expertise in machining lies with other workers. This, Richard emphasises, is an important role of the mentor: not always to do the mentoring but to pass the apprentice to the most appropriately skilled worker. Collis also has "favourite workers" for placing apprentices – "you know who is interested", Richard explains.

Richard says that although the mentor attended a one-day course on apprentices and mentoring, the most important element is that he is "just very good at his job and at mentoring". The mentor reviews the apprentices' progress every three months; although this review does not currently cover health and safety, he may include it in the future. The training provider carries out monthly reviews, which include health and safety.

### **Engaging apprentices**

An apprentice sits on Collis's health and safety committee, which meets three or four times a year. The apprentice members rotate, in order to allow all the apprentices to gain experience. Whenever Richard is

developing or reviewing a risk assessment, he will “pluck” an apprentice from the shop floor to participate.

The success of the engagement varies, depending on the apprentice. Some will freely converse but others need to be engaged through direct questions, for example by asking about the relevance of an agenda item or proposal to an apprentice’s department. Apprentices, says Richard, can “bring a fresh pair of eyes sometimes”.

Collis, adds Richard, encourages its apprentices to come up with suggestions and raise health and safety issues and generally not to be reticent about giving their views. Apprentices are always part of the company’s improvement teams, which address health and safety issues. Collis, which has traditionally “been good at coming up with things but not necessary seeing them through”, is currently working with Derby University on redressing this situation, with apprentices fully involved.

### **The benefits**

Richard Whitehead finds “working with apprentices very refreshing”. They will generally take in and follow the health and safety rules: “You will always get the odd risk taker, but that is not confined to apprentices,” he says. As the person who has recruited the apprentices and overseen their training, they are, he adds, “a real source of pride”. Against a background of significant rotation within the industry, the company has managed to retain 60%–70% of its apprentices over the past 10 years. “By and large we have done well, with a number picking up the 25 year award recently.”

Nor is it merely a matter of retention. Richard emphasises that the company has “enjoyed real success with apprentices moving through the business to positions of authority”. Former apprentices are now employed by the company as senior project engineers in civil engineering (two), a project engineer, a machine shop manager, a planning assistant (who is also the responsible welding coordinator, which is a required post), and a business development executive (who also gained, with Collis’s support, a

first class degree in business improvement techniques). All of these individuals will have had an understanding of health and safety from the day they started with Collis and the ability to ensure that it is engendered in the generations to come.

#### **[BOX 1]**

##### **SIGNAL HOUSE GROUP**

The Signal House Group comprises three companies:

- Collis Engineering Ltd is the group’s specialist structural and mechanical engineering arm. It is based at the group’s head office and main manufacturing site in Alfreton, Derbyshire.
- Signal House Ltd is the group’s specialist electrical engineering company. It was established in 1885 and is based in Leighton Buzzard. The company researches, develops and manufactures LED railway signalling equipment.
- SH Lighting Ltd is based in Barrow-in-Furness, from where it develops and produces new LED solutions for use in harsh environments.

The group was established in 2003 following a management buyout of Collis Engineering Ltd and Signal House Ltd. In 2015/16, the group made a pre-tax profit of £581,000 on a turnover of £7.75 million. The group, which had an average of 129 employees during the year, does not recognise trade unions.

#### **[BOX 2]**

##### **NEW SYSTEMS FOLLOWED APPRENTICE INJURY**

In 1999, in the week that Richard Whitehead moved from the machine manager’s job to take over responsibility for OSH, an apprentice suffered a reportable injury to his arm while using an emery cloth on a machine. This, says Richard, “focused the organisation on addressing health and safety needs, and on personal and organisational development, and resulted in the implementation of effective systems, including OHSAS 18001 in 2006 and the attainment of OSH qualifications”.

Since that incident, no apprentices have suffered a reportable injury.

In the past three years, the Signal House Group has experienced a single RIDDOR injury. Over the same period, injuries of any kind have halved, from 35 (2014) to 14 (2015) and 18 (2016). Richard adds that: “The spike in 2014 was partially related to the fact that we recruited a higher number of apprentices [seven] and they were quick to report minor injuries – they are instructed to report anything – and they were getting use to working

with tools and equipment.”