



Welcome to the fifth edition of *Arb News*, a newsletter to help keep you up to date with health and safety news for your industry.

HSE and AFAG success at APF Show

The joint HSE/Arboriculture and Forestry Advisory Group (AFAG) stand and seminar at this year's APF Show were hailed as a major success by members and many visitors. Record numbers of workers from both the arboriculture and forestry sectors visited the stand to discuss current issues with AFAG members. Three major initiatives were announced at the show:

- **AFAG's consultation with the industry on 'Training and certification in tree work'**

At a specially held seminar, James Brown, a member of AFAG's Training and Certification Working Group and AFAG's representative on HSC's Agricultural Industry Advisory Committee, introduced the consultation exercise.

'Certificates of Competence were originally seen as the starting point for training but unfortunately they are often now considered as proof that the certificate holder is fully skilled,' Jim commented, 'but this is not always the case and we need to find some way of making sure that workers continue to develop their skills over time. Importantly, we need a nationally recognised way of recording this development throughout their career. These changes are being driven from within the industry and will help employers, contractors and employees to make sure that those who are skilled are recognised and rewarded as such.'

The consultation exercise started in the middle of October and runs until 1 March 2007. Details of how you can contribute and send AFAG your views are now available on HSE's forestry/arboriculture website (www.hse.gov.uk/agriculture/forestry.htm). The AFAG Training and Certification Working Group, whose members come from all sectors of the tree work industry, have decided not to recommend any specific way forward at this stage but are keen to hear what systems are currently used, as well as what the industry wants and needs for the future.

At the APF seminar, Roger Nourish (Chair of AFAG) emphasised: 'We need a system that is simple, cost effective and has the confidence of the industry. We need a system that will work for years to come, and to make sure that happens, we need the views of all those involved in tree work.' Anyone considering taking part in the consultation should note that all contributions received will be treated in confidence and no contact details will be held or used by HSE.

AFAG guidance

Over the next few months AFAG's Communications Working Group will be considering how to get information out more effectively to all involved in the industry, including using new methods such as IT- and web-based systems. Your views on these methods versus 'hard copy' publications would be welcome.

Recent HSE publications

Electrical utility arboriculture
AFAG leaflet 404
www.hse.gov.uk/pubns/afag404.pdf

Steep slope working in forestry AFAG leaflet 705
www.hse.gov.uk/pubns/afag705.pdf

Five steps to risk assessment Leaflet INDG163(rev2)
www.hse.gov.uk/pubns/indg163.pdf

- **Whole-body vibration (WBV)**

The AFAG stand included a vibrating seat highlighting the risk of WBV to machinery operators. At the AFAG seminar a review of the research by the Health and Safety Laboratory into the risks associated with WBV in forestry was presented and it was explained how the findings are being used to prepare practical guidance for the industry. This will be released as soon as possible in 2007.

- **New AFAG guidance leaflet *Steep slope working in forestry***

This new guidance was officially launched at the AFAG seminar at APF by Neil McKay, Chair of the AFAG Steep Slope Group. He explained: 'This guidance was developed for the industry by the industry. It highlights how important it is that operators and managers working on steep or difficult ground have the right level of experience. This guidance should be used, together with the machine handbook, as part of the risk assessment process to help identify the controls that should be in place to make sure the work is carried out safely and within the law'.

Is all publicity good publicity?

Many colleagues drew our attention to a recent article by Simon Jenkins in the 17 November 2006 issue of the Guardian. They expressed their concern at the criticism of HSC/HSE in a piece which referred to the 'nanny state' in relation to the routine inspection of trees. Although there was considerable support for the article among some readers who responded on the Guardian website, a number of replies supported and endorsed the role of the 'regulators'. The HSC Chair, Bill Callaghan, also issued a robust response which was published in the Guardian on 28 November 2006. The original article and Bill's reply is available at: <http://www.hse.gov.uk/press/record/gua281106.htm>. As a result of this publicity, the issue of tree inspections was raised in the House of Lords on 19 December 2006. Lord Hunt informed Members that HSE was drafting guidance for inspectors which would be circulated to relevant stakeholders. We cannot go into details of any particular case but if you have any views on this issue please write to Frances Hirst, HSE Agriculture and Food Sector, Stoneleigh Park, Warwickshire CV8 2LG, or e-mail frances.hirst@hse.gsi.gov.uk.

On a much more positive note, recent articles in the Forestry Machine Journal, and the Arboricultural Association Newsletter have complimented HSE on the success of the Safety and Health Awareness Days for arboricultural clients, as well as those for forestry managers and contractors. A contribution to Totalarb magazine, in support of the aims of their 'Find an Arborist' campaign, also highlighted our close working relationship with the industry in promoting awareness of training, competence and good practice throughout the tree work industry.

Tree surgeons: Recent enforcement action

No one to carry out aerial rescue

A tree surgery company was prosecuted after an HSE inspector found its employees climbing without anyone available to carry out aerial rescue. The company had already been issued with an Improvement Notice, some time before the incident, requiring training in aerial rescue to be provided. The Notice had been complied with but, on the

day the inspector visited the site, the only employee with this training was in the tree. A Prohibition Notice preventing the work from continuing was served and the company was prosecuted under regulation 4(2) of the Work at Height Regulations 2005 and fined £2700 with £1080 costs.

Employee seriously injured

A tree surgeon was prosecuted after an employee was seriously injured when he fell from a tree and landed on a stone wall. The job involved cutting back a willow tree and a ladder was used to access a limb approximately 3.6 m (12 feet) above ground level. The injured person intended to remove this branch with a chainsaw and secured himself to it with a lanyard. The limb was reaching out towards some telephone lines so the employer threw a rope over the end of the branch to pull it away from the wires. As he tried to do this, the branch broke off from the tree trunk and the employee fell, landing on the wall below. The employer was prosecuted under section 2 of the Health and Safety at Work etc Act 1974 (the HSW Act) and fined £3000 with £2000 costs.

No precautions to protect the public

A tree surgeon was found using a rear-handled chainsaw to dismantle and fell a large poplar tree. The site was on the boundary between a private residence and NHS premises. He had no precautions to protect members of the public and was prosecuted under section 3 of the HSW Act. He was fined £500 with £800 costs.

No control over public access

A tree surgery company was prosecuted after they were found working on site where no steps had been taken to control public access. Also the workers had not been provided with adequate personal protective equipment and no risk assessment had been carried out. The company was prosecuted under sections 2 and 3 of the HSW Act and fined £1000 plus £894.50 costs.

What happens when things go wrong?

Tree felling fatality

In 2005, a chainsaw operator was fatally injured when the tree he was felling (in a residential area) deviated almost 90° from the intended felling direction, landing on top of him. He was positioned in the only space available as an escape route.

Following an investigation into the accident, Jeremy Lawton, an NPTC assessor and Lantra registered instructor, highlights some key lessons learned:

- **Initial site survey:** Wherever possible, assess jobs in advance. This allows for correct selection of equipment, allocation of staff and prior knowledge of hazards. It also allows an experienced site surveyor to provide guidance and work methodology to the people carrying out the work.
- **Risk assessment/emergency planning:** The assessment should take account of the hazards that are relevant and specific to the given site, task and tree. It is not just an exercise on paper; if you cannot control risks to acceptable levels, work on that task must not proceed until suitable arrangements are in place. Emergency contingency plans (first aid, emergency contact numbers, Accident and Emergency number, site location etc) must be made in advance.

- **Work planning:** All information, as well as the actual undertaking of the job, must be planned, agreed and understood by all the team.
- **Felling cuts:** Effective control of the fell is maintained by an appropriate combination of the directional or sink cut, hinge and main felling or back cut. Felling cuts must be appropriate to the tree size and form and consistently accurate.
- **Felling aids (breaker bars, wedges etc):** These must be appropriate to the tree size and form. The need for felling aids must be identified in advance; they must be appropriate and readily available to the person undertaking the fell.
- **Control lines, pull ropes, anchor ropes, winches etc:** If these types of system are to be used there should be clear understanding of their intended purpose and suitability for the task, eg is it:
 - an assisted fell?
 - an anchor or back up?
 - a felling aid?
 - a winching operation? or
 - a combination of tasks?
- **Avoid** 'free hand' pulling or non-anchored applications. There is a high risk that if the person pulling the rope sways or rocks the tree during the felling operation, the main felling cut at the rear of the tree will open and close with the risk that the chainsaw operator could compromise the integrity of the hinge.
- **Do not** over tension lines, as this may place considerable tension on the rear of the tree which may cause the hinge to sever prematurely, the tree to split, and injury to the chainsaw operator.
- **Avoid** making the main felling or back cut while your workmate is simultaneously applying tension to the line. As well as the above risks, the chainsaw operator cannot safely place the back cut and monitor the action of his colleague operating the line. In the majority of cases the tree feller should be able to form the back cut, leave a hinge of appropriate size, step into a safe area, and then issue an agreed signal for the person on the lines to start operation.
- **Escape routes:** Plan escape routes in advance – they must be clear of obstructions. If control is lost over the fell, use the escape route and try not to turn your back on the falling tree. Remember, accidents often happen because unforeseen or remote risks actually materialise. Consider the possibility that the tree may fall towards your intended escape routes. Have you got enough back up to ensure that the tree will fall in the intended direction? Is there enough space to enable you to take evasive action if the unforeseen does occur?
- **Staff competency and experience:** Staff should have the necessary training, experience and competency certificate relevant to the task they are undertaking. Remember that people holding only CS 30/31 with little additional experience can quickly find themselves in situations outside their experience and skill base. This is particularly true when faced with larger and awkward fells and when faced with the unique hazards associated with arboricultural operations in gardens and the built environment. Additionally they may not easily recognise situations outside their ability. The inexperienced do need to acquire experience, but consider if the supervision and safety provision is adequate for the trainee.

In summary, advance planning, preparation and organisation provides the foundation for safe and efficient execution of the operational task.

Suspension trauma

Summary of the lecture delivered by Dr Emma Grandidge, MBChB Dip IMC RCSEd Medical Director of ABC Response Training at the Arboricultural Association Conference held in York on 3 October 2006.

Suspension trauma has been known about for many years but is still little understood. It is a natural reaction caused by the body in response to being held in an upright position

and with immobile legs. The way that basic human physiology works is that we need to exercise our leg muscles to help return blood towards the heart. If we are rendered immobile this process starts to fail. Blood will start to pool in the legs, the brain suffers low blood volume, is starved of oxygen, and starts to die after just a few minutes.

In tests, healthy volunteers were suspended immobile and were seen to lose consciousness in as little as five minutes. Further research has suggested that death can occur in as little as ten minutes. If the suspension has resulted from trauma then this timescale could be much more rapid.

Suspension is life threatening and urgent rescue is needed, but first consider what is happening. The blood that has pooled in the legs is loaded with toxins which, if released into the circulation could damage internal organs and even stop the heart beating. This is known as 'Reflow Syndrome'. Traditional first-aid measures could be fatal in this case.

It is essential that casualties are not laid flat at any time during the rescue or when landing on the ground. The correct management of the casualty is to keep them in a sitting position with legs either straight out or pulled up to the chest for a minimum of 30 minutes, even if they are unconscious.

In the UK, arboricultural work is controlled by the Work at Height Regulations 2005. These require, among other things, that work at height is properly planned, including planning for emergencies and rescue. This means that:

- workers must have on-site rescue equipment and training;
- workers must be rescued immediately from suspension (within ten minutes of an accident);
- workers must be aware of the risks of suspension trauma;
- any First Responders must know how to treat it safely.

Unfortunately the latter is not always true and many workers are currently running a risk of being given inappropriate medical treatment, which could increase the extent of any injury and may even be fatal.

Suspension trauma can happen to anyone regardless of height, age, weight, sex, fitness or harness type, and anyone who has been suspended for more than three minutes should be treated for it.

Obviously prevention is better than cure and measures that reduce the risk should be employed wherever possible. Regular breaks and using a work-seat are all ideal preventive measures.

If you'd like to know more about suspension trauma and how to treat it please contact Dr Emma Grandidge on 0161 626 1364 or via e-mail emma@abc-response.co.uk.

Your views

What do you think of *Arb News*? What would you like to see in future editions? If you have any issues or concerns you would like to share with AFAG, HSE and the industry please let us know.

Send your views to Frances Hirst at the address below.

To receive this newsletter by e-mail in future please send your e-mail address to:

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Further information

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