

Parts Failure on Glass Reinforced Plastic (GRP) Mobile Access Tower

A Glass Reinforced Plastic (GRP) tower scaffold partially collapsed whilst two operatives were standing on one of its platforms. Fortunately, only very minor injuries were sustained (grazing to the arm of one of the operatives). Two 'Tee joints' (pictured below) supporting the platform failed, leading to the platform dropping approximately 0.5 metres, at a 25 degree angle. Inspection by the manufacturer identified no manufacturing fault. However, a number of issues have been highlighted from the ongoing investigations including:

- Method of erecting was not to manufacturer's guidance.
- Records of component part checks were not available.
- Visible signs of wear and tear including numerous cuts, scuffs, abrasions on the GRP component parts.

It was also highlighted that not all manufacturers identify a recommended like expectancy for this type of equipment.

Action—Duty Holders are reminded that they must:

- Ensure that appropriate risk based regimes are in place to inspect work at height equipment, including component parts in compliance with the Work at Height Regulations.
- Erecting of scaffold to be undertaken in accordance with manufacturers guidance.
- Ensure that those staff who are required to undertake inspections are competent to do so
- Ensure that employees who are required to undertake inspections do so using the manufacturer's guidance

Giant Hogweed & Japanese Knotweed

Giant Hogweed is regulated under the Wildlife and Countryside Act. It is injurious to humans as the sap breaks down the melanin in the skin causing serious long term burns and blisters. This spreads via seeds, therefore positive action is essential for control.

Japanese Knotweed is a highly invasive plant and is recognised as the most invasive species of plant in Britain today. Japanese Knotweed is now abundant throughout the whole of the UK and can be found growing on the London Underground. Japanese Knotweed is a resilient plant that, in the UK and Europe, only spreads via the movement of its' rhizomes. The rhizome, according to The Environment Agency Guidelines, can grow to a depth of 3m or more and up to 7m away from the plant. The stem of the plant can reach 3m high and its bamboo like in appearance. The leaves are 'heart-shaped' and a lush green colour. It produces white flowers around September and October depending on it's geographical location.

What should you do if you think you have found some?

- Report it through the Incident Line.
- Take some photos if possible, they will help make identification.
- Do not touch it, it is an offence to spread the weeds.

Giant Hogweed



Japanese Knotweed



High Voltage Cable Strikes

Recently Tube Lines contractors hit and damaged a High Voltage cable within the London Underground Track area during engineering works. Fortunately, on this occasion, no one was injured, just costly repairs required. All personnel need to be aware that by damaging a High Voltage cable they are exposing themselves and others to the risk of serious injury or death, as well as a costly repair.

The incident arose as:

- Inadequate checks were made to locate potential cables in advance or work, therefore not meeting the requirements of LU Category 1 standards.
- The method of work didn't consider risk from striking a hidden cable.

Action Required:

Project and Maintenance Managers must circulate this Safety Alert to those undertaking works. Those undertaking works must take the following action:

- Remind all personnel of the risks posed by damage to HV cables and ensure staff remain vigilant for High Voltage cables when working on or around the railway.
- Always consider hidden High Voltage cables when planning works as required by LU Category 1 Standards 1-552 QUENSH, 1-114 (Safe System of Works on or near Electrical Equipment) and 1-021 (High Voltage cables).
- For High Voltage & Pilot cable records call 02075 616168 (Mon-Fri 9-5).
- Ensure work methods take account of hidden High Voltage cables. If you require advice regarding methods of work call 02079 182667(Mon-Fri 9-5).
- For advice outside of office hours call the Shift Supply Engineer on Auto 145 or 02070 275626 (24 hours a day).
- If you suspect you have damaged a High Voltage cable do not investigate, but call the Shift Supply Engineer on Emergency Auto 945 or 02072 401088.

Damaging High Voltage Cables can be fatal

Grounder trapped by excavator

An incident occurred recently within one of the group companies where a groundworker was trapped between the bucket and the track of a 35 tonne excavator. The operative was trapped just below the left knee, and tragically after multiple operations had to have his lower left leg amputated. The ensuing investigation highlighted a number of factors which came together to cause this tragic incident. The principal causal factor was when the plant driver was climbing back into his cab following a conversation with the injured person, his coat snagged the slew/dipper arm control, and without realising that his coat was caught, he activated the 'dead mans handle'. The excavator was 'ticking over' in idle mode, as he climbed in but the machine was set in 'high revs'. Thus deactivation of the safety device caused the machine bucket to travel at high speed in the direction dictated by the snagged control lever.

At that very moment the IP was walking between the bucket and track of the machine. This was so he could continue a conversation with a third party who had arrived at the scene just before the incident, he became trapped between the bucket and the track. The investigation following the accident has discovered that this incident is not a 'one off' event, as it was discovered that at least 5 other events of this nature have occurred in the last year in the wider construction industry. In the previous incidents, no injuries had been reported.

Learning Points:

Plant must be turned off when the operator exits the cab.

Managers of plant operations should review the start up procedures of plant items, in particular, thought should be given to a methodical approach to the start up of plant, this will allow the operator time to ensure the hazard area of the plant is clear of persons on the ground. Engaging 'low revs' would be part of this process.

Segregation of all pedestrians and plant must be reviewed.

Projects should review the type of PPE issued to plant operators.

Toolbox talks, task briefings, STARRT talks or any work related conversations should be undertaken away from plant items in a safe place.

An incident briefing about this accident should be delivered to all operatives on VINCI projects, particular notice should be given to the obvious when working in the slew area of any plant item. Further direction should be given as to the method of approaching working plant items, this should focus on getting the attention of the operator and only approaching when the operator indicates it is safe to do so.

The need to report near misses should be reinforced, unfortunately until the investigation started to look at the wider industry, the previous incidents were not common knowledge. Had a robust, industry wide, near miss reporting procedure been in place this incident may have been avoided

Preventing Rail Head Contamination

Contamination of the rail head with grease, dust and other substances can adversely affect the stopping performance of trains. This has been caused by the transfer of grease from the gauge-face of the rail to the rail head by the use of iron men and track trolleys.

Photo taken following the passage of an Iron Man illustrating how the wheel can cut the 'grease beard' and throw it on to the rail head.



Photo of wheel heavily contaminated with grease. Grease can flick up onto the Iron Man frame. This grease can be transferred onto the rail head



Action—to ensure rail head contamination does not occur, the following actions must be taken:

- Ensure the wheels of all plant have been inspected and cleaned prior to accessing track.
- Visually inspect the running rails before, during and after work for signs of rail head contamination.
- When off-tracking plant, carry out a further inspection of the wheels for grease. If grease is found, a track walk of the entire site must be performed, to check for grease on the rails.

If the rail head is found to be contaminated, or has been contaminated during works, you must:

- Stop all works.
- Contact the FRC and provide them with the exact location of the contamination.
- Whilst waiting for the clean up operation, ensure the track is ready to be handed back.
- Ensure there is a person available to meet with the cleaning crew dispatched by the FRC.

Failure to engage overbalance protection (RCI) when using RRV's

This bulletin is being released as a further reminder to staff of the danger of not ensuring that the RCI (Prolec or other system) is switched on while lifting operations take place.

A recent incident took place on a BAM Nuttall site, who were utilising a Road/Rail Vehicle (Komatsu PC138US track excavator), working within an engineers possession.

The RRV was removing sleepers with a sleeper beam, and whilst slewing around the machine became unstable and overturned. The Machine Operator was reported to have sustained cuts to the head and was taken to hospital for further treatment.

The Crane Controller was relieved of duty for interviewing and 'for cause' screening and a difficult recovery process ensued to put the vehicle back upright.



Engineering Supervisors, Crane Controllers, and Machine Controllers are reminded that during ALL lifting operations, the RCI must be switched on at all times. This can be verified by the illuminated blue indication light(s), usually fitted above the operating cab.

Eyes are Priceless—Eye Protection is Cheap!

Did you know there were 71 instances in 2009/10 where a person lost the sight in 1 or both of their eyes at work in the UK? That's a staggering amount and equates to more than 1 accident a week.

Invensys Rail has adopted an Eye Protection Policy in the last 12 months, to prevent their workers having to be subjected to such a horrendous loss. This is a positive move that has been made by Invensys Rail. Rather than the company being reactive and 'waiting for the inevitable to happen' they have recognised that their workers can be at risk of eye injury in relation to the work that they do.

As well as the workers being at risk, there are also risks to 'passers by' or work groups within your area. Invensys Rail wants to make sure that all of their workers, including their subcontractors, are protected, and for this reason, all Invensys Rail staff and their contractors are required to wear appropriate eye protection. Here are some instances of Invensys Rail accidents that have occurred where operatives or bystanders could have or did receive an eye injury.

Potential for Eye Injury:

- Metal hook on end of cable attached to a cable drum, flipped over and dug into the hand of the injured person—this could have been the eye.
- Whilst lifting a wooden pallet into a skip, the 'strut' came away making eye contact with the left eyebrow—again, this could have been the eye.
- Concrete pump failed causing it to spray concrete over an operative, including his face—luckily he was wearing his eye protection—imagine the burns, let alone the potential for being blinded, if the concrete had made contact with his eye.

These are real examples of eye injuries that could happen to any of our staff on site. We must make sure that we are wearing the correct and appropriate eye protection at all times.

