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## Tower cranes and railways do mix

The UK-based Construction Plant-hire Association (CPA) has published a new Good Practice Guide entitled 'Requirements for Tower Cranes alongside Railways Controlled by Network Rail'.



The new guide has been prepared to provide clarity about over-sailing of Network Rail infrastructure by tower cranes due to the inherent risks to Network Rail operations, personnel and the travelling public.

### An Introduction to the Guidance

Lifting operations by their very nature involve risk. The starting point for the reduction of risk should always begin with consideration of the need to carry out lifting operations, or whether other less hazardous, techniques can be used. Being temporary structures, tower cranes have the potential to present a risk to railways during erection, climbing, use, maintenance and dismantling. It goes without saying that if the crane or its load falls onto the track a catastrophic accident may well result. It is therefore essential that best practice is followed to eliminate or reduce this risk.

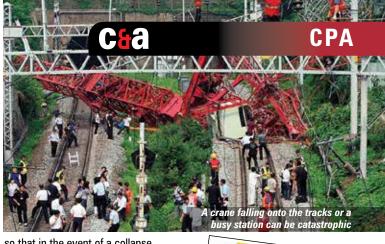
Where it is necessary to carry out lifting operations over or adjacent to a live railway, Network Rail infrastructure or railway public areas, Network Rail must be consulted at the earliest stage of planning. It will then determine the measures required, which may well include a railway possession and, if appropriate, isolation - ie closure of the track - for which the lead time will be considerable.

#### **Requirements**

Network Rail says that the following requirements must be adhered to when tower cranes are erected and used alongside its tracks or other installations. Network Rail must be consulted by the user of the crane in all circumstances where the tower crane and its load can collapse within four metres of a railway asset or property boundary. A requirement in the guidance is to position the crane behind a building or other suitable obstacle in order to prevent it falling on to the tracks or station etc.

Other subjects covered in the guidance include guying - where mast guys must be used (two required to provide redundancy) or a second mast/tower if this is approved and agreed with the crane contractor.

Also, all 'lifts' should be made in the direction away from the railway



so that in the event of a collapse the crane and load cannot fall within four metres of an operational railway boundary. A secondary tower - an erected tower crane with a secondary tower tied in to the tower of the tower crane at a height - would prevent the crane and load falling onto Network Rail's operational boundary if the crane collapsed at the tie level.

Another recommendation if possible is tying the cranes to an adjacent robust structure such as a building, at a height that would prevent the crane and load falling onto the tracks if the crane collapsed at the tie level.

If none of the above mentioned options are possible Network Rail has suggested a number of other safety measures which can be found in the best practice guide. This guidance is recommended to all contractors, crane hire companies and operators - it can be downloaded free of charge from the



CPA Website by following the link www.cpa.uk.net/news-events/ httpwwwcpauknettower-craneinterest-group-tcig/

The guidance has been produced with the assistance of the Tower Crane Interest Group, CPA and Network Rail.

#### The future of rental in construction

The CPA is organising a conference entitled 'The Future of Construction Plant Hire' on the 23rd October at Wyboston Lakes Conference Centre, near St Neots, Cambridgeshire.

The purpose of the conference is to discuss equipment related issues in the UK with the aim to understand and influence the future of the construction equipment rental market. Speakers will include Philip White - HSE chief inspector of construction 2009 to 2013 and interim chief inspector until 2015. John Carroll the HS2 construction and logistics deputy, who will speak about planning and expectations for equipment suppliers on the High Speed rail link. Steve Hesketh of MGF who will chair a panel discussion on Building Information

Modelling and its impact on hire and Tim Watson who will talk about the latest work on ground conditions for construction equipment.

Other subjects include: How the industry can address a skills shortage, developments such as autonomous machines, safety and health issues such as operator competence, and public health including emissions and road transport.

The event is being promoted to major contractor groups as well as CPA members and other bodies in construction. Attendance is open to anyone with an interest in, or influence over the procurement of construction equipment.

You can register on the CPA website www.cpa.uk.net/conference

Construction Plant-hire Association