CONSTRUCTION INFONET – JANUARY 2007

An e-bulletin for clients, designers, contractors and health and safety specialists

HIGH TENSILE BOLT CONNECTIONS ON TOWER CRANES – TECHNICAL ALERT

HSE has issued a technical alert to the construction industry reminding all those who own, operate and hire tower cranes to ensure that high tensile bolt connections, including those on masts, jibs and slew rings of their tower cranes, are correctly installed and pre-loaded (tensioned). Failure to do so could lead to the bolt connection failing, with catastrophic consequences.

The technical alert provides supplementary information and should be acted upon in conjunction with the safety alert on the use of tower cranes issued by HSE on 17th October 2006 which gave advice to principal contractors and crane operators regarding the erection, operation, maintenance and dismantling of tower cranes

HSE has made this information available as supplementary guidance to that contained in BS 7121 Part 2:2003 "Code of practice for safe use of cranes - Inspection, testing and examination", and comes as a result of ongoing work with the tower crane industry. The information is issued without prejudice to any ongoing investigation.

TIMELY CDM APPOINTMENTS BY CONSTRUCTION CLIENTS

The CDM Regulations 1994 require clients for notifiable construction projects to appoint a competent planning supervisor at the start of design work. The proposed revised CDM Regulations 2007 will replace the role of the planning supervisor with that of the CDM co-ordinator.

The primary role of the CDM co-ordinator will be to assist the project client who will be required to appoint a CDM co-ordinator "as soon as practicable after initial design work or other preparation for construction has begun" (proposed Reg 14, CDM 2007). The revised Approved Code of Practice will also provide more explicit advice on how to assess the competence of designers, CDM co-ordinators, and contractors.

Designers, e.g. architects, engineers, surveyors etc are currently prohibited from preparing designs unless they have taken steps to make the client aware of client duties under CDM. The revised CDM Regulations 2007 will have the same requirement on designers which will be extended to principal contractors and contractors if the client is not already aware of their duties. The CDM co-ordinator appointed by the client will also advise the client on this matter.

SOME RECENT CONSTRUCTION PROSECUTIONS

Case 1 - Building collapse: a building company and a director were both fined £90,000 and ordered to pay costs of £14,444, following an incident in which a shop and two flats collapsed. Excavation work had undermined the shop foundations and suitable support was not provided. The investigating inspector, commented that the director "was in everyday control of the site, but failed to ensure that construction work was carried out safely. I would remind all contractors of the dangers associated with excavating near to existing structures, and to take every necessary precaution to provide adequate support". Relevant advice.

Case 2 - Fragile rooflight fall: the death of an untrained demolition worker has resulted fines totalling £87,000 and £57,228 prosecution costs after a workman fell 8m when he stood on a fragile roof light. At an earlier hearing the project planning supervisor was fined a £7,000 and ordered to pay costs of £4,500. Relevant advice.

Case 3 - Fall during window replacement: the proprietor of a window replacement company has been fined £15,000 following the death of a workman who fell 11m. Adequate means had not been used to prevent the fall. Relevant advice.

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SOME RECENT CONSTRUCTION PROSECUTIONS - CONT

Case 4 - Unsupported excavation: A contractor and a manager were fined a total of £11,000 and ordered to pay £8,800 costs after two employees were observed by an HSE inspector working in an unsupported excavation. The investigating inspector said after the case "There was a high risk of collapse and consequent injury given that spoil was stored immediately adjacent to the excavation sides, an excavator was also operating in close proximity to the edge". Relevant advice.

Case 5 - Scaffold collapses: Two incidents involving the collapse of scaffolding onto public places led to fines and costs totalling £13,500. The investigating Inspector said "scaffolds need always to be designed and constructed to recognised standards. Not only should those building scaffolds know what they are about, but there needs to be checks on how scaffolding is in fact set up - and of course scaffolds should be subject to regular inspection." Relevant advice.

Case 6 - Tower scaffold collapse: A company has been fined £13,000 and ordered to pay £2,730 prosecution costs after a workman fell from a scaffold tower whilst was shotblasting a large tank. The investigating Inspector said "a competent person had not erected the tower, and consequently the outriggers were not installed….neither the supervisor nor any employees working on the tower had received any training in working at height or on scaffold towers". Relevant advice.

HSE INFORMATION ON HUMAN FACTORS

Investigation reports prepared following construction incidents often refer to "human factors" or "behavioural issues" where a failure to follow established and documented procedures has contributed to the incident. The Human Factors section of the HSE website contains ideas on reducing error, influencing behaviour and revitalising procedures. Much of this advice may be of assistance to those working on larger construction projects.

LIFTING OPERATIONS

Lifting operations continue to cause fatal injuries on construction projects where a person involved in the task is struck by the load being lifted. Fatal incidents during 2006 where the deceased was struck by the load occurred in the following circumstances:

- concrete parapet was being lifted onto a lorry when it fell and struck a workman;
- timber frame wall panels were being lifted when they collapsed;
- conveyor lifted by mobile crane crushed a workman between the conveyor and other steelwork;
- a metal plate was being lifted into place onto a hopper and it fell when the lifting points failed;
- manually handled steel beam fell striking a workman involved in the lifting operation; and
- a large diameter pipe was being lifted into an excavation when it fell onto a workman.

HSE Construction Division Inspectors will be paying particular attention to the planning and organisation of lifting operations during the coming months. This will include examination of arrangements in place for ensuring the security of loads during lifting operation.

I hope you find this latest information helpful.

Philip Poynter
Construction Infonet Editor
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