

Safety & Health Circular No. 01/2011

Alert on Erection, Dismantling or Alteration of Tower Cranes

Date: 25 January 2011

Our Ref. : HD(C)TS 4/49/26

Incidents involving the collapse of tower cranes during alteration work on construction sites have aroused our utmost concerns. As prevention is always better than cure, the primary duty holders are urged to comply with the stipulated requirements for the safe erection, operation, maintenance and dismantling of cranes and the proper planning of works to ensure safety at all times.

There are specific regulations, guidelines and code of practice requirements relating to crane safety, and the related duties and responsibilities of the owners, contractors, operators, specialist contractors, registered contractors, competent persons, competent mechanical engineers, project engineers, safety supervision personnel and registered safety officers. Listed below are some key points, which are certainly not exhaustive, for your attention.

1. Observe relevant regulations, codes of practice and guidelines including, but not limited to, Factories and Industrial Undertakings (Lifting Appliance and Lifting Gear) Regulations, Codes of Practice for Safe Use of Tower Cranes and Guidelines on Safety of Tower Cranes published by the Construction Industry Council.
2. The owner of a tower crane should engage a Competent Mechanical Engineer (CME) to conduct pre-delivery checks and anchorage of the tower crane.
3. The Registered Contractor/ Principal Contractor is required to appoint Safety Supervision Personnel to certify the plans, design information and/or method statement of the works which are to be submitted to the Project Engineer for verification on the supporting structure of tower cranes. After the telescoping and climbing operation, a CME is then responsible for certifying the safety of the tower crane in its new position or state.
4. The Principal Contractor should arrange a safety professional (e.g., a Registered Safety Officer) and a Registered Professional Engineer with suitable qualifications and experience in the appropriate disciplines to conduct a risk assessment on issues relating to structural and mechanical stability. The assessment should be updated immediately before the start of operations to take into account any change in circumstances.
5. The Principal Contractor should check the availability of the report on

verification of components, report of the pre-delivery check, report on the assessment of the supporting structure, and maintenance logbook recording maintenance and inspection history of the crane before proceeding with the erection or dismantling of a tower crane.

6. The Principal Contractor should make available the risk assessment report of the operation including the method statement, records of the qualifications and experience of the supervising engineer and the competent person responsible for the operation, and all relevant certificates of test and examination of the crane(s) used in the operation.
7. After the completion of each operation, the Principal Contractor should engage a CME to conduct a thorough examination and load test to verify that the tower crane is fit for use. The use of the tower crane should resume only after satisfactory completion of the verification process. The anchorage of the tower crane should also be certified by a CME before the tower crane may be used.
8. Tower cranes should be inspected and maintained by technician(s) holding the "Training Certificate of Routine Inspection and Maintenance of Tower Cranes" at least once a month. The inspection and maintenance results should be properly kept with the inspection and maintenance form for record.
9. The Principal Contractor should only engage competent Specialist Contractors registered in the specialty of "erection, dismantling and climbing" of the Tower Crane trade of the Voluntary Subcontractor Registration Scheme (the VSRS) administered by CIC to execute tower crane operations. Specialist Contractors should possess relevant experience and sufficient technical capability and directly employ at least one Competent Person and three Senior Workmen with appropriate skills and experience.

If you have any enquiries, please contact The Occupational Safety and Health Branch of the Labour Department on 2559 2297, or e-mail: enquiry@labour.gov.hk