Environment, Health and Safety

Ports, Customs & Free Zone Corporation







SAFETY ALERT

A serious accident occurred recently at Dubai Maritime City when a pre-cast concrete manhole base fell onto a worker.

The manhole was being lifted by a crane using a set of 4 leg chains connected to rebar lifting lugs set into the concrete. As can be seen from the photograph (above right) these lugs failed and the concrete manhole base fell from the chain hooks.

Investigation by EHS identified that the lifting lugs in the concrete were not certified as required by regulation. The chains used were oversized and did not sit correctly in the lifting lugs which placed the rebar under excessive tensile stresses. The main contractor had failed to assess the risk of the work adequately and did not have a lifting plan to detail how lifting operations would be carried out safely. It was also identified that the signaler / slinger was not trained nor had a competent person been appointed to oversee the planning, supervision, monitoring and review of lifting operations.

All contractors undertaking lifting operations should note the following:-

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- All mechanical lifting must be planned and where this involves the use of cranes a lifting plan must be prepared in accordance with EHS Regulations & Standards.
- The lifting plan must identify 'common lifts', that is those lifts that will be regularly carried out. A schedule must be prepared which details the weight of the load, the method of lifting and the lifting accessories to be used.
- The lifting plan must outline the procedure to be followed for 'special lifts', that is one off lifts, which must be executed in a planned and controlled manner.
- All lifting points / lugs must be thoroughly examined and certified by a competent person. In the case of cast-in lugs an approved 3rd party engineer must review the shop drawings and sign off the design.
- Lifting accessories must be selected that are suitable for the load, chain hooks must seat correctly in lifting points / lugs.
- All workers involved in lifting operations must be competent. EHS Regulations & Standards require a person to be appointed in overall charge of the lifting operation. This person must be experienced and capable of planning lifts.

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