



Work Safety Alert Collapse of Containers

1. **Date of Accident :** November 2013
2. **Place of Accident :** A container terminal
3. **Summary :**

The spreader of a travelling rubber-tyre gantry crane hit against a stack of containers and caused the collapse of several containers onto a vehicle below, resulting in the death of a worker inside the vehicle and injury to the driver.

4. **Work Safety Alert for Proprietors/Employers :**

Proprietors/employers undertaking container handling operation involving the use of a gantry crane should:

- appoint a competent person to conduct job-specific risk assessments with due regard to the modes of crane operations, the stacking and layout of containers and persons at work at the container handling area;
- formulate and implement an effective safety management system which should include, but not limited to, the following:
 - putting in place control measures to avoid unauthorized entry of persons or vehicles into the operating zone of the gantry crane;
 - installing effective safety devices to ensure that the lifted container cannot be moved horizontally unless it is raised to the topmost position, which is well above all adjacent container stacks;
 - installing suitable safety devices on the gantry crane, such as closed-circuit televisions to enhance the operator's views and



audio/visual alarms to give out warning signals to alert persons working nearby when lifting of containers is in progress;

- providing safety devices to detect any nearby container stacks or obstacles to ensure that the lifted container will stop its motions well before the occurrence of any collision;
 - installing effective control device to prevent any swaying motion of the lifted container that may otherwise come in contact with any nearby objects;
 - ensuring that the gantry cranes, the computerized operation programme and the safety devices installed are properly maintained and in good working order;
 - setting a safe speed limit for all movements of the lifted container and taking steps to ensure that the speed limit is observed by all parties concerned;
 - ensuring that the stacking height of containers is as low as possible to prevent the stacked up containers being hit by the load or any part of the gantry crane, with due consideration of ground condition, layout of container yard, configurations and modes of operation of plant/machinery involved, and all operational interfaces where workers/truck drivers are likely to be affected by the crane operation and accidental fall of containers;
 - putting in place measures to ensure that the truck involved in the container lifting and the trucks in the queue are stationed at a position of minimal hazard to truck drivers of being hit by any falling containers by, for example, installing suitable engineering device to ensure the correct positioning of the trucks before any movement of the crane overhead could be activated; and
- ensure that all crane operators are holding a valid and relevant certificate



issued by a training body specified by the Labour Department;

- provide gantry crane operators, workers and truck drivers with adequate information, training and instruction in respect of the above safe system of work; and
- implement effective monitoring and supervision to ensure that the above safety measures are strictly followed.

5. Reference :

- [Five Steps to Risk Assessment](#)¹
- [Safe Systems of Work](#)¹
- [A Guide to the Factories and Industrial Undertakings \(Cargo and Container Handling\) Regulations](#)¹
- [Code of Practice on Mechanical Handling Safety in Container Yards](#)¹

DISCLAIMER

This Work Safety Alert (“the Alert”) is issued at the earliest possible opportunity after a serious accident with a view to drawing the attention of interested parties to the general safety precautionary measures necessary to protect people engaging in similar work activities. The material contained in the Alert constitutes general guidance only. It does not reduce, limit, or replace, any legal obligations upon any person to comply with any statutory duties under relevant legislation. Users such as Managers and Supervisors should make their own evaluation of the information contained in the Alert to determine if it can be applied to their own situations and practices. The Labour Department does NOT accept any responsibilities for any loss or damage resulting from the use of or failure to use of the information on the Alert.

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