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Dear Port Users

MOM WSH Bulletin –

WSH Council Crane Safety Taskforce, SCAL and SCA Rally Construction Sites to Participate in Safety Time Out

1. In our continuous effort to ensure safe operations in Jurong Port, we have attached the WSH Bulletin for your perusal.
2. Kindly also disseminate the said information to your respective contractors/service providers.
3. If you need more clarifications, please contact WSH Duty Officer at 6660 9552 or email: jpfss@jp.com.sg.

Thank you.

Regards,

Ng Kok Wee
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For Jurong Port Pte Ltd



WSH BULLETIN

Announcement

WSH Council Crane Safety Taskforce, SCAL and SCA Rally Construction Sites to Participate in Safety Time Out

Since the start of 2015, there have been 7 crane-related dangerous occurrences, compared to 12 in 2014 (the 5 cases are described below). WSH Council Crane Safety Taskforce, The Singapore Contractor Association Limited (SCAL) and Singapore Crane Association (SCA) are concerned about the spate of crane-related accidents and are fully committed to keep our employees and the general public safe. In view of the accidents, SCAL and SCA are taking the lead to conduct Safety Time Out (STO) for operations related to mobile and tower cranes.

The STO will be conducted on 9-15 Mar 2015 on the following areas:

- Ensure safe working condition of lifting equipment in particular to the usage of tower and mobile cranes
- Ensure proper implementation and robustness of lifting plan
- Ensure effective communication with the lifting team on the hazards involved in the lifting operations

For resources on STO, click [here](#).

Spate of Crane-related dangerous occurrences in First Quarter of 2015



Date of incident: 19 Jan 2015

A crawler crane had just completed a lifting operation at a workplace in Jurong when the crane operator attempted to concurrently move his crane while hoisting up the auxiliary hook at the same time. Without realising that the hook had exceeded its allowable limit, the operator continued hoisting, resulting in the hook hitting the fly jib. The fly jib buckled and was left dangling from the boom tip. No one was injured in the incident.



Date of incident: 24 Feb 2015

A crane operator was operating a crawler “tower” crane in a Potong Pasir workplace had left the crane’s cabin with its engine still switched on. The fly jib of the crane continued moving upwards and was hauled beyond its limits. This caused the crane to tilt backwards and subsequently collapse. The crane’s boom and a section of the fly jib fell beyond the site hoarding, and landed in the compound of one of the private houses nearby. No one was injured in the incident.



Date of incident: 25 Feb 2015

A mobile crane in a workplace at Pasir Panjang was carrying a man cage with 2 workers when a gantry crane nearby approached the boom of the mobile crane. The mobile crane operator immediately lowered the man cage to allow the workers to get out. One managed to escape uninjured just before the gantry crane collided with the mobile crane's boom while the other worker sustained minor injuries. The collision left the mobile crane's boom crane damaged and bent.



Date of incident: 3 Mar 2015

A 50-ton mobile crane in a workplace at Punggol was lifting a dismantled section of a tower crane jib onto a trailer when the crane suddenly started tilting. It collapsed and hit the cabin of another mobile crane next to it. The crane operator of the mobile crane that was hit suffered minor injuries.



Date of incident: 3 Mar 2015

A luffing tower crane operator in a workplace at Marina Way was raising the crane's jib when he suddenly felt an abrupt vibration. He immediately stopped operating the crane. It was later discovered that the jib section was damaged with several deformations found on its main chord. Investigations are currently being carried out to determine the cause of the failure.



Date of incident: 3 Mar 2015

A bulk carrier was used to transfer sand onto a barge which was intended to be transported to a worksite at Jurong Island for the purpose of land reclamation. The luffing wire rope of the crane on the bulk carrier suddenly failed when the operator slewed the crane to refill its grabber with sand. The crane's boom fell on a hatch cover which was within the bulk carrier.



Date of incident: 9 Mar 2015

A mobile crane was deployed at the worksite for a lifting operation to be conducted. The crane operator had positioned the outriggers of the crane and was conducting a check on its maximum working radius. The crane operator extended the boom to almost its maximum length and subsequently lowered the boom when suddenly the crane began to tilt forward and collapsed within the compound of the worksite. No one was injured in the incident.

Recommendations*

1. Establish and implement a lifting plan

It is the duty of the ¹responsible person to establish and implement a lifting plan according to the 'Code of Practice for Safe Lifting Operations in the Workplace'. Proper implementation of the lifting plan can facilitate common understanding among the lifting crew for a safe outcome.

2. Crane operator to carry out pre-operational test

It is important for crane operators to carry out pre-operational test, before the start of every work shift, on all limiting and indicating devices under no load conditions before any lifting operation is carried out. This is to ensure that the cranes control system and safety devices are functioning properly before the lifting operation commences.

3. Proper maintenance of lifting equipment

It is important to ensure the lifting machine is well maintained. A properly planned maintenance regime can ensure safe and satisfactory operation of the crane. Manufacturer's manual recommends specific tasks to be carried out at stated intervals, and these periods should not be exceeded.

4. Statutory Examination by the Authorised Examiners

The statutory examination requires an Authorised Examiner to assess if the crane is fit for service at the time of the examination. It is important for the Authorised Examiner to exercise all due diligence in making any certification or in conducting any test or examination of the lifting equipment under the WSH (General Provisions) Regulations.

5. Installation of Data Loggers to better monitor operation of cranes

The data logger is capable of enhancing crane safety through the regular monitoring of lifting operations via the analysis of the data retrieved. MOM encourages key stakeholders to monitor lifting operations regularly. This will allow the key stakeholders to intervene earlier when they find out any unsafe crane operations, such as overloading of cranes and malfunctioning of crane safety devices.

Further Information

Relevant Legislation

- Workplace Safety and Health Act
- WSH (Operations of Cranes) Regulations
- WSH (Construction) Regulations
- WSH (General Provisions) Regulations
- WSH (Risk Management) Regulations

Relevant Codes, Standards and Technical Advisories

- Code of Practice for Safe Lifting Operations at the Workplace
- Singapore Standard SS 536: 2008 Code of Practice for the Safe Use of Mobile Cranes
- Singapore Standard SS 559: 2010 Code of Practice for Safe Use of Tower Cranes
- Singapore Standard SS 497: 2011 Code of Practice for Design, Safe Use and Maintenance of Gantry Cranes, Overhead Travelling Cranes and Monorail Hoists
- Technical Advisory for Safe Operation of Lifting Equipment

* Please note that the information provided is not exhaustive. It is for the benefit of enhancing workplace safety and health so that a similar incident may be prevented. The information provided should not be construed as implying any liability to any party nor should it be taken to encapsulate all the responsibilities and obligations of the reader of WSH Alert under the law.

¹ The responsible person, in relation to a workplace where a crane is, or is to be, operated by a person means the employer of the person or the principal under whose direction the person operates the crane.