



SAFETY ALERT



JKKP/DOSH

**AN OVERTURNED OF
DRILLING RIG DURING
THE POSITIONING
PROCESS**



Recently, an accident was involving a drilling rig in a construction site. The incident occurred while the operator of the machinery was operating the rig for adjustment it's position in line with the position of pile points. The upper carriage body was turning back position to install the drilling parts. During the operation, the rig was suddenly unbalanced and then overturning to the right side (operator position). The mast section was fell and crushing to the site's hoarding and public cars that parked near the site.

Based on this accident, among the aspects that need to be addressed by the contractor and operator are:

- i) Hazard identification, risk assessment and risk control (HIRARC)**
Contractor shall conduct HIRARC to identify all potential hazards which may arise from the work's operation that will be carried out; to do risk assessment in evaluate the risk level and take the necessary measures to prevent any of unwanted incidents;
- ii) Assessment of soil bearing capacity**
Contractor shall verify the appropriate and safe condition of the site where the work will be carried out, by running tests or cum with appropriate engineering calculations. For this case, the strength and stability of the soil that will load and operating machinery works need to be executed must be ensured;
- iii) Stability of footing**
Before placing or advancing the machine, the ground shall be inspected by a designated person and, where necessary for firm and level footing, timber or steel plate shall be placed. After placing or advancing a machine, inspection and correction of the footing shall be made, when necessary, to maintain stability.
- iv) Surveillance of surrounding area**
Contractor shall ensure that the adjacent location of the pile machinery is located does not affect the strength of the soil structure in which the machinery is used;

v) Safety features of machine

Contractor shall ensure that all components and safety devices on the machinery are in perfect condition and functioning properly; and

vi) Safe operating procedure

Contractor shall operate the machinery with proper methods, and comply with work methods or procedures that had been established in the operations manual.

References:

- Part XIV, Factories and Machinery (Building Operations And Works Of Engineering Construction)(Safety) Regulations 1986
- Guidelines of Hazard Identification, Risk Assessment dan Risk Control (HIRARC) 2008