Mobile Crane Safety Procedures

In the initial survey of crane operations, look for crane stability, physical obstructions to movement or operation, and proximity of electrical power lines, as well as the following:

A. **Leveling** Has the crane operator set the crane up level and in a position for safe rotation and operation?

B. **Outriggers** Are the outriggers, where applicable, extended and being used in accordance with manufacturer's recommendations?

C. **Stability** The relationship of the load weight, angle of boom, and its radius (the distance from the cranes center of rotation to the center of load) to the center of gravity of the load. Also, the condition of crane loading where the load moment acting to overturn the crane is less than the moment of the crane available to resist overturning.

D. **Structural Integrity** The crane's main frame, crawler, track and outrigger supports, boom sections, and attachments are all considered part of structural components of lifting. In addition, all wire ropes, including stationary supports, help determine lifting capacity and are part of the structural elements of crane operations.

E. **Access to Job Site** The site must be secured by barricades (caution tape or fencing) to prevent unauthorized entry to the area by: Faculty, Staff, Students, Visitors, and unauthorized Construction Personal. The barricades must encompass the length the boom is extended plus 10% and the area the boom will swing if the crane was to encounter a critical failure.

F. **Occupied Building that fall within the lift area must be evacuated to cover the lift areas**

Crane operators and personnel working with cranes must be knowledgeable of basic crane capacities, limitations, and specific job site restrictions, such as access restrictions to job site, location of overhead electric power lines, high wind, and inclimate weather conditions. Personnel working around crane operations also need to be aware of hoisting activities or any job restrictions imposed by crane operations, and ensure job site coordination of cranes. Crane operators should be aware of these issues and, prior to starting crane activity, take time to observe the overall crane operations with respect to load capacity, site coordination, and any job site restrictions in effect.

Accidents can be avoided by careful job planning. The person in charge must have a clear understanding of the work to be performed and consider all potential dangers at the job site. A safety plan must be developed for the job and must be explained to all personnel involved in the lift.

TAMU EHS must be notified in writing at least 72hr or 3 days prior to lift at jrfields@tamu.edu and burbanczyk@tamu.edu

1. Date of lift
2. Time of lift
3. Description of area to be cleared including buildings as needed
4. What is being lifted and approximate weight
5. Emergency contact