

Greetings all. Today's topic is about Safety when lifting or suspending loads near personnel.

WorkSafe have recently released the following alert.

<https://www.worksafe.vic.gov.au/safety-alerts/safety-when-lifting-or-suspending-loads>.

The main takeaways are:

1. There have been numerous recent incidents involving suspended loads.
2. So far as is reasonably practicable, no loads are to be suspended over or travel over a person.
3. OHS Laws extend to not only employers, but principle and specialist contractors, builders and HRWL holders operating cranes or plant suspending loads.
4. Complete a SWMS, plan all lifts and set up exclusion zones.
5. Ensure all personnel are inducted
6. Set up safe systems of work
7. Supervise and ensure exclusion zones and Safe Systems of work are followed.

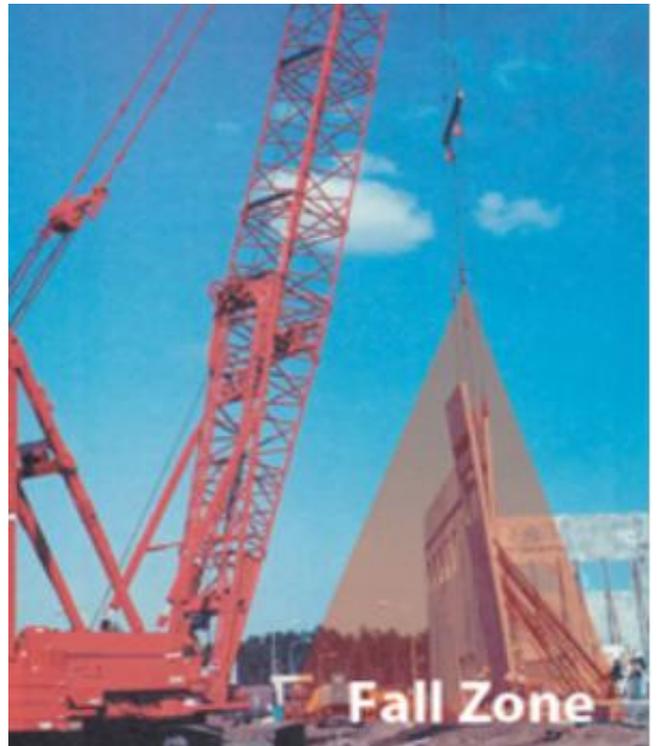
Having a load suspended high over head is a major hazard. Any object suspended possesses what is called 'Gravitational Potential Energy' which is basically the object's potential to cause harm or damage if it were allowed to fall or is suddenly no longer supported or restrained. Defined by multiplying the load's mass and suspended height (and 9.81). It can be reduced in only two ways: by reducing the suspended mass or reducing its height. Since the first option is seldom possible, minimising the height is the best way to reduce the potential damage from a suspended load. There is another very good reason and that is the phenomenon called:

"The Fall Zone"

The higher an object is, the less certain you can be about where it will land if it falls. The fall zone projects out beyond the suspended load and among other factors, is affected by the height of the load as well as its size, shape, centre of gravity, and connection points. These variables determine the direction and distance the load may swing, fall or roll should an incident occur. It is imperative that the fall zone be accurately identified for crane operators and workers on a construction site. When you are setting up your exclusions zones and planning your load path it is a lot easier if you are certain as to where the fall zone is.

High suspended loads will either create too large an exclusion zone or render the smaller exclusion zone useless if the load could easily fall outside it.

Wind is an obvious factor in the need for a larger exclusion zone. But the shape of the objects and the chance of them contacting something else on the way down can also cause an object to land further from the point directly underneath. Picture a stillage full of scaffolding poles. If that load is not properly slung then the poles, if dropped, will tumble out randomly and any impact with solid objects will cause them to bounce/deflect drastically. Note the photo shows how a precast panel has a larger fall zone due to its area if it were to 'tip'.



If you are moving loads around close to the ground your SWMS needs to address the new risks of loads suspended at ground level such as crushing and impact. These can also be controlled by setting up exclusion zones. As a crane operator you are often presented with a scenario where those working around the load near the load path are not crane crew but other tradesman with their own job to focus on which will inevitably divert their attention away from the activities of the crane and crew. They need to be made aware at your prestart meeting of the hazards involved with working around suspended loads. Once these hazards are identified we all need to make sure that the controls are followed 100% of the time for the safety of all of us. *Stay Safe -CICA*