EWP Study Notes

- A hazard is a situation (*crushing*) or thing (*outrigger*) that has potential to cause harm.
- A risk is the chance death or injury may occur from a hazard.
- You have a duty of care to protect yourself and others from harm.
- If you work unsafely your licence will be suspended or cancelled.
- Some workplace safety information can be found from the
    - **S**afe work method statement **S**
    - **A**ustralian Standards **A**
    - **C**ode of practice **C**
- An employer must provide
    - Safe systems of work **(SAFE)**
    - Safe plant & structures
    - Safe work environment
- When you are unfamiliar with the crane you are going to sit in & operate your employer must provide you with adequate
    - **S**upervision **S**
    - **I**nstruction **I**
    - **T**raining **T**
- You need to consult with others about hazards for example
    - **S**afety officer **S**
    - **O**ther workers **O**
    - **S**upervisors **S**

  You need to consult about site specific hazards, policies and procedures.
- Common hazards:
    - Looking Up are powerlines, weather, buildings.
    - In line of sight are plant, vehicles & pedestrians.
    - Looking Down & below are underground services, uneven ground, trenches.

- Planning considerations are:
    - Permits **P**
    - Location **L**
    - Access **A**
    - Communications **C**
    - Equipment **E**
- PPE & communications must be inspected before use.
- Hazard controls need to be in place before work and as they arise.
- Safe minimum distance from power lines for QLD 3m, 6m, 8m. To work closer than that you need to isolate or insulate.
- Find out voltage contact electrical authority.
- Tiger tails & Marker Balls are visual aids only to highlight powerlines.
- If you hit powerlines you must alert all to stay away, break contact, stay in EWP if safe, report, isolate EWP & have checked before reuse.
- Some hazards for EWP in windy conditions: uncontrolled boom movement & instability of EWP. If wind speed exceeds manufactures specs: Stop, lower platform. Wind speed can be found: EWP data plate, operator's manual.
- For safety of pedestrians, workers, vehicles or plant you can use: traffic controller, barricades & signage.
- Some hazards & controls for working near EWP's: Struck or crushed by EWP, struck by falling objects are hazards. Exclusion zones, signage, & spotters are controls.
- Do not lift EWP over others as it could cause death or injury.
- Adequate lighting must be provided at night or in dark areas.
- Some things to consider for path of movement for EWP: sufficient clearance, ground conditions, other workers, weight in basket etc.
- Some things to consider before raising EWP: access & egress, weight & size of load, obstructions & hazards.
- When working over a body of water consider spotter, life jacket, rescue boat etc.
- General communication methods used with EWP & team: hand signals, fixed channel 2-ways, written instruction. Choose appropriate communication method in planning stage & inspect before starting job. If a signal is unclear, stop & clarify.

- In an emergency you must communicate What & Where the emergency is & Who is involved. (WWW) Alert everyone.
- You will find EWP rated capacity: data/compliance plate, operator's manual, manufactures specs.
- The rated capacity must not be exceeded, this includes operator & weight of equipment.
- Operator is responsible for all pre-start inspections.
- It's important to inspect EWP before starting to ensure equipment is safe for use.
- Pre-start checks can include fluid levels, fluid leaks, boom, logbook, outriggers, signage & labels present & readable, tyre condition.
- The service logbook can be used for: reporting defects & repair, daily safety checks, maintenance carried out.
- You could check EWP log book for: reported defects & repair, correct log for EWP. If log book has report of defects not repaired (STIRR) stop, tag, isolate, record, report.
- It's important that the data plate & safety decals (stickers) are in place & readable for safe EWP operations & capabilities etc.
- If you find defects on EWP (STIRR) stop, tag, isolate, record, report.
- Out of service tag, danger or safety tag can be removed once the ewp is deemed safe to use by a competent person.
- If setting up EWP with or without outriggers on poor ground that may not support EWP you could use steel plates or hardwood packing under wheels to stabilise EWP.
- Pig staying needs to 90 degrees to the first layer.
- If EWP starts to sink you need to stop, lower EWP, repack or relocate.
- Setting up near trenches can cause the trench to collapse. Wheels or outrigger packing edge should measure as far as it is as deep (1:1)
- If setting up on slab you must make sure it can support EWP & load consult with engineer.
- When setting up close to buildings or in restricted areas somethings you need to consider: access, use of a guide, safe slew radius.
- Make sure EWP is level by using a bubble level.

- If setting up on street you need to contact local authorities for permits required & traffic control.
- Before setting an EWP up level & packing to specs from engineer or manufactures specs something you should consider: safe slew radius, clearance from hazards or obstructions, position in relation to work.
- After pre-start checks, start EWP & test it to its full range to ensure safety: check for clear vision of work area, ground & platform controls functioning correctly, warning lights & devices, brakes.
- EWP must be tested to its full range to ensure safety.
- Never drive over **GRUBS**
    - **G**rates
    - **R**ailway tracks
    - **U**neven Ground
    - **B**ackfilled ground
    - **S**oft soils
- If anyone enters your exclusion, stop work, alert the person & report.
- Always monitor boom movement so all movements are done safely
- When operating EWP if warning lights, cut-outs or alarms warned of defects (STIRR) stop, tag, isolate, record, report.
- EWP operations forces and loads to consider
    - Live load: Load of person & materials supported by EWP.
    - Dead load: Weight EWP itself before loaded.
    - Wind load: Wind loads and forces caused by wind catching on EWP.
- Most important PPE when operating EWP is safety harness.
- The deadman control is to ensure the EWP will not move unless it is held in position.
- EWP ground controls are to bring EWP to ground in emergencies, testing & maintenance.
- When mobiling ensure you follow the manufacturers specs, have boom retracted, travel slow etc, traffic controls etc.
- Store tools & equipment to prevent them from falling, jamming controls & for safe access & egress from EWP.

- If platform drops slightly, moves or tilts when at heights: stop, tag, isolate, record, report (STIRR).
- If working at heights & EWP motor cuts out some ways you could lower platform: pump down mechanism, manual hydraulic bleed valves, battery operated emergency lowering device.
- EWP must not be used as a crane or for lifting things out side basket unless specifically designed to do so.
- EWP shut-down some things you should do: check for hazards & lower basket, shut-down inspection, remove key, refuel/recharge if needed, secure tools & harnesses, complete logbook report any defects.