

**PURPOSE/APPLICATION**

To provide guidance for workers from injuries associated with stringing pipe operations.

Off-loading of pipe and pipe stringing refers to the removal of tubular steel from a trailer and placing it along the right-of-way close to where it will be eventually placed in the ground.

**PPE**

- Canadian Plains Energy Services (CPES) minimum requirements

**TRAINING**

**HAZARDS & CONCERNS**

- Personal injury
- Property damage
- Gravity (slips/falls)
- Traffic
- Electrical overhead powerlines
- Underground utilities
- Trenches
- Pinch points between pipe and skids/cones



**PRECAUTIONS**

**THE DO's**

- DO** Hold a pre-job meeting with all workers involved to review worker's roles and the hazards of the task and plan the job.
- DO** Wherever possible, workers should direct truck onto a level spot on the right-of-way to un-tarp the load.
- DO** When assisting the driver in removing load straps workers to ensure strapping pins are secure.
- DO** Check specific rigging being used after each lift to ensure it remains in good repair and free of ice, snow, or mud.
- DO** Pay attention coating on a pipe causes additional concerns as it increases the potential for sliding/movement.
- DO** Use chocks and pins to prevent tiers of pipe from moving during unloading.
- DO** Always stay in view of the Operator and coordinate movement, if you are not clear.
- DO** Use a tag line(s) to control movement of pipe.
- DO** Take care not to damage the ends of the pipe or damage the pipes jacket causing "holidays" in the coating.
- DO** Identify all over head power lines and maintain minimum distances.
- DO** Keep other personnel and vehicles a safe distance from stringing operations.
- DO** Restrain pipe when loaded on to trailer, use cement dust and nylon straps where applicable.
- DO** Inspect side boom before beginning pipe stringing operations.
- DO** Inspect all hooks, cables, callipers, and tag lines prior to use.

**DO** Discuss ROW hazards with Driver and ask driver of experience and capabilities.

### THE DON'Ts

**DON'T** Use damaged equipment.

**DON'T** Position yourself between pipe and boom, between the pipe and the trailer or between the boom and trailer.

**DON'T** Stand beside the load of pipe as some pipes may roll off load.

**DON'T** Stand underneath a suspended load.

**DON'T** Stand on pipe as it does not provide a secure / safe surface.

**DON'T** Remove deck pins until the last tier, until it is safe to do so and risk of shifting pipe controlled.

### TASK SPECIFIC ADDITIONAL INFORMATION

#### Off-loading with hooks:

- Center the boom with the load of pipe
- The front hook person will hook the front hook and tag line on a joint of pipe
- Using a step ladder for safe access at rear of trailer the person at the rear will hook and tag line the same pipe. Signal front man when ready
- The front hook person will pass the tag line to a crew member on ground
- Once all crew members are clear of the path of the pipe, the front hook person will double check hooks are attached to same length of pipe and give the signal to the boom operator to lift the pipe
- Operator will ensure boom is still centered on pipe and then proceed to lift pipe off trailer to ground following the signals of designated ground person
- Repeat procedure till pipe is off loaded one tier at a time

**\* Do not remove deck pins until the last tier and only if it is safe to do so\***

#### Un-loading with slings, cables, or calliper

- Clearly mark center of pipe
- Center the booms hook over center mark on pipe
- Worker on top of load will position slings or cables choker style at balance points on pipe or attach calliper at centre mark on pipe
- Worker on top of load will signal boom operator to pick up 1 or 2 feet on load to check the balance of load
- If balance needs to be re-adjusted worker will signal boom operator to lower load back down so worker can make needed adjustment to rigging to achieve a balance
- If balance on pipe is good worker on top will attach tag line to front of load
- Worker at rear of load will attach rear tag line using step ladder for easy access to rear of trailer
- Worker on top of load will then pass his tag line down to second worker on ground
- Once all personnel are clear, the designated signal person on ground will take over the signals to boom operator and will direct operator to lift and lower pipe to ground safely
- Repeat this procedure to lift all pipes off trailer one tier at a time

**\*Do not remove deck pins until the last tier and only if it is safe to do so\***



**Moving Truck Between Joints**

- After each joint of pipe is removed, the truck will proceed to next location to set next pipe down
  - No worker to ride moving load to next location. Utilize ladders accordingly to access center of pipe for even lift
  - The pipe load must be re-strapped anytime the load goes up or down a steep grade and when the load is moved from one location to the next. Stockpile pipe and string with side-boom if necessary
- The designate signal person will direct operator as to where to set next pipe down. Keep fingers from between the joints when setting pipe down
- Other crew members will position skids under the pipe to keep it from touching the ground
- Additional blocking maybe needed to keep pipe from rolling.
- The crew will then walk back to truck to string the next pipe

**REGULATIONS/REFERENCES**

CPES SWP-81 - Cribbing

Manufacturer’s Specifications

CSA Standards

SDS for product being utilized

**Alberta OHS Code**

- Part 6 - Cranes, Hoists & Lifting Devices
- Part 18 Personal Protective Equipment,
- Part 19 Powered Mobile Equipment

**Saskatchewan OHS Regulation**

- PART XI Powered Mobile Equipment

**British Columbia OHS Regulation**

- Part 15 – Rigging
- Part 16 Mobile Equipment

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Developed by:	1.	<u>Angie Anton</u>		Date:	<u>November 23, 2008</u>
Revised by:	1.	<u>Ray Dawson</u>	2.	<u>John Artym</u>	Date: <u>August 25, 2011</u>
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