

PURPOSE/APPLICATION

When the completed pipeline has been lowered into the ditch and all tie-in and fabrication connections have been completed, the pipeline is covered up and the ditch is filled with soil, level to the surrounding terrain.

Note: backfilling requirements will vary by site, client, and ground conditions. Always verify the specific process to be followed specifications prior to starting work.

PPE

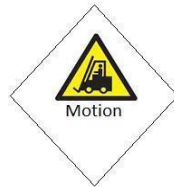
- Canadian Plains Energy Services (CPES) minimum requirements
- Reflective Vest
- Air Horn

Training

- CPES Orientation

Hazards & Concerns

- Obstructed view of excavation
- Overhead and underground lines
- Gravity, fall into ditch, unguarded ditches
- Pipeline and utility crossings



The Do's

- DO** Notify the pipeline operator or licensee (client) before backfilling the excavation.
- DO** Receive/complete all required documents (Ground Disturbance Permit, Back Fill reports etc.).
- DO** Ensure to inspect the area to identify any hazards paying particular attention to overhead/buried power lines and crossings of other underground facilities.
- DO** Designate a worker as a signaler, where necessary (when working around other equipment, traveling under overhead lines, and working in close conjunction to underground facilities and other workers).
- DO** Review the use of hand signals that will be used by signalers.
- DO** Ensure the signaler is wearing a reflective vest at all times, when working in close proximity to a ditcher, backhoe or track-hoe, and that the signaler makes the operator aware of any hazards (i.e. overhead power lines, line crossings, traffic, etc.).
- DO** Keep other workers clear of the equipment's work area except signaler, including swing path, unless both the signaler and the operator are aware of their presence, prior to entering the work area.
- DO** Ensure the operator keeps the signaler in sight when the equipment is in motion, to allow signals to be seen and to ensure safety of signaler.

- DO** STOP work immediately if the operator loses sight of the signaler, until communication is re- established.
- DO** Ensure that the pipeline, cable, or conduit is supported to prevent any damage during backfilling and any subsequent settlement of the ground.
- DO** Use a backhoe for shading in pipe, to ensure quality in backfilling the hole, but in fine soil conditions, a bulldozer may be utilized.
- DO** Review with the signaler that they also responsible to watch for rocks that may fall in the trench, which may damage pipe coating, and any changing conditions, which may be hazardous to them and/or the operator.

Note: To ensure ditch is still safe to enter for any repairs or jeeps created while backfilling – See SWP-46

Excavations and Trenches

- DO** Use the sub-soil as the fill material, leaving a small cap of material on top of the ditch/ hole to allow for sloughing and settling of the material.
- DO** Review back fill site requirements and if fill soil is to be proctored and filled in set lift height's and have compaction testing completed.
- DO** When backfilling hydrovac site holes, Client, Engineering, or Utility company requirements to bring in clean sand to fill. If fine native material cannot be utilized, to protect exposed pipe/cable as required.
- DO** Review the hand signals with all workers involved before starting work.
- DO** Keep packers a safe distance (1 meter or greater as client requires) from the piping and under ground facilities.

The Don'ts

- DON'T** Continue with work if the signal person loses site of the work or the signaler.
- DON'T** Stand in the operator's blind spot.
- DON'T** Approach the equipment until you have been given permission by the operator.
- DON'T** Mix soils while back filling.
- DON'T** Use a packer over the piping or facilities without a minimum of 1-meter cover or as specified.



REFERENCES / ADDITIONAL INFORMATION

CPES COP-07 Ground Disturbance
CPES COP-03 Confined Space
CPES SWP-25 Ladder use
CPES SWP-46 Excavations/Trenches
CPES SJP-30 Excavating and/or Trenching

REGULATIONS

Alberta OHS Code:

Part 32: Excavating and Tunnelling

British Columbia Occupational Regulation:

Part 20: Construction, Excavation and Demolition

Saskatchewan Occupational health and Safety

Regulations: Part 17: Excavations, Trenches, Tunnels and

Excavated Shafts **Manitoba WSH Regulations**

Part 26: Excavations and Tunnels

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