

Purpose/Application

Cold cutting pipe is a procedure of cutting piping where introducing heat (i.e., through a cutting torch or a grinder) isn't an option. Where operational lines are being cut, no work may proceed until the line operator/owner has demonstrated that the system has been isolated and proven zero energy in accordance with CPES's COP 05 – Lock Out Tag Out. Note* cathodic systems are often overlooked during the Lock Out process, where cathartic systems are installed, verify zero energy before proceeding with work.

*Note: Before any work may proceed on existing systems, the potential presence of hazardous substances (e.g., NORMs, Benzene, Iron Oxide, H2S) must be addressed with the site Owner/Prime Contractor. If the presence of hazardous substances cannot be ruled out then mitigation (e.g., monitoring, training, specialized PPE, etc.) must be implemented before starting the task (see SWP/COP relevant to the substance for more information).

PPE

- CPES Minimum PPE

TRAINING

- CPES New Worker Orientation

TOOLS/EQUIPMENT

- Pipe-cutters
- Air compressor or generator (where required)
- Mechanical Lifting device
- Chain grip pliers
- Bonding cables

#	Job Steps	Hazards	Control Measures
1	Prepare the cutting equipment	<ul style="list-style-type: none"> ❖ Motion – Pinch points around equipment, lifting, moving material 	<ul style="list-style-type: none"> ▪ Pre-use inspections on all equipment ▪ Use spotters when moving equipment into location ▪ Utilize mechanical lifting or team lifting to move tools and equipment
2	Cut pipe	<ul style="list-style-type: none"> ❖ Motion – Pinch points around equipment, lifting, rotating equipment ❖ Motion – Energy in the pipe that may be released when the pipe is cut causing the pipe to move ❖ Electrical - Stored energy (e.g., cathodic, static) ❖ Toxic - Release of fumes or hazardous substances 	<ul style="list-style-type: none"> ▪ Ensure the pipe is securely supported during the cut ▪ Ensure all workers are out of the line of fire when completing the cut ▪ Spill tray in place under the cut ▪ Only experienced personnel are to operate the equipment ▪ Monitor cords and lines during the cut to keep them from becoming cut ▪ Monitor for hazardous substances as per job-hazardous assessment ▪ Ensure the pipe on either side of the cut is bonded using booster cables and chain grip pliers. ▪ Do not remove bonding cables until atmosphere is proven safe



SAFE JOB PROCEDURE

SJP-07

Revised: March 2024

COLD CUTTING EXISTING PIPE

#	Job Steps	Hazards	Control Measures
3	Remove the cold cutter from the Pipe	<ul style="list-style-type: none"> ❖ Motion - Existing stored energy (tension) causing pipe to spring ❖ Motion - Pinch Points, Cutter's binding against pipe 	<ul style="list-style-type: none"> ▪ Proper body positioning ▪ If cutters do not rotate freely on pipe. Step back and reassess. Control pipe tension with mechanical aids so cutters can rotate freely and be removed safely. ▪ Use of proper tools ▪ Once it is confirmed there is zero stored energy place pipe cones under pipe for support the pipe that was cut.
4	Remove pipe section	<ul style="list-style-type: none"> ❖ Motion - Pinch points around equipment, lifting, rotating equipment, swinging load ❖ Gravity – Falling pipe 	<ul style="list-style-type: none"> ▪ Keep the work area free of all debris ▪ Pre-inspect all rigging and lifting equipment ▪ Use taglines to control load ▪ Keep all workers clear of the area under the pipe ▪ Follow all safe work permit conditions
5	Cap exposed pipe ends	<ul style="list-style-type: none"> ❖ Motion – Sharp edges ❖ Chemical – Spills or leaks 	<ul style="list-style-type: none"> ▪ Have spill kit available ▪ Use approved end caps
6	Cleanup	<ul style="list-style-type: none"> ❖ Motion – Tripping on material, pinch points around equipment ❖ Gravity - Heavy lifting, dropping material 	<ul style="list-style-type: none"> ▪ Maintain housekeeping in the work area ▪ Use mechanical lifting systems, lift in teams, as required

REFERENCE/REGULATIONS

- COP 01 Hydrogen Sulphide
- COP 05 Lock Out – Tag Out
- COP 09 Safe Work Permit System
- SWP 11 Compressed Air
- SWP 18 Tools / Equipment / Machinery
- SWP 33 Hazardous Materials / Products /Substance
- SWP 34 Cranes Hoists and Lifting Devices
- SWP 48 Pipe Handling

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