

Worker crushed when excavator boom moved unexpectedly

Description:

A pipeline crew welding together a pipeline segment was using an excavator to make minor adjustments to the alignment of the pipe. The machine's controls were locked-out while the pipeline welder was working on the pipe. When an adjustment to the pipe's alignment was required, the welder stepped back from the pipe and the excavator operator was signaled to make the adjustment. The excavator operator sat down in the operator's seat and did not notice that his jacket caught on the control stick and engaged it. The excavator operator proceeded to disengage the lockout lever and the boom of the excavator immediately went into motion, pulling the pipe segment in towards the bank of the excavation. This caused the welder to be crushed between the pipe and the bank of the excavation. The welder suffered serious injuries, including broken ribs, a punctured lung and a fractured jaw.

Lessons Learned:

- The design of the lockout on the excavator does not include a failsafe to prevent movement of the boom upon release of the lockout if the controls are pre-engaged.
- This is not an isolated incident. A similar incident was reported in an Energy Safety Canada [Safety Alert](#) in 2016.

Life Saving Rule:

This safety alert relates to the following Life Saving Rules:



ENERGY ISOLATION



LINE OF FIRE

Learn more about these [Life Saving Rules](#).



Jacket caught on boom controls. (image source: Energy Safety Canada [Safety Alert 02-2016](#))



Recommendations:

- Standard operating procedures need to:
 - Define when the lockout needs to be engaged.
 - Ensure the operator confirms all controls are in the neutral position and all personnel are clear of the hazard zone (swing area) before the lockout is disengaged.
- Communicate this risk potential with industry including heavy equipment manufacturers through Energy Safety Canada's safety alert process.

Help industry by sharing learnings from an incident. [Submit your Safety Alert.](#)

SHARE AND COLLABORATE

Energy Safety Canada (ESC) works collaboratively with industry to share information aimed at helping companies of all sizes improve safe work performance.

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