



Illustration by Don Lomax

Worker injured by demolition robot

Remote-control construction robots are a great tool to keep workers out of the way during demolition operations. But they are no safer than any other machine if the worker doesn't follow the safe procedures and operating instructions.

The job was to demo a large commercial HVAC system. The victim had worked for this company for six months and was experienced with these types of machines. He usually worked with a partner but was working alone the day of the accident.

The tool chosen was a demolition robot with a shear attachment guided by a waist-mounted remote-control panel. The operator was getting ready to reposition the machine and move the power cable before lowering the machine's outriggers. As he was moving the cable, he accidentally bumped the control panel against the machine.

Since he had not put the machine into the emergency stop mode, it moved, pinning him between the outrigger and a nearby wall. The victim tried to free himself but lost consciousness doing so.

Coworkers saw that he was pinned and slumped over the machine and ran to his rescue. Attempts to free him with the remote control were unsuccessful. Others cut power to the unit, brought over a skid steer and tried to push the remote-control machine away from the operator. After multiple attempts they were able to free the victim; however, his chest was severely crushed causing him to lose several months of work.

How this accident could have been prevented

- Supervisors or safety officers should prepare and communicate a job-hazard analysis for each

new job using the manufacturer's safety instructions to establish the risk zone for the machine, attachment and task.

- Operators should always stand outside the risk zone and never enter it until the machine is de-energized or put into the emergency stop mode.
- Consider using a proximity warning system, such as those based on radio frequency identification (RFID), to maintain a safe distance between worker and machine.
- Train workers to handle and move power cables safely.
- Ensure all operators have read and follow the manufacturer's instructions.
- Consider using a spotter to assist the operator.

For more information on this accident see: <http://bit.ly/demorob>

Date of safety talk: _____ Leader: _____
 Attending: _____