

Safety and health alert

61/99 Employee dies in wood chipper accident

Incident

A 16-year-old casual employee received fatal injuries when the in-feed rollers of a mobile trailer-mounted wood chipper drew him into the machine.

Factors

There were no witnesses to the accident, consequently the exact details and causal factors are unknown. The equipment involved was in good working order and had been regularly maintained. No modifications had been made to the equipment.

CONCLUSION

The control bar for the in-feed rollers was being relied upon as an emergency device. The control bar has three functions- forward feed, neutral and reverse feed- therefore it is clearly designed as an operational aid rather than as an emergency device. To operate the machinery as it appeared to be designed for would require a second person to activate the control bar if necessary.

The chipper met the principles outlined in the Australian Standard for safeguarding of machinery.

Recommendations

It is necessary to provide a safe system of work and to comply with the appropriate safeguarding of machinery standards. General safety principles must be observed including:

- Develop written work procedures based on a safe system of work and the manufacturer's recommendations for the particular machine.
- It is imperative that operators are competent through adequate training, instruction and appropriate supervision prior to and when using the machine.
- Ensure that there is no pruning material left on the ground in close proximity to the operator's position, which may cause a trip hazard.
- Ensure the operator does not have loose items of clothing that may get caught or snag on pruning material as it is fed into the chipper.
- Ensure the operator feeds the chipper from a side position away from the front of the in-feed chute and once the in-feed rollers catch the wood, the operator is then to move away from the feed line of the chipper.
- Feed the butt end of branches into the chipper in-feed rollers first.
- Never climb onto, or stand on the in-feed chute of the chipper.
- Never sit or ride on the in-feed chute of the chipper.
- Provide and maintain adequate warning signs as a constant reminder to operators of the potential hazards associated with the machine.



- Observe any other safety recommendation or precautions provided by the manufacturer.
- Always stop the in-feed rollers prior to correcting an action or cleaning up small pieces of wood or leaves on the machine.

Because there is a high probability that if an accident occurred the consequences would result in major injury or death, it is essential that a combination of preventative measures be taken to ensure the safety of the operator, and that no single safety feature is relied upon. Measures include:

1. Ensure the in-feed chute design is such that an operator standing at the edge of the chute cannot come into contact with the nip point of the in-feed rollers or other moving parts.
2. Provide remote emergency shut off devices such as lanyards, tag lines, foot controlled mechanisms or emergency stop button for activating/de-activating the in-feed rollers. Where the machine work station is remotely located from the machine controls, either a red emergency stop device shall be provided at the machine work station or the actuation of the controls shall require continuous depression during the hazardous portion of the machine cycle. These devices should be immediately accessible to the operator in an emergency and tested and verified to be functioning properly each time the chipper is to be used.
3. Consider installing an electronic activating mechanism that is activated by sensors in head, wrist and ankle bands that stop the in-feed rollers if any part of the body approaches too close to the in-feed rollers.
4. If none of the above emergency shut down devices are in place then a second person must be in position to operate the in-feed control bar during chipping operations.
5. All guarding and emergency control mechanisms must meet the minimum requirements of AS 4024.1 Safeguarding of Machinery.

Further Information

Further information can be obtained from the WorkSafe internet site www.worksafe.wa.gov.au, or by contacting customer service on 1300 307 877 or email: safety@docep.wa.gov.au.

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