

HAZARD ALERT

ONLY QUALIFIED TECHNICIANS CAN MODIFY BOILERS AND PRESSURE VESSELS

WHAT HAPPENED?

In order to make their portable ANFO (ammonium nitrate and fuel oil) loader easier to transport, an underground mining operation removed the original manufacturer's tank support brackets and welded the pressure vessel to a cart frame. Modifications were performed on-site by workers who did not possess the specialized training required for pressure vessels.

WHY DID IT HAPPEN?

- Failure to recognize that ANFO is an explosive blasting agent.
- Failure to recognize that pressurized ANFO loaders are pressure vessels regulated under the Technical Standards and Safety Act (TSSA), 2000 and Ontario Regulation 220/01 (Boilers and Pressure Vessels).
- Alterations permitted without an approved TSSA Quality Program in place.

HOW COULD IT HAVE BEEN PREVENTED?

1. Always follow the organization's management of change process prior to making modifications to equipment or process.
2. Obtain a Certificate of Authorization for the repair or alteration of a boiler, pressure vessel, fitting or piping; and,
3. Only permit qualified personnel to perform alterations on this type of vessel.
4. Follow the manufacturer's maintenance recommendations.

WHAT THE LAW SAYS

- Sections 7 (Alterations) and 8 (Welding and brazing requirements) of Ontario Regulation 220/01 indicate requirements for alteration and welding repairs.
- Section 25(2) (a) of the Occupational Health and Safety Act states an employer shall provide information, instruction, and supervision to a worker to protect the health and safety of the worker, and Section 25(2)(h) states an employer shall take every precaution reasonable in the circumstances for the protection of the worker.

