

Number 1 2008

Chemical safety — tank decontamination crucial

Details

A cleaning contractor was pressurising a pump-action spray pack which had a cleaning agent in it, when a chemical reaction occurred, causing the spray pack to explode.

The explosion resulted in the contractor receiving serious injuries: including amputation of several fingers from their left hand, and deep and serious chemical burns to the lower half of their body.

Contributing factors

An investigation into this accident found:

- the day before the accident, the contractor used the spray pack, containing acid wash, to clean a stainless steel milk vat at a dairy
- the spray pack was neither emptied nor decontaminated between jobs
- the following day (the day of the accident), the contractor filled the same spray pack with a different chemical, sodium hypochlorite, to clean an area of concrete. The spray pack was then sealed and pumped to its maximum pressure before it exploded.

It was estimated that the explosion occurred only 13 seconds after filling the spray pack.

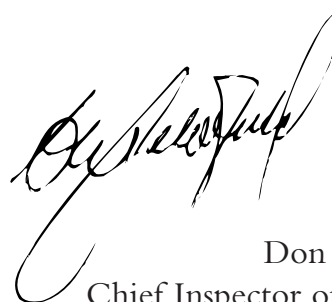
The investigation also found containers of hazardous substances in the contractor's truck which were not clearly labelled.

Recommendations

- Make sure containers used for chemical applications are fully decontaminated after use.
- Make sure chemical containers are properly labelled.
- Make sure material safety data sheets (MSDS) for the hazardous substances and dangerous goods brought into the workplace by contractors are provided to the OHS officer and first aid officer. This information is vital for formulating emergency plans and procedures.
- Make sure correct separation distances between incompatible hazardous substances or dangerous goods are maintained.



If you would like further information contact Workplace Standards Tasmania on:
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Fax: (03) 6233 8338 Email: wstinfo@justice.tas.gov.au Internet: www.wst.tas.gov.au

A handwritten signature in black ink, appearing to read 'Don Schofield', written in a cursive style.

Don Schofield
Chief Inspector of Industry
Workplace Standards Tasmania
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