



HSEM ALERT

Pressure Filter Structural Failure

Who needs to read this?

All Curtin University Staff and Students.

Incident Details

In a recent incident, the thread on the top of the screw assembly of a pressure filter failed whilst under pressure. The shock of the sudden failure caused a section of the top screw handle to break and fall off.

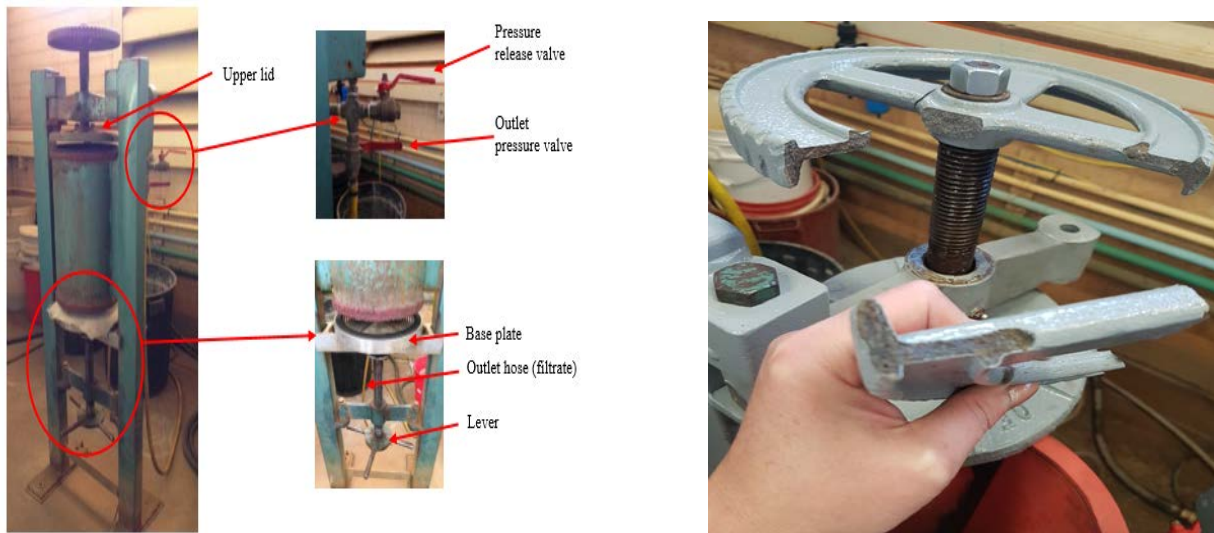
Investigation Results

Review of the pressure filter following the incident indicated the following:

- The pressure filter had been retained and used by the area for at least 30 years.
- There were no regularly scheduled, documented inspection, maintenance or testing programs in place for the equipment.
- Prestart checks did not include a visual inspection that could have identified surface corrosion and possible underlying structural weakness prior to the incident. On the day of the failure the new paint was hiding all signs of corrosion.
- The wear on the thread of the screw would have provided adequate visual notification that failure of the vessel's seal was imminent.
- Plant Risk Assessments, Safe Work Procedures and Safe Operating Procedures for the equipment were incomplete, not authorised or reviewed in line with the Curtin Policy Development Procedures.

HEALTH, SAFETY AND EMERGENCY MANAGEMENT

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Recommendations

Areas are required to ensure that:

- All old vessels are immediately identified, visually inspected and tested, where necessary, to determine if they are fit for purpose. Manufacturer's Manuals and Operating Instructions to be located and made available for users.
- Evidence of external provider inspection, testing and maintenance is available either on the pressure vessel itself (e.g. sticker) or on a centrally available record if this is not practicable to enable safety audit compliance checks to occur.
- Curtin requirements in relation to pressure vessel compliance are met on an ongoing basis. Refer to Pressure Equipment/Vessels FAQ page.
- Prestart checks to include a visual inspection of the equipment prior to every use. If damage or corrosion is identified, the equipment should be tagged out of service and inspected and tested by an appropriate person.



Who do we call with questions?

If you have any queries, please contact Health, Safety and Emergency Management on 9266 4900 or email healthandsafety@curtin.edu.au.

References

Australian Standards 1200, 1210, 3788, 3793, 4343 and relevant vessel specific standards.

Pressure Equipment/Vessel [FAQ](#) page

[Policy Development Procedures](#)

[Mines Safety Bulletin No. 125](#)

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