

# SAFETY BULLETIN

DATE: 18 MAY 2020

## Fire suppression system fails to discharge

This safety bulletin provides safety advice for the NSW mining industry.

### Issue

Field testing has found that a fire suppression system has failed to discharge on demand. The malfunction of a shuttle valve in the fire suppression system has caused the loss of the fire suppression safety function. Failure to operate on demand will place vehicle operators and in the case of underground mines, all workers at risk.

### Circumstances

Fire suppression system manufacturer Fire & Safety Industries (FSI) has issued field service bulletin FSB-017 to alert users that a FSI F3 foam-guard system failed upon manual activation. FSI has determined that the failure was caused by a faulty shuttle valve and that a machining tolerance error related to a batch of valves was the cause of the failure.

### Review

The failure of a single line component has caused the loss of fire suppression system safety function.

Fire suppression systems are relied on to allow an operator to safely egress a large vehicle by suppressing a vehicle fire. Fire suppression is a safety-related control also used to mitigate or extinguish a fire in an underground environment.

Designs in which a single component failure prevents a system from operating should be avoided. There are numerous methods and Standards available to assist designers in achieving a safe system, such as AS/NZ 4024:1503, ISO 13849 and AS61508.

## Recommendations

- Mine operators should identify fire suppression installations that use Fire & Safety Industries (FSI) systems or components. Note that FSI systems and components may be installed by other fire system distributors.
- Where FSI fire suppression systems or components are identified, mine operators should review field service bulletin FSB-017 or any further advice from FSI or distributors. For further information contact your distributor or FSI on 1800 374 374 or [info@fireandsafety.com.au](mailto:info@fireandsafety.com.au)

**NOTE:** Please ensure all relevant people in your organisation receive a copy of this safety bulletin and are informed of its content and recommendations. This safety bulletin should be processed in a systematic manner through the mine's information and communication process. It should also be placed on the mine's common area, such as your notice board where appropriate.

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### DOCUMENT CONTROL

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