



Tasmania

Department of Infrastructure,
Energy & Resources

RAIL SAFETY NOTICE

Date of Issue: 21 November 2005	Notice No.: RSN 2005 - 01
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Subject: Safety Alert - Road/Rail Vehicles Faulty rear track guidance system.
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Advice To: Owners and Operators of Road/Rail (Hi-rail) Vehicles
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Issue:

On 20 October 2005, in South Australia, a Toyota Land Cruiser road/rail vehicle's rear track guidance system self-operated and lifted the rear rail wheels off the track and into the road travel position. While there were no persons in the vehicle at the time and no injuries or damage occurred, the incident had the potential to cause a serious accident. The vehicle was stationary with the engine turned off.

While a formal investigation into all aspects of the incident is yet to be completed, a significant finding to date is that a primary cause of the incident has been attributed to the inappropriate mounting of a relay enclosure. In this instance the relay enclosure was mounted outside of the vehicle cabin on the left hand chassis rail, midway along the vehicle. The relay enclosure, protection rated to IP55, has failed in service, possibly from rocks or other material striking the enclosure during operation of the vehicle. This has allowed ingress of moisture and dust within the enclosure. These contaminants appear to have shorted one electrical relay, allowing the supply of electrical current to the rear track guidance mechanism motor. This caused the guidance mechanism to lift off the rail.

The hi-rail equipment was manufactured by Aries Equipment and Engineering and fitted by a third party provider. Similarly designed and installed equipment may also be subject to similar defects.

The following actions are to be undertaken:

- Operators are requested to inspect all road/rail vehicle and ensure the manufacturer's fitting instructions have been followed;
- In particular Aries fitted vehicles should be inspected to ensure the wiring system installation complies with manufacturer's requirements, and ensure all relay enclosures are mounted in protected positions within the cabin of the vehicle;
- All relay enclosures should be inspected to ensure there are no fractures or cracks in the enclosure and removal of any enclosure covers is recommended to ensure no contaminants have entered the enclosure;
- For operators of Aries equipment further information may be obtained by contacting them by telephone on (08) 9248 8611 or fax (08) 9248 8699.

This notice is effective from: 21 November 2005
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Approved By:

Penny Nicholls
Manager Rail Safety

Date: