

Safety Bulletin



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every day

Konux Sensor Incident

Issued to: **All Network Rail line managers, safety professionals and accredited contractors**

Ref: NRB24-09

Date of issue: 16/08/2024

Location: Preston Park, Brighton, Sussex., Southern

Contact: Stephen Franklin, Network Technical Head [S&C], Technical Authority



Overview

On 6 August 2024, during a site walkout near Preston Park in Sussex, a KONUX Connect sensor was found in a catastrophically failed state during a site visit with debris over 20m away.

These devices are used to monitor sleeper and bearer movements, this device was experiencing higher than normal vibration levels. This device was installed in February. In April the device self-reported a condition issue and stopped working in May. The catastrophic failure occurred at some time between 29 July 2024, when an intact device was captured on train-borne video, and the day of discovery.

The cause of failure is yet to be determined. Devices have been recovered on previous occasions and have been subject to failure investigation to facilitate product improvement.

The supplier, KONUX, has highlighted several sensors, remaining on track, that have stopped communicating or are self-reporting condition issues; a number have not communicated consistently for a sustained period. They are in contact with route teams to prioritise the recovery of failed devices.

Most sensors, ~95%, are fully functional, continue to monitor asset conditions and are not experiencing extreme conditions leading to a very low likelihood of catastrophic failure. Whilst Konux continues to monitor devices' health and status, users should contact Konux when they note devices are not reporting and they are unaware of planned interventions.

Discussion points

- How do you manage failed monitoring devices across your discipline portfolio?
- Do you understand how high levels of movement and vibration can impact our equipment and infrastructure?
- How do you see the benefit of gathering failure information?

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