Network Rail
The Quadrant:MK
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15th November 2013

No: IGS 301

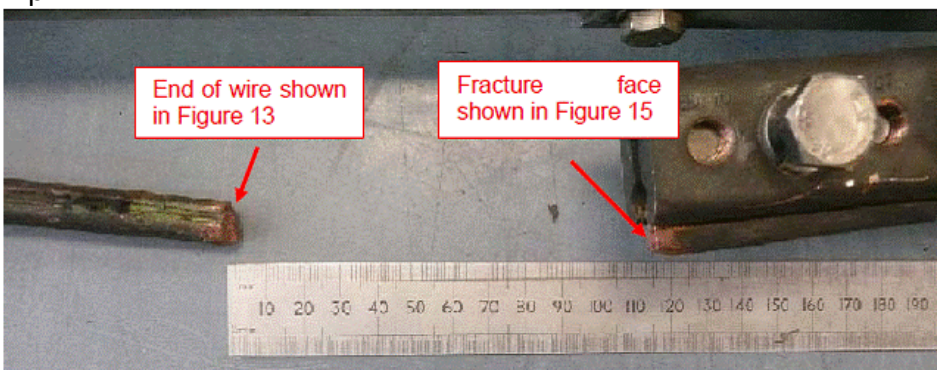
Network Rail Safety Bulletin

Arthur Flury Single Rod Neutral Section Installations – Risk of uncontrolled release of Contact Wire tension

For the attention of OLE Maintenance Delivery Units, Overhead Condition Renewals Team, Construction and Design Contractors.

Background:

Two dewirements have recently occurred on the East Coast Main Line, at Retford and Tallington Neutral Sections.
The primary cause of both dewirements has been determined to be a fatigue failure of the contact wire, with the initiation point being the top of the contact wire at the entry splice. Both neutral sections had been installed for approximately 2 years and were installed in 107mm^2 Hard Drawn Copper contact wire, with a line speed of 125mph.



Boroscope inspections of further neutral sections have found corrosion and signs of crack formation on other entry splices and LNE route are currently implementing a programme of mitigation measures to prevent further dewirements. The root cause of the fatigue failures is being investigated by LNE route, an independent investigator, the manufacturer and Energy Services.
A safety risk also exists when working on existing Arthur Flury Neutral Section installations due to the possibility of a fatigued wire parting whilst working on the equipment.

Immediate Action Required by all persons affected:

Where any OLE works are being carried out at any Arthur Flury Single Rod Neutral Section location, a rig shall be installed across the Neutral Section assembly from contact wire to contact wire to mitigate against the risk of the wire parting and the uncontrolled release of tension.

For further technical details and advice contact John Hayes, Senior Technology Engineer (john.hayes3@networkrail.co.uk – 07801 907 046)

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