

Network Rail 40 Melton Street London NW1 2EE Tel: 0207 557 8685

5th August 2009

No: IGS 202

Infrastructure Group Safety Bulletin

Level Crossing Bridging Panels (Polysafe or Bowmac)

This bulletin is for the attention of;

IMDMs, IMEs, Track Maintenance Engineers, Off Track Engineers, Level Crossing Inspectors, Track Patrollers and Track Inspectors.

Background

An incident occurred last month when a Polysafe four foot concrete level crossing bridging panel became foul of the running rail, as illustrated below. The panel became displaced following the loss of the upper retaining rubber and damage to a six foot retaining lug.



Note: The time taken from failure of the lug to the displacement of the panel appears to have been less than an hour. This is considered to be a new failure mode.

Crossings that may be particularly vulnerable to this mode of failure are those with:

- A high degree of skew where the angle between road and rail is 45 degrees or less
- Poor vertical road to rail profiles
- High average speed of road traffic
- High numbers of heavy commercial vehicles.

Actions

- Track Inspectors, Track Patrollers and staff undertaking level crossing inspections must continue to follow the full requirements of the Track Inspection Handbook (NR/WI/TRK/001) and need to be aware of the potential for this particular mode of failure;
- Panels which are rocking or deflecting under road traffic must be immediately reported to the signaller. The signaller will take appropriate action including notifying the appropriate Integrated Control Centre (ICC) for rapid response rectification;
- When panels are inspected in-situ or lifted for inspection, the lugs and surfaces should be closely inspected for wear and cracking and replaced as necessary. Worn upper or lower rubbers must be replaced and best practice is to provide new rubbers with replacement panels locating them in accordance with the supplier's instructions;
- Where crossings have a history of this type of failure consideration must be given to early renewal with an appropriate surface system. This should be compliant with the instructions given in the Track Design Handbook – NR/L2/TRK/2049 Sections D.8.1 and D.8.2.

Maintenance Regime

Work has been undertaken to identify the potentially more vulnerable level crossings by examining Ellipse for repeat defect work on the surface systems.

This information has been provided to the IMDMs separately, so that the existing maintenance regimes for level crossings of this type can be reviewed.

Photographs of damaged concrete bridging panels:



Issued on behalf of the Head of Track Engineering