



Objects Falling onto Carriageway – Risk of Impact

WLD.041

Description of Event

The tunnel luminaire falling from the soffit bracketry due to bimetallic corrosion resulting from a design flaw in the material selection.

Population at Risk

Maintenance Workers, Inspectors and Travelling Members of Public (MoP)

Hazardous Activity and Residual Risk Description

- The MoP had spotted a tunnel luminaire which had fallen from the soffit bracketry upon their travel.
- During the routine inspection, a tunnel luminaire fixture was discovered to have dislodged from its ceiling mount.
- Although there are no reports of damage to vehicles or other tunnel infrastructure, the corrosion is likely not an isolated event within the tunnel. An emergency lane closure was implemented to. An emergency carriageway closure enabled electricians to make the hanging electrical cable safe. A visual inspection of tunnel luminaires was also carried out.

Potential consequences of this event

- A fallen lighting unit is a serious issue, particularly during peak hours. It has the potential to damage or block vehicles on the highway, leading to traffic jams or car accidents that can significantly disrupt traffic flow.
- The damaged electrical cable from the fallen unit poses a risk of plunging the tunnel into darkness. The lack of visibility could cause crashes, particularly for vehicles travelling at high speeds.

Safety Hub [Alert Database](#)

- Sub-category 1 “x-misc” with Sub-category 2 “falling item” has 57 alerts including 15 with injury and 5 fatalities.

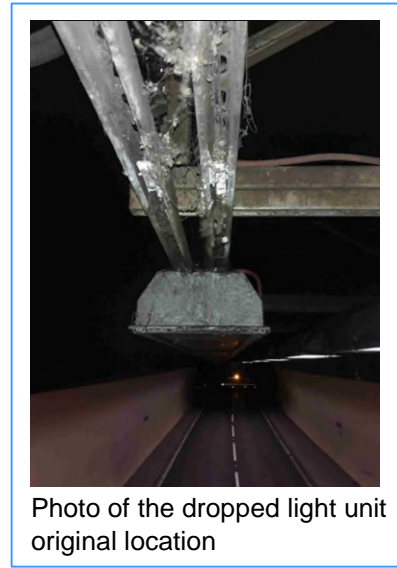
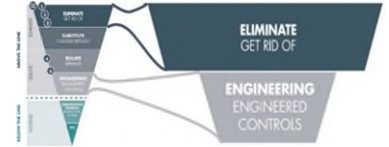


Photo of the dropped light unit original location

Potential Mitigation Measures

Design

- Check that designs specify fixings that prevent bimetallic corrosion. This is not limited to luminaires or tunnel assets.
- Report any infrastructure failure immediately to HART as per GG128 requirements. Raise the awareness and allow for proactive inspections.



Construction

- Ensure that the design is followed and specified fixings are installed.
- Where a change has occurred, ensure this has been reported to and agreed by the designer / manufacturer.
- Identify fixing requirements and follow the manufacturer's instruction for the product selected.



Photo of the dropped light unit

Maintenance / Operations

- Raise the awareness of the need to inspect safety critical fixings.
- Review ‘as-built’ information, Operation and Maintenance Manuals and undertake inspections to confirm the information on assets is accurate.
- Ensure anyone inspecting an electrical part or support framework should be suitably trained and competent to do so.

Further Guidance and Reading

- [RtB 26](#) – Safety by Design
- [TM 501](#) - Road lighting maintenance
- [NHA348](#) – National Highway Safety alerts
- [National Highways Sector Scheme \(NHSS\) 8](#)



Please send ideas for Whole Life Design safety shares to wellbeing@nationalhighways.co.uk

LEAN

Alternative Materials

Improved end user benefits

Reduced Defects

Reduced Reportable Accidents