Overview of Event:
A train struck a section of plyboard hoarding after it became detached in high winds and fouled the running line on the Charing Cross ‘Up Passenger Loop’ at London Bridge. Hoarding works required removal and modification of sections of hoarding as works progressed on the project. The hoarding had a design for its final installation, however the connection detail where the modified hoarding abutted the existing hoarding was not detailed / covered in the design.

Underlying Causes:
Immediate Cause
High winds up to 90kmh imposed a load on an exposed and unsecured section of the hoarding causing it to become detached and fall onto the track of the operating railway.

Root and Underlying Causes
- **Design oversight** resulted in a lack of detail for the corner connection. The ‘new’ hoarding plan was to terminate at an interim position with the final hoarding position being at a later date.
- **Lack of planning** before the works by the Engineer in charge to identify the persons responsible for the inspection and Permit to Load for the hoarding.
- **Procedure** - The Temporary Works Supervisor (TWS) was not in compliance with procedure when he signed off the Permit to Load without fully inspecting the whole structure. He failed to inspect the track-side of the hoarding.
- **Procedure** - The Project operates with a cohort of TWSs and one Project Temporary Works Coordinator (TWC). This is not in compliance with procedures and the Costain Way.
- **The Work Package Plan** did not adequately detail the requirements, particularly the timing, for the raising and signing off of Permits to Load. This was contributory.
- **Behaviour** – operatives under the instruction of Engineers made a hoarding to hoarding connection without having any design detail.

Actions Taken As a Result of Investigation:
- Designs to include hoarding to hoarding connection detail including layout plans. Layout plans to be issued to NR under Form 3 acceptance and included in the temporary works plan.
- Procedures to be reviewed / audited in connection with permit to load requirements / responsibilities.
- Training / briefing of the team in respect of the permits to load procedure and responsibilities.
- A pre-start assessment of the working environment will be undertaken to make sure the WPP / TBS is adequate.
- Planning / organisation – checklists of responsible persons to carry out key tasks to be incorporated into the planning process including the requirement for completion of the form 5 as required by Network Rail.

General Key Messages:
- **Temporary works must be properly planned in advance of construction and temporary works teams consulted**
- **All temporary works must be designed and installed as per design specification**
- **Wind loading must be considered in the design of any temporary structures**
- **Considerations of the risk to the operational railway and public must be considered when planning works.**