

No: NRS 331

Network Rail Safety Bulletin Generator Battery Explosion

For the attention of maintainers of standby diesel generators.

Background

Whilst undergoing routine maintenance, the battery for a standby diesel generator at Chadwell Heath signal supply point exploded.

When switching off the signal supply point main incoming supply, a loud crack was heard from the standby diesel generator and it failed to start. Upon investigation, the battery had exploded resulting in a split battery casing, at both ends and the top, expelling the batteries internal gel, silica (sand) filled sulphuric acid solution within the diesel generator case. There were no injuries.

The battery was a 90Ah 12v Varta Black Dynamic 590 122 072, used to start a Perkins 1000 series engine.

Investigation

The investigation into the incident is ongoing. The cause of the failure has yet to be determined, but it is important to take some interim steps until it has. To assist with this, please send details of any similar incidents to Daniel.OBrien@networkrail.co.uk. Please include details of the battery and generator involved along with the circumstances of the incident.

Immediate Action Required by Users whilst adhering to NR/L3/MTC/RCS0216/GA12

- 1- The door on the generator providing access to the battery must be closed and locked before starting the generator.
- 2- When starting the generator from the switch panel, goggles and gloves must be worn.
- 3- Ensure that spill kits are available for use on site.
- 4- Where a battery is located adjacent to the switch panel or externally to the generator (for example where a generator is installed inside a building), the battery should be encased in a battery box.
- 5- Remove bungs (plugs) immediately after receiving the battery for use, even in storage condition. Bungs (plugs) are only for transportation use and if not removed, battery may become bulged or explode.



Damaged Varta Black Dynamic 590 122 072 battery.

Issued by: Paul Conway Acting Professional Head (Plant and T&RS).