

18th March 2010

No: IGS 223

Infrastructure Group Safety Bulletin

Zollner LOWS – safety control measures



There has been a recent incident which resulted in a Wrong Side Failure of the ZPW (Zollner Portable Warning) LOWS unit. The preliminary investigation has identified the following:

The immediate cause of the event was insufficiently charged internal ZPW batteries and the current self test process which checks them as the last stage of system set up. Very low battery voltage (3.8v) fails test – BUT leaves a frozen display screen showing STATUS OK.

The **interim safety controls** to eliminate this risk are to:

- **Charge internal batteries** in accordance with manufacturers instructions a minimum of once every 7 days
- **After getting STATUS OK** when setting up ZPW at site **instruct an ADDITIONAL WARNING** be put on from one of the lookout units.
- **When** the ZPW gives a regular alarm the internal batteries are proved as operational and work can commence
- **If no warning is generated the internal batteries are flat and LOWS must not be used.**

The permanent safety control, by software enhancement, will be to conduct the battery checks earlier in the process so that clear warning is given of any substandard internal battery levels.

No other fail safe processes are affected by this internal battery issue. Once the equipment is operational with the **ADDITIONAL WARNING successfully completed** any battery then going flat, loss of radio detection between units, or lookout activated train warning will generate the full audible horn and flashing lights at the ZPW.

Briefing Arrangements

Line Managers must brief LOWS Users on this Bulletin and the amended Battery Charging and set up process (Zollner Bulletin No 4) and keep records of the briefing by signatures on Briefing Record form SMF/MG/0008. All LOWS users should be stood down and briefed before further use of the LOWS equipment.