

28th February 2008

Appendix A – 3350/166

Infrastructure Group Safety Bulletin

Sonatest RS125 Battery Packs



Sonatest RS125



Sonatest RS125 after the explosion

Recently a re-chargeable battery pack for a Sonatest RS125 flaw detector unit exploded whilst it was sitting in the passenger foot-well of a Network Rail maintenance van.

No one was injured in the incident but extensive damage was caused to the battery and the road vehicle.

Investigations reveal that the Sonatest battery may have been charged using the charger for the Sperry rail walking stick - the Sperry charger connector fits the Sonatest unit, but charges at a significantly higher rate than the Sonatest charger.

Note: This event follows a number of other incidents related to ultrasonic test equipment including a fire last year at Croydon (Sussex Area), when the ultrasonic lobby and all of the equipment inside was destroyed – fortunately the building was not occupied at the time. Whilst the investigation into this fire was inconclusive, the seat of the fire was located at the point at which both Sonatest & Sperry battery chargers had been left on re-charge.

Actions:

All ultrasonic staff are reminded that:-

- Sonatest RS125 batteries must be inspected prior to use; if there are any signs of damage the battery must be quarantined and a replacement sought.
- If there is any suspicion that a Sonatest RS125 battery may have been charged using a Sperry charger then it should be taken out of service immediately, quarantined and a replacement battery provided.
- If you are unsure as to whether a battery should be used – consult your supervisor.
- Batteries should always be transported in the non passenger compartment of a road vehicle.
- Keep ultrasonic equipment and their batteries away from heat sources, such as radiators or vehicle fan heaters.
- Always use the correct charging equipment for the battery being charged.
- Do not charge this equipment at home.

All managers/supervisors with responsibility for ultrasonic staff and equipment should:-

- Brief ultrasonic staff (or any others involved in re-charging ultrasonic batteries) on the contents of this bulletin.
- Immediately implement a system of identifying batteries with chargers – tagging or otherwise marking for easy recognition.

All staff should adopt the following general safety precautions when using re-chargeable batteries:-

- Always follow the manufacturer's instructions.
- Only charge batteries or equipment with the charger supplied with that equipment or a manufacturer recommended replacement.
- Keep re-chargeable batteries away from sources of heat.
- Inspect batteries before charging or using – do they show any signs of damage?
- Remove damaged batteries from service immediately.
- Dispose of damaged or redundant batteries in line with manufacturer's instructions and the Network Rail Waste Management Manual.
- Do not cover the charger or battery being charged.
- Unplug the charger before removing batteries or connections to the equipment being charged.