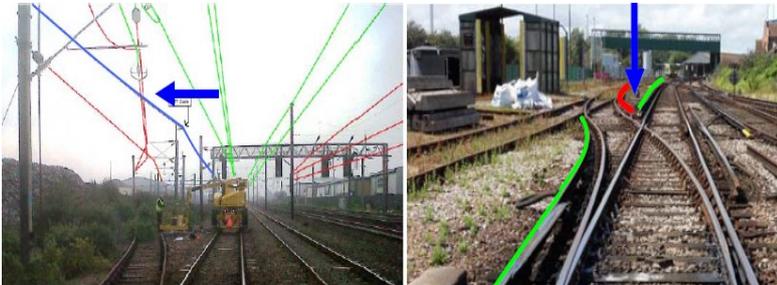


Health and Safety Briefing

Common Factors in Isolation Incidents

Investigations into recent incidents involving flashovers of traction current at Hendon, North London (Mar 11) and Littlehampton, Sussex (Jul 11) have identified a number of common causal factors. Although occurring on lines equipped with different electric traction supply systems, both incidents occurred at locations where connections from sidings joined the main line. Photographs of the locations are included below. In each case the isolated equipment is shown in green, with the live equipment shown in red. The blue arrows indicate the points at which the accidents occurred.



The incident at Hendon occurred when the installer of an Autotransformer Feed (shown in blue on photo) came into close proximity with live OLE leading to the siding. At Littlehampton staff commenced work on a section of live conductor rail in the mistaken belief that it had been isolated; flashover of traction current occurred when a piece of equipment came into contact with adjacent sections of live and isolated conductor rail, causing a short circuit. In both cases the permit to work correctly showed that only the main lines were isolated.

Investigation has identified the following causal factors common to both incidents:

- The planning stage did not identify that there was a need to isolate adjacent sidings whilst the particular task was being carried out
- Whilst it had been previous practice to include the sidings in the isolation, this hasn't been done on these occasions, for operational reasons
- Planning had not considered that it would have been possible to have used local switching arrangements to isolate traction power supply equipment immediately adjacent to the site of work, yet retain operational use of the sidings
- On the day of the accident additional/amended work was being carried out that had not previously been planned in detail
- Those undertaking the task assumed that sidings adjacent to the main line were isolated, even though the permit to work clearly showed that only the main lines were isolated.

Engineers, Project Managers, Line Managers and planning staff are reminded that, during the work planning stage, a full assessment of electrical risk must be undertaken in accordance with relevant instructions for working on electrified lines. This assessment should include a site visit to all areas to check equipment configuration, feeding points, points of isolation and earthing/strapping points. Particular attention should be given to connections to/from sidings or adjacent lines, feeder stations, aerial busbars, live switches/terminals/equipment etc. Whenever work is to be added or amended at a late stage during the planning process, after the isolation has been planned, the Nominated Person/Isolation Planner must check that the isolation remains suitable for the work being carried out.

The COSS who receives the permit to work must include full details of the safe working limits of the isolation in his safe system of work briefing. It is the duty of the COSS to ensure that all persons in the workgroup are aware of, and fully understand, the safe working limits. Extreme care must be exercised if tasks are added or changed during the course of the work. Whenever this occurs, the COSS must refer to the permit to work to verify that the safe working limits will not be exceeded. If this is not sufficiently clear, the COSS must seek advice from the persons who issued the permit to work. Extreme care must be exercised if tasks are added or changed during the course of the work. Whenever this occurs, the COSS must refer to the permit to work to verify that the safe working limits will not be exceeded.

Investigation into a safety incident involving a track maintenance trolley

The RAIB is carrying out an investigation onto an incident which occurred between Haslemere and Witley stations on the morning of 10th September 2011. The incident involved a trolley which was being used by a gang from Network Rail's track maintenance depot at Havant, to transport tools and equipment within an engineer's possession. The loaded trolley was left standing on a gradient of 1 in 80 (1.25%) shortly before 03:00 hrs. When it was moved, the brakes did not re-apply automatically, and the trolley ran unattended for a distance of nearly three miles in the wrong direction towards Witley station, before it reached an uphill gradient and stopped.

Another gang had been carrying out grinding operations close to Witley station, and had moved off the track shortly before the trolley ran past their site of work. The incident was not initially reported to Network Rail's management and the trolley was returned to an equipment store, and was subsequently serviced by one of Network Rail's suppliers. A later examination of the trolley by the RAIB, Network Rail and the manufacturer identified deficiencies in the design and condition of the trolley. Network Rail has since arranged for all trolleys of this design to be withdrawn from use, and the manufacturer has confirmed that no trolleys of this design have been supplied for use on any other railway system.

The incident underlines the requirement to:

- Report all equipment failures when they happen.
- Ensure that all trolleys are 'in date' and are clearly labelled confirming routine maintenance brake test has been undertaken within the last 3 months.
- Carry out the pre use brake test.

Diesel Fuel Theft

Diesel fuel theft, along with diesel fuel prices is at an all time high. Diesel theft is an international problem in Australia, the UK and New Zealand as well as across the US. With prices set to remain high it's time for you to set up appropriate defences.

Diesel thieves target large fuel holdings, wherever those may be. From farms to gas stations to truck stops to construction sites to fleet vehicle parking lots you'll find fuel thieves at work. Sometimes they target the gas tanks on heavy machinery and sometimes onsite fuel tanks. If there are large amounts of diesel fuel stored then you're at high risk for diesel fuel theft. Fuel thieves typically assess opportunities during the day time, so be on the lookout for loiterers and strangers. They often strike at night. There are 6 ways detailed below on helping to prevent diesel fuel theft:

Inventory Includes Your Diesel Fuel: Having a complete inventory for your operation helps you know when theft occurs. If you haven't started counting your gallons of fuel as inventory then start today. Make sure that vehicle usage records line up with fuel usage. If not, you could have an employee who's siphoning off a little bit every day.

Defensive Parking: If you operate a fleet of vehicles then consider using these defensive parking methods. Park so that your fuel tanks are easily visible from the street OR your live surveillance cameras. If you have large fleets, park them so that their fuel tanks are inaccessible.

Locking Fuel Caps and Anti-Siphoning Deterrents: There are many aftermarket products that can make the fuel tanks on your vehicles less vulnerable. Conduct a few web searches and you will turn up hundreds. These won't stop all thieves, but they send the strong signal that you're aware that fuel thieves exist.

Good Security Lighting: Good security lighting doesn't send a glare out to observers from the street. Instead, it lights your defended areas like a stage so that passers by, neighbours and the police can see in easily. Park your vehicles with their gas tanks clearly in the radius of your lighting. Alternately, be sure that your fuel pumps are well lit and easily visible from the road.

Strong Fences Around Generators and Fuel Pumps: You should absolutely have strong perimeter fencing around your operation. However, you should also consider a secondary fence internally around your fuel pumps. Fences don't slow down determined thieves too much, but they do send a clear psychological message that the fuel will be hard to access.

Post Appropriate Security Signage: If you have live video surveillance – or any other form of security service – post signs that lets everyone know that they are being watched. If you have any theft rewards then post signs about those too. Displaying outward signs of security is one of the most effective forms of security.

We won't let an RRV lead to an RIP

There's nothing 'kids play' about an RRV. Remember, if you can't see the driver, he can't see you. Keep a clear line of sight between you, the machine controller and the driver.

We've Gone Mobile!

We have launched the mobile edition of our website. Registered candidates can now access and apply for the latest jobs via their smartphones. Just navigate to website on your phone and you will be automatically directed to the mobile version.

Eye Protection

In August VolkerRail introduced a new eye protection policy with implementation on the 31st October 2011. It will be mandatory from this date on all VR sites to wear a minimum standard light eye wear to EN116F. Please see the bullet points below to be implemented when on site.

- Always wear the minimum eye protection on site
- Always wear the correct level of eye protection as required by the relevant task specific risk assessment
- Never start a task if you do not have the correct eye protection
- Compliant eye wear will be marked up with EN116F (minimum)
- Responsibly dispose of old / non compliant eye wear before 31/10/11