

# LUL and sub LUL sector reports and responses

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## **40707 High tone whistles going off at Stonebridge depot**

The high tone whistle on '72 stock trains at Stonebridge depot is a concern for one reporter. The reporter believes that this whistle is the root of potentially serious hearing damage for workers. It has previously gone off inside the depot and since the volume of this whistle is so deafening, it has caused hearing impairment.

The current arrangement is that engineers go into cabs and isolate the whistle themselves; however this sometimes gets overlooked. There is also risk of the whistle accidentally being set off (for example by catching it with bags or clothes).

On leaving the cab before entering the depot, the reporter suggests that all drivers isolate the whistle on both ends of the train. This way, when the next driver takes it out of the depot, they can re-isolate it, so that it works again for their journey and prevent the risk of it going off and causing any hearing damage. All in all, the whistle should be isolated at all times whilst in the depot.

Could LUL amend their procedures for isolating whistles as suggested and brief all drivers and depot staff of this?

### **Response from LUL**

We are working with our partners in LU Nominee BCV depot at Stonebridge to find a solution to the problem of accidental activation of high tone whistle, and instances of defective whistle where the current joystick switch is stuck in the high tone position.

We will shortly begin briefing our train operators on how to cut out the high tone whistle prior to entering the depot to prevent accidental activation. This solution will also be used for instances of current joystick switch stuck in the high tone position.

This will prevent instances of accidental activation until the button type horn system is installed and will remain the solution in any future instance of button type horn stuck in the high tone position.

BCV Fleet has in development a button type horn activated system to stop the accidental operations.

This will probably take a year to develop, trial and sanction through all the processes but could be the ultimate solution.

## **40683 Poor conditions at Neasden depot**

Unsafe working conditions at Neasden depot have become a concern for one reporter. The roof of the shed along roads 30-37 leaks water and this causes puddles to form on the floor inside the depot.

The staff at Neasden depot are required to carry out repairs and maintenance on live trains and it is a great concern for the reporter that because of these puddles, someone could be electrocuted. Additionally, they could cause a worker to slip or trip, leading to potentially serious injuries.

The reporter feels that bringing cleaners in to remove the water at intervals will not solve the problem as the water leak is constant. This problem does not only occur during rain but because of the limewater on the roof, water can still leak several hours after the rain has stopped.

The reporter would like the roof at Neasden depot to be repaired as the water leak poses a real danger to staff working on live trains.

Please comment.

## Response from LUL

It is true that the maintenance shed at Neasden depot leaks when it rains. This does not happen throughout the shed but in specific locations where puddles form along the areas between the train pit roads. A recent roof survey concluded that a full new roof needs to be fitted. The Depot will be undergoing a full upgrade at the introduction of the new 'S' stock trains and part of this upgrade is to fully modernise and refurbish the shed when a new roof will also be fitted. This refurbishment is due to start on or around August 2009.

In the meantime, the mitigation measures in place are:

- use of machines to clear any puddles of water that have formed between trains along the shed roads during and after rain (carried out by cleaning staff as stated by the reporter);
- staff are assigned only those types of work that will not be affected by puddles of water (such as work required to be done from within the pit road rather than on the side of the train, or inside the train);
- unless qualified to do so and have the correct working procedures in place staff do not work on live parts of trains when powered up via overhead leads;
- staff are instructed to treat shoe gear and other train borne high voltage equipment as live at all times when stabled in the sheds, even when no overhead leads are seen to be plugged to the train;
- where staff have to carry out maintenance work on high voltage pick up shoes and associated areas the correct isolation and protection systems and work instructions are put in place by qualified, trained and licensed staff;
- staff must first complete a full depot safety induction course and a minimum of a rolling stock "Safe Isolations" training course before being allowed to insert the overhead leads and work in the depot sheds; and
- trains are shunted to a road that is not effected by water leaks or areas of the shed are closed if the water or leak is deemed to create an unsafe work area.

Local TU health and safety representatives have been consulted with regards to the interim mitigation measures and they also attend the four-weekly meetings where the depot upgrade progress is tabled.

Local shift managers and staff have all been briefed and are fully aware of the shed leaks and locations and what to do during the time it leaks and there is no requirement for staff to work unless they feel that the area is fit for purpose. Staff have the right to refuse to work on the grounds of health and safety.

## 40685 Use of white signalling lights causing confusion for train operators

The use of white signalling lights during maintenance on London Underground infrastructure is a topic of concern for one reporter. White lights are used during possessions by train masters to call on or stop trains, but the reporter states that because there are often many other white lights in use at such times, particularly at night, it can prove difficult for train operators to distinguish which light is meant for them.

This may result in a train operator reacting to a light that he is not required to respond to and consequently run someone over, derail the train or cause infrastructure damage.

The reporter proposes a system whereby amber and red lights are used to call on and stop the train respectively, to prevent any confusion or misinterpretation on part of the train operator.

Would Tube Lines and Metronet consider this?

### Response from Tube Lines

Having discussed this report with Senior Construction Managers P/Way Projects and having reviewed the LU Rule Book there is no evidence or reference found to the use of such lights for this purpose. Train masters would use and do use red lights for purposes as described by the reporter. It would only be in the cases of extreme emergency that a standard torch or other light would be used; no such emergencies have been reported to date.

## 40608 Out of tolerance wheels

A reporter is seriously concerned about trains running on the District line with wheels that are out of tolerance.

If wheels are found to be out of profile, then the train is stopped and taken out of service. Trains requiring small wheel changes are supposed to remain at Ealing Common depot where the repairs are made. If larger wheels are out of tolerance then trains are taken to Upminster where the facilities are available to repair such faults.

However, instead of using the dedicated empty stop moves to move a an out of service train from one depot to the other the reporter states that trains are being kept in service and are used during passenger service. The reporter states that this is occurring at least two to three times a week.

Additionally, the reporter states that there is a plant machine, 'Calgo', which checks wheel profiles before and after a train is in operation. This system is linked to another system called 'Thomas'. If Calgo detects wheels being out of tolerance, Thomas automatically doesn't allow that train to go into operation. The reporter believes the reason management have **not** used Calgo yet is because they know that it will fail almost all of the District line trains.

For LUL:

The reporter would like LUL to reduce the potential for a derailment to occur during passenger service by only using the empty stop move to transfer trains with out of tolerance wheels.

Also, could LUL investigate this issue and provide a better system of repairing the faults on the trains with out of tolerance wheels?

For Tube Lines and LUL:

The reporter suggested this problem might be occurring at other locations across the underground network. Could this concern be looked into?

## Response from Tube Lines

All Tube Lines trains are maintained to a regime agreed with London Underground.

The Piccadilly line fleet received new full size wheels in 2004 and they are re-profiled every two years. This is controlled using the MAXIMO asset management which identifies wheel sets as they become due for turning. Once identified these units are programmed to return to Northfields depot for attention on the underfloor wheel lathe.

In addition wheel set profiles and wear are checked on the system service module every nine months and on Programme Lift/Train Overhaul. Any unit found with wheels out of gauge is stopped for attention before being released back into passenger service.

The NL and JL wheels are approaching their scrapping size; trains with wheels undersize will be removed from service. A manual assessment has been undertaken to monitor wheel diameters. This includes a mixture of mini-Prof data and gauging combined with wheel turning data and well understood wear rates. Replacing small wheels has commenced on the Jubilee Line and is due to start later this year on the Northern line. The full program will take three years.

Wheel monitoring and gauging will continue throughout and after this process and appropriate wheels will be sent for re-profiling at Stafford Market depot or Golders Green respectively.

## 40684 Directive for train masters to walk in front of moving trains

A reporter has raised concerns over a recent directive from Balfour Beatty, instructing train masters to walk in front of moving trains in possessions, rather than stay in the cab with the driver. This directive was circulated in early February, but the reporter is not aware of the reasons for the change. The reporter believes that this directive is contrary to the LUL reference manual.

The reporter, and many of his colleagues, regard this new practise as very dangerous, and are particularly concerned that the train master is no longer able to communicate with the driver effectively. When very large trains are used, such as GB Railfreight trains, the driver is placed at such an angle that it is hard to see anything which is close to the front of the train. The reporter is concerned that this will lead to someone being hit by a train, either because the driver cannot see a train master who is too close to the train, or because a driver might not see an instruction from the train master to stop or blow the horn.

The reporter would like to see this directive retracted, so that train masters are no longer required to walk in front of moving trains.

For LUL:

Could LUL clarify whether the directive is contrary to the reference manual?

For Balfour Beatty:

Could Balfour Beatty detail the reasons for why this directive was implemented? Would Balfour Beatty re-evaluate the directive in light of the concerns raised by the reporter?

## **Joint response from BB Rail and LUL**

The site person in charge (SPC) is responsible for the worksite and the safe movement of trains and other rail mounted vehicles. The role of train master within a worksite within a possession is appointed to give instructions to the driver to move, after given authority to do so by the SPC.

In the directive that the reporter refers to, train masters are instructed to 'walk in a safe location and distance (at least 20 metres ahead) from the vehicle whilst passing through the site of work'. We accept it is possible the instruction could have been misunderstood upon what is a safe location to walk.

We also recognise that sighting from the cab may be restricted in certain circumstances (for example during hours of darkness). This limits the value of placing a second person alongside the driver, and does not provide an effective means of ensuring the train is clear of any obstruction to the rear of the cab.

The intention of the instruction was not for the train master to be required to walk directly in front of trains and vehicles, such as he was at risk, but to provide a system to ensure the route was clear for the movement to take place. We therefore agree with the reporter that walking ahead of any moving vehicle is an inappropriate method.

In response to this report, the directive has been amended and reissued to clarify the requirements for controlling vehicle movements in an area where personnel are working on the track. This now requires any person who is appointed to instruct a driver to:

- agree an appropriate safe system of work;
- check the route is clear first, whilst the vehicle is secured; and
- give an instruction to proceed from a safe location.

It should be noted that the LU Reference Manual has been superseded by a series of rule books, one of which covers the management of activities within worksites. A working party has also been set up with London Underground to carry out a thorough review of current practices and to look at incorporating good practice from other operators

## **40607 Changing work order priorities**

Serious concerns have been raised about work orders priorities changing on the computer system used by maintenance depots on the District line.

The current system logs the date and time when a person opens a work order and when someone closes it out. However, it is incapable of recording details of users that enter the system in between the two entries and make changes. This means that changes to work order priorities or other details can occur without users being identified.

It has become apparent that some users are changing priorities without authorisation. The main concern is that changing work order priorities could have serious safety consequences. For that reason the operational safety of trains is believed to be unreliable.

One example to illustrate the issue is when a faulty brake was changed from a category D work order (needs to be fixed within three days) to a category C (needs to be completed between 14 days to 18 months) within minutes of the fault being inputted into the system.

If such a fault isn't repaired as quickly as it should be, it could also seriously limit the braking capacity of a train and the train could have difficulty applying the brakes in an emergency. Although changes to the system can occur legitimately, the fault needs to be physically assessed before the priority is changed.

It is believed that this practice is occurring because the management team is under pressure from the Railway Inspectorate after a recent audit led to the issue of a written warning to close out the excessively high work load.

Could LUL investigate this malpractice to find out why it is occurring?

Additionally, could the possibilities of improving the current computer system used for logging the work orders be explored?

## Response from LUL

This issue was raised at a Fleet Functional meeting attended by Health and Safety Representatives. The concern was addressed and a tighter process has since been implemented. A bulletin was circulated and staff are aware of the new process.

Regular meetings with Health and Safety Representatives are also held via Tier 2 Forums to discuss this and / or other similar matters.

We hope that the reporter is satisfied that the matters raised in his report have been satisfactorily dealt with.

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However, instead of using the dedicated empty stop moves to move an out of service train from one depot to the other the reporter states that trains are being kept in service and are used during passenger service. The reporter states that this is occurring at least two to three times a week.

Additionally, the reporter states that there is a plant machine, 'Talgo', which checks wheel profiles before and after a train is in operation. This system is linked to another system called 'Thomas'. If Talgo detects wheels being out of tolerance, Thomas automatically doesn't allow that train to go into operation. The reporter believes the reason management have **not** used Talgo yet is because they know that it will fail almost all of the District line trains.

## LUL and sub-LUL sector

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For LUL:

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### **Response from LUL**

The reporter has raised concerns over a very complicated subject. LUL has given a lot of thought of how best to answer this report without being too technical.

LUL ensures wheels are checked and gauged for service suitability using a 'GO/NO GO' gauge. Any units with wheels that 'fail' the 'GO/NO GO' gauge are not offered for passenger service. Units are either sent on controlled (empty) stock moves to Upminster depot for re-profile or stopped for wheel change at Ealing Common.

There have been operational problems with our Talgo system, however, the issues do not impact on our ability to manage and maintain a safe fleet. The Talgo system does not currently link with THOMAS, however, we are in the process of investigating the possibility of linking the system to Ellipse at some time in the future.

LUL notes the second part of the question and would encourage the reporter to provide more specific information to allow us to address their concern.