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Reporting
for Safety

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Frontline *Matters*

ISSUE 11 August 2020

Silica dust: need to know

Protect yourself with this guide to a common hazard **Page 6**

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Speaking up for health, wellbeing and safety

Editor's note

Welcome to your latest issue of *Frontline Matters*.

We've really needed to rely on our personal resilience over the past five months. Looking out for each other – and ourselves – is as important as it's ever been.

Staying vigilant about Covid-19 control measures is now a daily reality as more people are using public transport and returning to work.

These measures are not just to protect passengers' safety, but also your own and your colleagues' – and your family and friends.

We're still here to listen and pass on your concerns confidentially if you feel Covid-19 control measures in your workplace are not enough or aren't working.

For five weeks, people were only calling us with concerns about Covid-19.

This is no surprise, but it's worth remembering that other health, safety and wellbeing issues are still there.

With so much going on, and people's minds elsewhere, you might be the only person who's spotted an issue or hazard – so speak up if you do.

Do sweat the small stuff! If it's worrying you, it's a concern.

Telling someone about it might prevent an accident or help improve your health and wellbeing.

You'll also feel better speaking out so your company can take action.

Why not get the ball rolling? Contact us online using our web form on ciras.org.uk, our reporting hotline 0800 4 101 101 or text us at 07507 285 887.

If you prefer to send your concerns by post, you can fill in the form at the back of this issue (page 15).

In this issue, we also have CIRAS reports as usual, starting on page 3, and useful features.

From page 6, you can find out more about silica dust – the risks to health

and the control measures that are possible, including ways you can reduce the risk. It's really important to be aware of what respirable crystalline silica (RCS) is and why this matters to you.

Do you struggle to make a decision in the moment, when there are conflicting rules to consider? The new G-FORCE tool and advice on operational decision-making may help, from page 11.

If you have a moment, turn to page 14 and check out our page of jokes. It's good to have a laugh (or maybe a grimace!) where we can. We hope you enjoy.

Remember, if something's not right, speak up – either through your company's internal channels or confidentially by reporting your concerns through CIRAS.

Make yourself heard and stay safe.

The CIRAS team

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Station CCTV reviewed

System layout and coverage to be improved, with more cameras added



© Transport for London. Upton Park station.

Concern

There is a lack of closed-circuit television (CCTV) coverage at Upton Park underground station, according to a recent concern.

“...incidents could go unnoticed for significant periods of time...”

The person raising the concern said that 12 CCTV cameras cover the station, five for the ticket hall only.

Large areas have no CCTV coverage, especially on platforms, they said.

The cameras are positioned too high and do not allow for identifying individuals, they added, and the CCTV system's age means that the camera recordings are poor quality.

They are concerned that incidents could go unnoticed for significant periods of time, and would like London Underground to:

- change and reposition all the cameras so that they cover the whole station, including platforms
- consider upgrading the whole CCTV system at Upton Park station, including the control board, to ensure images are being captured and are clear to see.

Transport for London's response

Transport for London takes the safety and security of staff and customers very seriously and CCTV is an important part of our deterrents and safety mitigations.

We have in-house standards that should be met when these systems are first put in place.

“A recent survey identified the need to increase the amount of CCTV cameras...”

The layout of CCTV cameras at Upton Park station met the criteria when they were first installed, but time has moved on.

A recent survey identified the need to increase the amount of CCTV

cameras and we made a work order to instigate this.

As this work was put back for various reasons, we have now resubmitted the work order and hope to progress installing additional cameras at this location.

The issue with the height of the images was discussed with the station management team and identified as a fault.

As such, a fault report should have been raised.

This has now been raised and we have communicated with the station management team about ensuring faults are reported on a timely basis.

We will monitor the progress of the work orders and look forward to the installation of additional cameras as soon as the current pandemic climate allows.



Excess dust investigated

Plant room cleaned and ventilation system improved after dust levels concern



© Great Western Railway. Paddington station ticket office.

Concern

Staff in the ticket office of London Paddington station had been exposed to a high level of dust since October 2019, according to a reporter.

“...the source of the dust could be the air conditioning system...”

They explained that the dust could be seen as black particles and found on desks.

They believed that the source of the dust could be the air conditioning system and the vents, either because they did not have adequate filters or they were not regularly cleaned.

Concerned for the health and wellbeing of staff, the reporter asked Great Western Railway to:

- investigate the cause of the dust
- consider putting filters within the air conditioning system.

Great Western Railway's response

As soon as the report was received, Great Western Railway (GWR) requested the maintenance records for the ventilation system.

These are in date and compliant with the six-monthly planned preventative maintenance regime, and no related issues have been reported.

“GWR recommended additional works including... a filter to the plant room...”

GWR also requested air quality sampling to be carried out independently.

The air sampling reports have been received and reviewed by the property team.

They showed low levels of contamination – no more than is

recorded in the open areas of the platforms at Paddington and deemed an acceptable level.

GWR also carried out an on-site inspection and identified lumps of dust that may have fallen from the ceiling, through ducts, and which could have come from the mezzanine plant room – this could have been what was reported.

GWR recommended additional works including a full clean of the plant room and installing a filter to the plant room grilles to stop dust entering from the platform in the first place.

This work has been completed.

Further work resulting from the inspection will be to fill holes going down to the roof void.

This is in the work bank to be completed in a timely manner.

The six-monthly preventative maintenance checks will continue and the new filter will be monitored.

How CIRAS helps you stay safe

Raising your concerns confidentially can make your workplace safer – here's what we do so that companies can act on them

Exposure to fumes and poor air quality. Performing tasks without the right competence. Social distancing measures not followed. Training not suitable for the role.

These are a few examples of concerns people have raised with CIRAS recently – and you can see more in this issue.

Are you worried about your manager or colleagues knowing if you speak up?

Have you tried raising your concern through your company's reporting channels without success? Then speak to CIRAS.

You can contact CIRAS when you want to raise a health, safety or wellbeing concern while protecting your identity.

We will listen then pass on your concerns, removing identifying details.

85% of CIRAS reports in 2019/20 led to at least one action



Did you know?
You can raise a concern about another company, for example if you spot unsafe practices on a shared work site

What you can tell us

We listen to many different types of concern. For example, about:



Safety practices



Rules & procedures



Training & competence



Fatigue



Shift design



Work environment



Welfare facilities



Equipment

77% of people contacting CIRAS in the 2019/20 financial year had used internal channels first

How is CIRAS different?

We will tell the company your concern on your behalf so that they can take action.

We'll share their response with you, giving you the chance to ask further questions if you feel your concern hasn't been properly addressed.

We'll pass on these questions to the company so that they can address your feedback.

CIRAS helps important conversations to happen anonymously. Your confidentiality is our priority and will never be compromised.

We're independent and we will make sure you are heard, confidentially.

Getting a result

When a company gets a CIRAS report, what happens next? How do they respond and what do they do?

You can find out in Frontline Matters, with four reports in this issue starting on page 3.

There are many more reports in previous issues too.

These are available at [ciras.org.uk/publication/newsletter](https://www.ciras.org.uk/publication/newsletter), where you can sign up to our mailing list.

Top five safety themes raised with CIRAS in 2019/20 were: equipment, health and wellbeing, rules and procedures, unsafe practices and fatigue

Silica dust: need to know

Stay safe with this guide to the facts and stats about a common hazard

What is silica?

Silica is a natural substance in most rocks (including slate), sand, clay and anything made from these, such as ballast, bricks, tiles, mortar or concrete.

Cutting, drilling or otherwise working on these materials releases silica dust.

Silica dust is very fine and can be almost invisible.

This means dust levels can be dangerously high without it being obvious.

If you breathe in small particles of the dust they pass through your nose or mouth into your lungs.

“...dust levels can be dangerously high without it being obvious.”

How can silica be harmful?

Silica, in particular Respirable Crystalline Silica (RCS) is harmful when it is breathed in as very fine dust particles that go deep into the lungs, where your body takes up oxygen into your blood.

“If silica dust is not managed appropriately in the workplace, there is a risk of lung cancer...”

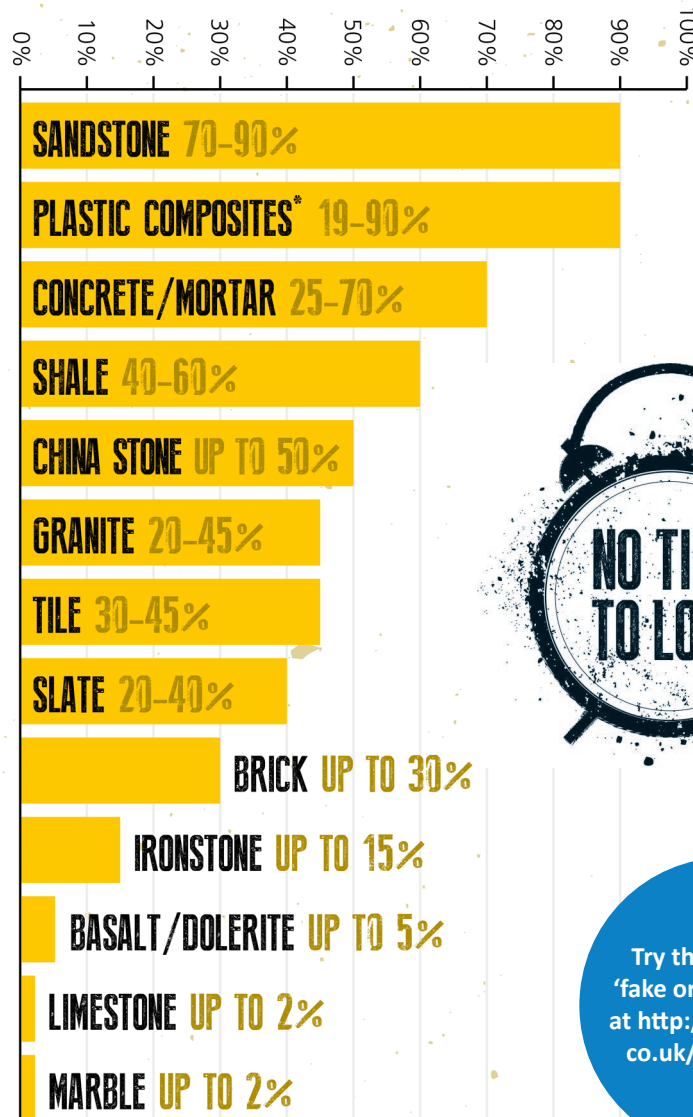
Sitting on a sandy beach is not a cause for concern! Sand grains are too large to go past your nose or upper airways.

If silica dust is not managed appropriately in the workplace, there is a risk of lung cancer and silicosis as well as other lung diseases such as emphysema and bronchitis.

Research from Imperial College London in 2012 estimated that around 900 new cases of lung cancer in Britain each year are linked to past exposure to silica dust.

People with silicosis may have a higher risk of lung cancer. Silicosis symptoms include a persistent cough, shortness of breath, weakness and tiredness.

HOW MUCH SILICA?



Try the silica dust 'fake or for real' quiz at http://www.iosh2.co.uk/silica_quiz/.

The approximate ranges for the amount of crystalline silica found in materials (based on Health and Safety Executive data)

*Silica is used in products like fillers or composite panels

From 17 January 2020, RCS is defined in EH40/2005: Workplace Exposure Limits as a carcinogen [cancer-causing substance] where generated by a work process.



Track ballast contains silica, as most aggregates do.

When might I be exposed to silica dust?

- Laying, maintaining or replacing ballast
- Breaking, crushing, grinding or milling concrete, aggregate, mortar or other silica-containing materials
- Drilling, cutting, chiselling or sanding silica-containing materials
- Working with cement
- Moving earth (excavating, mining, quarrying or tunnelling)
- Abrasive blasting or sandblasting
- Handling, mixing or shovelling dry materials that include silica
- Dry sweeping up after a task where silica dust has been created

Even after a task is completed, the dust can stay in the air, be on clothes and surfaces, be disturbed by people or vehicles and become airborne, or be released when equipment leaks or there is a spill.

Certain jobs are more likely to be exposed to silica dust than others – for example, bricklayers and stonemasons.

How can I protect myself?

1. Use local exhaust ventilation – a ventilation system will suck the dust away before you can breathe it in.
2. Operate on-tool extraction – use the controls integrated or mounted on to a hand-held tool to capture dust as you are using it.
3. Damp down dust – keep dust levels down with water, but you need enough water for the whole time that you are doing the work. You can also control the dust during the task using an industrial vacuum.
4. Wear a mask – wear a respirator that suits the task, for example an FFP3-standard mask or a powered mask or hood if the work is taking longer. If respiratory protective equipment (RPE) is tight fitting, being clean shaven gives a better fit and protection.
5. Get trained – understand the dangers of silica dust exposure and when and how to use dust controls and protective equipment.
6. Wash hands before eating and drinking to remove silica dust.
7. If you are concerned about dust exposure at work, report it through internal or external channels.

The information above is from No Time to Lose, the Institution of Occupational Safety and Health's campaign tackling occupational cancer. Raise concerns using appropriate channels, like your occupational safety and health adviser or CIRAS. Your company may ask a qualified occupational hygienist to measure dust levels.

Close up: ballast dust

Network Rail set up the Ballast Dust Working Group in 2012 as a cross-industry group to identify, mitigate and manage risks on the railway linked to ballast and stoneblower dust and aggregate.

Since its beginnings, the group's members – including Network Rail and other CIRAS members Morson International, TXM Plant, VolkerRail, Babcock International, APPSUK and Balfour Beatty Rail Services – have been investigating and putting into practice ways to reduce exposure to ballast dust on the railway.

The group has supported initiatives including:

- a ballast dust check reporting sheet, to aid ballast dust complaint investigations
- ongoing tests with ballast dust stabilisers (chemical products to help reduce the release of ballast dust during operations)
- an ongoing initiative to make sure plant and on-track machines build in requirements for water suppression to manage dust
- a ballast rinsing plant at the railhead loading point at Tarmac's Mountsorrel Quarry

Useful contacts

Breathe Freely Campaign

W: www.breathefreely.org.uk
From the British Occupational Hygiene Society (BOHS).

British Lung Foundation

T: 03000 030 555

W: www.blf.org.uk

Find local support groups, call the helpline or get information on managing lung conditions.

Health and Safety Executive

W: <https://www.hse.gov.uk/coshh/basics/index.htm>

W: <https://www.hse.gov.uk/construction/healthrisks/cancer-and-construction/silica-dust.htm>

Exposure limits and COSHH (control of substances that are hazardous to health).

Network Rail Safety Central

W: <https://safety.networkrail.co.uk/safety-hour-discussion-packs/respiratory-risk-silica-discussion-pack/>

Download the silica dust safety discussion pack.

NHS

W: <https://www.nhs.uk/conditions/lung-cancer/>
<https://www.nhs.uk/conditions/silicosis/>

About lung cancer and silicosis.

No Time to Lose (IOSH)

W: www.notimetolose.org.uk

More resources – including fact cards to share, case studies and talking points for discussions.

Track Safety Alliance

W: <https://www.tracksafetyalliance.co.uk/videos/track-safety-matters-2-the-ballast-dust-story/s977/>

Watch the TSA video, 'The Ballast Dust Story'.

- changes to how ballast is produced and loaded at the railhead at Midland Quarry Products' Cliffehill Quarry – including changes to the cleanliness of water needed for rinsing the ballast and an Air Knife that removes excess water during ballast loading.

With thanks to Nigel Bownes of Network Rail.

Bus station welfare facilities repaired

Work carried out in response to concern about hygiene and cleanliness that highlighted the potential spread of Covid-19

Concern

A reporter raised a concern about the handwashing facilities in the male toilets at Paignton bus station.

One of the sinks was not working at all and the other one only dispensed cold water.

As well as not being happy with the overall cleanliness of the male toilets, the reporter was concerned that, because of this, employees were not cleaning their hands effectively and could spread Covid-19.

“ One of the sinks was not working at all and the other one only dispensed cold water.

The reporter has asked Stagecoach (South West) if they could:

- fix the sinks in the toilets so that employees can wash their hands with hot water and soap
- review the cleaning regime and ensure that the toilets are cleaned on a regular basis.

Stagecoach (South West) response

The operations manager and engineering manager carried out a full investigation after receiving the report in June.

Before Government restrictions around Covid-19, Stagecoach (South West) was arranging for a local plumber to fix the hand washer/dryer facility.

However, lockdown resulted in the company reducing services to 30% of operation and Paignton bus station was then closed.

The rest facilities remained open for employees keeping services running.

The work to remove the washer-dryer facilities and replace them with sinks has now been completed.

Following the re-opening of full facilities at Paignton bus station, the



© Stagecoach (South West). Drivers have been issued with cleaning kits.

weekly safety inspections have been re-established, so any further issues should be identified and dealt with.

“ The cleaning regime has been increased to once in the morning and again in the evening.

From mid-March, Stagecoach (South West) supplied each driver with hand sanitiser gel and the provision for refills.

Drivers have also been issued with cleaning kits so that they can sanitise

the cab areas before and after use to reduce the risk of Covid-19 transmission.

Additional touchpoint cleaning has been introduced at depots and on buses.

The cleaning regime has been increased to once in the morning and again in the evening. Social distancing measures are also in place.

A full review of the cleaning regime at Paignton bus station is ongoing and the engineering director will ensure that any findings are implemented.



© Stagecoach (South West). New sinks in the toilets.

Coping with loneliness

Feeling isolated? You are not alone. A.D.V.I.C.E. has some suggestions

A.D.V.I.C.E. was set up in September 2019 to share wellbeing information with transport and construction workers. Members are CIRAS, Barhale, Bovis Homes, Colas Rail UK, Ganymede Solutions, McGinley Support Services, Midland Metro Alliance, Network Rail, RSS Infrastructure, Transport for Wales, Van-Elle and Vital Human Resources.

Loneliness or isolation can affect anyone at any time and at any stage of life.

A 2016 survey by the British Red Cross and Co-Op, highlighted by the Campaign to End Loneliness, found that a fifth of the UK population are always or often lonely.

Two-thirds of the population wouldn't feel comfortable admitting it.

It is a taboo subject for many who fear opening up about their feelings.

“Loneliness or isolation can affect anyone at any time and at any stage of life.”

Many people have been trying to cope with isolation or loneliness during the Covid-19 pandemic.

Loneliness is not always the same as being alone.

Even people that have lots of social contact, are in a relationship or are part of a family may still feel lonely, especially if they don't feel



© A.D.V.I.C.E.

understood or cared for by the people around them.

Likewise, you can be alone and feel peaceful and content.

Many factors cause feelings of loneliness, but where Covid-19 has caused social isolation, it is frequently because of the forced separation from those we love, bereavement or the lack of social connections with other people.

Long-term loneliness is associated with an increased risk of mental health

problems including depression, anxiety and increased stress.

It is also linked to physical health issues such as cardiovascular impairment, chronic pain and fatigue.

“Check in on family, friends and colleagues who may be living alone.”

Loneliness and gender

The Office of National Statistics (ONS) analysed the characteristics and circumstances associated with loneliness in England using the Community Life Survey 2016 to 2017 and found that women reported feeling lonely more often than men.

They concluded that this could relate to differences in how men and women reflect on their personal experiences of loneliness.

Some research suggests that men may be more reluctant than women to report undesirable feelings such as loneliness.

Ways that loneliness can affect your health

- Heart problems
- Depression
- Higher stress
- Decreased memory
- Risk of drug abuse



Consider volunteering or visiting friends or family who may be lonely.

Stay connected

- Stay in touch with others, whether via video calls or a good old-fashioned phone call. As guidance changes, meet face-to-face while socially distanced if this feels comfortable to you.
- Keep to routines where possible.
- Consider using talking therapies such as cognitive behavioural therapy (CBT), which may help and is often available through company Employee Assistance Programmes or your local NHS. CBT can help you manage your problems by changing the way you think and behave.
- Remind yourself of all the positive things in your life, however small or big they may be.
- Control the controllable. Change what you can, but it helps if you can recognise and accept when something can't be changed.

- Try to switch off from social media stories where people are sharing their 'perfect' lives. Remind yourself that you do not know what their lives are like away from the screen.

Give to others

- Check in on family, friends and colleagues who may be living on their own.
- Consider how you may be able to volunteer. You could help out at a local food bank, volunteer for the NHS as a 'check in and chat' volunteer, or support a scheme such as Age UK's neighbourly volunteering (see ageuk.org.uk).

Remain physically active

- Physical exercise helps to release endorphins in the brain. These are natural chemicals in the body that have a 'feel good' or pain-relieving

effect. Try to get some physical activity into your routine.

- There are online resources and apps available to help you exercise safely where you live, whatever your fitness level.

“ Plan ahead and aim to do something you enjoy.

Alone time

- If you prefer to manage on your own, the charity Mind suggests planning your week ahead and aiming to do something you enjoy.
- Look at things you could do that you wouldn't normally have time for. If you aren't commuting, for example, you could use the time you are saving to meditate, do some cleaning or to prepare and cook new recipes.

Read the full article at <https://www.barhale.co.uk/news/a-d-v-i-c-e-topic-5/>.

Useful contacts

Are you concerned about someone who is isolated? Or just want to find a different social circle or someone to talk to? These resources may help.

Childline

T: 0800 1111

W: www.childline.org.uk

A counselling service for children and young people.

Do-it

W: www.do-it.org

Volunteer in your local community.

Let's Talk Loneliness

W: www.letstalkloneliness.co.uk

Details of local organisations and support helplines.

Meetup

W: www.meetup.com

More than 9,000 local groups with the goal of making friends and/or improving themselves or their communities.

Mental Health Foundation

W: www.mentalhealth.org.uk/coronavirus/coping-with-loneliness

Support for mental health concerns.

Mind

T: 0300 123 3393 (09:00-18:00, Mon-Fri except bank holidays; or text 86463)

W: www.mind.org.uk

E: info@mind.org.uk

Local support and advice on medication and other treatments.

Nextdoor

W: www.nextdoor.com

Free private social network for you and your neighbours to talk online.

NHS

W: www.nhs.uk/conditions/stress-anxiety-depression/feeling-lonely

Provides a mood assessment and advice on what you can do.

NHS Fitness Studio

W: www.nhs.uk/Conditions/nhs-fitness-studio

Free exercise videos and expert advice.

Samaritans

T: 116 123

W: www.samaritans.org

A safe place for people to talk any time they like, in their own way.

The Silverline

T: 0800 4 70 80 90

W: www.thesilverline.org.uk

A free helpline for older people across the UK offering information, friendship, befriending calls and links to local groups and services.

Take action, no fear

Forget blame by the 'hindsight police'. A simple tool can grow your confidence in making decisions, says RSSB senior human factors specialist Charlotte Kaul



Operational decision-making gets things moving.

But even with years of experience and knowledge, you might not feel able to use your own judgement when you find yourself in a situation outside of the rule book.

Rules and processes are meant to help things progress, safely and efficiently. Sometimes they have the opposite effect though, and mean people are scared to take a decision.

Not deciding can make a situation more dangerous. As time goes by without a decision, it can get worse.

Making a decision is also risky if you only base it on 'gut instinct'.

Even if you know all the rules, it might not be clear what you should do.

The rules may conflict in your situation.

Decisions are pushed up the chain of command because no one wants the 'hindsight police' to judge or blame them.

Sometimes people judge our decisions after the situation, when they have all the right information and time to review it, but these might not have

been available when the decision was made.

But it's not helpful for only a couple of people to be accountable for decisions. Things get missed or forgotten.

Take a look at these top tips for decision-making and the G-FORCE tool for ideas on moving forward with your decision.

Stop and think. Take a couple of minutes to think, to help you reach a rational decision.

Challenge what you think and see. We tend to look for information that confirms what we believe. Question your beliefs and assumptions.

Consider reliability of information. Has the situation changed? Is this the full picture? Where did the information come from?

Have different options. Don't go with first instincts. Have a plan A, plan B, plan C. Keep evaluating these.

Reflect on previous decisions. Do you usually rely on hunches or fact?

Break down your tasks and prioritise. Think about what needs to be done and write a to-do list. It can help you manage each task at a time.

RSSB developed the new G-FORCE tool by speaking to railway staff and exploring what happens in other safety-critical industries including aviation, emergency services and the military.

It's for when:

- no rule covers your situation
- you're supposed to contact somebody for permission to act, but you can't get hold of them
- more than one rule could be applied but these conflict with each other
- there is a rule telling you what to do, but something unusual about the situation means you can't apply it, or if you did it would lead to an unsafe outcome.

For example:

A train has overrun the station by one set of doors.

There is no selective door opening and the train cannot set back.

The train is full and standing and lots of passengers have luggage and pushchairs.

Company policy is to open one local door. What would you do as the train driver?

Here's how it works.

Go or no-go – Is there a rule or procedure that could be followed? If so, follow it. If there isn't one or for some reason it can't be applied, then go to the next step.

Facts – Gather all the relevant information, such as: time of day, weather conditions, whether people are trapped on trains and their comfort level. This is the most important part of decision-making. Find a balance between getting as much information as you can and acting in a timely manner.

Options – Based on the facts, consider the options available. Come up with a few.

Risks – Consider the potential consequences for each option. What are the risks to you, other staff and the public? Are there wider system risks?

Choose – Decide the best option. If there are multiple safe options, which

would cause the least delay? You may choose more than one, such as plans A, B and C.

Evaluate – As the event unfolds, consider whether the option you chose is still the best one. Be ready to change your approach if needed. After the event, can you or your company learn from it?

G-FORCE tool and training is on sparkrail.org – search for T1135.

Email G-FORCE@rssb.co.uk for more information

WATCH:
Charlotte talks decision-making and G-FORCE at <https://play.buto.tv/vzt5c>

Operational changes reduce exposure to fumes

Changes proposed for rule book, with high-speed tunnel ventilation improved and new driver operational controls identified

Concern

A reporter was concerned about exposure to dust and diesel fumes before and after maintenance shifts on overhead wires in London Tunnel 1, London Tunnel 2 and Thames Tunnel.

According to the reporter, staff are often waiting unnecessarily in tunnels for long periods, in poor air quality.

The reporter advised this is because Network Rail staff are instructed to keep track possessions in place until near the planned times, meaning staff could be waiting in tunnels for hours before and after the work.

While the reporter appreciates that they must work in these tunnels,

they felt that it should be at minimal exposure, to reduce possible long-term carcinogenic effects on their health.

They asked Network Rail to:

- ensure that staff can access exit markers
- ensure track possessions are given up as soon as possible
- consider providing staff with equipment to help alleviate dust and diesel fume exposure.

Network Rail's response

Network Rail High Speed (NR HS) is the infrastructure manager for the three tunnels.

These tunnels, with internal platforms and ventilation systems, have cross passages between each bore at regular intervals and surface access from headhouses (buildings at the top of tunnel shafts).

The ventilation fans can provide air movement during maintenance operations but unfortunately, at the time of this report, the High Speed 1 (HS1) rule book did not allow this.

Staff access the tunnels from the headhouses, meeting the operators and machines in the tunnel, and leave via the headhouses when the work is complete.

Therefore, there is time before and after work tasks when rail plant is

standing awaiting authority to move in the tunnel.

It is NR HS policy that track possessions are given up as soon as they are no longer required for the protection of work activities.

The result of the investigation is that plant is not being held unnecessarily in the tunnels and that no exposure to dust or fumes exceeded the safe limits identified by the HSE.

The report has prompted several reviews, however, as detailed later. These have led to changes in working practices and operating procedures to reduce exposure to dust and fumes even further.

Hazard identification

The issue of air quality was first raised on a safety tour.

A Hazard Identification (HAZID) study a month later, before the report, identified that in the short term the exhausts of auxiliary power unit (APU) modules could be directed away from staff, and the power units could be turned off after work activities to reduce emissions.

“ The report has prompted... changes in working practices...”

For the long term, this HAZID study here suggested reviewing planning arrangements to ensure the exit marker is outside of the tunnel.

The study also suggested reviewing tunnel ventilation operations in the HS1 rule book, and the electrical and mechanical information system (EMMIS) control instructions, to ensure ventilation fans operate from the time the plant arrives at a marker in the tunnel to when it leaves.

While there is no evidence that plant is being held in tunnels unnecessarily, both short-term actions recommended have been carried out.

Network Rail’s planning section is aware of the issue, and the need to limit the length of time plant is confined to the tunnels, and endeavours to ensure the exit marker is outside the tunnel where possible.

A further HAZID before the report proposed modifications to the HS1

rule book instruction to the NR HS Rules Working Group, which challenged them and asked for further development.

A couple of months following the report, two meetings between NR HS and the operator Balfour Beatty Rail Limited (BBRL), with staff representation, identified further mitigations, such as reducing the number of traction engines running from four to one.

“ ... meetings... with staff representation, identified further mitigations...”

This was implemented as a BBRL driver operations process to control engine use.

Air quality monitoring

In response to the report, NR HS hired a specialist contractor to monitor the air quality with the multi-purpose vehicle (MPV) operating in all three tunnels.

Samples were taken in the mobile elevating work platform basket and MPV cab and all levels of dust and

gas emission were found to be below the limits in the HSE EH40 Workplace Exposure Limits document.

The reports were shared with the operator BBRL.

“ ...all levels of dust and gas emission were found to be below the limits...”

HS1 rule book revision

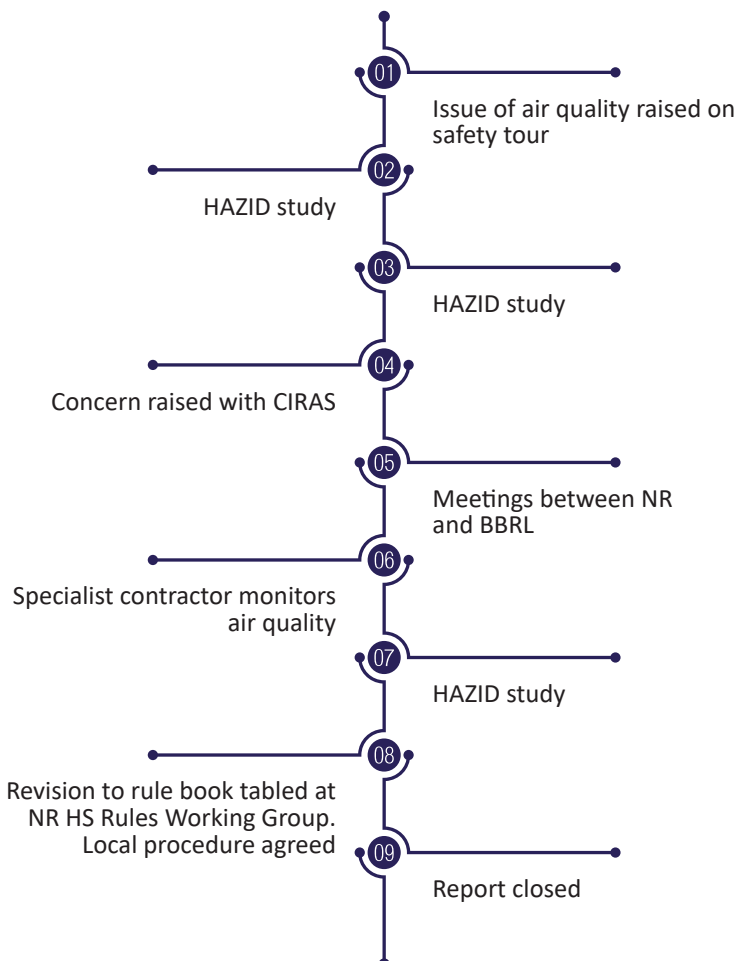
A further HAZID discussed a draft revision to ensure the ventilation fans are on for the whole time the plant is in the tunnel.

After this had been finalised, it was tabled at the NR HS Rules Working Group a couple of months later.

“ ...a local procedure could be implemented straight away.”

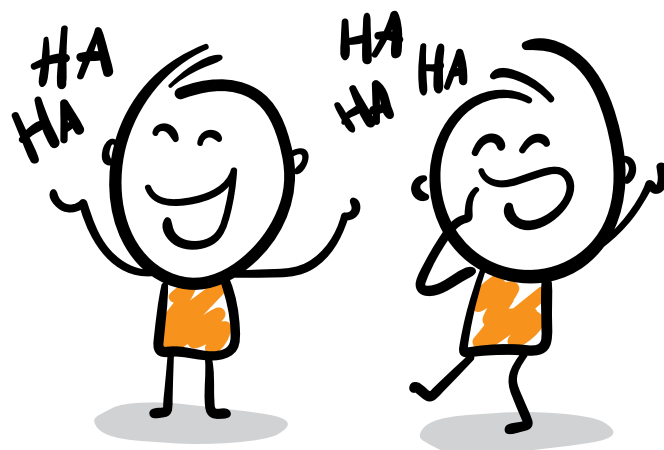
The group agreed that it would take time to revise, authorise and re-issue the HS1 rule book, but that a local procedure could be implemented straight away.

NR HS staff are also now instructed to ensure MPV module power units are shut down after work is completed.



Take five

Grab a cuppa and take some time out



If you have to wear a mask and glasses due to coronavirus, you're eligible for condensation.

Never did I think I would go up to a bank teller and ask for money with a mask on.

During lockdown, I've been working out. The first month, I started by lifting two 2.5kg potato bags. The next month, I lifted two 5kg potato bags. If I carry on like this, soon I'll be strong enough to do it with a potato inside each bag.

Guess the song!

- A.  
- B. 
- C.  
- D.  
- E.  
- F.   
- G.  
- H.  
- I.   
- J.  
- K.   
- L.   

Q. What's the biggest room in the world?
A. Room for improvement

Q. What kind of tea is the hardest?
A. Reality.

They said that a mask and gloves were enough to go to the supermarket. They lied. Everyone else has clothes on.

2020 is a unique leap year. It has 29 days in February, 300 days in March and 10 years in April.

*Thanks to CIRAS member VGC Group for giving us a laugh with these! There's more of them and quizzes at <https://vgcgroup.co.uk/blog/cheer/>

Answers: A. Dancing Queen, Abba; B. Happy, Pharrell Williams; C. Rocket Man, Elton John; D. Purple Rain, Prince; E. American Pie, Madonna; F. Angels, Robbie Williams; G. Night Fever, Bee Gees; H. Waterloo, Abba; I. Don't let the sun go down on me, Elton John; J. Eye of the Tiger, Survivor; K. Single Ladies, Beyoncé; L. Ice Ice Baby, Vanilla Ice.

Do you have any concerns about health, safety or wellbeing?

Have you tried internal reporting channels, or don't feel that you can?

***Please contact us via our hotline, webform or textphone. We can still receive freepost reports but there may be some delay in us accessing our post.**

Any information you provide will be treated as confidential.

We ask you to provide your name and contact details so we can get in touch to discuss your concerns. Once your report is processed, your report form will be destroyed.

Name:

Job title:

Employer:

Phone:

Mobile:

Describe your concern:

Convenient time to call:

What happens next?

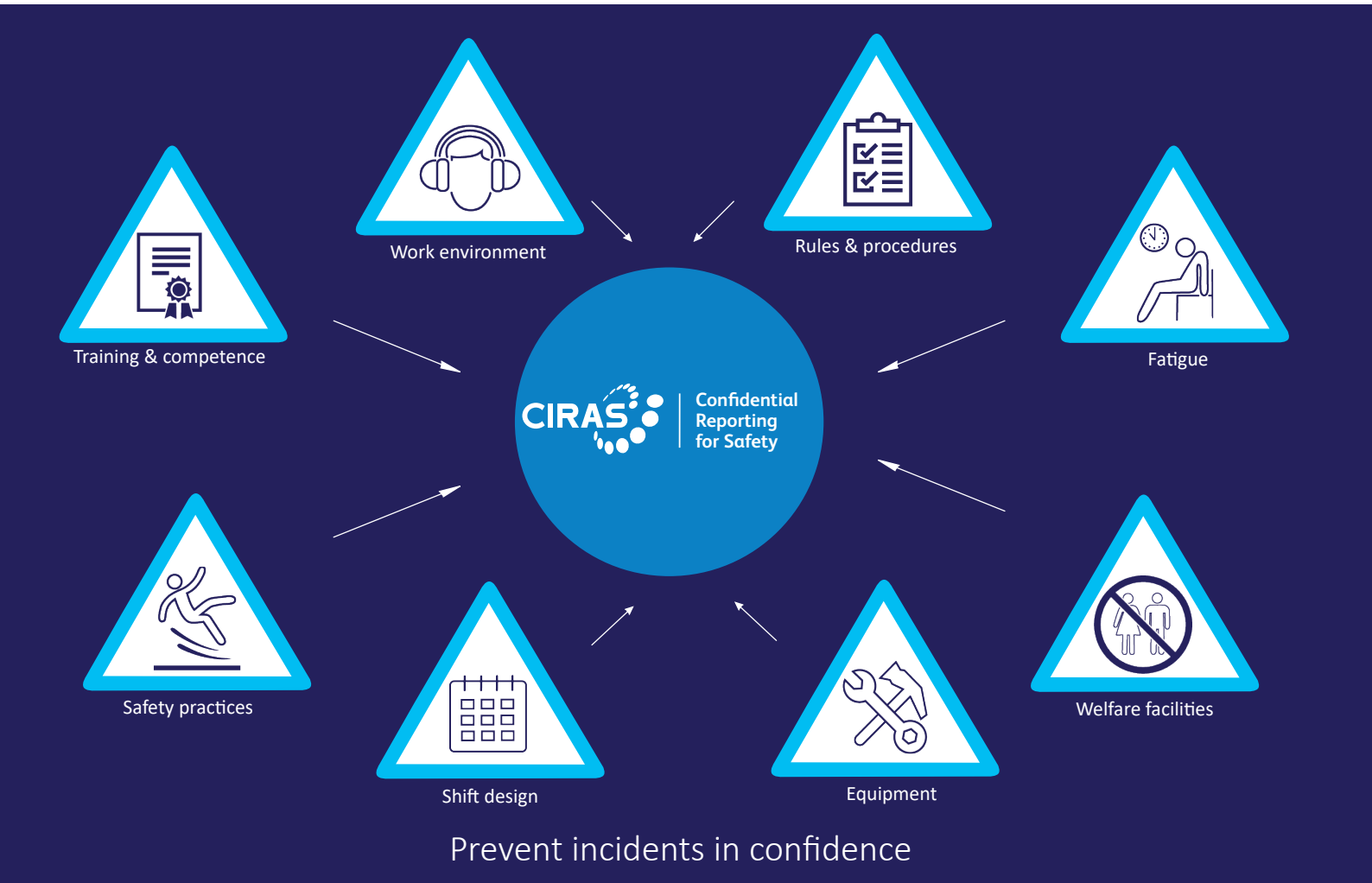
- We will contact you to discuss your health and safety concerns
- We will write a report on your behalf
- We remove any information that might identify you
- We send the report to the company for a response
- Once we receive the response we will then provide you with a copy

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