



# ***Safety Hour Discussion Pack***

**June 2017**

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# NR news

On the 31<sup>st</sup> May 2017 a South East vehicle returned to its Depot and after parking the driver and team saw smoke and flames issuing from under the bonnet area. The Fire Brigade were called and extinguished the fire but not before the vehicle was severely damaged along with adjacent Network Rail vehicle.



This is a diesel engine vehicle however it has been identified that had been refuelled with a significant quantity of petroleum spirit just before returning to the depot.

### **Technical Background.**

All diesel engine vehicles built after 2009 are fitted with a diesel particulate filter (DPF) which is a device designed to remove diesel particulate matter or soot from the exhaust gas.

The DPF is emptied regularly though a passive process called 'regeneration': and at a time when the exhaust temperatures are high enough to remove the soot, usually when on motorways or a faster roads.

Some vehicles do not get the right sort of use for passive regeneration to take place so manufacturers build in an 'active' regeneration process where the engine control senses that the filter is becoming blocked and injects extra fuel into the engine to raise the exhaust temperature thereby triggering the regeneration process.

It is believed that in this case the petroleum spirit / diesel mixture raised the exhaust temperature much higher than normal which started the fire.

### **Conclusion**

Care should always be taken when refueling vehicles not only in respect to the risk of fire but also to ensure the correct fuel for the vehicle is used.

# **Fatality at Trens footpath crossing**

*Issued to:* All Network Rail line managers, safety professionals and RISQS registered contractors

*Ref:* NRB 17/12

*Date of issue:* 23/06/2017

*Location:* Trens Footpath Level Crossing

*Contact:* [Amanda Mumford-Rudd](#), Head of Route Safety Health & Environment



## **Overview**

On Thursday 1 June at approximately 15:50 an elderly lady was struck and fatally injured by a Cheltenham Spa to Maesteg service at Trens Footpath crossing near Llanharan.

The driver of a preceding train saw a distressed lady on the crossing, stopped and advised her to leave the railway.

The train driver reported the incident to a signaller at the next station stop, but this was in a different GSM-R area, meaning communication was required between two signallers.

The location of the distressed lady was not clearly established resulting in subsequent trains not being warned.

The lady was struck by another train before a caution had been applied at Trens crossing.



At approximately 3.00am on 2nd December 2016, after completing their programmed signal surveys at Blackheath, a COSS and Survey Team made their way by road to Maze Hill to carry out further surveys.

As they entered the station they noticed other workers in the vicinity and went ahead and carried out a number of measurements on the track. The last measurement was across the 6 foot. Whilst taking this measurement, using a steel tape measure, it came into contact with the conductor rail creating a spark and partly disintegrating.

They cleared the track and checked their 'Safe System of Work Pack' and realised they were outside the possession and their Conductor Rail permit did not extend to this section of track.

### *Learning from this incident is now available...*

If the tape measure had come into contact with the live conductor rail there would have been the potential for significant injury or death through electrocution.

Where ever possible work adjacent to a conductor rail should be undertaken with an isolation. Network Rail Standard NR/L3/MTC/RP0152 – Working on or adjacent to a conductor rail also states the following:

- a. **For work within 300mm of a live conductor rail** – Fit sufficient conductor rail shields to prevent accidental contact with a live conductor rail.
- b. **For work not as close as 300mm to a live conductor rail** - If it is likely that any person, tool or any equipment will encroach within 300mm of a live conductor rail, the conductor rail shall be protected with a conductor rail shield.

Standard NR/L3/MTC/RCS0216/GA20 Task Risk Control Sheet, referenced in the standard, states: where there is a possibility that tools could contact the conductor rail, confirm that the tools greater than 300mm in length shall be insulated to BS8020. Do not use metal (conducting) measuring equipment or tapes. Their use is prohibited.



# Summer Spike Analysis – Water

Could a lack of water on site be a significant contributing factor to our summer accident spikes?

How often are site teams encouraged to take a break and have a drink of water?

Does your organisation encourage staff to keep hydrated?

If so does your organisation really push the importance of keeping hydrated in relation to personal safety?

Is it publicised? What kind of communications provided? Does it get included in Task Briefings?



# Industry news

# Health update



## The ORR Occupational Health Programme 2014-19: making it happen

file:///C:/\_1%20-%20I%20O%20A%20N%20N%20I%20S/PERSONAL/HSE%20Regulations%20and%20guidance/Health%20Strategy-ORR-2019.pdf



## Healthy job design and culture

Better management of health and well-being brings increased employee engagement and productivity, as well as better safety performance. The McNulty report recognised the need to 'increase the focus on occupational health, which will reduce levels of sickness and absenteeism as well as encouraging a healthier workforce'. Independent RSSB research suggests a total cost to the industry associated with the direct and indirect cost of absenteeism to be about £320m pa. and an additional £480m pa cost for presenteeism. Network Rail has recently estimated direct and indirect cost associated with health and well-being at around £180m.

# Solar Radiation



**WORKING TOGETHER TO BEAT  
OCCUPATIONAL CANCER**



# THE LAW

**You'll need to check legal requirements for the country you operate in. In the UK, there are three pieces of legislation that can be interpreted as applicable to sun safety.**

Under the Health and Safety at Work Act employers should assess and control health and safety risks. The Management of Health and Safety at Work Regulations, with an emphasis on risk assessment, can similarly be interpreted in the context of sun exposure. The Construction (Design and Management) Regulations are also relevant here, especially the regulation referring to outdoor work and protection from the weather.



# Managing health and safety in construction

Construction (Design and Management) Regulations 2015

## Regulation 34 Temperature and weather protection

<b>Regulation</b>	<b>34</b>
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*(1) Suitable and sufficient steps must be taken to ensure, so far as reasonably practicable, that during working hours the temperature at a construction site that is indoors is reasonable having regard to the purpose for which that place is used.*

*(2) Where necessary to ensure the health or safety of persons at work on a construction site that is outdoors, the construction site must, so far as is reasonably practicable, be arranged to provide protection from adverse weather, having regard to—*

- (a) the purpose for which the site is used; and*
- (b) any protective clothing or work equipment provided for the use of any person at work there.*

# BE UV AWARE



**SKIN CANCER** is the **MOST COMMON** form of **CANCER IN THE UK**

**OUTDOOR WORKERS** have a **HIGHER RISK** of developing **SKIN CANCER**



Wipe clean with damp cloth only

**TODAY'S UV LEVEL IS:**



**PROTECT YOURSELF WHEN THE UV LEVEL IS 3 OR ABOVE**

UV INDEX	1-2	3-5	6-7	8-10	11+
LEVEL	LOW	MEDIUM	HIGH	VERY HIGH	EXTREMELY HIGH

**TO FIND OUT TODAY'S UV LEVEL VISIT: [www.metoffice.gov.uk](http://www.metoffice.gov.uk)**



[www.debgroupp.com](http://www.debgroupp.com)



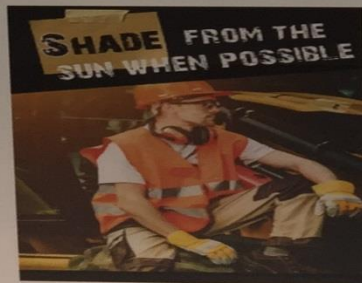
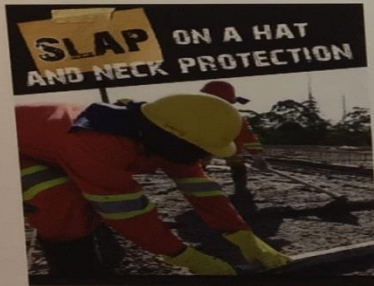
## Best practice

UV station which includes today's UV levels, UV risk index (also see below), a mirror to identify signs of burn and sun protection cream.



# THINK PPE, THINK UV

Follow the 5 S Approach



## BE UV AWARE

**SKIN CANCER** is the MOST COMMON form of **CANCER** in the UK  
**OUTDOOR WORKERS** have a **HIGHER RISK** of developing **SKIN CANCER**

**TODAY'S UV LEVEL IS:**

A circular gauge with numbers 1 through 11+ and a needle pointing to 11+. The gauge is divided into colored segments: 1 (green), 2 (yellow), 3 (orange), 4 (red), 5 (dark red), 6 (purple), 7 (dark blue), 8 (light blue), 9 (light green), 10 (dark green), 11+ (dark purple).

**PROTECT YOURSELF WHEN THE UV LEVEL IS 3 OR ABOVE**

UV INDEX	1-2	3-5	6-7	8-10	11+
LEVEL	LOW	MEDIUM	HIGH	VERY HIGH	EXTREMELY HIGH

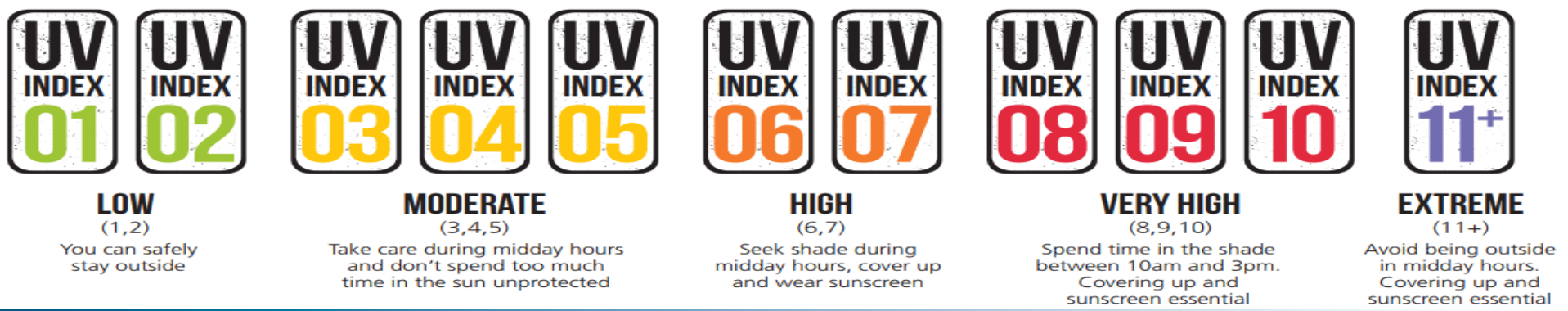
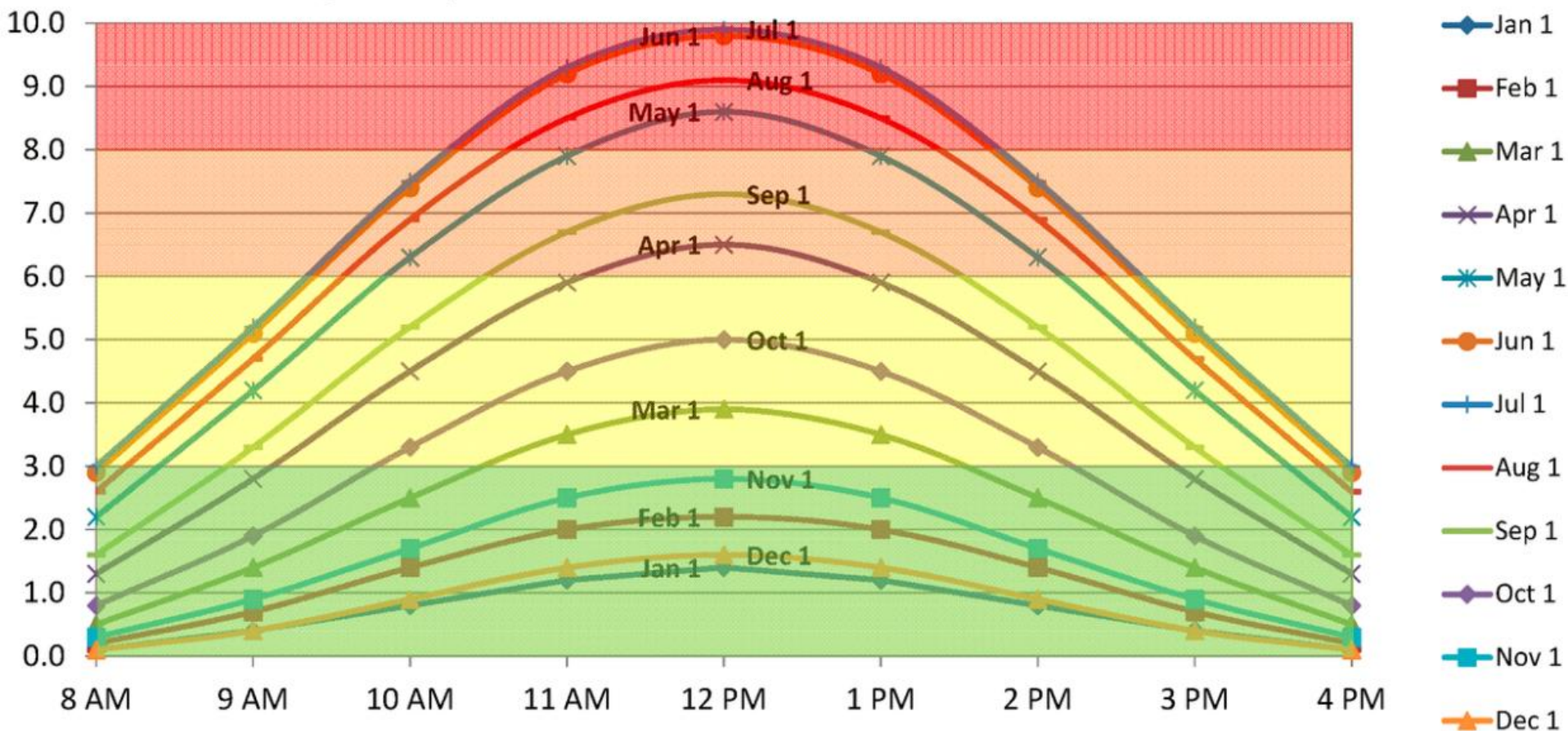
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**deb group**  
www.debgroup.com

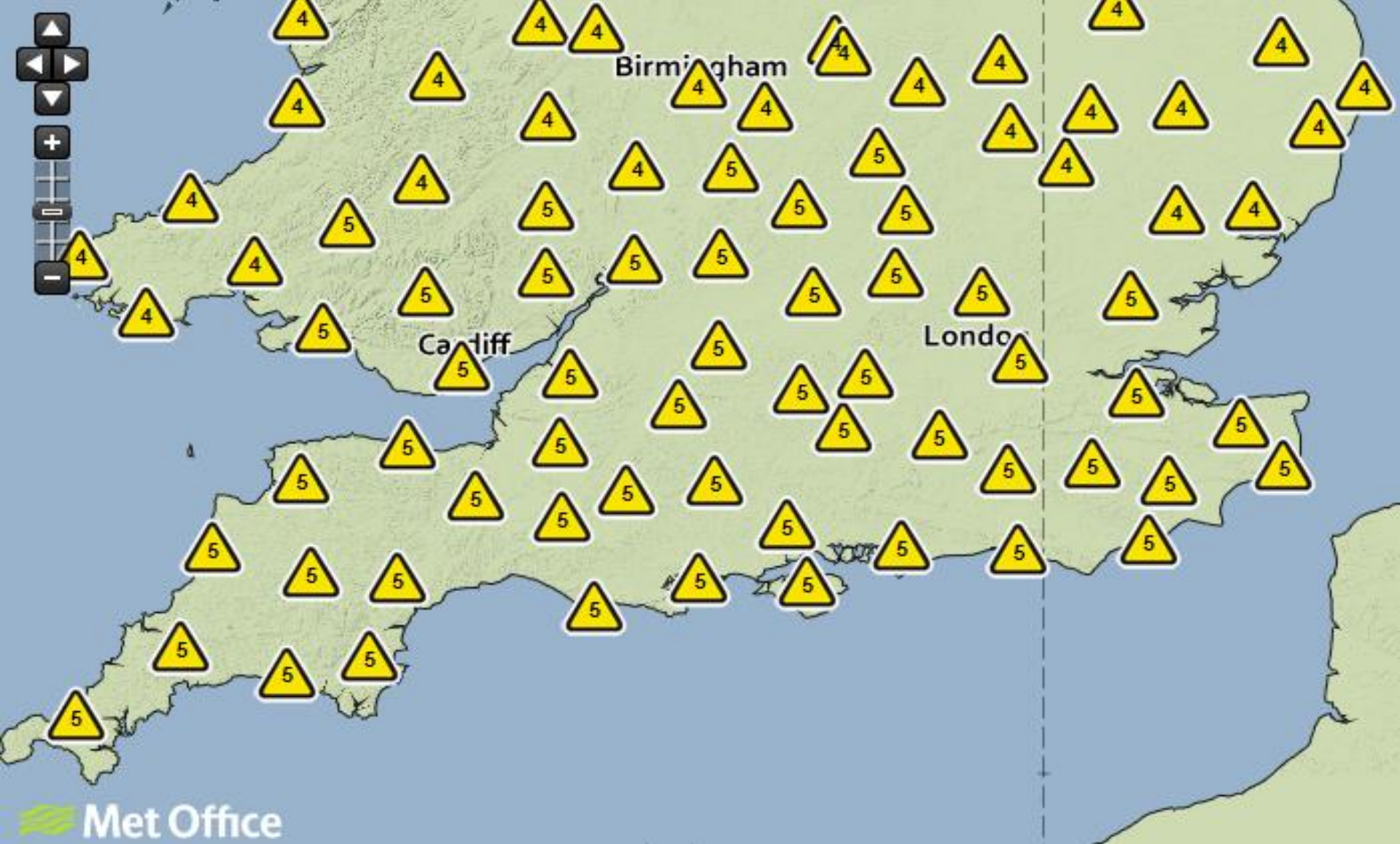




assuming clear sky, thinned ozone, horizontal surface, FastRT UV Calculator







[www.metoffice.gov.uk/public/weather/uv-index-forecast/#?tab=map&map=MaxUVIndex&zoom=7&lon=-1.60&lat=51.24&fcTime=1498014000](http://www.metoffice.gov.uk/public/weather/uv-index-forecast/#?tab=map&map=MaxUVIndex&zoom=7&lon=-1.60&lat=51.24&fcTime=1498014000)

# THE FITZPATRICK SKIN TYPE SCALE

**I**  
**IVORY**

**Characteristics**  
Pale skin, light or red hair, prone to freckles. Burns very easily and rarely tans

**Sun protection**  
At the greatest risk of developing skin cancer. Needs to protect skin, preferably with clothing



**II**  
**BEIGE**

**Characteristics**  
Fair skin, likely to have light hair, blue or brown eyes. Some have dark hair but still have a fair skin. Usually burns but may gradually tan

**Sun protection**  
At the greatest risk of developing skin cancer. Needs to protect skin, preferably with clothing



**III**  
**LIGHT BROWN**

**Characteristics**  
Light olive skin with dark hair and brown or green eyes. Burns with long exposure to the sun but generally tans quite easily

**Sun protection**  
Should protect themselves in strong sunshine



**IV**  
**MEDIUM BROWN**

**Characteristics**  
Brown eyes and dark hair. Burns with very lengthy exposures but always tans easily

**Sun protection**  
Should protect themselves in strong sunshine



**V**  
**DARK BROWN**

**Characteristics**  
Naturally brown skin, brown eyes and dark hair. Burns only with excessive exposure to the sun. Skin easily darkens further

**Sun protection**  
Should protect themselves when outdoors in the sun for a long time



**VI**  
**VERY DARK BROWN**

**Characteristics**  
Black skin with dark brown eyes and black hair. Burns only with extreme exposure to the sun. Skin very easily darkens further

**Sun protection**  
Should protect themselves when outdoors in the sun for a long time





# DID YOU KNOW?

## Ultraviolet (UV) rays...



Are carcinogenic  
(cancerous)  
to humans



Are not  
related to  
temperature



Cannot be  
seen or felt



Can pass  
through clouds



Bounce off reflective  
surfaces such as metal,  
concrete, water & snow



Can pass  
through loosely  
woven material

## Keep your top on

Health risks from working in the sun



Advice for outdoor workers from the Health and Safety Executive and the Health Departments in England, Scotland and Wales

INDG 147

**Industry publications,  
research and  
guidance on sun  
protection**

## Sun safety in construction

Evaluation of a sun safety intervention for the UK construction sector

Report submitted to the IOSH Research Committee

Jonathan Houdmont PhD  
Paul Madgwick MSc  
School of Medicine, University of Nottingham



INDG 337





# H&S PGI

**D&B** *Effingham (LEJ 13/34 21m 50ch) 28 June 2017*

Item No.	Comment & Action Required	Cat	Comments
1	<b>Positive:</b> Site was very well organised with attention to detail.	-	-
2	<b>Positive:</b> Site Agent had reduced the risk assessment pack significantly in comparison to previous jobs inspected, thus keeping main risks top of the agenda. One worker was questioned regarding COSHH assessment and if he had been briefed on the requirements which he answered correctly.	-	-
3	<b>Positive:</b> Trip hazards were marked with red/blue spray to highlight their existence. The process was repeated to ensure the marker paint remained visible.	-	-
4	<b>Positive:</b> Close calls were raised both on the D&B app and the NR (loose limited clearance marker board observed on above the bridge structure)	-	-
5	<b>Positive:</b> NR Sun Exposure brief was shared with the workforce. NR Safety confirmed that independently with the workers on the day of this inspection.	-	D& H&S Advisor offered to look into improving D&B's procedure on UV exposure in line with best industry practice as proposed in the NR Sun Exposure brief and he IOSH No Time To Lose campaign.
6	<b>Note:</b> The (Youngman Staging boards) bridge structure used to safely cross over a ditch is a good plan put in place. However, the <u>structure requires a 'daily check' procedure with a competent person confirming the structure's integrity at the start of the shift.</u>	C	A nominated person (site supervisor) was put forward on the day of the inspection to visually check the boards and ensure the bolts are secure.



Photo 1: Good practice: Staging boards marked and used for safe crossing



Photo 2: Wet brick cutting with full PPE in place including a coverall



Photo 3: Reduced in size risk assessment honing on significant hazards

Contract name		Setchel's Lane														
Assessed by		A Glanfield														
Contract No		1560 - 2381														
Assessment date		12/06/2017														
This is document reference: NR/L2/OHS/0044/F03 issue 2																
Activity / process		Safety Hazards and Environmental Aspects and Impacts			People at risk (tick)			Risk rating (see table)			Control measures - (including documentation required and compliance with procedures)			Residual risk rating (see table)		
					E C V			S L R						S L		
Erecting tower mobile		serious injury, fatality			X			5 4 20			Tower must be erected by a trained and competent PASMA operative in accordance with the manufacturer's instructions. Exclusion zones must be in place around the tower and locations of works. Kickboards to be used on mobile tower. If found stop work, segregate, evacuate the area and contact supervisor. Dusts masks (RFFP3 Dust Masks) to be worn during any operations that create dust. Extraction units to be used whilst raking out mortar, areas of work can be damped down before the start of the activity.			4 1		
Falls of materials from height		serious injury			X X X			4 3 12						4 1		
Hypodermics & Sharps		needle stick injuries & contaminated cuts			X X X			3 3 9						5 1		
Working with dust		Inhalation, ingestion absorption of lead through skin			X X X			2 3 5						2 1		

Photo 4: Tidy and well organised site setup with strong emphasis to 'clean handback'



# ***‘Well Done’*** **recognition award**

*Recognition awards are designed for NR B&C Minor Works Principal Contractors operating on the Wessex Route. Results have been shared, communicated and agreed with the Acting RPM, Route Asset Manager, H&S, and other members of the NR Minor Works Team.*



1) **Organised sites** (site with most positive NR PGIs, with careful consideration to the Life Saving Rules and Home Safe Every Day initiative, suitable and sufficient RAMS, clear signage, forward planning, risk foreseeability, consideration to the public, saving costs through innovative methods but still achieving the right product, etc).

Darren Clarke from Osborne was recognised for having the best run sites with minimal issues. Always friendly and willing to listen to suggestions and take things forward by promoting others and letting less experienced professional learn through the process.

2) **Professional response** (acting in the interest of safety following an unplanned event. Acting in the interest of H&S with clear communication during the process.)

Joe Osborne from D&B who correctly decided to stop the final 30 minutes of a job because a low level scaffold of 1.5m had moved by 500mm was recognised for his professional response. On the day, he immediately contacted his line manager reporting it as a close call and NR was informed within minutes. A quick response with swift mobilisation and good decision making.

3) **Upcoming professional** (manager/supervisor/operative. Positive praise from others outside of the direct team. Building effective relationships within the wider team. Demonstrate high levels of integrity, decision making, best practice and positively influencing others).

Aiden Bevan from B&M is a newly promoted supervisor who has demonstrated repetitively excellent H&S ethos, good decision making with a positive, friendly attitude that impacts on the workgroups attitude. A new upcoming supervisor with a bright future.

# Award category: Organised sites



Darren Clarke from Osborne was recognised for managing the best run sites with minimal issues. Always friendly and willing to listen to suggestions and take things forward by promoting others and letting less experienced professional learn through the process.

June 2017

# National NR Photo Competition - Final Results

June 2017



## And the winner is

More than 5,000 votes cast in this year's Business Briefings photo competition



*The winner of Network Rail's Photographer of the Year 2017: Daniel Tetstall, senior technical officer*

This year's Business Briefings, hosted by route managing directors and featuring guest speakers including chief executive Mark Carne, concluded this week.

The events gave colleagues an opportunity to hear about the strategy and direction of Network Rail.

Colleagues were also given the chance to become Network Rail's Photographer of the Year 2017 with the theme Better Every Day.

The winner of Network Rail's Photographer of the Year 2017 was Daniel Tetstall, senior technical officer at Perth Delivery Unit.

1

2

## An image worth a thousand words

Daniel said: "I was thrilled to hear that I had won the photo competition, especially after hearing that more than 5,000 votes were cast.

"All the pictures that made it to the final round were great and really showed the many ways that we can deliver Better Every Day."

Daniel's picture depicts effective clearance of vegetation and the significant safety benefits for the railway and the public.

He added: "The upgraded fencing prevents the public from straying onto a busy, fast section of track and also users of the foot crossing have a greater visibility in either direction prior to crossing. Further to this speed boards, whistle boards and signal sighting have vastly improved for drivers."

## Finalists



Second place went to Sean Penny, technical officer, Infrastructure Maintenance. About the photo he submitted he said: "An emergency defect occurred within switches and crossings at Biggleswade.

"The repairs were completed with limited planning and within time, meaning that trains were able to continue running as normal and on time the following morning."

3

"The repairs were completed with limited planning and within time, meaning that trains were able to continue running as normal and on time the following morning."





# *Thank you*



**Ioannis Toutoungi**-H&S: Buildings & Civils, CEFA, Waterloo Maintenance

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