



**Peter Crosland**

**National Civil Engineering Director, CECA**

**Chair, HSE / CONIAC Tackling Ill Health Working Group**

**Co-Chair, ICE SH&W Knowledge Network Leadership Group**

**Member - HCLG MH&WRS Sub Group**



Part of the  
Construction Industry Advisory Committee (CONIAC)  
Tackling Ill Health Working Group



# The History

**Pre October 2017; HSE ‘Health Risks’ Group**

**Post October 2017; HSE ‘Tackling Ill-Health Working Group’**

## Membership



HS2

Balfour Beatty



Part of the  
Construction Industry Advisory Committee (CONIAC)  
Tackling Ill Health Working Group





# The Past



## Health risks from exhaust fumes

### Key Points

The fumes from engines, generators and other equipment can be extremely harmful. In some cases, exposure to these fumes can kill within minutes. In other cases, it can lead to longer term ill health conditions like cancer. This document outlines the key risks with using petrol, liquid petroleum gas and diesel powered equipment and what you need to do to manage these. Use safer alternatives where you can.

### Plant and Equipment

Petrol, Liquid Petroleum Gas (LPG) and Diesel are used as a fuel to power many common items and equipment. These include:

- Petrol: hand held equipment like cut-off saws and strimmers together with small electricity.
- LPG: heaters in welfare units, bitumen boilers, drying out structural elements, curing to power larger items like floor polishers and fork lift trucks.
- Diesel: wheeled vehicles, generators, telehandlers and compressors.

### Health Effects

You need to consider both the immediate and long-term health risks from using equipment. The exhaust fumes produced by this plant and equipment can be harmful and cause irritation to death.

- **Petrol** - Using petrol powered equipment indoors or enclosed spaces for a few minutes, can create significant levels of **carbon monoxide** which can be harmful and tasteless poisonous gas which often goes undetected.
- **LPG** - a leakage of LPG could displace air and cause asphyxiation and severe cold burns. Significant use of LPG in small, unventilated spaces can be harmful.
- **Diesel** - High levels of diesel smoke/soot can irritate the eyes, nose and throat. Within it, regularly breathing in such high levels over long periods can lead to cancer. In general, the more smoke/soot you can see the higher the risk of cancer.

### Managing the Risk

- **Petrol** - Petrol powered equipment **should never be used** in enclosed spaces for breathing (not just running the machine) has

# occupational health risk management in construction

A guide to the key issues of occupational health provision

Document prepared by:  
Construction Industry Advisory Committee (CONIAC)  
Health Risks Working Group



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## Plain Speaking "Stress" Toolkit

To help identify the potential for work-related stress on construction projects

This toolkit can be used as part of a 'Toolbox Talk' with a group of staff/workers, or informal one to one discussions over a (tea)break, for example. It would be helpful to try and answer each question using the Red, Amber and Green process. For example, in question 1, first bullet point, if you feel:

- you have too much to do in the time available, you would put a 'X' under Red.
- you are completely satisfied with the time element, you put a 'X' in the Green column.
- you are unsure, you put a 'X' in the Amber column.

If an answer is marked Red or Amber this should be discussed in more detail to try to and understand the underlying causes and identify a simple solution that would improve things. Actions agreed should be recorded and dealt with by the most appropriate person.

QUESTIONS		R	A	G
1. Demands				
• Have you got too much to do in the time available?				
• Have you done this type of work before?				
• How far are you travelling to get here and does this make your day too long?				
2. Control				
• Can we change anything to make things easier for you?				
Did anyone talk to you about how to do this job?				
Are your skills being used to the full?				
Do you think you could have your say about how to do things?				
You could change anything to make it better, what would it be?				
Do you think that this is a good place to work? How well are you supported?				
Have anyone to talk to if you need help?				
Have anyone to listen to you if things were going wrong?				
Can you change anything to do with the support you have?				
Or behaviour such as bullying or discrimination, how is this dealt with?				
Can you tell the office/site management how it is?				
Can you do anything about it?				
Would you make?				
Idea about what you are being asked to do?				
Targets and are these OK?				
Around you know what they are doing and how you are supposed to fit in?				
In the office/on site, is this done well?				
Do you have to move to other projects/offices/sites?				
Do anyone talk to you about what difference this will make?				
Things better?				
Identifying and tackling work place stress. Other help and information is available if				
Linking links to <a href="https://www.hse.gov.uk/stress/assets/documents/talking-toolkit.pdf">https://www.hse.gov.uk/stress/assets/documents/talking-toolkit.pdf</a>				

# The Past....continued



## COMAN Tackling Ill Health Working Group Heavy Component Moving Strategies (HCM's)

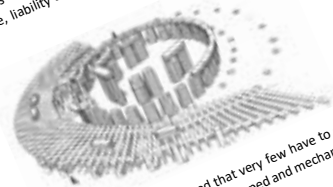
The need to use large heavy components for building purposes has been a requirement of humans for millennia. The ancient Egyptians, the Mesopotamians, Greeks, Romans and the Britons in 3000BC at Stonehenge not to mention the medieval cathedral builders.



All these civilisations decided that large pieces of stone were necessary to make political, religious or community influencing statements that they were a force with which to be reckoned. These stones had to be quarried from mines, transported many miles to site, worked with hand tools to a pre-determined size, stored on site in large quantities until they were moved and eventually lifted into their final build location.

Modern day construction does exactly the same but, using modern technology, can make the task a lot easier. How is it then that we still have huge numbers of accidental musculo-skeletal disorders, crushing injuries and even deaths as a result of similar heavy component movements in our construction industry when modern day technology is easily available?

Did the ancients have supernatural powers, extra-terrestrial assistance or were they just better organised than us, with appropriate equipment and planning? We know that historic construction teams had a much more communal spirit, with no social security safety net, and no national health service. The outcome of any accidents therefore had much more serious consequences for the individual and their families, so cost cutting or macho risk taking was far less likely to occur. This is not to say that accidents did not happen but generally in circumstances that could not have been foreseen or anticipated, unless of course forced labour was involved. The combination of these circumstances arguably encouraged far greater team-working and collaboration than we see today in our risk averse, liability shedding and non-responsibility taking society epitomised by the construction industry.



Looking at the modern day HCM processes so much is taken for granted that very few have to consider the full implications of each step in the process. The stone is extracted in well-equipped and mechanised quarries,

## Construction Welfare: A Framework

It is not the intention to publish any finalised version of this framework document as guidance. It will instead provide an agreed reference point for the next phase of the work. That will seek to establish agreement between HSE and industry on regulatory compliance with welfare provision across a range of 'typical' construction project scenarios. Stakeholders involved are therefore requested not to circulate more widely to prevent accidental misuse of it outside of this context.

- Background:**
  - Providing adequate sanitary, washing and other welfare provisions is an important part of any construction site arrangements because:
    - They are one of an employer's fundamental and basic legal duties as set out in Section 2 of the Health and Safety at Work etc. Act 1974 (HSWA) and further expanded upon in the Construction (Design and Management) Regulations 2015 (CDM);
    - Washing is a key element in effective risk control for some substances, like cement and lead, as well as micro-organisms present in various work environments;
    - It can act as a general barometer of the importance given to providing a suitable working environment and the benefits this in turn brings to both the workers and employers.

Despite published guidance, the determination of what constitutes adequate welfare in compliance with the CDM continues to provide significant debate within industry. This document has been produced as the first stage in addressing this. It provides a framework for interpreting the general welfare requirements under CDM and specifically the provisions required under Schedule 2. Once discussed with relevant parts of the industry, it will form the foundation for further detailed work. That will focus on determining what compliance with this framework means in practice for different construction project types (e.g. domestic refurbishment, transient work, larger sites).

- General Considerations:**
  - CDM implements Council Directive 92/57/EEC. The EU has published a non-binding guide to this (<https://publications.europa.eu/en/publication-detail/-/publication/96b5fe83-ef7d-4628-9af0-e02b25810c1d>). HSE has also published general guidance (<http://www.hse.gov.uk/construction/healthrisks/welfare/index.htm>). However, the range of circumstances where construction work is undertaken means further clarification on a range of issues is often requested. There is a lack of suitable case law to provide a definitive position on interpreting some of the welfare phraseology used within CDM and Schedule 2. Given this, it is appropriate to read across from related standards / guidance where this exists. The following are particularly relevant:

- Workplace (Health, Safety and Welfare) Regulations 1992 (WHSWR):** These are mostly disappplied in relation to construction sites (save for WHSWR regulations 18 and 25A as well as 7(1A), 12, 14, 15, 18, 19 and 26(1) for indoor sites). Of these 25A, with regard to disabled people, is the most relevant. That requires, where necessary, those parts of a workplace (including in particular doors, passageways, stairs, showers, washbasins and lavatories) used or occupied directly by disabled persons at work to be organised to take account of such persons.

Elsewhere, WHSWR has regulations specific to welfare that read across relatively straightforwardly to the CDM provisions. As a general principle construction should have standards consistent with those in other industries unless there are justifiable construction specific requirements for this. This is particularly applicable where specific WHSWR information relevant to welfare has Approved Code Of Practice (ACOP) status. An ACOP has special legal status. If the specific matters on which an ACOP gives advice are

Draft Construction Welfare Framework Document: January 2020



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## Welfare Framework Document



# The Past....continued









## Dust & Respiratory Hazard Catalogue

### Dust and Respiratory hazard control catalogue

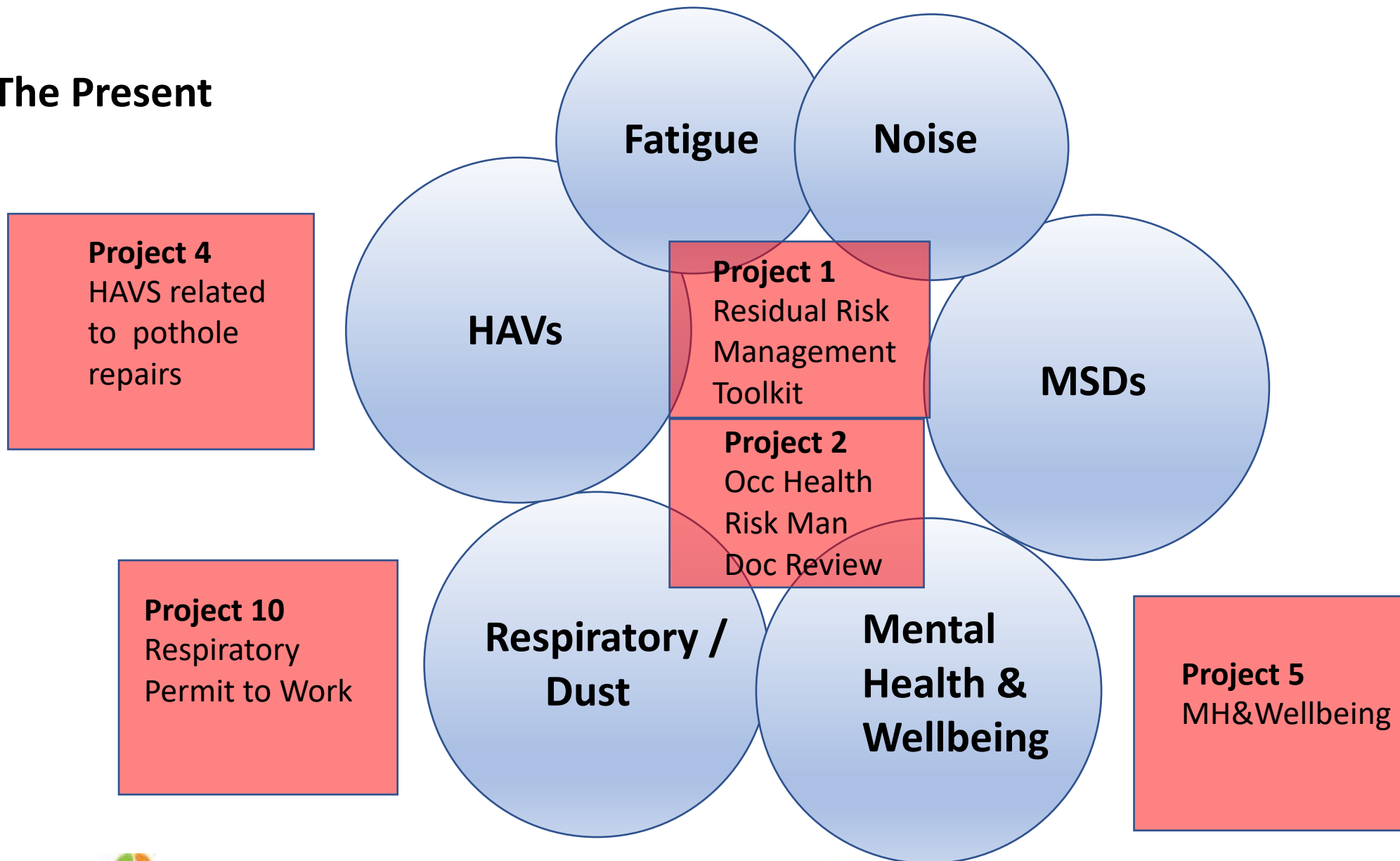
#### Document sections

Page 2	HAZARD RECOGNITION
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## Eliminate, Reduce, Alternative

	<a href="https://ccsbestpractice.org.uk/entries/cfa-pile-cleaning-attachment/">https://ccsbestpractice.org.uk/entries/cfa-pile-cleaning-attachment/</a> <b>CFA Pile Cleaning Attachment</b> Addition of dust suppression to machine mounted brush attachment Plant attachment identified and obtained to brush clean exposed CFA piles for subsequent surface treatment Dust suppression added at same time. Entry submitted by AD Bly Construction	
	<b>Cast in channels for fixings</b> Alternative to drilled fixings Removes the need for drilling into concrete for supported services etc. Reduces / eliminates the production of RCS / dust from drilling operations Requires design input for supported loads and positioning prior to pouring wet concrete	
	<b>Shot fired fixings</b> Alternative to drilled fixings Reduces production of RCS / dust from drilling operations Requires design input for supported loads. Other hazards requiring management and control	
	<b>Manual Block Splitter</b> Alternative to powered cut off saws Reduces production of RCS / dust from masonry unit cutting activities Suitable for paving materials, building blocks etc. Other hazards requiring management and control	

# The Present



# The Future



**Will the future be any different to the current situation, or even the past?**

**HSE Strategy – Protecting people & Places**

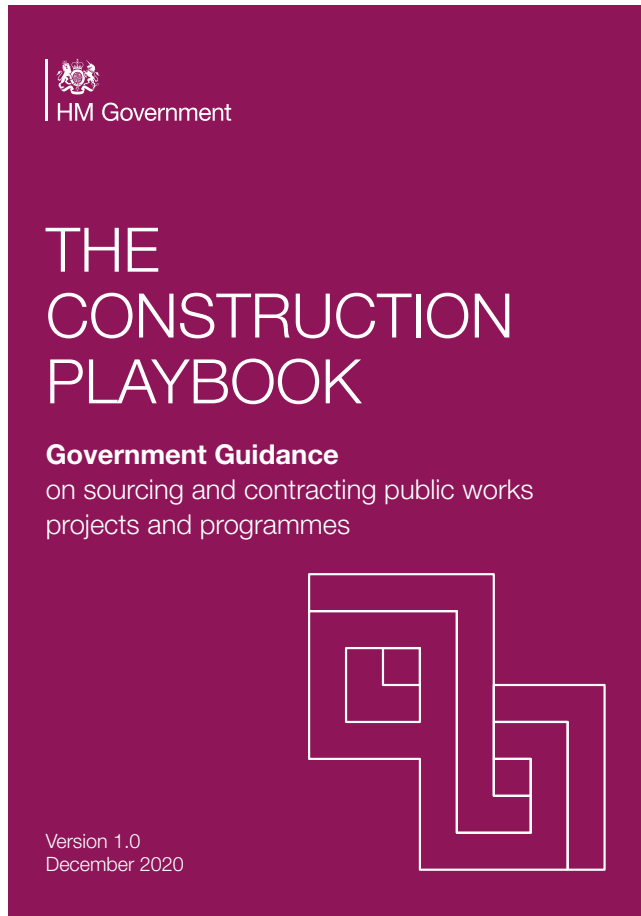
**CLC Plan**

**HCLG Plan**

**.....and others**



# The Future – REGULATION, or the ‘M’ Word?



- **Could we mandate the Construction Playbook?**
- **Potential link up with Mental Health clauses inserted within contracts?**
- **Other ways of creating a safer and healthier environment – or even.....**
- **Use CDM as intended!!**

## The Future – EDUCATION?



We still shout  
'Safety',  
But only whisper  
'Health'!



## The Future – INNOVATION?



**But still only  
Site focused?**





# The Future – INNOVATION?

Well, not quite!





# The Future – BEWARE OF THE UNINTENDED CONSEQUENCES!

