

# TAKE THIRTY

## May 2019

### Introduction

Welcome to our latest HSSE Newsletter.

Having had an introduction into the thoughts of Sanket Mistry, we have an article on Hand Arm Vibration. This article is a result of a discussion prompted by our HSSE Champion, Wayne Canwell on a recent Senior Manager`s HSSE Tour, proving that if done in the right spirit, Senior Manager`s Tours can add real value i.e. somebody somewhere will learn something about vibration after reading this.

Rajesh`s daughter volunteered to share her thoughts on the things that she worries about when her dad goes to work, so we thank her for that.

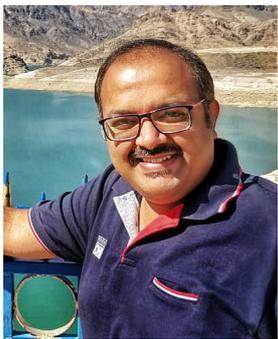
We also have two articles from our project teams, one in Duqm and the other in Cinépolis with Rathish, Mohamed Ali and Azhar making the time to contribute and share in the hope that we can learn from their experiences. Read "And Finally" to learn more about the picture above.

A regular Newsletter such as this takes some considerable time and effort to produce so thanks again to everybody who helps in making it happen and I ask that that you share and discuss with as many colleagues, clients, subcontractors, family members etc. as possible. Shared experiences always lead to shared learning.

  
Peter Baker



## 60 Seconds With Sanket Mistry, App Developer



### 1. What is your role, and how long have you worked at Douglas OHI?

I've been working with Douglas OHI as an Application Developer, and developing modules for the past two years.

### 2. What is the first thing you do when you get to work?

Once I reach the office I go through my mails to prioritise the work for the day, and also check Yammer to get the latest information shared within the company (sites & departments). It's a good place to learn about health & safety measures, events to volunteer, Awards received and some extracurricular activity.

### 3. Which part of your job do you enjoy the most?

As a developer, I always wanted to develop new processes which can be used dynamically whether desktop, laptop or mobile by utilising new technical knowledge keeping the company in line with the technologies around the world. The exciting thing which I like is the R&D required to be in touch with that.

### 4. If you could pick a superpower, what would it be?

Being a Marvel fan, it's hard to select a superpower quality but still if I had to pick one, I would choose to be someone like Vision - who has abilities like agility, intelligence, strength and speed. Who wouldn't want to possess these qualities?

### 5. As an App Developer what's the coolest (or most important) trend you see today?

The current trend in Information Technology is use of digital technologies such as Internet of Things, Artificial Intelligence or Augmented Reality. For a programmer, Machine Learning is the next thing and I would love to research this particular area.

### 6. If you could switch your job with anyone else within Douglas OHI, whose job would you want?

I love my current role. I get to Research and Develop modules for a living, and also work on the aesthetics of the module which use my left & right brain on a daily basis. I am surrounded by leaders, analysts and creatives who inspire me to push myself daily. But if I could enhance myself in my profession, I would choose Machine Learning and Artificial Intelligence.

Hand-arm vibration is vibration transmitted from a work process into workers' hands and arms. If not managed correctly, it can cause a number of health conditions collectively known as Hand Arm Vibration Syndrome, sometimes called HAVS.

HAVS covers a wide range of conditions including Vibration White Finger, Carpal Tunnel Syndrome and Tendinitis.

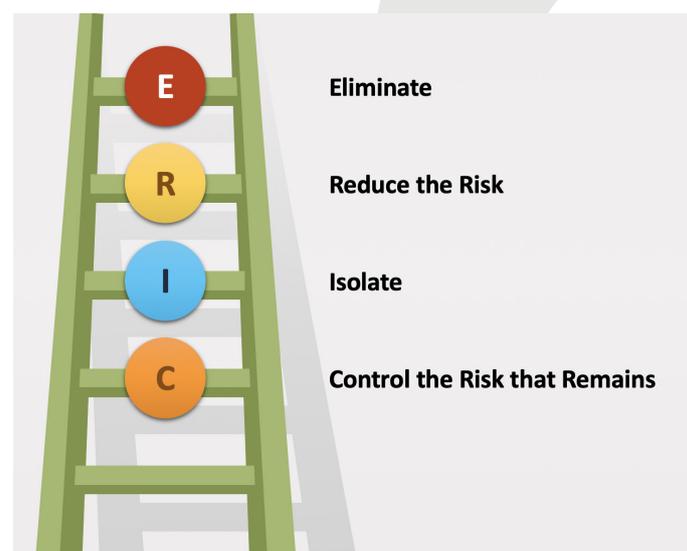
Whilst these conditions are different, early warning signs of long-term health problems include numbness, pain, and blanching (turning pale) in the fingers, hands or arms.

Once a person has such a condition it is generally permanent. HAVS can be caused by operating hand-held power tools, hand-guided equipment, or by holding materials being processed by machines. Typically, this will include equipment such as:

- concrete breakers or scabblers;
- cut-off saws;
- hammer drills;
- hand-held grinders;
- impact wrenches;
- jigsaws;
- pedestal grinders;
- polishers;
- power hammers;
- powered sanders;
- many other types of hand-held equipment.

## How to manage the risk posed by handheld vibrating tools.

We follow the general approach of the ERIC principle.



This would usually mean asking a few simple questions.

### Eliminate

Is it possible to use a machine-mounted hydraulic breaker instead of a man holding the concrete breaker?

Is it possible to use a floor saw instead of a man holding a petrol driven or electrically powered cut off saw?

### Reduce the Risk

Is it possible to use more modern tools that generate less Vibration?

Are tools maintained in a good condition with chisel points, blades etc sharp so that they require less effort to use and are therefore more efficient?

### Isolate

Is it possible to isolate the vibration using dampers or jigs?

### Control the Risk that Remains - Introduce Job Rotation?

Not enough thought is given to this. Effective Job rotation is difficult to achieve unless consideration is given to the amount of vibration that is being generated. It is not enough to say a person will use the tool for 30 minutes. First and foremost, you must obtain information on the amount of vibration generated by the tool or process. Job Rotation must be strictly controlled by supervisors to ensure that the person does not exceed the agreed time. What will the man be doing next? Using other vibrating tools is not allowed if a worker has reached his exposure time.

It is essential that when the risk assessment for an activity is being carried out, you discuss it with your local HSE Adviser for further guidance.

Many people issue Anti Vibration Gloves as a control measure. Whilst these gloves are expensive and provide extra padding, there has never been any evidence that the use of these gloves actually reduces the level of exposure to the employee.

It is essential that the risks and control measures are explained to workers in such a way that is easily understood. Medics should discuss any potential problems during check ups and be conscious for the early warning signs.

Always be aware that wherever vibration is generated, noise levels will almost certainly be high, which will feature in the next issue.

If you have a subject you would like to discuss and share, please contact the HSSE Team at [hsse@douglasohi.com](mailto:hsse@douglasohi.com).

# Planning for the Coke Pit Raft Foundation Concrete Pour in Duqm (2500m3)

During 16-17th March a total of 2500 m3 of concrete was poured for the Drum Raft Foundation by Rathish (Project Manager) and the team on our Duqm Project.

The pour passed without a hitch, largely due to the excellent planning that went into the activity beforehand.

## So how did the team plan for this significant concrete pour?

They thought about the equipment that was needed. This involved using 4 concrete pumps and 34 transit mixer trucks, with 2 pumps on stand by for emergency purpose.

After the first hour of concreting, they decided to use all 6 concrete pumps to pour concrete as this would minimise the waiting time of the mixer trucks.

## Work Duration and Manpower

The planned duration of concreting activity was 14 hours, and 5 groups of 12 persons and 3 groups of 10 persons were assigned for the activity. The total workforce in the Coke Drum was 90.

There was a full-time emergency vehicle with Site Medic on-site until the end of the pouring of concrete.

Workers were divided as per the rotation system, and each group was working in 1 hour work/1 hour break ratio.

## Lighting Arrangements

It was essential that proper lighting arrangements were made therefore Lighting, Access and Egress Route Plans were drawn up, submitted and approved by the Client prior to any works commencing.

Each location had a dedicated Banksman on hand to guide incoming concrete trucks and vehicles protecting people in the area. An electrician and mechanic were assigned to keep a check on the generators and tower lights. Spare tower lights and generators were on stand-by, ready if there were any breakdowns. In order to ensure sufficient levels of lighting levels for the pour, a dry-run was done the day before concreting and witnessed by the Client.

## Rest Breaks & Refreshments

Just as generators need diesel, people need food, refreshments and rest so a rotation system was strictly managed with suitable supervision ensuring all teams had adequate breaks.

Refreshments and snacks were provided to the team until the end of the pour. Drinking water was provided around the clock.

A dedicated team with plenty of water igloos were provided so water supply as provided at site at all times.

## Batching Plant Inspection

A joint visit by Douglas OHI and our concrete supplier was made to ensure the sufficient stock of raw materials such as cement, sand aggregate, chilled water & ice, admixtures etc. were available in the concrete batching plant.

## Summary

The concrete pour commenced on time as planned and was completed within 14 hours. Final finishing activities and protection of concrete after initial setting time were taken over by the day shift team led by our Construction Manager.



Our team at our Cinépolis project in Salalah has been doing a great job in facing a host of challenges including managing the health and safety risks posed when working in limited space on site.

Construction Manager Mohamed Ali and HSE Adviser Mohamed Azharudeen decided to share their experiences of the problems, consequences and solutions of such work in the hope that others can learn from their experiences. They said:

*“Managing the workplace (and space) is important to allow employees and subcontractors to perform their tasks in a safe and efficient manner. Congested work areas clearly affect daily site progress and activity.”*

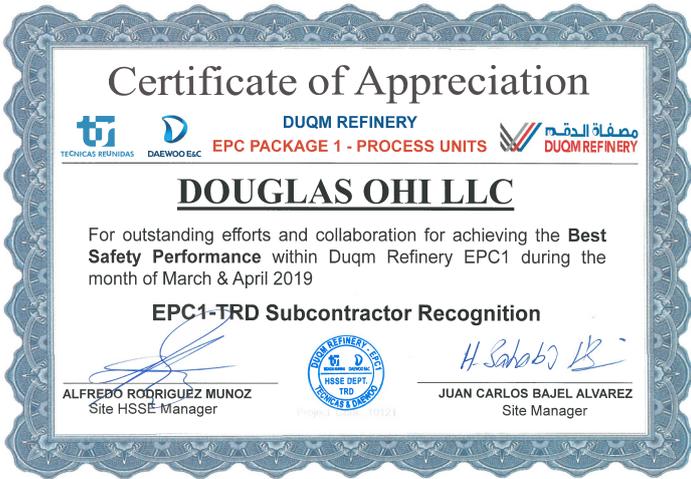
## Solutions

- Proper planning of work and assignment of adequate resources for the tasks.
- Weekly meetings are held to discuss and plan the upcoming works for that week.
- Continually assess hazards and the way in which they are being controlled by ongoing monitoring of the workplace and activities.
- Daily education of the workforce via Toolbox Talks about the specific issues and site conditions.
- Chargehands, foremen, and engineers duties & responsibilities clearly briefed.
- Regular communication with the Client that contributes to a collaborative team effort.
- An effective level of supervision has been introduced and maintained at site.
- Continuous efforts are being made to ensure welfare standards are in line with those set by Douglas OHI.

Difficulties	Consequences
Inadequate/inappropriate material storage.	Double handling of materials (loss of time and resources). Activity duration or completion of the task will take time more than planned.
Lifting & shifting of lengthy and heavy objects in congested/tight corners.	Difficulty in arranging lifting activities & increased likelihood of damage to fixed objects. Blocked access. Manually lifting and shifting.
Restricted movement of mechanical aids. Concrete pouring is done manually with the help of mortar tubs and wheelbarrows. Manual shifting of materials.	Loss of time and manpower for the moving of materials manually. Impact on productivity.
Insufficient working spaces inside the building & overcrowded job site.	Materials/work equipment blocking access. Disruption of other works. Simultaneous operations. Two or more crews are working in the same area at the same time (i.e., Gypsum partition, stadia structure works and MEP works). Chances of poor & unsafe work environment. During an emergency, it may be difficult to perform a speedy evacuation. Loss of productivity due to inconvenience.
Provision of welfare facilities not as per Douglas OHI standard	Failure to comply to with Douglas OHI standards with regards to the mess hall, toilets and drinking water station at the site. Hindrances for the reuse of waste material. Difficult to recycle metal waste (due to storage and constraint).

# Best Safety Performance

Douglas OHI has been awarded a Certificate of Appreciation in recognition of achieving the Best Safety Performance within Duqm Refinery EPC1 for March & April 2019 by joint venture Técnicas Reunidas and Daewoo (TRD).



## I-Care About My Dad - Rishika Rajesh



I was thinking about my dad's safety because he wakes up early and drives to work each day. My school is very close to home and it takes me only 5 minutes to get to there. When we were living in Muscat, my dad used to travel back to Muscat on weekends. As a family we felt that all the driving wasn't good for him so we moved to Sohar.

I have always had an ambition to get my driving licence as soon as I turn 21, but now I'm reconsidering this especially after reading about road accidents in the newspaper and on social media.

My dad told me that once when he was driving to Muscat in the early hours of the morning to attend a training course and he felt incredibly tired. I'm grateful my dad is always practicing safe driving, so he pulled the car over to have a rest break.

Accidents happen when the driver does not pay attention to what is happening on the road. Any vehicle, immaterial of its size, can be the cause of an accident. Remember, you cannot rely on your fellow drivers to follow the rules and keep you safe. So stay alert and ensure that you have plenty of room to maneuver your vehicle out of potentially dangerous situation.

### Driving Safely

Before you drive ensure your windows are clear, adjust your seat, mirrors, climate controls and configure your in-car entertainment before putting the car in gear. Fasten your seatbelt after fastening your children's. Person(s) under 5'2" should sit in the back, as the

front airbag poses a serious risk to shorter individuals. Do not use your phone or any other electronic devices. Build time into your trip schedule to stop for food, rest breaks, phone calls or other business. Pull over to eat or drink. It takes only a few minutes.

Many accidents can be avoided by following basic safe driving tips:

- Keep 100% of your attention on driving at all times - no multi-tasking.
- Don't use your phone or any other electronic device while driving.
- Slow down. Speeding gives you less time to react and increases the severity of an accident.
- Be aware of what other drivers around you are doing, and expect the unexpected.
- Keep a 20-second cushion between you and the car in front of you.
- Always wear your seatbelt.
- Avoid driving when you are tired.

## Quote Of The Month

“The measure of intelligence is the ability to change.”

Albert Einstein

# Around The World (UK): The Risk From Welding Fume, UK

There is new scientific evidence from the International Agency for Research on Cancer that exposure to mild steel welding fume can cause lung cancer and possibly kidney cancer in humans.

Whilst there is no need to be alarmed, the Safe Systems of Work for this activity need to be looked at again.

Control of the cancer risk will require suitable engineering controls for all welding activities indoors e.g. Local Exhaust Ventilation (LEV). Extraction will also control exposure to manganese, which is present in mild steel welding fume.

Where LEV alone does not adequately control exposure, it should be supplemented by adequate and suitable respiratory protective equipment (RPE) to protect against the residual fume.

Appropriate RPE should be provided for welding outdoors. You should ensure welders are suitably instructed and trained in the use of these controls.

Risk assessments should reflect the change in the expected control measures.

## What To Do

1. Where this activity is taking place, please contact your local HSE Adviser for further advice on how current Risk Assessments should be amended.
2. HSE Advisers can contact the HSSE Department for further guidance as required.
3. Make sure exposure to any welding fume released is adequately controlled using engineering controls ideally (LEV).
4. Make sure suitable controls are provided for all welding activities, irrelevant of duration. This includes welding outdoors.
5. Where engineering controls alone cannot control exposure, then adequate and suitable RPE should be provided to control risk from any residual fume.
6. Make sure all engineering controls are used correctly, suitably maintained and are subject to thorough examination and test where required.

## Safety Selfie Spot The Difference



Can you find the five differences between the two pictures?

Please send your answer to [hsse@douglasohi.com](mailto:hsse@douglasohi.com)



# May Wordsearch Puzzle

The challenge for the month of May is to search for 10 words related to Hand Arm Vibration.

The letter of the words might appear in the puzzle across, up and down or they might be spelled forward, backward or diagonally.

The HSSE department will make a cash donation to the winner's charity of choice.

Please send your answer to [hsse@douglasohi.com](mailto:hsse@douglasohi.com)

E V C B D J Y H A N D A R M U D  
 D R I S K A S S E S S M E N T O  
 L J M B K E L T M B N A O G K V  
 D Z K H R T C N O S T I A R S K  
 O M S Z O A T K W Y T S Q D I K  
 X H I Q Z L T L N A A B Q W R T  
 G T R F L O J I T X C E S A E M  
 D Q E B P S N O O I G L W Z H E  
 I B H B H I R Y R N U I S L T A  
 Y S T N E B I E W A I M W C L S  
 C Q E A O Q H L W H D I L Z O U  
 X T C J X K Z M C G A N X A R R  
 Q U U E P S F U D C N A Q V T E  
 Z C D C A B Z Z J D C T D Z N S  
 P B E Z E P X V W L E E L Y O U  
 H P R E O F X X K M Y O F Q C I

## And Finally... Douglas OHI Wins At CW Oman Awards 2019



Douglas OHI has picked up the award for Corporate Social Responsibility (CSR) Initiative of the Year. The six-month Empowerment of Women programme was praised by judges for helping orphaned girls to learn and develop new skills and create self-employment opportunities.

Douglas OHI's 'Say Hello, Wave Goodbye Plant Safety Awareness Training Programme' walked away with the Health and Safety Initiative of the Year. Judges commended the programme for being a behavioural initiative with a common, embedded message across the team.

Aaron Hennessy - General Manager, Douglas OHI was named the Highly Commended Construction Executive of the Year for 2019. Aaron's commitment to employee welfare and support for the local community attracted praise from the panel of judges.



Do you have a suggestion on how we can improve Take Thirty?  
 Tell us what you like best about the newsletter and how we can make it even better.  
 Send your feedback or comments to [hsse@douglasohi.com](mailto:hsse@douglasohi.com)