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Issue No. 31: September to December 2016 (Quarterly HSE Newsletter)

Proven Method of Reducing Noise Exposure



Noise dosimeter may be necessary if the workplace noise levels vary throughout the day or if the workers are mobile, driving vehicles, or working in areas where it is either unsafe or impractical for a sound level meter to be used.

By James Tingay

Many of us work in environments where noise is a hazard that we encounter daily. Although changes in work patterns and the use of quieter and more efficient machinery have reduced noise levels in recent decades, it is still a major occupational hazard.

It is estimated that 22 million workers in the United States alone are exposed to hazardous noise levels in the workplace each year1 and an estimated \$242 million is spent annually on workers' compensation for hearing loss disability.

Wherever there is noise in the workplace, you should be looking for alternative processes, equipment, and/or working methods that would make the work quieter or would ensure that people are exposed for shorter durations, reducing the risk of workers suffering damage to their hearing.

Controlling noise risks and noise exposures should be where you concentrate your efforts. By carrying out a noise assessment, you can identify the risks that your workers are being exposed to and, from that, create an action plan for controlling these exposures.

Understanding What You Need to Measure

Before starting on implementing a noise control program or even before starting out measuring and assessing noise levels, take a moment to consider what you are trying to achieve. Typically, you will be making noise measurements for compliance with noise regulations, so you should consider any requirements that those regulations put in place and how these may affect the way that you carry out your noise measurements.

First, consider how the standards require that noise exposure is measured and reported. Almost every occupational noise regulation requires that exposures are measured in terms of a time weighted average (TWA) over a standard working day. However, there can be subtle variations between standards, which can result in dramatic differences in the reported results1.

OSHA's permissible exposure limit is 90 dB(A) for an 8-hour day, and this standard uses a 5dB exchange rate. NIOSH has recommended that all worker exposures to noise should be controlled below a level equivalent to 85 dBA for eight hours. NIOSH also recommends a 3 dB exchange rate as opposed to the 5dB required under the OSHA standard.

What this means is that a constant level of 100 dB(A) for 8 hours would be reported at 200 percent against the OSHA PEL and 3,200 percent against the NIOSH recommendations. Understanding what the regulations require and how your measurement equipment works is essential to ensure that the information you gather is both correct and robust, otherwise there is a risk of reporting the wrong information.

What Are You Measuring?

Before you start on the noise measurements themselves, you should be clear about whether the noise levels that you are about to record will be a true record of the worker's exposure.



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Proven Method of Reducing Noise Exposure?

In the ideal world, you would be continuously measuring and assessing noise exposures because this would allow the variability of work patterns to be assessed over a long period. However, for most people this is not practical, and so it is essential that any measurement made is representative of the long-term exposure and can be used as an effective assessment of risk.

Consider these points:

- Are the workers who are to be measured carrying out typical activities?
- Are the workers being measured in what would be their normal work environment?
- Is the noise being measured typical of that in a normal working day?
- Has any new equipment been installed recently or is any old equipment due to be removed?
- Are there any environmental aspects to consider, such as the weather?
- Are there any other factors that could influence or affect the measurements that could be considered to be out of the ordinary?

You should also consider where you will make the measurements. Noise dosimeter may be necessary if the workplace noise levels vary throughout the day or if the workers are mobile, driving vehicles, or working in areas where it is either unsafe or impractical for a sound level meter to be used.

If you are using a noise dosimeter, the microphone will typically be within 4-6 inches of the ear, but you should also consider making measurements on both sides of the head if the noise source is coming predominately from one direction.

If you are using a sound level meter, think carefully about where the microphone is positioned.

It's not uncommon to see measurements being made with a sound level meter where the microphone is several feet away from the ear of the worker. Is this representative of the noise levels being received into the ear? If not, think about how this can be improved and try to get closer to the worker. Safety aspects may prevent this (for example if you are measuring welders, it may not be safe to get close), so if this is the case, ensure that you document this with your measurement results.

By recording information about the position where they were made, you will be able to ensure that any follow-up measurements can be made in the same place.

Implementing a Hierarchy of Controls

Once you have carried out any noise measurements and have identified any employees who are exposed to noise levels at or above the legal limits, you should look at what are the most effective ways to protect them.

By considering the hierarchy of controls, we can look at each stage and determine how these can be used.

Elimination of the Noise Source

Protection is best achieved by controlling the noise at source, and so the most effective way to manage noise exposures in the workplace is always by the elimination or removal of the sources that contribute the most to the overall noise exposures Noise is a common aspect of our working lives and although significant advances have been made that have allowed equipment to be designed that produces lower noise levels, there are still many activities where noise is an inherent part of the job and where is it not possible to completely remove it. For example, material recycling facilities often have processes which emit very high noise levels that can frequently exceed 85dB(A). These processes are inherently noisy, so it's usually not possible to eliminate the noise sources without significant impact upon the operation.

However, elimination of the noise source should always be the first action to be considered.



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Substituting the Noise Source

Replacing the noise hazard is the next step in our hierarchy of control. Consider whether it is possible to do the work in some other quieter way. Look at whether changes to consumable parts (such as saw blades, exhaust valves for compressed air, etc.) are possible and whether newer technology allows for lower noise levels.

The introduction of a low-noise, or Buy Quiet, purchasing policy can help to maintain the aim of a long-term reduction in noise levels.

Many equipment manufacturers are now considering low noise levels as a significant selling point and will be able to provide information about typical noise levels from their products. As long as the test methods used are comparable, equipment with lower noise levels would be preferable.

Engineering Controls

Using engineering controls to reduce noise levels often can provide the widest range of solutions, many of which can provide small reductions but can contribute to significant change when added together.

Engineering controls usually involve modifying, repairing, or replacing equipment or making changes at the noise source or along the transmission path to reduce the noise level at the worker's ear. Some of these can be small, simple things such as ensuring that machinery is lubricated and maintained regularly. Repairing loose machinery guards can often be a simple task but one that can yield significant results. Some other examples of engineering controls include:

- Avoiding metal-on-metal impacts (e.g., line chutes with abrasion-resistant rubber) and reducing drop heights
- Damping vibrating machine parts—anything that is vibrating will be transferring vibrations into the air, which we hear as noise
- Isolating vibrating machinery or components from their surroundings with anti-vibration mounts or flexible couplings
- Fitting or replacing silencers to air exhausts and blowing nozzles

It may also be possible to modify the paths by which the noise travels through the air to the people exposed by:

- Installing enclosures around machines to reduce the amount of noise emitted
- Using barriers and screens to block the direct path of sound
- Positioning noise sources farther from workers
- Using absorptive materials within the building to reduce reflected sound

Administrative Controls

Where it is not possible to eliminate the noise source, replace it with a lower-noise version, or use engineering methods to reduce the noise levels, changes to working patterns may be required to reduce exposures. For example, handheld concrete breakers can produce noise levels in excess of 95 dB(A) at the ear, 2 and it may not be possible to reduce the noise levels when this equipment is operating. By using administrative controls, the exposure of both the worker using the equipment and others in close proximity can be reduced.

Examples of administrative controls include:

- Limiting the amount of time that a worker can use noisy equipment
- Using noise equipment at times when fewer people will be exposed
- Providing quiet zones or noise refuges where workers can spend breaks or take time away from high noise levels
- Using high-visibility warnings when noise equipment is being used to increase awareness of the potential risk
- Ensuring workers who are not using the equipment are kept at a suitable distance from the noise source

Keeping people away from noise sources when they are not working or not using the equipment can be an effective way to manage noise exposures, but it often requires training to be done to ensure that workers understand the need to keep their distance. Don't forget that in open space, every time the distance between the noise source and the worker doubles, the noise level is reduced by 6dB!

Hearing Protection (PPE)

Most, if not all, occupational noise standards and regulations consider the use of PPE (Personal Protective Equipment) is to be the last resort that should be used only where none of the other control measures can reduce the noise exposure to acceptable levels.

It may be appropriate to use PPE to manage noise exposures while other control measures are being implemented and where additional protection is required for workers whose hearing tests show significant hearing loss or damage.

Fire Extinguishers A,B,Cs



Are you training your employees as frequently as required? Have you designated employees who are expected to stay behind? Have you trained them to know when they should not attempt to fight a fire because it is too large?

Fire departments emphasize that employees should not fight a fire that is larger than a desk in size, one that is producing black smoke, or when its flames are reaching the ceiling. Also, they should never use a fire extinguisher before the local fire department has been called via 911 and they know that the building is being evacuated.

When fire extinguishers are provided for employees' use, OSHA requires the employer to educate them on the general principles of extinguisher use and the hazards involved in fighting an incipient stage fire—a fire that is limited to the original material ignited, is contained (such as in a wastebasket), and has not spread to other materials.

The extinguisher training must be provided when employees are first hired and then annually thereafter. Employers who have been designated to use firefighting equipment in the emergency action plan are to be trained when first given that assignment and then annually after that. (29 CFR 1910.157(g)(3) and 29 CFR 1910.157(g)(4)).

If an employer has a written fire safety policy that requires immediate, total evacuation of employees from the workplace when a fire alarm sounds; the policy includes an emergency action plan and a fire prevention plan; and fire extinguishers are not on the premises, that employer is exempt from the requirements. If portable fire extinguishers are present, however, the employer must ensure they are located so they are readily accessible to employees and ensure those extinguishers are maintained, fullv charged, and operate properly.

Every employer with extinguishers on site should know that they must maintain and test those extinguishers regularly. OSHA's regulation states they should visually inspect them monthly and also perform an annual maintenance check and record those annual checks' data. Hydrostatic testing should be performed by trained individuals with "suitable testing equipment" or by qualified third parties. Employers that do have fire extinguishers on their premises should select them based on the types of anticipated fires there, according to 29 CFR 1910.157(d)(1), and they should place extinguishers for Class A fires so that the travel distance for employees to any extinguisher is 75 feet or less, according to the regulation. For Class B extinguishers, however, the employees' travel distance that employers should consider is 50 feet or less. The travel distance for Class D extinguishers is 75 feet or less.

In addition, employers must provide "alternate equivalent protection when portable fire extinguishers are removed from service for maintenance and recharging," according to 29 CFR 1910.157(e) (5).

What do the extinguisher classes mean, and how many classes exist? In the United States, there are five classes of fire extinguishers:

- Class A: for wood, paper, cloth, trash, and plastics.
- Class B: for flammable liquids, including gasoline, oil, grease, and acetone.
- Class C: for electrical fires and energized equipment fires.
- Class D: for metal fires, including magnesium, titanium, and sodium.
- Class K: for kitchen fires that involve vegetable oils, animal fats, or fats used in commercial cooking appliances.



Fire Extinguishers A,B,Cs

Are You Compliant?

Are you training your employees as frequently as required? Have you designated employees who are expected to stay behind? Have you trained them to know when they should not attempt to fight a fire because it is too large? Are you visually inspecting your extinguishers monthly and checking them annually as required?

Evacuation and Fighting Fires

As stated earlier, educate all workers that they should not attempt to fight a fire that is larger than a desk in size, is producing black smoke, or has flames reaching the ceiling. Other key points about workplace fires for employees to understand:

- Close doors when exiting. This helps limit the spread of smoke and fire throughout the building.
- Use stairwells; never use elevators during a fire emergency. Elevators may fail, trapping occupants, and also may fill with smoke.
- An employee meeting place should be established so everyone can be accounted for after the evacuation. The meeting place must be away from the building because the area of the fire should be clear for fire department personnel, and also so employees are clear of glass or debris that may fall from the building.
- If workers cannot exit the building, they should create a refuge area: Seal the room, use a damp cloth to stuff around cracks in doors and seal vents to protect against smoke. Don't break windows, but open the window slightly if possible. Stay down under smoke, keep a wet cloth over your nose and mouth, and signal for help by telephone or hang something in the window.

OSHA advises that, in most circumstances, immediate evacuation is the best policy, especially if professional firefighting services are available to respond quickly.

Emergency Action Plan Elements

The emergency action plan² is site-specific and intended to focus and direct employees' actions during a workplace emergency. It takes into account the work site's layout and emergency systems. "Most organizations find it beneficial to include a diverse group of representatives (management and employees) in this planning process and to meet frequently to review progress and allocate development tasks. The commitment and support of all employees is critical to the plan's success in the event of an emergency; ask for their help in establishing and implementing your emergency action plan. For smaller organizations, the plan does not need to be written and may be communicated orally if there are 10 or fewer employees," according to OSHA's 29 CFR 1910.38(b).

These elements must be included in the EAP:

- Means of reporting fires and other emergencies
- Evacuation procedures and emergency escape route assignments
- Procedures for employees who remain to operate critical site operations before they evacuate
- Accounting for all employees after an emergency evacuation has been completed, possibly by designating an "evacuation warden" to assist others with evacuating and to account for all personnel
- Rescue and medical duties for employees performing them
- Names or job titles of persons who can be contacted by workers who need more information about the plan or explanation of their duties under the EAP.

The EAP also can include a description of the site's alarm system and the location of a secure or off-site location for copies of essential records.

Inspections

Portable fire extinguishers must be visually inspected monthly. The inspection should assure that:

- 1. Fire extinguishers are in their assigned place;
- 2. Fire extinguishers are not blocked or hidden;
- Fire extinguishers are mounted in accordance with NFPA Standard No. 10 (Portable Fire Extinguishers);
- Pressure gauges show adequate pressure (a CO₂ extinguisher must be weighed to determine whether leakage has occurred);
- 5. Pin and seals are in place;
- 6. Fire extinguishers show no visual sign of damage or abuse;
- 7. Nozzles are free of blockage.

References:

https://www.osha.gov/SLTC/etools/evacuation/portable_required.html

https://www.osha.gov/SLTC/etools/evacuation/eap.ht ml . https://www.osha.gov/SLTC/firesafety/index.html



HEALTH BENEFITS OF







CINNAMON



The unique smell, color, and flavor of cinnamon is due to the oily part of the tree that it grows from. The health benefits of cinnamon

come from the bark of the Cinnamomum tree. This bark contains several special compounds which are responsible for its many health

promoting properties- including cinnamaldehyde, cinnamic acid, and cinnamate. Researchers have concluded that the health benefits

of cinnamon can be obtained in the form of its pure bark, essential oils, in ground spice form (which is bark powder), or in extract

form when its special phenolic compounds, flavonoids, and antioxidants are isolated. These compounds make cinnamon one of the

most beneficial spices on earth, giving it antioxidant, anti-inflammatory, anti-diabetic, anti-microbial, immunity-boosting, cancer and

Cinnamon is a powerful spice that has been used medicinally around the world for thousands of years. It is still used daily in many cultures because of its widespread health benefits, not to mention its distinctly sweet, warming taste and ease of use in recipes.

According to researchers, out of twenty-six of the most popular herbs and medicinal spices in the world, cinnamon actually ranks #1 in terms of its protective antioxidant levels.

Nutrition Benefits of Cinnamon

One tablespoon of ground cinnamon contains:

- ✓ 19 calories
- ✓ 0 grams of fat, sugar, or protein
- ✓ 4 grams of fiber
- ✓ 68% manganese
- ✓ 8% calcium
- ✓ 4% iron
- ✓ 3% Vitamin K

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heart disease-protecting abilities.



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1. High Source of Antioxidants

Cinnamon is packed with a variety of protective antioxidants that reduce free radical damage and slow the aging process; in fact researchers have identified forty-one different protective compounds of cinnamon to date.

The health benefits of cinnamon are attributed to the type of antioxidants called polyphenols, phenolic acid, and flavonoids. These are similar antioxidants to those that can be found in other "superfoods" including berries, red wine, and dark chocolate. These compounds work to fight oxidative stress in the body, which can lead to disease formation when uncontrolled, especially as someone ages.

The different antioxidants present in cinnamon help to reduce a multitude of symptoms and diseases because they are free-radical-scavengers. The health benefits of cinnamon include its ability to reduce many forms of oxidative stress, including the ability to limit nitric oxide build up in the blood and lipid (fat) peroxidation, which can both add to instances of brain disorders, cancer, heart disease, and other conditions.

2. Contains Anti-inflammatory Properties

The antioxidants in cinnamon have anti-inflammatory effects, which may help lower the risk of heart disease, cancer, brain function decline, and more. Researchers have identified over seven kinds of flavonoid compounds alone in cinnamon, which are highly effective at fighting dangerous inflammation levels throughout the body.

Because cinnamon lowers swelling and inflammation, it can be beneficial in pain management, with studies showing that cinnamon helps to relive muscle soreness, PMS pains, severity of allergic reactions, and other age-related symptoms of pain too.

3. Protects Heart Health

Studies have shown that another health benefit of cinnamon is that it reduces several of the most common risk factors for heart disease, including high cholesterol levels, high triglyceride levels, and high blood pressure.

The special compounds in cinnamon are able to help reduce levels of total cholesterol, LDL "bad" cholesterol and triglycerides, while HDL "good" cholesterol remains stable. Cinnamon has also been shown to reduce high blood pressure, which is another threat for causing heart disease or a stroke.

And there are even more heart health benefits of cinnamon. Research shows that cinnamon is a helpful blood coagulant and prevents bleeding by helping the body to form blood clots. Cinnamon also increases blood circulation and advances bodily tissue's ability to repair itself after it's been damaged. This includes heart tissue which is in need of regeneration in order to fight heart attacks, heart disease, and stroke.

4. Fights Diabetes

Cinnamon is known to have an anti-diabetic effect. It helps lower blood sugar levels and also can improve sensitivity to the hormone insulin, which is the vital hormone needed for keeping blood sugar levels balanced.

Diabetes is formed when insulin resistance occurs and poor glycemic control takes places, or someone develops the inability to manage how much sugar (glucose) enters the blood stream. The same problem with insulin resistance is also associated with other conditions like metabolic syndrome and weight gain too.

These benefits of cinnamon exist because it plays a part in blocking certain enzymes called alanines which allows for glucose (sugar) to be absorbed into the blood. Therefore it has been shown to decrease the amount of glucose that enters the bloodstream after a high-sugar meal, which is especially important for those with diabetes.

5. Helps Defend Against Cognitive Decline & Protects Brain Function

Research also shows that another benefit of cinnamon's protective antioxidant properties is that they can help defend the brain against developing neurological disorders, such as Parkinson's and Alzheimer's diseases.



One way that cinnamon protects cognitive function and brain health is because it activates neuro-protective proteins that protect brain cells from mutation and undergoing damage. This further reduces the negative effects of oxidative stress by stopping cells from morphing and self-destructing.

6. May Help Lower Cancer Risk

Because of its antioxidant abilities, cinnamon can protect against DNA damage, cell mutation, and cancerous tumor growth. Studies have revealed that the health benefits of cinnamon come from a compound called cinnamaldehyde include its ability to inhibit cancer tumor growth and protect DNA from damage, while also encouraging cancerous cells to self-destruct (called cell apoptosis).

7. Fights Infections & Viruses

There are many benefits of cinnamon when it comes to defending the body from illnesses. Cinnamon is a natural anti-microbial, anti-biotic, anti-fungal, and anti-viral agent. The immune-boosting abilities of cinnamon are found in cinnamon's essential oils.

Cinnamon is used in many cultures to naturally help fight harmful infections and viruses. Cinnamon oils also have protective abilities against various bacteria which can cause negative symptoms in the digestive tract, on the surface of the skin, and can lead to colds or the flu.

8. Protects Dental Health & Freshens Breath Naturally

In studies, the extracts found in cinnamon were shown to be protective against bacteria living in the oral microflora that could cause bad breath, tooth decay, cavities, or mouth infections. The essential oil from cinnamon has been shown to be more potent than other tested plant extracts and can be used to naturally combat bacteria in the mouth, acting like a natural anti-bacterial mouthwash.

9. Can Help Prevent or Cure Candida

Certain studies have concluded that cinnamon's powerful anti-fungal properties may be effective in stopping or curing Candida overgrowth in the digestive tract. Cinnamon has been shown to lower amounts of dangerous Candida Albicans, which is the yeast that causes Candida overgrowth that can cause multiple digestive and autoimmune symptoms. Additionally, another health benefit of cinnamon is that it helps to control blood sugar levels, and too much sugar within the digestive tract is associated with increased candida risk.

According to researchers, when patients were given cinnamon extract or cinnamon essential oil, they showed improvements in candida yeast levels and a reduction in symptoms. Cinnamon helps to fight candida naturally by boosting immune health and fighting inflammation, auto immune-reactions, and yeast within the gut.

10. Benefits Skin Health

Cinnamon has anti-biotic and anti-microbial effects that protect skin from irritations, rashes, allergic reactions, and infections. Applying cinnamon essential oil directly to the skin can be helpful in reducing inflammation, swelling, pain, and redness. Cinnamon and honey, another antimicrobial ingredient, are frequently used together to boost skin health for this reason and are beneficial for acne, rosacea, and signs of skin allergies.

Cifia Health & Safety Newsletter Fatigue is the state of feeling very tired, weary or sleepy resulting from insufficient sleep, prolonged mental or physical work, shift work, or extended periods of stress or anxiety. SIGNS Boring or repetitive tasks can intensify feelings of fatigue. repetitive increased giddiness sleepiness vulnerability irritability loss of digestive depression Staying awake for 24 hours appetite problems One shift worker in five dozes off during a shift. [1] straight affects the human body almost exactly like a blood alcohol O level of .10%, which exceeds Night, evening, rotating and irregular shifts are associated with in increased risk of occupational injury due to worker fatigue, Canada's legal limit for drivers. less supervision and reduced co-worker support [2] Impacts of fatigue Fatigue is increased by... DECREASED tendency for risk-taking decision making ability forgetfulness · ability to do complex planning high comfort errors in judgement limited visual acuity high high noise tasks over long periods of time long, repetitive communication skills sick time and absenteeism productivity / performance medical costs attention and vigilance accident rates Tips for workers Advice for employers ability to handle job stress reaction time · memory / ability to recall details INCREASED ENSURE the work environment does not promote EAT a healthy diet that promotes longer-lasting energy.

Fatigue is regarded as having an impact on work performance. Most accidents occur when people are more likely to want sleep -

between midnight and 6 am, and between 1-3 pm [3]

- [1] http://www.ccohs.ca/newsletters/hsreport/issues/2007/11/ezine.html
- [2] http://www.ccohs.ca/oshanswers/ergonomics/shiftwrk.html
- [3] Alberta Human Resources and Employment, Fatigue, Extended Work Hours, and Safety in the Workplace in Workplace Health and Safety, June 2004, Reformatted August 2010

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Complex carbohydrates (starch) are preferable to simple carbohydrates (sugar). Avoid fatty foods and junk food.

ADOPT a steady exercise routine that includes cardiovascular, muscle strengthening and flexibility workouts.

TRY to get at least 7.5 - 8.5 hours of sleep per night

STAY positive. Make a conscious effort not to be overwhelmed by negative circumstances.

AVOID driving if you are tired, especially in inclement veather where vision is impaired.

AVOID excessive noise

fatigue. Try to avoid dim lighting, toasty temperatures, and excessive noise

VARY job tasks to eliminate repetition or long periods of boring, monotonous work,

INCORPORATE and encourage taking breaks.

TRAIN workers on the importance of getting enough rest and how to achieve work-life

INTRODUCE shorter shifts, and rotate shifts in the direction of the sun (morning, afternoon, night, in that order)



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ADIPEC NEWS

GALFAR HAS GONE FAR TO BECOME A LEADING UAE GO TO FIRM

ou only have to browse its list of clients past and present to understand that Galfar Engineering & Contracting W.L.L Emirates is a UAE success story.

A multi discipline and major EPC firm based in Abu Dhabi, Galfar has a reputation for executing major projects in the oil and gas industry and other sectors including civil, mechanical, electrical and instrumentation works.

Galfar Emirates has successfully completed several major oil and gas projects for all ADNOC groups of companies in the UAE - ADCO, GASCO, TAKREER, ZADCO, TRANSCO and Margham Dubai Establishment - and other prominent clients such as PDO, QP, Occidental, JAPEX, Shell, QGAS and KOC. "Galfar Emirates is proud of its success and of the confidence in its abilities to complete works on schedule as expressed by our clients," says a spokesman for

the company, a member of International Pipeline and offshore Contractors Association (IPLOCA). Galfar has executed more than 100 major projects in the UAE alone, all with a keen eye on safety. "Galfar Engineering & Contracting WLL Emirates is operating its business in an environmentally conscious manner by promoting continuous improvement, reducing waste, providing a safe and healthy workplace and environment where care

for the environment is the responsibility of all staff within the organization," says the spokesman.

"Galfar is committed to the protection of the environment from adverse effects consequent to its activities.



We aim to contribute towards environmental improvement and sustainable development by using best practices and innovation to minimize environmental impacts."

OFFICIAL MEDIA PARTNER

Pipeline

HSE STATISTICS December 2016

Project: Construction of Flow lines & Wellhead Installation of Typical Works in ADCO's Fields. (Package "C"- BuHasa/ Huwaila/ Bida Al Qemzan Fields)

No	Porformanco Indicators	PROJECT 7067				
NO.	Ferrormance indicators	Month	YTD-2016	PTD		
1	Total number of employees	265				
2	Manhours worked	68710	601852	1553471		
3	Fatalities (Death)	00	00	00		
4	Fatal Accident Rate (FAR)	00	00	00		
5	Permanent Total Disabilities	00	00	00		
6	Permanent Partial Disabilities	00	00	00		
7	Lost Workday Cases (LWDC)	00	00	00		
8	Total Employees Trained	228	1951	8586		
9	Total Training Hours	342	2778	11428		
10	First Aid Cases	00	00	00		
11	Near Misses	17	438	644		
12	HSE Meetings	01	12	36		
13	HSE Inspections	03	36	100		
14	Emergency Exercises	02	06	18		
15	Number of Vehicles	39				
16	Vehicle Kilometer Driven	117387	1251670	3696692		

Project: Construction of Flowlines & Wellhead Installation of Typical Works in ADCO's Field (Package "A" - SE Abu Dhabi (ASAB, Sahil, Shah, Qusahwira & Mender Fields)

No	Performance Indicators	PROJECT 7071				
NO.		Month	YTD-2016	PTD		
1	Total number of employees	216				
2	Manhours worked	54910	651471	1592792		
3	Fatalities (Death)	00	00	00		
4	Fatal Accident Rate (FAR)	00	00	00		
5	Permanent Total Disabilities	00	00	00		
6	Permanent Partial Disabilities	00	00	00		
7	Lost Workday Cases (LWDC)	00	00	00		
8	Total Employees Trained	365	2474	4735		
9	Total Training Hours(Average)	313	2140	4800		
10	First Aid Cases	00	00	00		
11	Near Misses	05	54	107		
12	HSE Meetings	02	26	56		
13	HSE Inspections	05	51	125		
14	Emergency Exercises	01	05	13		
15	Number of Vehicles	30				
16	Vehicle Kilometer Driven	81907	1150950	2717435		

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HSE STATISTICS December 2016

Project: EPC for Buhasa Shuaiba South Artificial (Gas)Lift Project Phase-1 (ADCO Project No: P12435)

No	Porformanoa Indiaatora	PROEJCT 7072			
NO.	Performance indicators	Month	YTD-2016	PTD	
1	Total number of employees	307			
2	Manhours worked	84450	1374589	1543459	
3	Fatalities (Death)	00	00	00	
4	Fatal Accident Rate (FAR)	00	00	00	
5	Permanent Total Disabilities	00	00	00	
6	Permanent Partial Disabilities	00	00	00	
7	Lost Workday Cases (LWDC)	00	00	00	
8	Total Employees Trained	20	611	914	
9	Total Training Hours	60	1920	2958	
10	First Aid Cases	00	00	01	
11	Near Misses	22	589	591	
12	HSE Meetings	01	13	20	
13	HSE Inspections	01	22	28	
14	Emergency Exercises	00	04	06	
15	Number of Vehicles	62			
16	Vehicle Kilometer Driven	231025	2685914	2938069	

Project: Engineering, Procurement and Construction for BAB Produced Water Re-injection Project (ADCO Project No: P11554)

No	Performance Indicators	PROJECT 7074			
NO.	renormance mulcators	Month	YTD-2016	PTD	
1	Total number of employees	60			
2	Man-hours worked	33520	434878	498270	
3	Fatalities (Death)	00	00	00	
4	Fatal Accident Rate (FAR)	00	00	00	
5	Permanent Total Disabilities	00	00	00	
6	Permanent Partial Disabilities	00	00	00	
7	Lost Workday Cases (LWDC)	00	00	00	
8	Total Employees Trained	130	3929	4856	
9	Total Training Hours	342	5026	6645	
10	First Aid Cases	00	00	00	
11	Near Misses	01	06	06	
12	HSE Meetings	03	32	35	
13	HSE Inspections	05	37	37	
14	Emergency Exercises	01	10	10	
15	Number of Vehicles	11			
16	Vehicle Kilometer Driven	29762	578332	614727	

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HSE Statistics December 2016: JUMP-OVER BETWEEN HMT AND TFP PIPELINES AT KM 42 ENQUIRY NO. 13531001 - EPC WORK (GASCO)

Sr.No.	HSE Statistics Project 7075	This Month	To date
1	Total Man-hours Worked		302523
2	Total Man-hours Worked without LTI		302523
3	No. of EPC Contractor workforce		250
5	No. of Subcontractor workforce	00	00
4	No. of Fatalities (work related)	00	00
5	No. of Lost Workday Cases	00	00
6	No. of Restricted Work cases	00	00
7	No. of Medical Treatment Cases	00	00
8	No. of First Aid Cases	00	00
9	Total Man-days lost	00	00
10	Days Spent on Restricted Work Cases	00	00
11	Total Recordable Injury Rate, TRIR	00	00
12	Reported Near Misses	12	49
13	Reported Unsafe Acts/Conditions 33 13		131
14	Reported Non Work Related Fatality 00 00		00
15	Reported Motor Vehicle Related Incidents 00 00		00
16	Reported loss of containment		00

	HSE Activity	This Month	To date
1	Ratio of HSE Officer:	01	05
2	No. of Management Walkthrough Conducted	04	25
3	No. of Welfare Committee Meeting Conducted	01	07
4	No. of Suggestion solicited from workforce	NIL	NIL
5	No. of HSE Campaigns Conducted	00	05
	HSE Training Man-hours	95	1195
6	i).Site HSE Induction for New Employees	52	315
	ii). Other Trainings Hour	680	2911
7	No. of HSE Audits Conducted(GASCO + Contractor)	00	03
8	No. of HSE Inspection Conducted	04	27
9	No. of HSE Actions Closed	49	338
10	No. of HSE Actions Overdue	00	00
11	No. of HSE Award/Incentive Provided	02	12
12	HSE Meeting(s) held	04	27
13	No. of Mock drills Conducted	01	05
14	Company/ADNOC HSE Audit	00	00
15	Other HSE activity	00	04

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CORPORATE HSE KPI'S ACHIEVED FOR 2016

SL No	OVERALL HSE KEY PERFORMANCE INDICATORS	ANNUAL	ACTUAL for 2016			
51. 140.		TARGET	Q1	Q2	Q3	Q4
1	Frequency Rate of Lost Time Injuries - F.R.I	0.6	0	0	0	0
2	Severity rate of injuries	0	0	0	0	0
3	Fatal Injuries	0	0	0	0	0
4	Fatal Accidents	0	0	0	0	0
5	Frequency Rate of Vehicle Accidents (FRVA)	0	0	0	0	0
6	HSE Mandatory Trainings for Staff/Workers	100%	100%	100%	100%	100%
7	Property Damage Accidents	0	0	0	0	0
8	Client's / Public's Property Damage Accidents	0	0	0	0	0
9	Near Miss Reporting	1500	78	690	420	315
10	Corporate HSE Audits per Project	4	1	1	1	1
11	HSE Campaigns	4	1	1	1	1
12	HSE Inspections per Camp	4	1	1	1	1
13	Emergency Drills per Camp	2	0	1	0	1
14	HSE Inspection on working Sites per Project	12	3	3	3	3
15	Corporate HSE Review Meetings	2	1	0	1	1
16	Project HSE Committee Meetings per Project	8	2	2	2	2
17	CHSE Audits on Head Office. (OHSAS 18001/ISO 14001 Standards	2	0	1	0	1



One of the evaluating and measuring of performance tools is the Key Performance Indicators (KPI's). Galfar has identified the KPI's as per the attached list which are evaluated on quarterly basis during CHSE Internal Audits.

KPIs are applicable to all the ongoing projects to improve the overall HSE Performance. Responsibility lies with each and every individual to understand and be a part of these positive HSE initiatives.

HSE Focal points in each project monitor the KPI on weekly and monthly basis and submit monthly reports to Client and CHSE.



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WINNER SAFETY QUIZ ANSWERS FOR AUGUST 2016

1: What reasons exist for managing health & safety? (Tick all that apply	C7: What '4Cs' are critical in developing a positive safety culture?
--	--

- ☑ Legal
- ☑ Economic
- 🗹 Moral
 - Customer requirement
- Q2: A hazard is:
 - Something with the potential to cause harm Something to fall over
 Something in the wrong place
 A problem that has no solution
- Q3: Risk is:

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- Not knowing what is around the corner Something you are not sure about A problem that is going to upset you
- $\ensuremath{\boxtimes}$ Likelihood that harm from a hazard may be realized
- Q4: The most effective way to control risk is: Personal Protective Equipment
 - Elimination
 Discipline
 Controls
- Q5: Which of the following is not a major injury according to RIDDOR?
 - A fracture to the finger
 An amputation
 Loss of consciousness caused by exposure to a harmful substance
 Injury resulting from electric shock
- Q6: Reasons for investigating accidents (Tick all that apply):
 - ☑ To learn from mistakes
 - ☑ To show employees that you care
 - ☑ To satisfy legal requirements under RIDDOR

- Cool, Calm, Collected and Confident
- ☑ Competence, Control, Cooperation and Communication Charismatic, Capable, Confident and Communication
- Q8: What components are necessary for a fire to exist (Tick all that apply)?
 - ✓ Heat
 - ☑ Fuel
 - Space
 - ☑ Oxygen

010: Noise is:

- Q 9: Most manual handling injuries are:
 - Sprains & strains
 Fractures
 Contusions
 Lacerations

Loud sounds

Prolonged sounds

WINNER

WE HAVE A



274714

 Unwanted sound Concorde going overhead

Q11: What is the most common route of entry to the body for substances that cause industrial poisoning?

- Injection
- Absorption
- Ingestion
- ☑ Inhalation

Q12 What does this CHIP symbol mean?

- Flammable, extremely flammable and highly flammable Explosive
- $\ensuremath{\boxtimes}$ $\ensuremath{\,\mathbb Very}$ Toxic, carcinogenic, mutagenic & toxic for reproduction

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WINNER PICTURE OF THE MONTH AUGUST 2016





GET SMART.. USE SAFETY FROM THE START





Arun B 272630

age 18

Issue No. 31: September to December 2016 (Quarterly HSE Newsletter)

SAFETY QUIZ FOR DECEMBER 2016

Q1: Inspectors have a number of options for dealing with breaches of legislation and unsafe situations. Which of the following are formal methods? (Tick all that apply) **Improvement Notice** Letter **Prohibition Notice Deferred Prohibition Notice** Q2: What is the maximum time period between completing formal examinations on Local Exhaust Ventilation systems? 6 months 12 months 14 months 18 months Q3: Which type of accident accounts for the single biggest cause of workplace death? Falls from height Electric shock Poisoning Being hit by a moving vehicle Q4: Which of the following factors should be considered for the safe operation of a fork lift truck? (Tick all that apply) Driver competence Routes for vehicles and pedestrian traffic Load stability Maintenance Q5: List in order the best means of protecting workers using machines. 4 Information, training and supervision 1 Fixed enclosing guards 3 Protection appliances, push stick holding devices

2 Other guards

- Q6: When should an employee be trained? When they join the company When they change jobs When they get promoted At regular intervals during their work life
- Q7: Which workers are designated as special risk? Pregnant ladies Young persons Lone workers Managing Directors
- Q8: Who is responsible for health and safety? The boss The workers The health and safety executive Everyone

Q9: Risk assessments must be recorded when more than how many employees work for a company?

1 5 12 20 Q10: Smoke alarm batteries shall be changed very: Month 6 month Year 2 years

PICTURE OF THE MONTH DECEMBER 2016



Send your <u>Caption for Picture</u> of the Month. We will select the Best Safety Caption and mention the name of the person in the next HSE Newsletter issue.

Send your Safety Quiz Answers. We will select the Winner and mention the name of the person in the next HSE Newsletter issue with right answers.



ratheeshrl@galfaremirates.com

SAFE MAN OF THE MONTH: SEPT TO DEC 2016

Project 7067: Construction of Flow lines & Wellhead Installation of Typical Works in ADCO's Fields. (Package "C" - BuHasa/ Huwaila/ Bida Al Qemzan Fields)



Mr. Anil Ram 275154 Mech. Helper September 2016



Mr. Charanjith S 274836 **Civil Helper** September 2016



Mr. Nausad Alam 276197 Mech. Helper October 2016



Mr. Sraban Kumar 276163 Civil Helper October 2016

SAFE DRIVER OF THE MONTH: SEPT TO DEC 2016

Project 7067: Construction of Flow lines & Wellhead Installation of Typical Works in ADCO's Fields. (Package "C"- BuHasa/ Huwaila/ **Bida Al Qemzan Fields**)



Mr. Mukesh K 272880 Operator September 2016



Mr. K. Baburaj 275610 I D Driver September 2016





Mr. Mair Khan 271255 **HD** Driver October 2016

Mr. Buta Ali 275741 LD Driver October 2016



Mr. Lingappa 276284 Mech. Helper November 2016



Mr. Vahab Ali Mr. Sanjay Kumar 273954 Rigger November 2016



Mr. Pandu Kakki 276187 **Civil Helper** December 2016



Mr. Mumtaz Khan 276157 I D Driver November 2016



Mr. Mod. Ayaz 276058 Operator November 2016



Mr. Abraham T

276041

I D Driver

December 2016



Mr. Rafig Shah 276146 Operator December 2016

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275267

Pipe Fitter

December 2016

SAFE MAN OF THE MONTH: SEPT TO DEC 2016

Project 7071: Construction of Flowlines & Wellhead Installation of Typical Works in ADCO's Field (Package "A" - SE Abu Dhabi (ASAB, Sahil, Shah, Qusahwira & Mender Fields)



Rigger

272419

Sep 2016



Painter

274632

Sep 2016



Civil Helper

275786

Sep 2016

Jagnath . M

Mech. Helper

275712

Sep 2016



Jerin . M **HSE Officer** Mech. Helper 275678 275707 Sep 2016 Oct 2016





SAFE DRIVER OF THE MONTH: SEPT TO DEC 2016

Project 7071: Construction of Flowlines & Wellhead Installation of Typical Works in ADCO's Field (Package "A" - SE Abu Dhabi (ASAB, Sahil, Shah, Qusahwira & Mender Fields)



LD Driver

Sep 2016



275623 LD Driver

Oct 2016

276048

LD Driver

Nov 2016





Kannan N 276451 LD Driver Oct 2016





Hazrat Umar 274896 LD Driver Nov 2016

Mustafa M 275612 LD Driver Dec 2016

Ganeshnan Zar Gul Khan 270510 275782 Operator Operator Oct 2016 Nov 2016



Gurmit Singh 276305

LD Driver

Sep 2016



Operator



Operator Dec 2016





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SAFE MAN OF THE MONTH: SEPT TO DEC 2016

Project 7072: EPC for Buhasa Shuaiba South Artificial (Gas)Lift Project Phase-1 (Project No: P12435)



Mr. Manisi Chantti 276028 Mech. Helper September 2016



Mr. Ranjit K 276081 Civil Helper September 2016



Mr. Vivek K.G 275998 Mech. Helper October 2016

SAFE DRIVER OF THE MONTH: SEPT TO DEC 2016

Project 7072: EPC for Buhasa Shuaiba South Artificial (Gas)Lift Project Phase-1 (Project No: P12435)



Mr. Anwar K.P 276010 LD Driver September 2016



Mr. Bahar Khan 270832 HD Driver September 2016



Mr. Rishad 276276 LD Driver October 2016



Mr. HAMSA P 276127 LD Driver November 2016



Mr. Abdusalam 276256 LD Driver December 2016



Mr. T. Puntiraj 275736 Grinder November 2016



Mr. Murali 275715 Mech. Helper December 2016

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SAFE MAN OF THE MONTH: SEPT TO DEC 2016

SAFE DRIVER OF THE MONTH: SEPT TO DEC 2016

Project 7074: EPC for Bab Produced Water Re Injection Project)

Project 7074: EPC for Bab Produced Water Re Injection Project)



Mr. Yallappa P 276331 **Civil Helper** September 2016



Mr. Jayram Yadav 275855 Mech. Helper September 2016

Mr. Chinnaya 271633 **Civil Helper** October 2016



Mr. Amith Kumar 276155 Mech. Helper October 2016



Mr. Gopa Kumar 271186 Operator September 2016



Mr. Fazal Rehman 276137 HD Driver September 2016



Mr. Mahmood Ali 271753 LD Driver October 2016



Mr. Mohd. Shaji 276248 LD Driver November 2016



Mr. Moideen 273642 HD Driver December 2016



Mr. Vithal Naik 276224 Civil Helper November 2016



Mr. Krishna Mr. Dileep Kumar 276199 Mech. Helper December 2016 November 2016



Mr. Uchappa 276318 Mech. Helper December 2016

276083

Inst. Fitter

SAFE MAN OF THE MONTH: SEPT TO DEC 2016 | SAFE DRIVER OF THE MONTH: SEPT TO DEC 2016

Project 7075: JUMP-OVER BETWEEN HMT AND TFP PIPELINES AT KM 42 ENQUIRY NO. 13531001 - EPC WORK

Project 7075: JUMP-OVER BETWEEN HMT AND TFP PIPELINES AT KM 42 ENOUIRY NO. 13531001 - EPC WORK



Mr. Manoj Kumar 276430 Civil Helper September 2016



Mr. Uttam Kumar 276436 Helper October 2016



Mr. Sarwan Khan 276308 Operator September 2016



Mr. Unni Krishnan 272126 HD Driver October 2016



Mr. Kalu Ram 273919 Civil Helper November 2016



Mr. Kelu S 273627 Mech. Helper December 2016



Mr. Sher Abbas Hire Operator November 2016



Mr. Juma Gul 276191 HD Driver December 2016

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Citiz Health & Safety Newsletter

HEALTH TALK AND FREE MEDICAL CAMPAIGN AT GALFAR HAMEEM CAMP



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Galfar organized a one day Free Medical Camp in association with Life Care Hospital, Baniyas on 19th October 2016 at Galfar Corporate Office. This medical camp was organized as a part of our welfare program, with the objective of providing free medical examination/check up for employees from Galfar to raise health awareness among them. A medical team of four members including Doctors, Nurse and Administrator from Life Care Hospital arrived at Galfar Corporate office at 1100 hrs on 19th October 2016 to conduct the event. Galfar's Deputy General Manager officially inaugurated the health seminar/camp and welcomed all.

Dr. Dhanya Nair delivered a very informative speech on Stress and its effect on Health. A Total number of 26 employees from Galfar attended the Health Talk and 67 employees attended medical camp, screened for general health check up and various other ill-health conditions. The medical camp was successfully completed at 1600 Hrs. Galfar Management profusely thanked and appreciated the medical team from life care Hospital for their dedication and having taking time out to conduct this seminar/Medical Camp.

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SAFETY AWARENESS CAMPAIGN ON WORKING AT HEIGHT AT TAWEELHA 7075 PROJECT



On 15.11.2016 GASCO Management arranged a one hour Safety Awareness Campaign on Working at Height at Taweelha 7075 Project under the sponsorship of Mr, Salem Alattas, Vice President Projects. This awareness program was carried out by 3M Science Applied to Life. - Capital Safety who are the regional leader in the Fall Protection Industry.

The Safety Awareness Campaign on Working at Height covered 13 topics:

- 1) Selection of equipment
- 5) Forces involved with fall
- 9) Clearance calculation
- 13) Lifelines.

- 2) Wearing & fitting the full body harness 6) Anchor strength 10) Swing fall
- 3) Fall arrest vs. fall restraint 7) Scaffolding applications 11) Basic inspection for user
- 4) Fall hazards 8) Use of lanyard 12) Suspension trauma

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ENVIRONMENTAL CLEANUP / DESERT CLEAN UP CAMPAIGN AT GALFAR HAMEEM CAMP



Environmental Cleanup / Desert Cleanup Campaign was conducted on 09th December 2016 at GALFAR HAMEEM Camp. Galfar Project Manager, Construction Manager, Senior Safety Engineer commenced the Campaign by welcoming all the employees of the Camp and Projects. The Project and Camp workforce participated in this campaign. It is relevant to mention that around 250 meters around the camp was cleared during the cleanup campaign and a quantity of 550 kgs of derbies was disposed off.

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NEW FLEET IN GALFAR ABUDHABI



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SAFETY ALERT: What kind of accident is about to happen?

MECHANIC SPRAINS ANKLE, JUMPING OFF MACHINE

A mechanic was trying to drain hydraulic oil as a prior step for replacing a hydraulic pump and found a necessary tool was not ready at hand. He jumped off the machine to fetch the tool, but unfortunately landed on a pebble and had his right ankle sprained. No appropriate ladder was available to him, as the pump replacement took place at a jobsite.





- Do not take such a hazardous action as jumping off a machine. For getting on and off a machine, make use of the climbing steps, ladder or handrail provided on the machine.
- Park a service vehicle or prepare for tools at the side of a machine where climbing steps, ladder or handrail are provided.



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Safety First. Quality Plus. Reliability Ever.

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