What Is Your Life-Saving Gas Monitor Trying to Tell You?

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Safety Alert
The bottom line is that, in a given day, a worker could be alerted to the same hazardous condition in many different ways, none of which clearly and efficiently tells the story of what's happening.

By Josh Futrell

Competitive pressure continues to increase how much we all try to get done in a given day. During the course of a busy shift, workers in some of the most hazardous jobs will interact with dozens of pieces of equipment whose proper use can lead to life-or-death consequences. For protection from gas hazards, this often means working with a range of gas detection equipment, from personal monitors to area monitors and fixed systems that typically are made by different manufacturers.

The Challenge with Diversity

This diversity in equipment leads to a range in how hazards are communicated in terms of lights, sounds, and displays. One manufacturer uses a certain icon to indicate an alarm condition, but another uses a completely different icon. One monitor only has red lights to indicate all kinds of statuses, from high gas alarms to a battery in need of charging, while another uses red and blue, and yet another uses red and green. A fixed system uses custom-tailored and audible and color alarm patterns for each type of gas hazard; this is almost always different from any other portable gas detectors in use at a site because those monitors typically do not have this level of flexibility.

The bottom line is that, in a given day, a worker could be alerted to the same hazardous condition in many different ways, none of which clearly and efficiently tells the story of what's happening.

All of these equipment differences lead to challenges for training personnel who are tasked to equip workers with the knowledge they need to decipher what their gas detectors are telling them. With worker turnover increasing as the economy rebounds, it is becoming even more difficult to ensure that people know how to respond to hazardous conditions. Even those with a lot of experience on site might struggle if you ask them, "What are you supposed to do when you have a low alarm of CO2 is that different than a low alarm of O2?" (Hint: It probably is.)

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All of these equipment differences lead to challenges for training personnel who are tasked to equip workers with the knowledge they need to decipher what their gas detectors are telling them. With worker turnover increasing as the economy rebounds, it is becoming even more difficult to ensure that people know how to respond to hazardous conditions. Even those with a lot of experience on site might struggle if you ask them, "What are you supposed to do when you have a low alarm of CO2 is that different than a low alarm of O2?" (Hint: It probably is.)
The simplest approach has often been to just train people to respond first, assess later. During a recent project, I was told by a safety manager of a large oil and gas refinery, “We tell our guys: If it beeps, get out.”

While this greatly simplifies training and avoids moments of confusion, it leads to more incidents of work stopping. Not only does this hurt productivity and cost money in very tangible ways, it creates risks in other intangible ones: workers getting hurt as they attempt to stop work and leave, workers becoming desensitized to alarms and failing to respond when there is a critical event, workers mistrusting equipment, etc. A more nuanced approach is often needed, which adds to the overhead of training.

Text-Based Alarm Action Messages

One of the newest approaches to communicate gas hazards is the use of text-based alarm action messages. In addition to showing traditional gas readings, managers can create a customized message for each level of alarm for each gas type. For example, instead of just seeing an oxygen reading of “18.5% VOL” and a flashing low alarm icon, workers can also be presented with the message “WEAR SCBA” on their monitors. Instead of an explosive gas reading of “40% LEL” and a flashing high alarm icon, workers can be presented with the message “EVACUATE.”

Teams do not have to think back to their training to try and recall company policy for a particular event. The policy can be presented in the moment, almost as if teams have a safety trainer with them at all times. This previously unprecedented flexibility improves safety, avoids confusion, and decreases hazard reaction time for users. It also takes experience level out of the question. Regardless of whether a worker is new to the job or site or has years of experience working in and around gas hazards, text-based alarm action messages get them to respond appropriately and quickly. This can greatly simplify the training programs that are needed, shaving hours off of the curriculum and allowing the teams to focus more on appropriate responses and less on interpreting the “beeps and blips” of equipment. This ultimately helps to ensure that work stops only when it needs to.

Progress in Simplifying Hazard Communication

Portable gas detection manufacturers have been working to overcome these challenges for years. The industry has trended toward multi-color visual alerts that are used to communicate the differences between critical and non-critical events. Displays have moved toward graphical displays (which are able to display anything on them) versus segmented displays (which are restricted in terms of what icons and characters can be used). And the ability to configure equipment, tailoring it toward an individual company’s policies and procedures, has increased.

However, there is still a long way to go. Detectors that use multi-color visual alarms often rely on green or yellow LEDs in conjunction with the standard red. These are hard to distinguish for parts of the population with color deficiencies or blindness. Graphical displays, while capable of presenting more complex information, are still limited in size, often no more than an inch or two across. While this might not present much difficulty for users of handheld devices (provided they have “young enough” eyes), it creates a large obstacle in area monitors and other pieces of equipment that might be at some distance away from users when they go into alarm.
Wireless Communication

Another innovation in portable gas detection that is helping to improve the communication of hazards is the advent of wireless. Using mesh networks, Wi-Fi, or other RF approaches, portable monitors can be linked together, most often for the purpose of communicating alarms and data back to a central control station. By investing the time and money currently necessary to add wireless infrastructure and complex systems, companies can see in real time what is happening on their sites. As of today, wireless in gas detection is used primarily to enhance the response of people outside of the hazardous area. People a mile away can have an increased awareness of what is happening in the field; people 20 feet away from a hazard do not typically get the same benefits.

This won't always be the case. In the near future, as wireless gas detection gets easier to deploy and more pervasive, it will become about more than slinging data far away. It will be about connecting workers together to help them watch each other’s back during hazardous jobs and respond appropriately. It will become about bi-directional communication between central control and workers in the field, allowing more than just gas-related information to be shown on gas monitors (for example, central control could push a message to all workers such as “MUSTER” or “LIGHTNING STRIKES”). Wireless will become more about integrating different systems together, blurring the line between portable gas detectors and fixed systems.

Looking Ahead

A day will come in the future where configurability of equipment reaches a point where it will be possible to have a completely cohesive and synchronized system: portables, area monitors, and fixed systems at a work site all working in concert and using the same means of communicating hazards in terms of lights, sounds, and messages. No more time will need to be spent on translating what each device is trying to tell you. No more trying to remember whether that audible pattern is for H2S or explosive gases or if a flashing yellow light is good or bad. Everything will speak clearly, in plain English (or Spanish, or French, etc.) and in the same words. And, at that time, the communication might not even happen on the portable gas detector itself; there might be other wearable devices that help tie all communication together.

Until then, gas detection equipment manufacturers continue to strive to find ways to make their individual products better at grabbing and directing workers’ attention. And those in the field continue to try to find ways to make their gas detection policies and programs simple enough to be understood by everybody. All these advances are in an effort to help workers know where and when the line needs to be drawn to keep safe.
Keeping Up to Date with Electrical Services

By Andrew Pempek

What many businesses may not understand is that electrical safety training is required for all personnel, not just those performing electrical work. Keeping up with maintenance requirements is critical for any industrial or commercial business. Electrical maintenance is one of the requirements that are essential for performance and safety. Businesses must also stay up-to-date with changes in electrical requirements.

Equipment Performance and Safety

Preventative maintenance is just that, service steps required to prevent failures. You can tell when you have a plumbing leak, but electricity cannot be seen. Often the only way to notice a problem is when a failure occurs. Repairs after the fact are more costly than simple prevention steps.

Repairing a wiring problem that is causing a motor to overheat is less expensive than replacing the motor and wiring, and the lost production time. Something as simple as a loose connection may create intermittent equipment failure. A technician could spend hours trying to find a mechanical fault when the true problem is not in the equipment, but the power to the equipment.

Electrical failures can halt commercial and industrial business operations. The time spent diagnosing and correcting the problem, or time spent waiting for new parts, is production time and money lost. Failures from overheating or short circuits can also lead to fire, which could completely shut your facility down. Full electrical service maintenance covers everything from the switchgear to outlets and control panels.

Employee Safety

In addition to production issues, employers are responsible for the safety of the company’s workers. Frayed wires or breaks in insulation are accidents waiting for an opportunity. The same wires that have loosened over time may cause electrocution or other injuries. A worker may see equipment that is not operating and assume that it is shut off. Machinery that starts again suddenly can entrap the employee.

Improper grounding or broken ground bonds are another hazard. The lack of a strong ground bond can cause problems ranging from intermittent equipment failures to the electrocution of a worker in a wet environment. Ground fault protection testing should be performed periodically. Without routine electrical service, you may not know the potential hazards exist.

Requirements and Changes in Requirements

Electrical service work is not a job for the unskilled. When it comes to commercial and industrial operations, the risks are greater due to higher voltage levels. In order to avoid violations, employers must comply with safety standards. In the U.S., this means compliance with Occupational Safety and Health Administration (OSHA) requirements. The Institution of Occupational Safety and Health (IOSH) covers the United Kingdom. What many businesses may not understand is that electrical safety training is required for all personnel, not just those performing electrical work.

In addition to meeting established safety requirements, businesses must meet any local or national code regulations and keep up to date with changes in the regulations. The National Fire Protection Association (NFPA) released new rules in 2015. NFPA 70E-2015 requires all employers to assess the risk of arc flashes. Unfortunately, not knowing about regulations and changes does not excuse a business from being cited for violations.

Your business or property insurance must also be considered in the need for electrical maintenance. If property damage or injuries occur due to a lack of adequate service, you may not be covered. Normally any work must also be performed by a qualified electrician to avoid being held liable for accidents.

Finally, as a business operation grows, the electrical needs may increase. The number of outlets and circuits that were sufficient at the beginning may no longer support the equipment now in use. Without routine electrical maintenance, performed by skilled personnel, you may not be aware of the potential for overloads.
Thyroid disease is a common problem that can cause symptoms because of over- or under-function of the thyroid gland. The thyroid gland is essential organs for producing thyroid hormones, which maintain are body metabolism. The thyroid gland is located in the front of the neck below the Adam's apple.

1. **Thinning hair or hair loss**
   Are you noticing that when you brush your hair you are leaving a lot of hair behind? Or is your hair not as thick as it was when you were younger? Both of these issues can be due to hypothyroidism or issues like low iron, which have a hand in thyroid regulation.

2. **You’re gaining weight and can’t seem to lose it no matter what you do.**
   Gaining weight is one of the biggest signs of hypothyroidism. That’s because when your body doesn’t have sufficient thyroid hormone, metabolism throughout all of your tissues and cells slows down. Slower metabolism means less energy is being burned.

3. **Or, you’re mysteriously losing weight.**
   On the other hand, losing weight without trying is a sign of hyperthyroidism, thanks to your body’s amped up metabolism. It basically becomes too efficient for its own good. Thyroid-related weight gain or loss typically happens gradually, and may not be noticeable at first. If your thyroid problem develops suddenly, the change in your metabolism could be quicker, but usually thyroid conditions are slow-developing, and your weight fluctuations will follow suit.

4. **Your appetite has changed.**
   Having an underactive thyroid can also decrease your appetite, since your body is using less energy, and an overactive one may stimulate it. So you may notice you’re eating less but gaining more weight, or vice versa.

5. **Your period is irregular.**
   “If a woman’s menstrual cycle is normal and starts to get more frequent and lighter, it can be a sign of an overactive thyroid,” Baker says. “Less frequent and heavier can mean it’s underactive.” Any time regular ovulation is disrupted, it can potentially increase your risk of infertility.

6. **You’re seriously fatigued or way too wired.**
   Energy fluctuations, for no apparent reason, are one of the biggest red flags that something’s up with your thyroid. Fatigue, even after getting a good night’s sleep or taking naps, is a sign of hypothyroidism. With less thyroid hormone and a slower metabolism, your body feels sluggish.

7. **Your mood is all over the place.**
   Imbalances in thyroid hormones can cause your mood to change drastically. “With hypothyroidism, some people feel a little depressed,” Baker says. Research suggests it’s because changes in thyroid function impacts the feel-good chemical serotonin in the brain. Those with hyperthyroidism may experience anxiety, nervousness, or agitation.

8. **Your skin is dry and your hair is brittle.**
   When the thyroid is underactive, skin is known to become drier than normal. The hair problems, which can also mean hair loss, can happen later after the thyroid has been malfunctioning for some time, so you might not notice the hair changes until later. If your thyroid is overactive, your skin might be noticeably oilier, but hair loss can be a symptom here, too.

9. **You’re constipated or have diarrhea.**
   “Sometimes people with underactive thyroid might feel a little constipated,” Baker says. That’s because too little thyroid hormone can slow down digestion. The opposite is true with an overactive thyroid—digestion is stimulated, and can cause more frequent bowel movements or diarrhea.

10. **You have the chills or are extra sweaty.**
    Feeling cold all the time can be a sign of hypothyroidism. What you’re experiencing is an effect of slowed metabolism. On the other hand, hyperthyroidism can make you feel hot or frequently sweaty, as your cells are working in overdrive.
Health benefits of Grapes

The health benefits of grapes include their ability to treat constipation, indigestion, fatigue, kidney disorders, macular degeneration and the prevention of cataracts. Grapes, one of the most popular and delicious fruits, are rich sources of vitamins A, C, B6 and folate in addition to essential minerals like potassium, calcium, iron, phosphorus, magnesium and selenium.

Grapes contain flavonoids that are very powerful antioxidants, which can reduce the damage caused by free radicals and slow down aging. Grapes, due to their high nutrient content, play an important role in ensuring a healthy and active life.

Some of the health benefits of grapes include the following:

**Asthma:**
Due to their well-known therapeutic value, grapes can be used as a cure for asthma. In addition to that, the hydrating power of grapes is also high, which increases the moisture present in the lungs and reduces asthmatic events.

**Bone Health:**
Grapes are a wonderful source of micro-nutrients like copper, iron, and manganese, all of which are important in the formation and strength of the bones. Adding grapes into your diet on a regular basis can prevent the onset of age-related conditions like osteoporosis. Manganese is an extremely important element in the body, which aids in everything from protein metabolism, collagen formation, and nervous system functioning.

**Heart diseases:**
Grapes increase the nitric oxide levels in the blood, which prevents blood clots. Therefore, grapes are an effective way to reduce the chances of heart attacks. Additionally, the antioxidants present in grapes prevent the oxidation of LDL cholesterol, which blocks the blood vessels and is a main contributor to various coronary conditions. Grapes also have high numbers of flavonoids, which are what give grapes their color, but flavonoids are also very powerful antioxidants. The two main types in grapes are resveratrol and quercetin, and these two compounds negate the effects of free radicals that threaten the body and stimulate LDL cholesterol’s harmful effects on arteries. Also, these two antioxidant flavonoids act as a clean-up crew to reduce platelet clumping and filter toxins out of the blood.

**Migraine:**
Ripe grape juice is an important home remedy for curing migraines. It should be drunk early in the morning, without mixing additional water. Ironically, drinking red wine is often considered a cause of migraines, but grape juice and grape seed extract is considered a solution for the problem. There are many causes behind migraines, and it can be difficult to pinpoint the culprit, since they include chemical imbalances, lack of sleep, changes in weather, or dietary deficiencies.

**Alcohol in general causes migraines, but grapes have so many antioxidants that they can cause and cure the same illness!**

**Constipation:**
Grapes are very effective in overcoming and eliminating constipation. They are classified as a laxative food, because they contain organic acid, sugar and cellulose. They also relieve chronic constipation by toning up intestinal muscles and the stomach. Grapes are high in insoluble fiber, meaning that it remains intact as it moves through the digestive tract. It builds up bulk, which promotes the formation and excretion of healthy stool, so grapes can help make you much more regular. However, if you suffer from loose stool or diarrhea, grapes should not be used as a way to regulate your system. Insoluble fiber doesn’t soak up water to dry out loose stool, and grapes don’t have a high level of soluble fiber.

**Indigestion:**
Grapes play an important role in dyspepsia. They relieve heat and cure indigestion and irritation in the stomach. They are also preferred over other digestive aids because they are considered a “light food”.

**Health & Safety**

Issue 30, August 2016

Fatigue:
Light and white grape juice supplements the iron content in the body and prevents fatigue. Anemia is a real problem for many people, and eating grapes can help keep your iron and mineral levels balanced in the body. A lack of iron can make you sluggish, and your mind also doesn’t work as quickly, since iron is an essential mineral that impact a number of bodily functions. However, dark grape juice might not give an iron boost and may actually decrease iron levels. Drinking grape juice also provides a nearly instant energy boost.

Diabetes:
Recent research suggests that grape skin extract (GSE) exerts a novel inhibitory activity on hyperglycemia and may help in diabetes management.

Dental Care:
According to a recent study, red wine and grape seed extract can potentially help prevent cavities.

Kidney disorders:
Grapes can substantially reduce the acidity of uric acid and they also help to eliminate acid from the system, thereby reducing the stress and pressure on the kidneys. Since grapes have a high water content, they induce urination, which also helps to eliminate the uric acid still present in the body after its acidity is reduced. Grapes have a very cleansing effect on the body, and the antioxidants present benefit all of the body’s systems in peripheral ways.

Blood cholesterol:
Grapes contain a compound called pterostilbene, which has the capacity to lower a person’s cholesterol levels. Pterostilbene is closely related to resveratrol, the beneficial antioxidant and coloring flavonoid that is also found in grapes, and early research has shown that it has anti-cancer qualities as well as having a great impact on cholesterol levels. It is also thought to have preventative powers over cognitive decline. Furthermore, the saponins present in the skin of grapes can also prevent the absorption of cholesterol by binding with it.

Antibacterial activity:
Red grapes have strong antibacterial and antiviral properties that can protect you from infections. They display strong antiviral properties against the polio virus and the herpes simplex virus. Studies have also shown that grape juice can tackle bacterial infections in the gut and other systems.

Breast cancer:
In a recent study, it has been discovered that purple, Concord grape juice helps in preventing breast cancer. Significant reduction in mammary tumor mass of laboratory rats was seen after they were fed the grape juice in an experimental setting. The antioxidants in grapes are beneficial in the prevention of all types of cancer, but there are some fascinating studies which specifically show grape juice as an effective preventive measure against breast cancer. Certain chemicals in grapes compete for binding sites, and inhibits aromatase from changing androgen to estrogen, which is thought to be a big contributing factor to breast cancer growth in women.

Alzheimer’s disease:
Resveratrol, a beneficial polyphenol present in grapes, reduces the levels of amyloid-beta peptides in patients with Alzheimer’s disease. Studies suggest that grapes can enhance brain health and delay the onset of degenerative neural diseases. A study published in the British Journal of Nutrition claims that grape juice can even improve the brain function of older people who have already displayed mild cognitive impairment. Further studies are currently under way to determine the exact interaction between grape components and neural systems.

Macular degeneration:
Grapes can prevent age-related loss of vision and macular degeneration. Research study conducted at University of Miami suggests that grape-enriched diet supports eye health and may prevent vision-threatening retinal diseases. Studies have shown that three servings of grapes a day can reduce the risks of macular degeneration by over 36%. Both grapes and wine can both contribute to a reduced loss of vision over time, and as with all of the organ systems, the health and susceptibility to disease or damage is lessened by the antioxidants packed into every grape!
Immune System:
Grapes are not only packed with flavonoids and minerals, but vitamins as well! The high levels of Vitamin C, K, and A in grapes gives you a healthy boost to many of your organ systems, particularly your immune system, which means less chance of coming down with common colds, as well as more serious health issues.

Prevention of cataracts:
Flavonoids present in grapes have antioxidants, which can reduce and fight the damage caused by free radicals. Free radicals cause things like the development of cataracts, as well as cardiovascular diseases, cancer, and various age-related problems. This is somewhat linked to macular degeneration, as they usually occur around the same time in life. Fortunately, antioxidants also have certain anti-aging qualities, which not only help you look younger, but also feel younger by staving off age-related conditions like cataracts.

Cancer prevention properties:
Grapes have been found to have strong anti-cancer properties due to the anti-inflammatory effect of resveratrol. It is particularly effective in reducing the chances of colorectal cancer and breast cancer. The anthocyanins and pro-anthocyanidins in grapes have properties of an anti-proliferate and can inhibit the growth of cancer causing agents. Grape juice not only prevents the risk of cancer but also suppresses the growth and propagation of cancer cells. The pigments contained in grapes enhance the overall immunity of the body to a wide range of diseases.

In conclusion, grapes play a pivotal role in preventing a multitude of health disorders and can be used as a home-based remedy for several ailments. Dried grapes, known as raisins, are also extremely nutritious and can help treat many disorders, including constipation, acidosis, anemia, fever, and sexual dysfunction. Raisins can also help people gain weight quickly and protect the health and functional integrity of their eyes. Read more about benefits of raisins.
## HSE STATISTICS August 2016

**Project: Construction of Flowlines & Wellhead Installation of Typical Works in ADCO’s Fields. (Package “C”- BuHasa/ Huwaila/ Bida Al Qemzan Fields)**

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## HSE STATISTICS August 2016

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

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<td>542</td>
</tr>
<tr>
<td>2</td>
<td>Manhours worked</td>
<td>149720</td>
</tr>
<tr>
<td>3</td>
<td>Fatalities (Death)</td>
<td>0</td>
</tr>
<tr>
<td>4</td>
<td>Fatal Accident Rate (FAR)</td>
<td>0</td>
</tr>
<tr>
<td>5</td>
<td>Permanent Total Disabilities</td>
<td>0</td>
</tr>
<tr>
<td>6</td>
<td>Permanent Partial Disabilities</td>
<td>0</td>
</tr>
<tr>
<td>7</td>
<td>Lost Workday Cases (LWDC)</td>
<td>0</td>
</tr>
<tr>
<td>8</td>
<td>Total Employees Trained</td>
<td>40</td>
</tr>
<tr>
<td>9</td>
<td>Total Training Hours</td>
<td>120</td>
</tr>
<tr>
<td>10</td>
<td>First Aid Cases</td>
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</tr>
<tr>
<td>11</td>
<td>Near Misses</td>
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<tr>
<td>12</td>
<td>HSE Meetings</td>
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<td>HSE Inspections</td>
<td>02</td>
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<tr>
<td>14</td>
<td>Emergency Exercises</td>
<td>00</td>
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<tr>
<td>15</td>
<td>Number of Vehicles</td>
<td>72</td>
</tr>
<tr>
<td>16</td>
<td>Vehicle Kilometer Driven</td>
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**Project: Engineering, Procurement and Construction for BAB Produced Water Re-injection Project**  
(ADCO Project No: P11554)

<table>
<thead>
<tr>
<th>No.</th>
<th>Performance Indicators</th>
<th>PROJECT 7074</th>
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<tbody>
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<td></td>
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<td>Month</td>
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<tr>
<td>1</td>
<td>Total number of employees</td>
<td>195</td>
</tr>
<tr>
<td>2</td>
<td>Manhours worked</td>
<td>47720</td>
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<tr>
<td>3</td>
<td>Fatalities (Death)</td>
<td>0</td>
</tr>
<tr>
<td>4</td>
<td>Fatal Accident Rate (FAR)</td>
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</tr>
<tr>
<td>6</td>
<td>Permanent Partial Disabilities</td>
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<tr>
<td>7</td>
<td>Lost Workday Cases (LWDC)</td>
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<td>9</td>
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<tr>
<td>10</td>
<td>First Aid Cases</td>
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<tr>
<td>11</td>
<td>Near Misses</td>
<td>01</td>
</tr>
<tr>
<td>12</td>
<td>HSE Meetings</td>
<td>03</td>
</tr>
<tr>
<td>13</td>
<td>HSE Inspections</td>
<td>03</td>
</tr>
<tr>
<td>14</td>
<td>Emergency Exercises</td>
<td>01</td>
</tr>
<tr>
<td>15</td>
<td>Number of Vehicles</td>
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<td>16</td>
<td>Vehicle Kilometer Driven</td>
<td>56730</td>
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## HSE Statistics August 2016: JUMP-OVER BETWEEN HMT AND TFP PIPELINES AT KM 42 ENQUIRY NO. 13531001 - EPC WORK (GASCO)

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<thead>
<tr>
<th>Sr.No.</th>
<th>HSE Statistics</th>
<th>This Month</th>
<th>To date</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>+ Total Man-hours Worked</td>
<td>48,350</td>
<td>140,906</td>
</tr>
<tr>
<td>2</td>
<td>+ Total Man-hours Worked without LTI</td>
<td>48,350</td>
<td>140,906</td>
</tr>
<tr>
<td>3</td>
<td>+ No. of EPC Contractor workforce</td>
<td>151</td>
<td>151</td>
</tr>
<tr>
<td>4</td>
<td>+ No. of Subcontractor workforce</td>
<td>NIL</td>
<td>NIL</td>
</tr>
<tr>
<td>5</td>
<td>+ No. of Fatalities (work related)</td>
<td>NIL</td>
<td>NIL</td>
</tr>
<tr>
<td>6</td>
<td>+ No. of Lost Workday Cases</td>
<td>NIL</td>
<td>NIL</td>
</tr>
<tr>
<td>7</td>
<td>+ No. of Restricted Work cases</td>
<td>NIL</td>
<td>NIL</td>
</tr>
<tr>
<td>8</td>
<td>+ No. of Medical Treatment Cases</td>
<td>NIL</td>
<td>NIL</td>
</tr>
<tr>
<td>9</td>
<td>+ Total Man-days lost</td>
<td>NIL</td>
<td>NIL</td>
</tr>
<tr>
<td>10</td>
<td>+ Days Spent on Restricted Work Cases</td>
<td>NIL</td>
<td>NIL</td>
</tr>
<tr>
<td>11</td>
<td>+ Total Recordable Injury Rate, TRIR (note 1)</td>
<td>NIL</td>
<td>NIL</td>
</tr>
<tr>
<td>12</td>
<td>+ Reported Near Misses</td>
<td>NIL</td>
<td>NIL</td>
</tr>
<tr>
<td>13</td>
<td>+ Reported Unsafe Acts/Conditions</td>
<td>NIL</td>
<td>NIL</td>
</tr>
<tr>
<td>14</td>
<td>+ Reported Non Work Related Fatality</td>
<td>NIL</td>
<td>NIL</td>
</tr>
<tr>
<td>15</td>
<td>+ Reported Motor Vehicle Related Incidents</td>
<td>NIL</td>
<td>NIL</td>
</tr>
<tr>
<td>16</td>
<td>+ Reported loss of containment</td>
<td>NIL</td>
<td>NIL</td>
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<table>
<thead>
<tr>
<th>Sr.No.</th>
<th>HSE Activity</th>
<th>This Month</th>
<th>To date</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>+ Ratio of HSE Officer:</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>2</td>
<td>No. of Management Walkthrough Conducted</td>
<td>5</td>
<td>8</td>
</tr>
<tr>
<td>3</td>
<td>+ No. of Welfare Committee Meeting Conducted</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>4</td>
<td>+ No. of Suggestion solicited from workforce</td>
<td>NIL</td>
<td>NIL</td>
</tr>
<tr>
<td>5</td>
<td>No. of HSE Campaigns Conducted</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>6</td>
<td>+ HSE Training Man-hours</td>
<td>144</td>
<td>743</td>
</tr>
<tr>
<td></td>
<td>i). Site HSE Induction for New Employees</td>
<td>87</td>
<td>175</td>
</tr>
<tr>
<td></td>
<td>ii). Other Trainings Hour</td>
<td>294.3</td>
<td>770.3</td>
</tr>
<tr>
<td>7</td>
<td>+ No. of HSE Audits Conducted (GASCO + Contractor)</td>
<td>NIL</td>
<td>1</td>
</tr>
<tr>
<td>8</td>
<td>No. of HSE Inspection Conducted</td>
<td>5</td>
<td>12</td>
</tr>
<tr>
<td>9</td>
<td>No. of HSE Actions Closed</td>
<td>30</td>
<td>55</td>
</tr>
<tr>
<td>10</td>
<td>No. of HSE Actions Overdue</td>
<td>3</td>
<td>5</td>
</tr>
<tr>
<td>11</td>
<td>No. of HSE Award/Incentive Provided</td>
<td>NIL</td>
<td>NIL</td>
</tr>
<tr>
<td>12</td>
<td>HSE Meeting(s) held</td>
<td>4</td>
<td>11</td>
</tr>
<tr>
<td>13</td>
<td>+ No. of Mock drills Conducted</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>14</td>
<td>+ Company/ADNOC HSE Audit</td>
<td>NIL</td>
<td>NIL</td>
</tr>
<tr>
<td>15</td>
<td>Other HSE activity</td>
<td>NIL</td>
<td>2</td>
</tr>
</tbody>
</table>
SAFETY QUIZ FOR AUGUST 2016

Q1: What reasons exist for managing health & safety? (Tick all that apply):
   - 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:
   - Not knowing what is around the corner
   - Something you are not sure about
   - A problem that is going to upset you
   - Likelihood that harm from a hazard may be realised

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

Q7: What ‘4Cs’ are critical in developing a positive safety culture?
   - 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

Q9: Most manual handling injuries are:
   - Sprains & strains
   - Fractures
   - Contusions
   - Lacerations

Q10: Noise is:
    - Loud sounds
    - Prolonged sounds
    - 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

What does this CHIP symbol mean?
   - Flammable, extremely flammable and highly flammable
   - Explosive
   - Very Toxic, toxic, carcinogenic, mutagenic and toxic for reproduction
Send your Caption for Picture of the Month. We will select the Best Safety Caption and mention the name of the person in next month issue.

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

ratheeshrl@galfaremirates.com
SAFE DRIVER OF THE MONTH: AUGUST 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. Ismail Machingal
HD Driver (Bus)
GEC- 275759
Certificate & Cash Award

Mr. Mustafa A.K
LD Driver
GEC- 272851
Certificate & Cash Award

SAFE MAN OF THE MONTH: AUGUST 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. Raj Kumar
Mechanical Helper
GEC NO. 275315
Certificate & Cash Award

Mr. Monu Chitran
Welder Arc
GEC NO. 275360
Certificate & Cash Award

Mr. Mustafa A.K
LD Driver
GEC- 272851
Certificate & Cash Award
SAFE MAN OF THE MONTH: AUGUST 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)

Mr. Awadesh Kumar
Mechanical Helper
GEC NO. 275792
Certificate & Cash Award

Mr. Rajesh Kumar
Civil Helper
GEC NO. 275385
Certificate & Cash Award

Mr. Sunil Patel
Mechanical Helper
GEC NO. 275894
Certificate & Cash Award

Mr. Venkata Ramana Vadamodula
Rigger
GEC NO. 275969
Certificate & Cash Award

SAFE DRIVER OF THE MONTH: AUGUST 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)

Mr. Abdul Latheef
Light Duty Driver
GEC NO. 275456
Certificate & Cash Award

Mr. Mohammed Ali
Light Duty Driver
GEC NO. 276214
Certificate & Cash Award

Mr. Nasser Chintharath
Light Duty Driver
GEC NO. 271318
Certificate & Cash Award

Mr. Zar Gul Lal Khan
Heavy Duty Driver
GEC NO. 275782
Certificate & Cash Award

Mr. Mohammed Ali
Light Duty Driver
GEC NO. 276214
Certificate & Cash Award
SAFE MAN OF THE MONTH: AUGUST 2016

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

Mr. Shyam Lal
Rigger
GEC NO. 273320
Certificate & Cash Award

Mr. Mariya Micheal
Mason
GEC NO. 272067
Certificate & Cash Award

SAFE DRIVER OF THE MONTH: AUGUST 2016

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

Mr. Zubair
Light Duty Driver
GEC NO. 276009
Certificate & Cash Award

Mr. Biju Anthony
Operator
GEC NO. 274029
Certificate & Cash Award
SAFE MAN OF THE MONTH: AUGUST 2016

Mr. Bam Deva
Civil Helper
GEC NO. 273771
Certificate & Cash Award

Mr. Ravi Borgu
Mechanical Helper
GEC NO. 276337
Certificate & Cash Award

SAFE DRIVER OF THE MONTH: AUGUST 2016

Mr. Sasi TV
LD Driver
GEC NO. 275613
Certificate & Cash Award

Mr. Tajdar Zamir
Operator
GEC NO. 275468
Certificate & Cash Award
<table>
<thead>
<tr>
<th>Project</th>
<th>ENQUIRY NO.</th>
<th>EPC WORK</th>
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<tr>
<td>Project 7075: JUMP-OVER BETWEEN HMT AND TFP PIPELINES AT KM 42</td>
<td>13531001</td>
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**SAFE MAN OF THE MONTH: JULY/AUGUST 2016**

<table>
<thead>
<tr>
<th>Name</th>
<th>Position</th>
<th>GEC NO.</th>
<th>Award</th>
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</thead>
<tbody>
<tr>
<td>Mr. Balaiah</td>
<td>Charge hand</td>
<td>273830</td>
<td>Certificate &amp; Cash Award</td>
</tr>
<tr>
<td>Mr. Sailesh Patel</td>
<td>Charge hand</td>
<td>270442</td>
<td>Certificate &amp; Cash Award</td>
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**SAFE DRIVER OF THE MONTH: JULY/AUGUST 2016**

<table>
<thead>
<tr>
<th>Name</th>
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<th>Award</th>
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<tr>
<td>Mr. Mohammed Siddiq Akbar</td>
<td>LD Driver</td>
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<td>Certificate &amp; Cash Award</td>
</tr>
<tr>
<td>Mr. Anil</td>
<td>LD Driver</td>
<td>276249</td>
<td>Certificate &amp; Cash Award</td>
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</table>
ROAD SAFETY CAMPAIGN AND 1 MILLION SAFE KILOMETER ACHIEVEMENT CELEBRATION

“1 MILLION SAFE KILOMETERS” Achievement celebration was held on 14th Aug 2016 @16:00 hrs at Galfar Habshan Camp.

The function started with the welcome address by Mr. Biju Kurup, Construction Manager. He commenced the function by welcoming all members of the ADCO representative, project Drivers and Operators as well as Project Staff. He congratulated all for working safe manner and requested all to keep up the same spirit throughout the project and achieve more milestones without any incident and finally he concluded that regarding recently we bagged one more milestone in this project that ‘1 million Safe Man Hours Without LTI’ and he thanked to ADCO management for their esteemed presence made the event an auspicious and successful one.

Mr. Rajeev Vasudevan, Sr.HSEE has congratulated all Drivers & Operators for this milestone achievement & he continued, this ‘attainment of our team work, hard work, dedication & compliance of ADCO norms as well as Galfar. He requested to all to keep this proactive spirit always with us so we can achieve more milestones in this project.

Mr. Mohamed Haji, SE-ADCO, congratulated entire project team for this milestone achievement and emphasized to all project Drivers and Operators to comply the following safe drive practice in ADCO terrains. :-
Seatbelts Usage- All drivers and passengers are to be properly seated and wearing a correctly fitted and adjusted seatbelt for the duration of all journeys. This is a core value of the ADCO Road Safety Management System.

Mobile Phones- Use of Mobile telephone in hand-held by the driver of a motor vehicle is strictly prohibited while the vehicle is in motion.

Vehicle Selection- Vehicles with minimum HSE standards fit for purpose are always to be used on ADCO concessions.

Driver’s Selection- ADCO wishes to employ professional drivers as per criteria stated in ADCO land Transportation HSE manual.

At finally he distributed Safe Drivers & Operators award (month of June 2016) & milestone achievement compliments (T Shirt & Cap) to some of the project Drivers & Operators.

Mr. Tawfiq, CE-ADCO, congratulated to all Galfar crew for this milestone achievement and he emphasized to Galfar for their team work, compliance of clients as well as contractor’s law, standards and procedures in order to make the project a successful one. At finally he distributed milestone compliments (T Shirt & cap) to some of the project drivers and operators.

Mr. Sunil Narayanan, Project Road Safety Administrator, thanks for the achievement and reminded everybody to maintain the same spirit to achieve more milestones in future. ‘Journey & Vehicle Management’ presentation has been given by him. Explained about compliance of ADCO Life Protection Rules, ADCO as well as Galfar Road Safety statement and Safe Driving Practice in line with ADCO procedure & empowerment to stop any unsafe act and unsafe condition, safe drive practice.
Galfar Construction Manager and Sr. HSE Engineer CM commenced the function by welcoming all members of the project.

congratulated award winners and concluded the meeting by requesting all to continue the team work, comply with the law, standards and procedures in order to make the project a successful one. He reminded everybody that reporting all kinds of hazards/unsafe conditions and near misses is everybody’s responsibility and more over it is the main criteria for deciding safe man every month.

Safety Certificates /Cash Vouchers of Safety Awards Distributed for the month of July 2016 for Project -7074= EPC for Bab Produced Water Re Injection Project.
SAFETY ALERT: What kind of accident is about to happen?

A worker’s foot got caught on a rope that had been attached to the blade control lever, causing the blade to fall and crush his hand.

To attach a blade cylinder to a bulldozer by himself, a worker attached a rope to the lever used to raise and lower the blade. When collecting tools from the area around the raised blade, his foot got caught on the rope and the blade dropped, crushing his hand.

Corrective Actions

1) This kind of work should be performed together by two workers. Do not try to do this alone using a rope.

2) Keep all body parts clear of the area beneath the blade. If you must raise the blade, secure it using blocks or other objects.
Differences between correction, corrective action and preventive action

1. **Correction**
   - Put fire out (at the time)

2. **Corrective Action**
   - What caused fire and how to prevent recurrence (after event)

3. **Preventive Action**
   - Stop fire from happening (before event)