

SAFETY LEADER



ISSUE # 2

JULY - DECEMBER 2019

FROM THE DESK OF CEO

Dear Colleagues !!!

Warm Greetings to All !!!



In the year 2018, we outlined our commitment to building a robust operating platform capable of delivering consistent growth under any conditions. While we remain dedicated to this, based on the current market environment and the progress we have made so far, it is highly likely that we will have continue the outstanding performance this year too though the International market price of Phosphoric Acid has come down @ 44% during the year 2019 compared to last year.

A proactive approach is highly necessary to be competitive in the International market keeping the cost reduction methods always in minds in all working area and must be implemented within the time frame.

We should all be proud of that level of success and I thank you each one of your role in the achievement. Our work however is not done. We must continue our relentless pursuit of sustaining growth culture is the only acceptable objective.

Further, Safety as paramount objective of our work culture, we need fresh ideas and new approaches. The Rising Stars of Safety examine age-old problems through a new lens, seek out hidden hazards and come up with creative solutions. Today's young safety leaders aren't afraid to take risks or try a new approach to help keep their colleagues and communities safe. The goal of eliminating preventable deaths in our lifetime means we need their ideas and initiative now more than ever. They certainly deliver. Our Rising Stars not only help make safety visible at their respective companies, they help make safety visible for all of us.

"A great safety speech isn't about

telling staff to improve safety.

Instead, it's a unique opportunity to motivate

employees to work

together for a common good"

With Warm Regards

Abdel Wahab AlRowwad
CEO

FROM THE DESK OF GENERAL MANAGER



Dear Colleagues,

Greetings !!!

I take this opportunity once again to get in touch with you all through our Safety Magazine “Safety Leader”. Indeed it was my immense pleasure to greet all you; as I couldn’t meet each one of you personally.

Delighted to be part of IJC Team and excited to the future, though I had been with JPMC group previously and having 30 year’s industrial experience.

I wish to remind all of you, to work with our organizational culture and policy values such as Vision, Mission, Quality and Safety Policy & Corporate Social Responsibility, growth and sustainability etc.

I’m very much confident with all of your great support; we can reach new milestones while striving to the future of IJC.

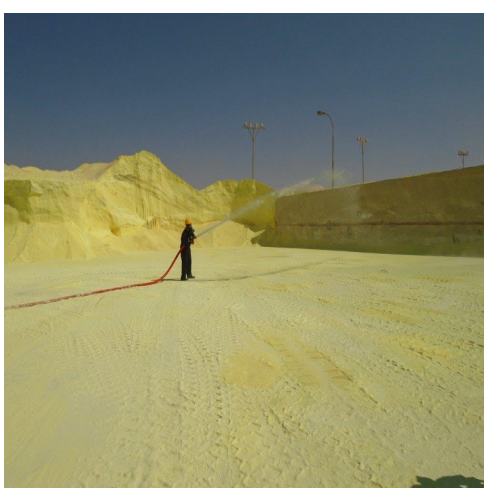
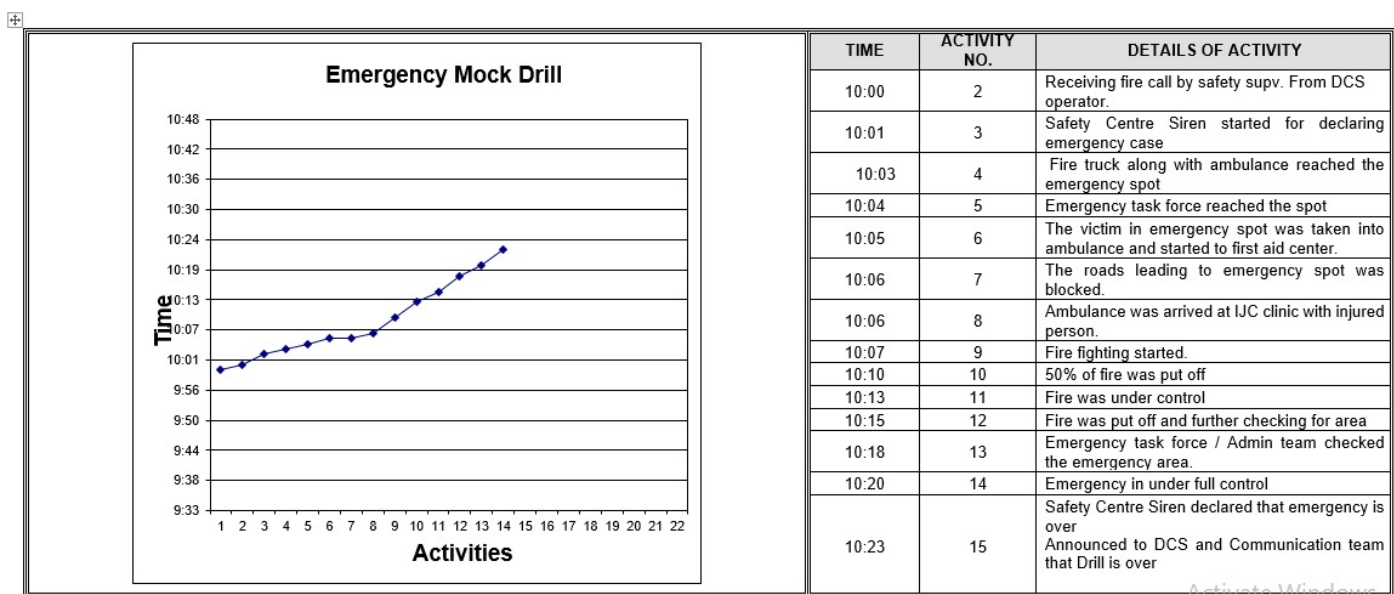
With Warm Regards

**Ali Ababneh
General Manager**

SAFETY

MOCK DRILL - An Emergency Preparedness Plan

To equip ourselves to meet any eventuality due to any emergency, an Emergency Preparedness Mock Drill was conducted on 25.07.2019 @ 10:00 Hrs on the basis that "FIRE AT THE WESTERN SIDE OF OLD SULPHUR STORAGE YARD (Sec.-11) HAS TAKEN PLACE WITH ONE INJURED PERSON IN OLD SS YARD NEARBY FIRE



TRAINING AND DEVELOPMENT

Eng. Osama Nayef, DM(E&I) was participated in Arab Fertilizer Association Conference on "Low Energy Concept in Fertilizer Industry" at Marrakesh representing M/s.IJC



Our IJC employees were provided with Safety Refresher and First Aid Training courses every year on continuous basis to enhance the knowledge and awareness of Safety.



Our IJC employees were provided with training on Operation and Maintenance of Vibration Analyzer by M/s.SKF



SAFETY FIRST
ZERO ACCIDENTS IS THE GOAL

SUGGESTION SCHEME

Good participation in the Suggestion Scheme from all the employees by offering valuable suggestions by channelizing their ideas with creative thinking with an aim to enhance productivity / profitability of our organization.

Following Employees were awarded with Appreciation Certificate along with JD5 for each suggestion contribution.

S.No	Name	Emp.No	Suggestion
1	Nipul Gudka	3316	Operators Log sheet and log book filling and sign by engineer in each shift by changing the record timing.
2	Nipul Gudka	3316	ASA dosing to filter RA tank.
3	Nipul Gudka	3316	PA cooling tower headers number of nozzles to be increased.
4	Nipul Gudka	3316	Reduce overall filter washing down time by doing some of the job while hot washing before stopping the filter
5	Abdullah Ahmad	3036	Waste Sorting and Recycling. (plastic, glass, paper,...)
6	Mohammad FrauJ	3303	Create manual for each department includes all jobs and description.
7	Mohammad FrauJ	3303	Line from raw water tank to PACT
8	Mohammad FrauJ	3303	RFC chute vibrator fixing
9	Mohammad FrauJ	3303	Supporting issue pumps D/C line with bridge together to minimize line vibration



EMPLOYEES PARTICIPATION

BASIC MACHINE SAFETY

- It's tough to imagine modern society without machines hard at work all around us. New and improved machinery leads to increased productivity, higher quality, and more affordable production. But misused machines can be as harmful as they are helpful. Machines that cut metal can cut off fingers. Machines that punch through steel can punch through flesh. Such injuries can cause career-ending disabilities as well as severe pain and suffering.

- Be alert to these areas when working around or operating machinery:

- The point of operation: That is where the work of the machine takes place. It's where the pressing, cutting, punching and boring takes place. It's a place where no part of the body should be. If any part of the body is in the way at the point of operation, the force of the machine can cause a serious injury. The point of operation may also produce sparks or fragments that can fly toward the operator. Safety glasses are important for this type of work.

- The power train: That is where energy is transferred through moving parts like gears, shafts, belts, cables, hydraulic or pneumatic cylinders. No body parts should be in these areas either. When working on this type of machinery, always follow the lockout/tagout procedures and replace all guards when repairs are complete. Employees should report any missing guards to their supervisor before operating this equipment.

- Workers must control machines carefully. In addition to avoiding the power train and point of operation, employees should always:

- Make sure machines are anchored securely to prevent "walking," tipping, excessive vibration or other movement that could be hazardous.



- Never reach blindly into areas that may contain energized parts.

- Be sure there is enough lighting to clearly see all points of operation.

- Keep conductive items -- watches, rings, steel wool, belt buckles -- away from exposed electrical parts.

- Never plug or unplug electrical equipment with wet hands.

- Follow all lockout/tagout procedures.

- Always wear the proper protective equipment for each job.

- Material handling equipment: Power lifts, forklift trucks, etc. are not considered to be production machinery, but their points of operation and power train can be just as hazardous. Employees must be properly trained in the operation of this type of equipment before they are allowed to use it.

Mechanical hazards may come from many different areas and have potential for serious injury.

Beware of the danger zones located within your operation and respect the power of machinery.

Shadi, Emp.No:3145
Engineer - Electrical

MANAGERS PARTICIPATION

PROCESS CONTROL THROUGH IOT – A new upcoming Technology

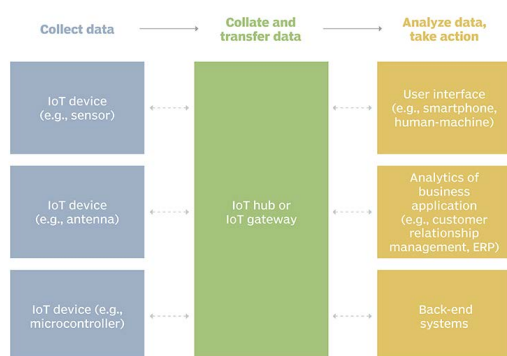
Over the years, the Process Control in all types of industries change its phase from manual control to automatic control in steps of various technological advancements. In 1960s, it was pneumatic system and slowly migrated to electronic in 1970s. However, after the advent of Microprocessor, DCS was developed; tested and implemented in industries with deterministic protocol with UNIX/DOS and proprietary operating system. After windows operating system came into picture, DCS vendors take some time to study since it is open system for the sake of safety of refinery industries. The initial hiccup was resolved and DCS with windows operating system was born and we are deriving the benefit of making the possibility of viewing the process parameter from top management desk. The development does not stop here and will certainly move to other world which might be the control through IOT.

What is IOT?

The Internet of Things (IoT) refers to a vast number of “things” namely sensors and final control elements that are connected to the internet with IOT applications, used to collect & share data and to act on it. IoT connected devices and machines can improve how we work and live. Real-world Internet of Things examples range from a smart home that automatically adjusts heating and lighting to a smart factory that monitors industrial machines to look for problems, then automatically adjusts to avoid failures.

Architecture of IOT:

Example of an IoT system



Applications of IoT:

IOT is meant and designed not only for industrial parameters and also for Logistics, Energy applications, Health care, Safety Engineering, automobile industries and security / traffic system at large. For the activity of manufacturing sectors, IoT connects all phases of the Industrial Internet of Things (IIoT) Process – from supply chain to delivery – for a cohesive view of production, process and product data. Advanced IoT sensors in factory machines or warehouse shelves, along with big data analytics and predictive modeling, can prevent defects and downtime, maximize equipment performance, cut warranty costs, boost production yield and enhance the customer experience.

How IoT took over SCADA / PLC:

PLCs with SCADA receives the data of process parameters from sensors, monitors, records, generating alarms and processing that data and sends it for required control and its function cases / limited up to this boundary.

However, the Industrial IoT (Internet of Things) made its existence beyond the above boundary in addition to the functions handled by SCADA. Its intelligent capabilities are highly adaptable to today's modern communication system and its industries.

The Industrial IoT is becoming as a technology which got implemented on top of SCADA. Parameters like scalability, Data Analytics came into existence with the introduction of this disruptive technology. IoT has brought a wave of new business to change the landscape of SCADA.

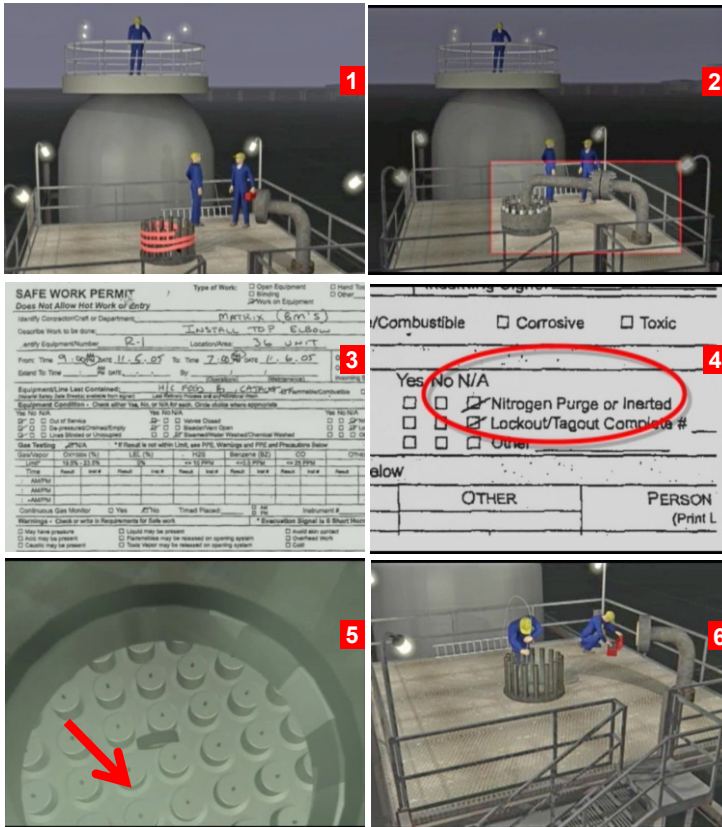
Advantages of IoT:

- Ability to access information from anywhere at any time on any device;
- Improved communication between connected electronic devices;
- Transferring data packets over a connected network saves time and money;
- Automating tasks helps improve the quality of a business' services and reduces the need for human intervention.

P. Gunasekaran, Emp. No:3246

Manager -E&I/MM

Work Permits – Understand the Scope of Work



Workers noticed that a roll of tape had been left inside the vessel (5) and decided to try to remove it before installing the pipe (6). They were unable to remove the tape using a long wire. At this point, a worker tried to get closer to remove the tape and was overcome by the oxygen depleted atmosphere near the opening and fell into the vessel. It is also possible that he may have climbed into the vessel to remove the tape, planning to quickly climb back out. The worker collapsed inside the vessel, and, to make the tragedy worse, a co-worker entered the vessel in a rescue attempt and also collapsed in the nearly pure nitrogen atmosphere. Both workers died from nitrogen asphyxiation.

This incident has been discussed in other *Beacons* – June 2012 about nitrogen hazards, and April 2015 on the importance of work permit procedures. But there is another lesson – the importance of recognizing a change in scope of work for any job which requires a work permit. The change might introduce additional hazards which require additional safeguards.

Did You Know?

- The work permit did not warn the maintenance crew about the nitrogen purge.
- As soon as the maintenance crew decided to remove the roll of tape by reaching into the vessel, the scope of the job changed. The original permit did not consider the need to remove anything from inside the vessel. A new permit should have been issued, considering potential confined space entry to remove the tape.
- In this case, a confined space entry permit was required, even for a person to reach into the vessel to remove the tape. When any part of the body of a person breaks the plane of an opening large enough to allow full entry, a confined space permit is required. This is the position of US OSHA and other authorities.
- A contractor maintenance crew was preparing to install a section of pipe at the top of a vessel in an oil refinery (1,2). A work permit (3) was issued for the job, with the expectation that no confined space entry was required. The scope of work was only to install the pipe section. The permit indicated that “Nitrogen Purge or Inerted” was N/A (Not Applicable) although the vessel was being purged with nitrogen (4).

What Can You Do?

- If you issue a work permit, be sure that:
 - Hazards are identified and explained to the people doing the work.
 - Required safety procedures are specified and understood.
 - Personal protective equipment is available and used.
 - The people doing the work clearly understand the scope of work, and the need to **stop work and contact you before they do anything not included the initial job scope**.
- If you are working on a job requiring a work permit:
 - Understand the hazards, safety procedures, and protective equipment.
 - Understand the job scope.
 - As you do the job, ensure for every step that you recognize any change in the scope of work. **Stop the job and consult the person who issued the permit before you do anything not included in the initial job scope!**
 - If you are not sure if the job scope has changed, stop and ask the person who issued the permit.

Recognize a change in scope of work for a permitted job!

ENVIRONMENTAL AWARENESS

AIRBORNE DUST POLLUTION

Airborne contaminants occur in the gaseous form (gases and vapors) or as aerosols. According to the International Standardization Organization (ISO 4225 - ISO,1994),

"Dust: small solid particles, conventionally taken as those particles below 75 μm in diameter, which settle out under their own weight but which may remain suspended for some time".

Effects on the Skin. In addition to the risk of absorption through the skin, many dusts may affect the skin directly, causing various types of dermatoses, which are a widespread and often serious problem, or even skin cancer.

- The water must not interfere critically with the process, and there must be no possibility of chemical reactions with water that might result in hazardous by-products.
- The dusty material should be "wetable".
- The extra humidity must not unduly aggravate heat stress.
- Wet floors (especially combined with poor housekeeping) can create an additional hazard of slips and falls from wet clay or other materials.
- Arrangements must be made for adequate disposal of the dust-laden water, which might otherwise eventually evaporate and release the dust.

SHOW YOUR COMMITMENT TO SAFETY:

**DO THE RIGHT
THING**

EVEN WHEN NO ONE IS WATCHING.

