BEST PRACTICE IN AFA MEMBERS COMPANIES
PART 1

Health & Safety Environment

These practices detail what the AFA members are doing to help blue and white collar workers to work well and safety; covering the top three strategic priorities in the field.
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With the rise in global management trends and increasing awareness levels, it is becoming essential to find a viable knowledge alternative and different visions. The aim of this booklet was to collect the best practices of the fertilizers leaders, presenting a weighted reference in H.S.E to AFA members, first target to accomplish is; to spread this valuable knowledge in order to serve the arab fertilizers producers and to improve the general awareness of the HSE. awareness of the HSE.

Acknowledgment

Thanks

Saad Abou Elmaaty
CHAIRMAN OF TECHNICAL COMMITTEE
What is the definition of HSE Best Practice?

It is a method or technique that has consistently shown results superior to those of other means and is used in the benchmark.

OR a program, activity, or strategy that has been shown to work effectively and produce successful outcomes & supported to some degree by subjective or objective data resources.

STAGES DIAGRAM

1. Start
   - Program, activity, or strategy that has been shown to work effectively and produce successful outcomes

2. Share
   - Best practices in HSE among all AFA members

3. Promote & Enhance
   - HSE performance within the AFA companies

To reach The Best Practice
The Best Activity(ies) adopted

GPIC has adopted numerous international standards and guidelines (like NFPA, ASME etc.) as best practice. Apart from Integrated Management System (IMS) certification in-compliance with PAS 99:2006, the company has adopted the Responsible Care (RC) 14001:2008 that made it the first company to achieve this certification in GCC. GPIC was recently certified by BSI for its compliance with all the requirements ISO 31000:2009-Risk Management-Principles and Guidelines.

The Added Value of the Best Practice

Procedure enhancement
The adoption of international standards and guidelines including the Management Standards, has continually improved procedures related to SH&E.

More Assurance of Risk Control
The adoption of international standards and guidelines including the Management Standards, has continually improved Risk Control And Management.
Communication, Leadership and Accountability

The adoption of international standards and guidelines including the Management Standards, has led to development of internal resources including the Internal auditors and has improved the team’s communication leadership and accountability.

Occupational Health Enhancement

The adoption of international standards and guidelines including the Management Standards, has continually improved Occupational Health and performance within the company.

Minimizing Environmental Impact

The adoption of international standards and guidelines including the Management Standards such as IMS and RC has continually improved the identification, evaluation, assessment and control of environment aspects and impacts.

Improved HSE Control on Contractors

The adoption of international standards and guidelines including the Management Standards, has continually improved the participation of workforce including contractors and their involvement in SHE Management System.

Economical and Social Impact

The adoption of international standards and guidelines including the Management Standards, such as IMS and RC, has continually improved the identification, evaluation, assessment and control of various social impacts.
The Best Activity(ies) adopted

GPIC has introduced a system of issuing an annual schedule of specific exercise/drill scenarios for each month. The scenarios are based on the major hazards in the plant and covers all areas including the office buildings. Accordingly each of three shifts in SHE Department has to conduct exercises on specific scenarios as in the schedule for that month. This is apart from the monthly drills that are conducted by the production section for each plant.

The Added Value of the Best Practice

Procedure enhancement

The schedule and clarity in specific scenarios for the drill will help in covering all areas including the office buildings and sets out a target for the achievement of KPI and mainly the purpose of Emergency Procedure.

More Assurance of Risk Control

The schedule covers all areas and major identified hazards in the plant. This ensures that the exercises are conducted every month cover all areas including the office buildings. The level of preparedness in case of any emergency will be improved and hence will ensure more assurance to risk control.

The Common Practice Known

Even though such practices exist in other industries, most of them will be have emergency drills as per the scheduled numbers with the scenarios decided mostly before the date of drills/exercises.
The Best Activity(ies) adopted

GPIC had adopted BBS as a part of its SHE Management system and has launched a comprehensive and inhouse routine BBS survey programme. BBS surveys are done by the SHE Department employees more or less on a daily basis for specific activities. BBS survey is a part of SHE Department KPI and covers employees and contractors. A total of 147144 BBS observations were made in the year 2012. The BBS observations, once done are recorded and are mostly rectified immediately at site by the observers. The observations are analysed the observers. The observations are analysed for percentage of safe and unsafe behaviours and are included in various reports. The behaviour improvement programmes are driven through training and awareness sessions.

The Added Value of the Best Practice

More Assurance of Risk Control

Helped to monitor and reduce the unsafe behaviour of workforce and improve the commitment towards safety. This has ultimately resulted in controlling unsafe acts and human errors and hence in risk control.
Helped to improve the communication between the observers and the workforce. The on-site observations, remedial actions and pep talks conducted as a part of BBS survey has developed safety leadership and the feel of accountability towards safety in workforce.

Occupational Health Enhancement

BBS Surveys helped to improve the safe behaviors and reduce number of accidents. BBS Survey also emphasize on the use of correct PPE in correct way. This has led to a steady enhancement in occupational health.

Improved HSE Control on Contractors

The commitment and accountability towards safety has increased with more number of BBS surveys and improved the interaction and improved control on contractors.

Economical and Social Impact

BBS has helped in improving the safe behaviour of workforce and hence in reduction of total incidents. Hence the economic burden caused by incidents could also be improved drastically with the BBS audits.
THE BEST PRACTICE IN
Confined space simulator as physical training method

The Common Practice Known
Confined space training using simulator is designed for personnel exercise who are responsible for safe working practices and who are required to identify confined spaces. The aim of this training is to provide the candidate with an awareness of the current legislation, safe work practice in confined space, hazards relating to confined spaces operations and handling emergency situations when working in confined space.

The Best Activity(ies) adopted

Physical training in confined space using simulator will be followed by theoretical class. The objective of the practical training using simulator is to offer a structured familiarization spectacle to practical job tasks in confined space and give the candidates the ability to apply their skills and knowledge in practice. Another aim is to combine theory with practice and give the candidates a realistic view on the demands and practices of the field.

Confined space simulator is designed as a pilot model similar to a chemical storage tank with capacity for 4 to 5 persons to work inside with man hole for entry and exit. Specific activity for each employee to be carried out in the confined space will be identified. NFPA label is there in the simulator for hazard communication. Communication system, lighting and emergency alarm system are provided which can be operated from outside panel. And also a facility to watch the confined space inside activity by video is available.
Practical training in confined space will be demonstrated by assuming a real work situation in confined space. The candidate who has completed 4 hours theoretical training in confined space safety will be given practical training in confined space by using the simulator. Each individual will have his own role play. From the training group, one person will be assigned as permit issuer, another as work permit acceptor and another as stand by man. Two or three persons will be assigned as workers. Work permit procedure will be followed for issuing and accepting the permit. While the persons are inside, one of the emergency scenarios will be demonstrated and the actions of people will be watched by using video monitor. The emergency scenario will be surprise and it will not be informed to them in prior. The trainer will explain their actions and correct if there is any deviations.

The Added Value of the Best Practice

Procedure enhancement
Confined space training procedure has been revised to give practical oriented training followed by theoretical class.

More Assurance of Risk Control
The candidates are trained in handling emergency situation in confined space, identification of risks in confined space and safe work practices in confined space. So the risk control mechanism is well assured because of this physical training.
Communication, Leadership and Accountability
Candidates are trained in communication system, leadership and accountability with respect to confined space activity. Based on the type of confined space, different mode of communication system such as radio, video or telephone system will be adopted. Emergency alarm system, reporting of emergency, rescue of people are also part the training. Responsibility and accountability of work permit issuer, work permit acceptor, gas tester, confined space entrants and manhole watch are well demonstrated in the training.

Minimizing Environmental Impact
Preparation of equipment including isolation of confined space is a part of Safe work practice. While preparing the equipment for maintenance, draining of chemicals, venting of gases will be done in a safe manner without affecting the environment. During the confined space training, all these aspect are discussed.

Economical and Social Impact
Employees get the practical experience in confined space safety and are familiarized with safe work practice to be followed during such kind of works
Confined space simulator as physical training method

**Occupational Health Enhancement**
The following areas are well explained during the training to enhance occupational health.

- Identification of Hazards in confined space such as oxygen deficiency, toxic gases and flammable gases
- Entrants are insisted to carry pocket size gas meter
- Importance of ventilation in confined
- Occupational health effects (acute and chronic)

**Economical and Social Impact**

- Symptoms to recognize the hazards in confined
- Use of Personal protective equipments
- Employees are trained with the hazards and requirements of ‘safe confined space entry
- Since different emergency scenarios such as gas leak, fire, lighting failure etc. are demonstrated in the training, employees can handle the similar or other situation if it arises during real work in the plant.
- Incidents related to confined space will be minimized
The Best Activity(ies) adopted
In every year, GPIC Executive Management issues a schedule for all Superintendents for cross functional SH&E Audits. The audits are conducted strictly as per the schedule and the observations are entered in the intranet database. These observations can be viewed by any employee and the concerned section close out the recommendations. The 100 % close out of cross functional SH&E periodic audits is one of the KPIs for all sections.

The Added Value of the Best Practice
More Assurance of Risk Control
Helps to develop commitment to SH&E among the managers, superintendents and the workforce. Gives more emphasis that safety is a part of line function and it is every bodies’ responsibility to ensure a safe work place. This enhancement of commitment towards safety through the cross functional audits helps to identify hazards through fresh eyes and eliminate the risks arising out of these hazards.
The Added Value of the Best Practice

Communication, Leadership and Accountability

Helps to enhance the interaction between the superintendents and the workforce. The involvement of superintendents in SHE audits send out the message of safety leadership to every employee. The cross functional audits are important to develop the accountability towards safety by the auditors as well as the audits.

Minimizing Environmental Impact

Cross functional audits also focus on identifying the environmental aspects and control measures.

Improved HSE Control on Contractors

Cross functional audits are field based audits and hence will also emphasize on evaluation of activities being performed by the contractors on safety front.

The observations made on contractors are also included in the reports and are addressed by the concerned sectional head.

Communication, Leadership and Accountability

Cross functional audits ensure more identification of hazards through fresh and different eyes. The more hazards identified and most of them being addressed will lead to the elimination of concerned risks and enhancement in Occupational Health & Safety.
The Common Practice Known

Unique innovative approach to improve and sustain EHSS performance by implementing Department EHSS KPI Procedure which was developed and implemented in line with recognized industry (SABIC), national and international metrics. EHSS KPI was developed and implemented for individual departments at SAFCO. The purpose of this procedure is to quantitatively measure the EHSS Performance of each department as per the approved EHSS Key Performance Index. EHSS KPI was developed based on EHSS criteria and its applicability for a particular department.

The Common Practice Known CONTINUE

The departments are grouped based on similar functions like operations, maintenance, supporting departments. The criteria points are provided in excel sheet format for simple and easy computing up the relevant data against each criteria. Each department reviews EHSS KPI in their monthly department EHSS Meeting and submits the same to safety section, for record keeping and to track performance. EHSS KPI target is set as one of the annual EHSS goals every year. The departments are audited once in six month to verify and confirm for compliance of department KPI with the supporting documents. This EHSS KPI serves dual purpose as to measure the individual department EHSS performance and helps in close monitoring for taking corrective actions to achieve the target. The best performed departments in their respective divisions / groups are recognized. To motivate and maintain healthy competitive environment among the employees.
The Common Practice Known  

The Common Practice Known CONTINUE  

department which obtains the highest score (more than 90%) in the final audit are recognized.

To motivate and maintain healthy competitive environment among the employees, department which obtains the highest score (more than 90%) in the final audit are recognized. SAFCO has achieved continual improvement in EHSS performance after implementing this procedure and serves as best tool to monitor and enhance EHSS performance.

mentioned divisions are audited once in six month to confirm the compliance, score achieved and to select the best performers.

The Best Activity(ies) adopted  

The departments are engaged to comply with EHSS KPI criteria requirements to meet the target set as one of the EHSS goals for company.

The Added Value of the Best Practice  

EHSS KPI procedure is one of the tools to enhance Organization, EHSS culture intended to improve organization performance.

More Assurance of Risk Control  

The criteria is covering risk control programs like PHA, Mechanical Integrity.

Communication, Leadership and Accountability  

After conducting KPI compliance and verification audit, the departments are recognized for achieving high score by Senior Management Team.

Occupational Health Enhancement  

The criteria’s are included Hearing conservation Program and Compliance to SHEM 12 procedures.

Minimizing Environmental Impact  

The criteria is covering potable water consumption, waste management and regeneration and compliance to other Environment procedure requirements.
The Best Activity(ies) adopted

To effectively manage and improve the turnaround EHSS activities and its performance during every phases of the turnaround, EHSS KPIs are developed to monitor, control, and to effectively achieve turnaround EHSS goals and previous performance. This is a unique KPIs developed based on specific turnaround plan and each phase preparation activities. It is helping to achieve the organization annual EHSS goals and turnaround EHSS goals with Safe execution and yield planned turnaround production. Dedicative audit team is charted to assess these KPIs and its documents during the verification audit which led by GM Maintenance. The outcomes of the verification audit is incorporated in turnaround EHSS Critiques to improve the subsequent turnaround EHSS performance and bridge the KPIs gaps.

The Added Value of the Best Practice

Procedure enhancement

Effective management of turnaround EHSS KPIs are incorporated in SHEM05 Third Party EHSS Management Turnaround Plan Procedure.
The Best Activity(ies) adopted

More Assurance of Risk Control
Each phase of the turnaround activities and hazards associated those activities are mitigated and helping to immediate corrective action.

Communication, Leadership and Accountability
All turnaround workforce is committed to implement the turnaround plan and achieve the turnaround EHSS KPIs for safe execution.

Occupational Health Enhancement
These KPIs are designed to control and minimize the health issues to avoid occupation injury incident.

Minimizing Environmental Impact
Environment compliance audit is one of KPI criteria to achieve the Zero environment incident during execution and start up the plan.

Improved HSE Control on Contractors
All third parties are linked with these KPIs to effectively manage contractor-involved activities since pre turnaround phase.

Economical and Social Impact
Economical and social impact is reduced in every turnaround by criteria’s, which are included in pre TA and during TA phase activities.
The Best Activity(ies) adopted

To encourage all department contribution towards improved manner, unique EHSS Awareness program Evaluation format is developed. This evaluation form is consist of many questions linked to points/score. Prior to start the any awareness program, hard and soft copies of EHSS Awareness Evaluation format is distributed to all participants to collect their feedback with score for each area/subject. This evaluation tool is helping to department sr. manager and awareness sub-committee to develop and conduct quality program which will improve the EHSS culture. The following best practices are adopted based on the EHSS Awareness evaluation tool.

This format is incorporated in SHEM00.07 Awards & Recognition Program procedure

As part of department EHSS KPI program, every department shall use this format for evaluating their programs and submit the documents to EHSS Awareness sub-committee for selection of Best EHSS Awareness program and one of the selection criteria of Best EHSS performer of the year.
The Best Activity(ies) adopted

Communication, Leadership and Accountability
Everyone is responsible to evaluate the awareness programs conducted by organization/department to exhibit their commitment to select good awareness programs in every year.

Occupational Health Enhancement
This format is help to identify and conduct quality of awareness program based on investigation report of occupational injury/illness to prevent reoccurrence of the incident.

These KPIs are designed to control and minimize the health issues to avoid occupation injury incident.

Minimizing Environmental Impact
The format is designed to focus on reducing the environment impact while conduct environment awareness programs based on previous year leak incident.

Improved HSE Control on Contractors
All third parties are encouraged to conduct quality awareness programs with respect to their core business activities in site.

Economical and Social Impact
To improve the off the job awareness programs quality and shows that our commitment in neighbouring community.
The Best Activity(ies) adopted

As part of SAFCO EHSS initiatives, it was recommended to form the dedicative team with different disciplines from various department for reviewing, analyzing and recommending long term preventive action based on common causes identified rather than root causes from all EHSS incident investigated, near miss and EHSS observation (unsafe condition and Unsafe act).

The comprehensive EHSS incident and Near miss Analysis review workshop is scheduled every year 1st week of February.

All EHSS incident including near miss and EHSS observation data is uploaded shared folder for team review and analysis. After completing root analysis, common causes identified and action plan to be generated by team for preventing re occurrence of similar incident in consecutive years in SAFCO/IBB. This recommended action plan is reviewed with EHSS top level committee members (having all Department Sr. Manager & Sub Committees) during EHSS Annual Day. After concurrence with target date and responsible person, action plan is distributed for implementation.
The Best Activity(ies) adopted
The following best practices are adopted based on the team analysis for measuring the effectiveness of this program.

☐ Team charted and led by GM Maintenance and incorporated in SHEM10 EHSS Incident Reporting, Classification, Investigation & Analysis Procedure.

☐ Action items are accounted in respective department EHSS KPI program under overall EHSS Recommendation Implementation Rate for monitoring and closing as per original target date.

☐ Overall analysis outcomes are shared in monthly department EHSS meeting with all workforce.

The Added Value of the Best Practice

Procedure enhancement
This team analysis requirement is incorporated in SHEM10 EHSS Incident Reporting, Classification, Investigation and Analysis Procedure.

More Assurance of Risk Control
Employees and contractors are well aware of job-associated hazards, recommended action for common causes, risks and importance of safe work practices while sharing lesson-learning points from team analysis.

Communication, Leadership and Accountability
The comprehensive team analysis is sharing in EHSS Annual day, Department monthly EHSS Meeting and Contractor Management Meeting to alert the severity of the incident and their responsibilities to comply the SHEMS procedure requirements.
The Common Practice Known

The concerned department manager/supervisor (area owner) decides the requirement of team or single person investigation for all EHSS incident based on his best judgement and experiences after occurrence of incident.

The Best Activity(ies) adopted

To improve the quality of incident investigation, all historical EHSS incident data and severity determination guidelines are reviewed to form factor statement. These factors are prepared in excel formulated sheet as a question form for selecting and identifying the team and single person investigation type for all EHSS incident by concerned department. This format is developed more stringent than standard procedure requirement. The following best practices are adopted based on the EHSS incident Investigation type selection guidelines.

- EHSS incident Investigation type selection guidelines format is incorporated in SHEM10 EHSS Incident Reporting, Classification, Investigation & Analysis Procedure.
- EHSS incident Investigation type selection guidelines format is incorporated in SHEM10 EHSS Incident Reporting, Classification, Investigation & Analysis Procedure.

The Added Value of the Best Practice

Procedure enhancement

This format is incorporated in SHEM10 SHEM10 EHSS Incident Reporting
The Best Activity(ies) adopted CONTINUE

Procedure enhancement
Classification, Investigation and Analysis Procedure.
More Assurance of Risk Control
Employees and contractors are award of job-associated hazards, recommendation action for risks and importance of safe work practices while sharing lesson-learning points as a proactive manner.
Communication, Leadership and Accountability
All type of EHSS incidents from internal and external are communicated to all level of worker remind their responsibility through email announcement, LCD screen monthly department EHSS Meeting, and weekly EHSS Tool box talk while executing the jobs.

The Added Value of the Best Practice

Occupational Health Enhancement
Occupation injury/illness incident lesson learning points are help to prevent work related incident for achieving one of the company EHSS Goals (Employees & Contractor Incidence Rate).

Minimizing Environmental Impact
Major environment incidents lesson-learning points are shared to minimize/avoid environment impact and highlight environment control measures against spill/release of hazardous and non hazardous chemical in line with SAFCO environment standard in case of similar incident occurred.
Saudi Arabian Fertilizers Company
KINGDOM OF SAUDI ARABIA

THE BEST PRACTICE IN
EHSS Incident Investigation Type - Selection Guidelines by Factors

The Best Activity(ies) adopted
Improved HSE Control on Contractors
All third parties are well known while sharing lesson learning points in contractor EHSS Monthly and weekly FSR meeting to follow safe work practices in case of similar incidents occurred.

Economical and Social Impact
Operation control measure and procedure requirements are underlined while sharing lesson learning points related to root cause of the incident to prevent economical losses and community impact.

CONTINUE
THE BEST PRACTICE IN
EHSS Incident Reminder Board at Job Site

The Best Activity(ies) adopted

“Here it happened” EHSS Incident reminder board is prepared based on the EHSS incident investigation report. This reminder boards are kept placed in SAFCO/IBB facilities where incident occurred. This board is having Incident description, caution message and lesson learning points to alert the employees and contractor about the incident zone and enhance their presence of mind while executing the job and effective supervision at site.

The Added Value of the Best Practice

Procedure enhancement
This initiatives are included in dept EHSS KPI under Best Practices implementation in SHEM00.06. Audit And Evaluation Procedure.

More Assurance of Risk Control
Employees and contractors are aware of incident zone area, job-associated hazards, and recommendation action.
The Added Value of the Best Practice

**Communication, Leadership and Accountability**
Area owner is responsibility to share incident occurred in their site with others to prevent similar incident.

**Occupational Health Enhancement**
Occupation injury/illness incident lesson learning points are help to prevent work related incident for achieving one of the company EHSS Goals (Employees & Contractor Incidence Rate).

**Minimizing Environmental Impact**
Major environment incidents lesson-learning points are shared to minimize/avoid environment impact and highlight environment control measures against spill/release of hazardous and non-hazardous chemical in line with SAFCO environment standard in case of similar incident occurred.

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**Improved HSE Control on Contractors**
All third parties are well known about incident, which occurred in SAFCO/IBB proactively work towards achieving Zero incidence rate.

**Economical and Social Impact**
Help to alert the workforce and carry out job safely to reach their home.
The Common Practice Known
A manual “audiogram evaluation and age correction” form was used in SHEM 12.04 (Hearing Conservation) to evaluate audiogram results if standard threshold shift has occurred or not.

The Best Activity(ies) adopted
SABIC IH adopted and made some improvements to the form, which was initially developed and copyrighted by SAFCO, distributed to all SABIC affiliates to enhance uniformity and reliability of audiogram evaluation results.

The Added Value of the Best Practice
Occupational Health Enhancement
Accurately and automatically compute the audiometric result and classify if it is STS.

Enhanced Audiogram Evaluation
An enhanced form “audiogram evaluation and age correction” used in SHEM 12.04 (Hearing Conservation) for evaluation of audiogram results to identify if a standard threshold shift has occurred was primarily developed and introduced by SAFCO First Aid Unit to SABIC IH. This kind modification of the traditional form to a new one will automatically return results once the needed data are entered and in turns will improve the reliability of audiogram evaluation results and the work efficiency to move better implementation of SHEM 12.04.
ENERGY CONSERVED IS LIFE PRESERVED
AFA ENERGY SAVING WORKING GROUP

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Petrochemical Industries Company
KUWAIT

THE BEST PRACTICE IN
HAZARD COMMUNICATION (HAZCOM)

Definition of this Exercise
We have developed an e-data base for material safety data sheets (MSDS) of all chemicals used in PIC as part of occupational health enhancement in HAZARD COMMUNICATION (HAZCOM) one of our OH programme. An internationally accepted 16 section MSDS format is being utilized.

Objective of this Exercise
This aims to ensure that the recommendations of audits, drills, incident, accidents, near miss are implemented appropriately on time.

The Common Practice Known
Generally, Material safety data sheets (MSDS) may be available as a printed hardcopies at the Site for the references of employees who are all working with it. But there are possibilities for missing, outdated information, damages and loss of MSDS from the site. Also Employee may face difficulties to get the MSDS file for reference on time.

The Best Activity(ies) adopted
These MSDS have provided by the manufacturers / suppliers and all the MSDS are having all essential data and information in 16 sections. All MSDS have been uploaded in PIC data management system (livelink) after the review & acceptance of Env & OH section under fertilizer sector which is accessible to all employees and contractors on 24x7 basis. Hence, they can refer any MSDS on anytime from Anywhere from PIC.
The Added Value of the Best Practice

Occupational Health Enhancement

This best practice has been adopted as part of implementation of effective Hazard Communication (HAZCOM) programme.
Heat Stress Monitoring

The New innovative SAFCO/IBB Weather Monitoring Station is providing accurate and reliable reading of WBGT and heat stress levels in accordance with SHEM 12.06 Heat Stress Monitoring.

The Best Activity(ies) adopted

SAFCO Weather Monitoring Station Monitors Heat Stress every minute. Heat Stress Category was automatically calculated and immediately announced through paging.

The Added Value of the Best Practice

Occupational Health Enhancement accurately the Heat stress level in a prompt and timely monitoring to avoid heat stress related injury.
The Common Practice Known

Generally, Risk control will be based on the Job risk assessment (JRA) & its register

Definition of this practice

PIC established a systematic procedure for assigning occupational health priorities for potential chemical hazards. It presents a two-phase approach. First, priorities are established for air sampling (Phase 1), and second, priorities are established for implementing corrective actions (Phase 2) for more assurance of Occupational risk control.

The Best Activity(ies) adopted

This aims to identify the types of chemical, physical and biological hazards that are, or are likely to be present at the site to Prioritise OH hazards based on risk assessments that estimate the extent of exposure.

In addition to that, we have developed an OH Risk register. This health priority OH risk register is derived based on the considerations of The nature of the hazard and route of entry into the body, acute or chronic health effects, numbers of persons engaged, Amount Used, Warning properties, Odor threshold, Amount of Exposure, Physical factors everything will be considered to develop OH risk register. Based on the rating, Exposure sampling will be prioritized.
The Best Activity(ies) adopted

The program is designed to continuously maintain the lighting level of the plant through illumination survey. Result of the illumination is sent to each department for either clean, repair or replacement based on the result of the survey. All recommended lights with below SABIC engineering standard are carefully monitored to ensure the correct recommendation is done. After the clean, repair or replacement, illumination re-survey will take place to ensure that the repaired lights is meeting the standard.
The Best Activity(ies) adopted

GPIC has a unique intranet application which is developed in house for reporting of incidents and updating their close out status. The objective of the programmes is to develop a culture which enables capturing, sharing and putting incidents and investigation recommendations into action to add value to business, by:

1. Effective capture and management of incidents and learn lessons from them to prevent recurrence.
2. Share the lessons learnt with people of interest.
3. Facilitate putting lessons learned into action by case study/accident investigation recommendations.
4. Update the status of the recommendations.

The Added Value of the Best Practice

Procedure enhancement

This intranet application has helped in more and easy reporting of incidents and effective follow ups for the close out of investigation recommendations.
Communication, Leadership and Accountability

The incident reporting system is viewable to any employee, where the person of interest can retrieve all historical datas about incidents and the current status of the recommendations. This improves the quality and effectiveness of communication with respect to learning points. The recommendations are logged against the concerned persons for action and close out. This enhances the accountability of the concerned personnel towards safety and prevent recurrence of similar incidents under his supervision.
The Best Activity(ies) adopted

GPIC sets out targets for the employees and Graduate Engineers to conduct regular sessions on Safety, Health and Environment to school children. This activity is undertaken to spread awareness on SH&E to one of the most important part of our society i.e. the school children. The sessions cover training on basic firefighting, road safety, environment protection and other relevant topics.

The Added Value of the Best Practice

More Assurance of Risk Control

Helps to inculcate and reinforce a positive safety culture among the school children and from them to their family. This ultimately leads to more awareness on hazard identification control measures and more assurance of risk control not only inside the company but in the society.

Economical and Social Impact

Increasing awareness on SH&E among school children will ultimately cascade the SH&E message to different levels of the society and lead to increase in societal awareness in safety and environment protection.
Our target year for achieving the sustainability targets is 2025 and we are measuring improvements against the 2010 base year. We agreed with SABIC on this time horizon for performance improvements in order to allow ourselves the time to focus our efforts on new technologies, major transformational changes, sustainability culture, and breakthrough opportunities that will have a significant material impact. Sustainability targets are also aligned and oiled well with our 2025 Strategy.

During this phase of deploying the Sustainability Management systems we observed the disconnect between the plant Manufacturing teams and the Sustainability team.

The Common Practice Known
Over the past few years, starting from 2010 onwards SAFCO has put in place the data collection and management systems for Sustainability, that have enabled us to establish targets for intensity reductions in our green House Gas (GHG) emissions, energy use, waste use, and material loss. At SAFCO, we regularly review the progress of each of our plants (SF-2, SF-3, SF-4, SF-5 & IBB) against these four Sustainability intensities. We also assess the company wide pipeline of potential sustainability impact reduction projects.
The Common Practice Known

The actions coined by Sustainability team are of high level and the terms are quite difficult to conceptualize by the shop floor employees and the Sustainability team is working in silos, we felt the need to break the silos and align the manufacturing team and give them the ownership on Sustainability.

To bridge the gap and bring sustainability actions to the shop floor level we cascaded the Sustainability Footprints (GHG, Energy, Water and Material Loss) in easy metrics in which the components/indicators used can be monitored by them on daily basis and they can take corrective action as well. Framing of these Sustainability Performance indicators acts as a game changer as each manufacturing teams are now aware of the issues that impact there Sustainability performance on daily basis.

We also derived targets for each of these indicators which further bring a competitive atmosphere among the plants. A simple perception of sustainability is conserving the natural resources that directly or indirectly impact our survival and the environmental, economic and social well-being of our company is now appreciated by each and every member of the manufacturing teams.

It is important to choose KPIs that relate to aspects of your company that you can control. KPIs should also be linked to the high level goals of the business which will affect Sustainability portfolio of the company. For SAFCO, we did a series of brainstorming sessions with concerned plant process engineer to bring clarification about the inputs for Sustainability calculations. Macro level overview of Sustainability Inputs should be used as a first level of reference in finalizing the KPIs for the plant.
The Best Activity(ies) adopted

Finding KPIs for your business

It is important to choose KPIs that relate to aspects of your company that you can control. KPIs should also be linked to the high level goals of the business which will affect Sustainability portfolio of the company. For SAFCO, we did a series of brainstorming sessions with concerned plant process engineer to bring clarification about the inputs for Sustainability calculations. Macro level overview of Sustainability Inputs should be used as a first level of reference in finalizing the KPIs for the plant.

The process of defining your Sustainability KPIs

Firstly, you can use KPIs to highlight potential problems and opportunities, secondly they can be used to set targets for departments and employees to focus and deliver goals or targets. The process for defining your KPIs begins with identifying the areas of your business that are successful, affect sustainability inputs, and then directly focusing on the measurements that are relevant and achievable. Obviously this will vary from organization and sector. Once you have identified your KPIs and there measurements you will need a way to collate and manage the collection and reporting of the data. The data collection process should be built into the work process, and there are several options available to you. The best approach is to collect the data from the Plant Information System (PIS), which will help to track the live data from the plant and then anyone can issue a daily Sustainability KPI report to the manufacturing teams highlighting the deviations from the target KPI values. Highlighting and tracking the deviations in the daily reports along with morning meetings will bring more
The Best Activity(ies) adopted

The process of defining your Sustainability KPIs

Focus and attention towards Sustainability. Snapshot of Daily Sustainability Report issued to Manufacturing teams.

The Added Value of the Best Practice

There are many loopholes surrounding the concept of sustainability. Even though sustainable development has a short history, the issues surrounding the topic have been addressed till date in a multidimensional aspect. The concept of Sustainability KPIs provides businesses with a tool for real time measurement of the key Sustainability indicators. These indicators are quantifiable metrics that reflect the sustainability performance of a business in the context of achieving its wider goals and objectives. KPIs help businesses to implement strategies by linking various levels of an organization (business unit, departments etc.) with clearly defined targets and benchmarks.

The impact of Sustainability matters on business performance is increasing and will continue to do so. For example poor management of energy, water or material loss can affect current performance; failure to plan for a future in which sustainability factors are likely to be significant may risk the long term value and future of a business.
The Best Activity(ies) adopted

GPIC has a unique intranet application which is known as ‘Knowledge Capture and Sharing’ portal that enables any employee to share any information including SH&E.

The objective of the programmes is to make GPIC a knowledge based company by developing a culture which enables capturing, sharing and putting knowledge into action to add value to business, by:

1. Effective capture and management of knowledge by knowledge capturing interviews with subject matter experts, presentations by external subject matter experts and effective Knowledge capture system.

2. Nourishes and promotes Information and Knowledge sharing culture by knowledge contribution to the system, volunteer staff knowledge sharing lectures and knowledge sharing publicity activities.


The Common Practice Known

There are few companies and systems where any employee is free to upload and share his knowledge and information on subjects including SH&E and spread the awareness on a specific subject to any person of interest within the company.
The user who would like to share his knowledge, will login in to this database and uploads his message. Once he enters the details and submits, the information goes to the Knowledge Management Team, who reviews the relevance of the information before circulating the message to all users.

Communication, Leadership and Accountability
The knowledge and sharing portal helps to communicate the latest and advanced information on specific subjects that also includes SH&E.

Occupational Health Enhancement
Availability and dissemination of information related to a specific subjects on SH&E helps in enhancement of awareness and Occupational Health.
The Best Activity(ies) adopted

The GPIC SHE Department provides the information and training to ensure that Operations personnel are able to cope with an emergency on site. This is achieved in the Modulised Emergency Response Training (M.E.R.T) program, by both theoretical and practical sessions.

The theoretical sessions covers emergency preparedness, emergency situation management and mitigation, and in addition general Health & Safety presentations are delivered as refresher based on evolving circumstances. The practical sessions shall depend on pre-planned scenarios used Generic Emergency Procedure, using standard fire suppression techniques or hazardous materials (HAZMAT) protection techniques and equipment.

The Added Value of the Best Practice

More Assurance of Risk Control

MERT programme aims in training GPIC Operational personnel in both theoretical and practical response to an emergency.
More Assurance of Risk Control

in the complex. It also provides refresher training and enhance the practical skills required in case of emergency. This leads to more assurance of risk control in case of any emergency.

Occupational Health Enhancement

MERT imparts attendees with the confidence and make them familiar with various emergency situations and related emergency mitigation equipments. It ensures that attendees receive training in Health & Safety to keep themselves safe in their normal day to day routine.
The Best Activity(ies) adopted

GPIC encourages the report and investigation of any incident occurring to an employee off the job hours. The President of GPIC has issued a memo encouraging the employees to report the incidents off the job and a Standard Operating Procedure is issued for employees regarding the importance and way by which the off job incidents can be logged, reported and investigated.

The Added Value of the Best Practice

More Assurance of Risk Control

Encouraging employees to report the incidents happening outside complex during off job hours helps to inculcate and reinforce a positive safety culture not only during official hours but also in personal life. This ultimately lead to more awareness on hazard identification, control measures and more assurance of risk control.

Communication, Leadership and Accountability

The above mentioned initiative will ensure better communication regarding incidents happening outside work hours where
The Added Value of the Best Practice

Communication, Leadership and Accountability

The employee himself takes the lead to identify a hazard or report an incident. It also develops a sense of accountability among employees for the safety of self and his family even outside the company.

Occupational Health Enhancement

Encouraging employees to report the incidents happening outside complex during off job hours helps to inculcate and reinforce a positive safety culture not only during official life but also in personal life. This ultimately leads to more awareness on hazard identification, control measures and more enhancement in occupational health.
The Best Activity(ies) adopted

GPIC has a strong foundation of participation of workforce and LU in important decision making with respect to SH&E. Apart from the representations in SHE Council, Safety Committee, Health Committee, Environment Committee and Social Activity committee, the LU is empowered to select and finalise the personal protective equipments (PPEs) as per specifications. LU finalizes the PPEs from the samples by conducting survey among the workforce which may also include in site usage of samples for a specific period of time.

The Added Value of the Best Practice

More Assurance of Risk Control
The participation of LU in important decision making in SH&E ensure the participation and involvement of workforce. They also feel as an integral part of SH&E Management system and hence will show more commitment to SH&E.

Communication, Leadership and Accountability
The participation of LU will ensure that the SH&E information is communicated to the workforce. The sense of belongingness of LU and the workforce in day to day SH&E management system will develop leadership and accountability among the workforce.
The Common Practice Known

Only types of work permits were used for all activities which carried out in all plant sites; these types are:

- HOT/COLD WORK PERMIT
- VESSEL ENTRY PERMITS
- PERMIT FOR VEHICLE ENTRY TO PLANT
- VESSEL CLOSING PERMIT
- EXCAVATION PERMIT

The Common Practice Known continued

The hot/cold work permit was used for more work types and the securing measures were insufficient to cover the risk of some activities, for example, the job of radiographic tests on welding points. This activity requires some measures like:

- Identification of the power of isotope
- Identification of safety distance
- Identification of precautionary measures
- Information to other sites and plants
- Procedure for inspection team
- Information to be covered by production personnel
- Ensures that all lifting hand tools arranged in a proper way and clean.
- Ensures that all lifting hand tools are in good working condition.
The old permit has no enough space to cover such previous data in addition to there was no data about the environmental issues. Consequently, the old system of work permit much more manpower for finishing the documentation issue.

**Best Activities Adopted**

- New system for work permits HSE and planning sectors developed a new system for work permit. We changed the old types of permits by new detailed types, we also develop some additional types for specific work activities like:
  - Scaffoldings permit
  - Radiographic test permit
  - Dividing and separation of Hot/cold permit into two separate types.
  - The new system of work permits is connected to the enterprise asset management system Oracle R12 via work request and order system.
  - The new version of work permits cover much more precautionary measures, saving time for job carrying out. Also saving much more manual documentation because the most of the entire procedures are computerized.
Definition of this Exercise
PIC established a specification and standards for all Personal Protective equipment (PPEs) to be used in PIC including contract for effective monitoring & control.

Objective of this Exercise
This aims to integrate the Contractors PPE systems with PIC specification and requirements.

The Best Activity(ies) adopted
By means of this programme, all the contract companies must follow the PIC PPE specifications to procure their PPEs which ensure that their employees are provided with appropriate, adequate and essential standard PPEs.

All contracting companies must submit the samples of all (applicable) PPE on non-returnable basis (1 set) to Env & OH Section for evaluation; approval and such samples shall be preserved by Env & OH sections for future verification after evaluation. The usage of unapproved PPEs by the contract personnel is strictly prohibited and will be viewed as serious safety violations.

The Common Practice Known
In Many Occasions, It has been noticed frequently that the quality and appearance of Personal Protective Equipment (PPE) duly used by the contractor personnel (Majority) are not acceptable which is not fulfill any PPE specifications & standards which results the unavailability of standard PPE’s to the contract employees.
Definition of this practice

PIC has started implementing the Recommendations tracking and follow up system to track and follow up Accident, Drill, Internal & External Audit, Recommendations appropriately and effectively.

Objective of this Exercise

This aims to ensure that the recommendations of audits, drills, incident, accidents, near miss are implemented appropriately on time.

The Best Activity(ies) adopted

through e-mail and reminders, weekly staff meeting, monthly CHSEC meeting to all concern section.

The Recommendations tracking and follow System helps to implement the recommendation on time.

The recommendation system is a manually designed format it comprise Description of recommendation, Responsibility, Due date and status. If any recommendation issues that will be manually enter in to the format and it will be communicated e-mail and reminders, weekly staff meeting, monthly CHSEC meeting to all concern section. The Recommendations tracking and follow System helps to implement the recommendation on time.

The Common Practice Known

There was no clear mechanism / system in practice to track / follow up the implementation of recommendations duly issued after an audit, drills, incident, accidents and near misses promptly.
Arab Potash Company
JORDAN

THE BEST PRACTICE IN
Safety Control: Safe Slings & lifting Tools in Doing Maintenance in Workplaces

The Common Practice Known
Slings & lifting tools mostly considered as part of maintenance works only and focus on as the responsibility of the one who use during their work.

The Best Activity(ies) adopted
Upon hazard identification and risk assessment by QES directorate; VP / Operations Formed a Committee from all concerned departments that meet quarterly to manage the best practice of safety Slings & lifting tools by discussing the members reviews, recommendations to get support for corrective and improvement actions.

☐ Perform internal quarterly inspection for all lifting hand tools stored at all sections & submit findings to VP / Operations.

☐ Check the section slings & lifting hand tools check-lists are filled in a proper way.

☐ Ensures all lifting hand tools have their tags, clear and observable.

☐ Ensures that all lifting hand tools arranged in a proper way and clean.

☐ Ensures that all lifting hand tools are in good working condition.
The Best Activity(ies) adopted

- Ensure supervisors to focus on selecting the right tool depending on the nature of the work (actual load to match with selected capacity of lever hoist)

- Adopt new inventory stock items for all rigging materials and equipment to ensure purchasing upon standard specification for these equipment.

- New purchased and received lifting tools are inspected by committee members, before handing over to the requester.

- Execute annual external inspection for slings; lifting tools by third party certified inspector and document inspections.

The Added Value of the Best Practice

**Procedure enhancement**

- Establishing a special committee Helps in more efficient retrieval of information regarding the slings & lifting hand tools.

- Scheduled internal inspections improve the accountability and enhance the continual improvement on safety.

- External inspection by certified external body assures that all internal activities are satisfied with the international standard and their external recommendation.

**More Assurance of Risk Control**

The system enhances the information availability and helps in creating more awareness of unsafe use of slings & lifting hand tools that ensures more assurance of risk control.

**Communication, Leadership and Accountability**

The scheduled meetings under direct supervision of Top management with all concerned members who deal with lifting tools to discuss their concerns and obtain support improve communication with their subordinates in all areas and increase the accountability for their safety in getting quick improvements.
Communication, Leadership and Accountability

Hold comprehensive on job training program for safe operation, use and maintenance of lifting appliances.

Occupational Health Enhancement

First line supervisors’ accountability is the core of best practice success and the Internal Inspection helped to improve the safe behaviors and reduce number of incidents to use safe slings & lifting hand tools in the proper way that has led to a steady enhancement in occupational health, Cross functional audits by QES ensure more identification of hazards through fresh eyes. The more hazards identified and actions take on time lead to the elimination of concerned risks and enhancement in Occupational Health & Safety.

Improved HSE Control on Contractors

APC best practice was also extended to cover all our service providers as part of APC ethical perspective to ensure their commitment and accountability towards using safe slings & lifting hand tools by increasing the number of QES inspections and audits and improving the collaboration with them as daily contacts and performing first induction before entering to APC facilities.

Economical and Social Impact

This best practice has helped in improving the safe behavior of workforce to reduce the total incidents and equipment damages due to loads fall. By continual inspections and using high standard lifting tools; future cost reduction will be more that also reduce the annual social insurance in side APC facilities.
REMEMBER
SAFETY FIRST

- SAFETY
- ELECTRIC HAZARD
- WARNING
- TOXIC HAZARD
- NOTICE
- FIRE DOOR
  DO NOT BLOCK
- DANGER
- FLAMMABLE
  MATERIALS
Petrochemical Industries Company

KUWAIT

THE BEST PRACTICE IN
Socio Responsibilities

Definition of this Exercise
We have organized HSE events such as Environment Day, Safety day, Contractors safety day within KPC and its subsidiaries, contractors and communities.

Objective of this Exercise
This aims to demonstrate our achievements, practices and to share the knowledge with “K” companies, resident contractors and Community to encourage them in HSE activities.

The Best Activity(ies) adopted
This event ended with Seaside Cleanup Campaign in cooperation with community.

We strongly believe that the Effective changes are possible if it is initiated in childhood and thus we have encouraged the active participation of students in such Awareness programme.

The Common Practice Known
Generally, an awareness message banners, Brochure may be displayed / distributed to the communities as part of developing awareness without any participation of community / public.
Definition of this Exercise

We have initiated steps to conduct HSE Online Awareness trainings through company intranet and e-mail systems to manage the effective communication, HSE leadership and its accountability.

Objective of this Exercise

This aims to educate / refresh the knowledge of individuals for better understanding on all Health, Safety and Environment.

The Best Activity(ies) adopted

To overcome from this issue, we have developed and established an online HSE awareness programmes through PIC intranet (AL Mallah) which is communicated to every individuals through mass mail (IBM – LOTUS). Every employee has to open, study and understand the training programme and must answer for the questions duly asked at the end of the programme.

The Common Practice Known

HSE Competency among the employees are being raised / updated through HSE passport trainings which is scheduled once in a three years for all employees and contractors. The refresher trainings will be scheduled after three years only; hence, there is a possibility for the lack of awareness and knowledge on HSE.
The Best Activity(ies) adopted

This remainder communication will done for a duration of 07 days on daily basis. The score obtained from this awareness is integrated with Annual performance appraisal of the individual. These presentations are scheduled once in a quarter on bilingual (English & Arabic).

By implementing this, we have ensured active participation and attendance tracking of individual, Time saving, Flexible time frame, Evaluation of understanding and knowledge.

The Added Value of the Best Practice
Communication, Leadership and Accountability

This best practice has been adopted as part of implementation of Effective HSE training & Awareness.
THE BEST PRACTICE IN
Waste Management

Definition of this Exercise
we have initiated steps to collect, segregate and recycle the recyclable wastes in PIC such as paper, plastics and metals to minimize the Environmental impacts by recycling them.

Objective of this Exercise
This aims to Ensures PIC’s social responsibilities, Environmental protection by means of Reducing the Conservation of natural resources and valuable landfill capacity by recycling these wastes.

The Common Practice Known
Generally, a common waste bins are provided for the occupants in the facilities to collect the wastes then and there. All employees will dispose the waste duly generated by them are disposed in the common bins which is difficult to segregate the recyclable wastes for recycling.

The Best Activity(ies) adopted
A set of colour coded waste bin were provided to the occupants of all buildings as well as in the plant areas and the employees were trained and encouraged to dispose the recyclable wastes in relevant waste bins. Such segregated recyclable wastes are being sent to the recycling companies to reproduce them into new useful products.

This best practice has been adopted as part of implementation of Solid waste management programme.
GPIC has gone further ahead by employing British Safety Council (BSC) for auditing the SHE management system with respect to the existing best practices being followed in the world by different companies. The Five Star Audit as it is called is not only for achieving Five Stars but to benchmark itself among the world leaders and enhance the SHE Management system. BSC evaluate the existing system in GPIC and recommends for complying with best practice.

**The Added Value of the Best Practice**

**Procedure enhancement**
Evaluation of existing SHE Management system with world best practices enable GPIC to continually improve its system and enhance procedures.

**More Assurance of Risk Control**
Evaluation of existing SHE Management system with world best practices enable GPIC to ensure more assurance of Risk Control.
The Common Practice Known

Contractors Selection Procedures applied is adhered to API 2220 – (Appendix G – contractor safety check list) as a guide for evaluating the effectiveness of contractor safety performance.

HSE assessment depend on contractors’ questionnaire which contain (HSE policy, staff, training, KPIs)

Contractors should submit complete medical check for their workforce before starting the contractual activities, which are subject to review. (if the contract was on annually-base complete annually medical re-check should be executed every year after contract renewal).

Objective of this Exercise

Contractors should submit HSE LOG for all workforce which were reviewed through company proper channel – finally the contractor work force selected are accepted upon the a/m check.

The Best Activity(ies) adopted

In addition to above procedures applied for contractors selection the existing workforce contractors shall subject to the following procedures for improvement and to reduce risk associated with such activities.

Where, there is a plane for critical high risk activity (specially during shut down), the following should be applied as an additional measure control

In addition to above procedures applied for contractors selection the existing workforce contractors shall subject to the following procedures for improvement and to reduce risk associated with such activities. Where, there is a plane for critical high risk activity (specially during shut down), the following should be applied as an additional measure control
The Best Activity(ies) adopted Continue
Not only J.H.A shall be executed for critical high risk activities but it is followed by TRA" Task Risk assessment"

As an output to such assessment, the selection of contractors workforce for such critical activities shall subject to especial medical examination. (as drug test, ECG, Spirometry, Audiometry, etc.) & finally medical recommendation are issued to assure that the workplace selected are able to execute that activities without facing any problem.

One of the following is the doctor opinion for final recommendation

- Requires further medical assessment before a recommendation can be given.

- Able, without restriction, to undertake Duties, wear breathing apparatus, work in confined spaces and undertake emergency response duties.

- Able to undertake Duties, wear breathing apparatus, work in confined spaces and undertake emergency response duties, subject to restrictions listed below

1. ........................................
2. ........................................

The Added Value of the Best Practice
Procedure enhancement
The adding procedures for especial medical check a/m. for selected contractor manpower –to execute high risk activities such as entry inert confined space with full breathing system as OSHA approved- enhance the choice of contractors manpower.
Encourage members to ideally utilize available natural resources, optimally achieve added value, effectively contribute in economic, social & agricultural development, & efficiently promote safe and secure production, storage & transportation of agricultural nutrients, to enhance food security and combat hunger.

This material is a valuable summary of experts' efforts, through heavy assessments and results evaluation, beside a close monitoring to the graph of improvements. A material that fully made of hard work, dedication, and finally members cooperation.

Part 2 will include a well-selected practices to cover the entire area of HSE beside the present in the fertilizers industry, the next booklet will be provided with a weighted material and smart illustrations.