

# C&MD HSE AWARD 2008

11<sup>th</sup> year  
6 May 2008



A Subsidiary of Kuwait Petroleum Corporation

Adopting Sustainable Behavior Leads to Good HSE Culture





## Speech of the Sponsor Chairman & Managing Director Mr. Sami F. Al-Rushaid 6th May, 2008

### Dear Guests,

It is my great pleasure to welcome you here to our annual gathering to celebrate the distribution of the C&MD HSE Award. This gathering has become a regular part of company tradition, and it rightly reflects the top priority we give to the health of our employees, safety of our operations and integrity of our environment.

Since it was launched in 1997, this Award is witnessing an increase in participation every year. The wide and rich variety of entries indicates the success of our continuous awareness campaigns, and represents a genuine manifestation of how the culture of HSE is deeply rooted in our employees' daily activities.

### Honorable guests,

Our true success does not lie only in increasing our production, but also in achieving the noble goal of limiting the negative impact on our health, safety and environment. Such a goal cannot be achieved unless we change our behaviour in everything we do, whether at work or at home. So let us set a target: "Every thing we do must be personally risk-free and have no impact on the surrounding environment." Each one of us, KOC employees and our partners - the contractors, has a role in fulfilling this target.

What is reassuring is the participation of employees' children and their creativity. They exhibit their awareness in the importance of preserving our environment. This is the true path we should all walk; to start with ourselves and to be the role-model for our children in maintaining the best human behaviour.

### Ladies & gentlemen,

During the past twelve months, KOC has attained many achievements in health, safety and environment, such as the inauguration of the "Kuwait Oasis" in Burgan, which was built from scrapped materials, and also the "skimming of oil from evaporation pits" project. For this reason, I would like to mention some of these achievements:



## C&MD HSE AWARD 2008

### Major KOC HSE achievements for 2007

- Decreased gas-flaring in South/East Kuwait to less than 1 % (tolerable levels 1.25%) by installing smokeless flares in GC-4 and GC-21.
- Completed gas conversion from GC-16 to GC-28 and then to Shuaiba refinery to reduce gas flaring.
- Capability of treatment of H<sub>2</sub>S is up to 3.5% compared to 1% of last year in the Raudatain field North Kuwait.
- Two effluent water injection plants at Burgan and Magwa with 500,000 barrels of water per day capacity were commissioned. Effluent water is disposed in an environmentally-friendly manner and a major source of contamination has been eliminated.
- The company is proud to record millions of safe working hours for major contractors without accidents as KOC continues to place employee safety first.
- 58 internal audits concerning HSE issues plus audit recommendations for implementation and follow-up were completed.
- “HSE Live” was awarded by Petroleum Economist as one of the best 5 HSE projects
- No MVAs by KOC employees within KOC WK area during the year 07-08.
- The leaks and spills in WK have been reduced considerably from 260 bbls for 06 -07 to 80 bbls in 07-08 surpassing the target of 250 bbls for 07-08.
- KOC earned the appreciation of the Emirates Diving Association for their contribution in Clean Up Arabia 2007.

### Dear guests,

Today's ceremony is a source of pride for KOC, and your attendance illustrates your commitment in supporting and implementing the HSE rules and regulations.

In conclusion, I would like to express my appreciation to the C&MD HSE Award Committee Members and to everyone involved in preparing for the events.

Congratulations to the winners and good luck to all in next year's competition.



## Speech of the Committee Chairman Manager Health, Safety & Environment Group Mr. Mohammad Al-Fodari 6th May, 2008

### Dear Guests,

Mr. Chairman, distinguished guests, my fellow KOC personnel, welcome to the 11th consecutive year of this award ceremony.

Over the past 8 months, the Committee conducted around 28 meetings, resulting in the selection of winners from various categories of the competition. Reviewed the past accomplishments, and discussed action plan for all the activities and tasks.

We have received over 283 nos. of competition submittals falling into the 3 main categories; KOC employees, Contractors and Employee's youth & children.

This year's awards recognized the distinguished efforts in the implementation of the HSE Management System with focus on improving HSE behavior in the areas of:

- Integrity Management
- Risk Assessment (HSE)
- Health & Environment (Performance Compliance Improvement)
- Contractor HSE Performance
- HSE Exemplary Behavior (Best Driver, banning smoking, office practices, etc.,)

We observed that the new category "HSE Exemplary Behavior" introduced this year, has induced more employees in participating in the competition, thus assisting us achieve our goal of reaching more competition applicants.

### Honorable Guests,

Over the years, we have learned from experiences and your valuable feedback, therefore I request that you implement the company HSE management system for improvement of HSE performance through your valuable feedback.

Finally, I wish to you all safe and healthy working environments.

**Thank you**



## C&MD HSE AWARD 2008

### Members of C&MD HSE Award Committee 2008



**Mr. Mohammad Al-Fodari**  
Manager  
(Health, Safety & Environment)



**Capt. Khalifa Al-Duaij**  
Advisor to DMD  
(West Kuwait)



**Mr. Abdul Khaleq Al-Ali**  
Manager  
(Public Relations & Information)



**Mr. Shaker Faras**  
Manager Operations  
(South Kuwait)



**Mr. Mustafa Megdad**  
Manager  
(Ahmadi Services)



**Mr. Sulaiman Al-Somali**  
Manager  
(Security & Fire)



**Mr. Abdulla Al-Sumaiti**  
Manager Operations  
(West Kuwait)



**Mr. Dhari H. Gharabally**  
Team Leader  
(Health and Environment)



**Mr. Nasser Al-Habab**  
Group Planning Coordinator  
(Technical Services)



## SUPREME WINNERS

### Condensate Separation Facility Near GC-02 on 24" WK Gas Export Line



**Saeed Al-Shaheen, Ali H. Al Kandari, Shabbir Safari, Venkata Suryanarayana Murty, Narendra Kumar**

One of major concerns in West Kuwait is high sour gas flaring. It has been found from past history that upsets at AGRP is a big contributor to this concern. This condensate separator on 24" WK gas export line to MAA-AGRP will remove the condensate formed along the export gas line. This will enhance the MAA-AGRP operations and hence reduce WK flaring with positive impact on environment. HAZOP was conducted for this project and the unit is equipped with all desired instrumentation & control including H<sub>2</sub>S detection & ESD logics. This project has been completed on a fast track basis and commissioned within 19 weeks. Average gas production in WK is 180-190 MMSCFD. As per the records, average flaring in WK was 59.3 MMSCFD before this modification. By this project we've been able to reduce the flaring from 59.3 to 42.3 MMSCFD i.e. by 17 MMSCFD which is equivalent to 9% reduction in flaring. In long term, it will boost the confidence and reliability of AGRP operations and will help WK achieve and sustain the flaring targets.

## C&MD HSE AWARD 2008



### WINNERS

Health & Environment

### Minimization of Gas Flaring at GC-04



**Abdullah Hadi Al-Ajmi, Ghanim Al-Jerrayed, Ahmad AK Al-Adwani, Anil kumar Koothoor, Mohammed Meteb Al-Mutairi**

Start-up air compressor for CRU at GC-04 was taking more than one hour to develop enough air pressure to start CRU. Due to this delay in CRU start-up, an amount of 0.3542 MMSCFD Tank vapor was being flared and 116 barrels of condensate was being lost per hour. Further due to aging and lack of spares, the time spent on maintaining this compressor is also very high with associated operational & environmental hazards.

To keep our environment clean, an unused compressor was upgraded by incorporating all the protection logics with in-house resources. Jobs were carried out as per International & KOC standards.



**WINNERS**  
Health & Environment

**Indoor Air Quality Survey for all  
SEK Directorate Offices and Facilities**



**Varghese George Villoth, Issam H. Al-Kahlout, Saeed S. Jawhar, Zaid Kanaan Al-Sarraf, Zainab Hussain Mohd**

The application of IAQ was to insure a healthy office environment where 90% of employees working hours are either inside a facility or indoor the offices.

Therefore, a scientific and a professional approach was considered to identify the deficiencies of the air quality and working environment of S&EK Directorate employees and suggest the professional remediation actions to resolve the deficiencies identified and recommendations to be considered.





**WINNERS**  
Health & Environment

**Spill-Over Between GC-4 HP & LP Gas Lines**



**Basel Salem, Liaquat Ali Abdul Latif, Misfer Al Otaibi, Ibrahim Abdul Salam, Mohd. Fahad Al Otaibi**

The concept to install spill over between HP & LP export gas lines was initiated pro-actively to avoid gas production loss during planned shutdown of downstream HP gas pipeline. Necessary engineering works, HAZOP study and MOC carried out as per company's standard requirement for modifications in liaison with HSE (SEK) and I&C (SEK) Teams. Material procurement, resource management, installation, testing and commissioning of the Spill-over carried out in-house without disturbing gas production from GC-4.

Instant Achievements include;

1. Gas saving of around 22.0 MMSCFD (KD 42400.000)
2. Maintained gas flaring from SEK <0.1%, which otherwise would have increased to 3.9%, hence meeting company objective of zero flaring.



## WINNERS Health & Environment

### Gas Capturing by Crude Transfer from GC-28 to GC-16



**Ali Qassem, Siddhartha Ray, Louis Thiagaraj, Ali Al-Mansouri, Ahmed Ghuloom**

The production of GC-16 was limited to 50000 BOPD due to non availability of one train of HP separators which has been kept isolated due to HIC issues. There is a spare crude separation and gas compression capacity available in GC-28. This modification has utilized the spare capacity of GC-28 in order to increase the production of WK field by 20000 BOPD while the gas flaring has been reduced by 8%.

The process is intended to divert high GOR dry wells of Minagish field to GC-28 spare LCO separator train. The crude is then transferred back to GC-16 through a crude transfer pump utilizing some of the unused flow lines. The gases separated in LCO Separators are being processed with the existing LP & HP gas system of GC-28.

This modification has increased GC-16 production by 20000 BOPD to 70000 BOPD while the flaring has been reduced by 15 MMSFCD by capturing the gas in GC-28.

## C&MD HSE AWARD 2008



### WINNERS

#### HSE Exemplary Behavior

### Upgrading and Enhancement of Dangerous Spots at Various Locations in KOC Field Areas



**Hamad Mohamad Al-Ajmi, Hashim Abdul Nabi Al-Sayed, Sulaiman Abdulla Al-Sairafie, Abdul Aziz Ayed Al-Otaibi, Ahmad Ishaq Khandari**

Identified the Dangerous Spots in different Roads Network and recommended the installation of proper devices (for e.g. Solar flashing Lights, Speed Limit Signs, New Traffic Sign boards, New Road Marking, New Speed breakers and Reflective Studs etc.) to improve the Safety and Enhancement of KOC Roads Network at various Locations in Field's Areas.



## WINNERS

### HSE Exemplary Behavior

#### Speed Monitors Installed in Vehicles Assigned to CAEs



**R. Chandran, Mohd. Nasser, Abdul Rahman Al-Ajmi, Hulayil Al-Harbi**

The innovative idea of installing Speed Monitors in Company hired vehicles was first introduced by Transport Operations Team, by installing them on 33 Nos Suburban fleet used for Mass Transport on a trial basis in 2004. This was done without incurring any cost to the Company. After seeing the remarkable improvement in driver performance, Leadership Committee issued directives to install these units in vehicles assigned to CAEs in the previous vehicle supply contract (i.e. 2006 beginning). Results were presented to the Leadership Committee in January 2008, showing significant improvement in driver behavior and vehicle performance.

## C&MD HSE AWARD 2008



### WINNERS

#### Integrity Management

#### Manifold T-Burgan-1 Modification Work



**Rajiv Kukreja, Mahdi AL-Qazweeni, Mousa AL-yousefi, Ali Jawhar, Hamed AL-Mutairi**

Manifold BG-1 suffered from inherent deficiencies arising from connected corroded redundant transit lines, inadequate supports, old redundant valves of unknown integrity, lack of facility to tackle any accidental leaks, etc. The critical junction in the Company's crude oil dispatch network was therefore rendered susceptible to mal-operation and mishap due to such shortcomings.

The Team undertook to revamp the manifold through internal resources, following Company procedures for MOC, providing layout/ supports/ markings of operational pipelines as per engineering standards, access platforms, oil spill recovery arrangement, resulting in a significant enhancement in safety of operations and personnel.



**WINNERS**  
Integrity Management

**Gas and Condensate Flare Handling in NK Asset**



**Sudarsanam Selvarangan, Abdullah Al-Omar, Obaid ur Rahman, Muslah B. Al- Otaibi, Abdul Jalil Abdulla Nasser**

Gas flaring at NK Fields was reduced from 8% to 3%.

Various problems were experienced after commissioning BS-131, which culminated to excessive flaring of the product streams (Gas & Condensate).

Concentrated efforts were made to investigate the root cause of the issues related to shut downs & gas / condensate flaring. Remedial actions were taken to minimize the shut-downs and increase the availability of these products for further transmission, and use. Moreover, this exercise further benefited as outlined hereunder:

- As a result of Lift Gas commissioning, the Oil Production has Increased by 28500 BOPD from five manifolds and work is in progress to commission the remaining manifolds.
- The commissioning of lift gas plant has increased revenue by KD 548,625 per day, which is equivalent to 200.248 MMKD per year.
- Improved safety & integrity of the system.

## C&MD HSE AWARD 2008



### WINNERS

#### Integrity Management

### Chloride Stress Corrosion Cracking of SS Piping in BS 150: Detection & Root Cause Analysis



**G.Santhosh Kumar, G.Unnikrishnan, Mohammed Anwar Irshad, John William D'sa, Jayakanth Raju**

Timely information from the alert Operations & Maintenance staff to Inspection personnel and their prompt response avoided a potential major gas leak from 42" Stainless steel gas line in Booster Station 150 and its associated consequences. Specialized inspection techniques were utilized to detect fine cracks which are otherwise difficult to pinpoint. Systematic Root cause analysis of the pipe failure was conducted by the team members. The team identified the root cause for the failure as presence of chlorides in the liquids entrained in the gas streams to Booster Station. Recommendations to avoid similar situations were provided by the team and are at various stages of implementation.



**WINNERS**  
Integrity Management

**Quality Accreditation of Fire & Gas  
System Maintenance**



**Maju N A, Mohammad Abdul Majeed, Ismail Al-Saffar, Adnan Al-Haider, Godfrey Saldanha**

This is the first time that the company's fire and gas system maintenance is being audited and certified by an accreditation agency to ensure that the maintenance being carried out is in line with per vendor procedures and international standards.

The certification by third party (Bureau Veritas) is a continuing effort by the company

- To achieve its objective of making our facilities safe and reliable.
- It is an important document for insurance evaluation and meets the insurance requirement that the system is fully operational and maintained.
- Enhances company's image & its commitment to safety of the personnel as well as the facility



## C&MD HSE AWARD 2008



### WINNERS Risk Assessment

### Risk Assessment for Surplus and Scrap Material Yard



**Khaled M. Al-Kandari, Jassem M. Al-Fares, Faisal A. Al-Khudari, Aisha A. Al-Sulaili, Hayfaa M. Rashed**

Commercial Affairs Group conducted a study of Risk Assessment for Surplus and Scrap Material Yard to identify and assess risk associated with this site for the purpose of protecting the people at risk, materials and KOC's assets. The study has identified (6) hazards related to the operation area, proposed control measures to reduce the risks of such hazards and ensured closing out such measures by obtaining closed out certificates for such measures. Proposed measures included incorporation of safety provisions in tender documents, providing HSE books in different languages for awareness purposes, inclusion of provision in contract on Ministerial order for working hours during summer, providing proper drainage system and rectifying collapsed lands, damping excessive amount of damaged concrete into permissible damping area and Segregation of scrap materials according to material and isolate wooden materials.



# WINNERS

Children



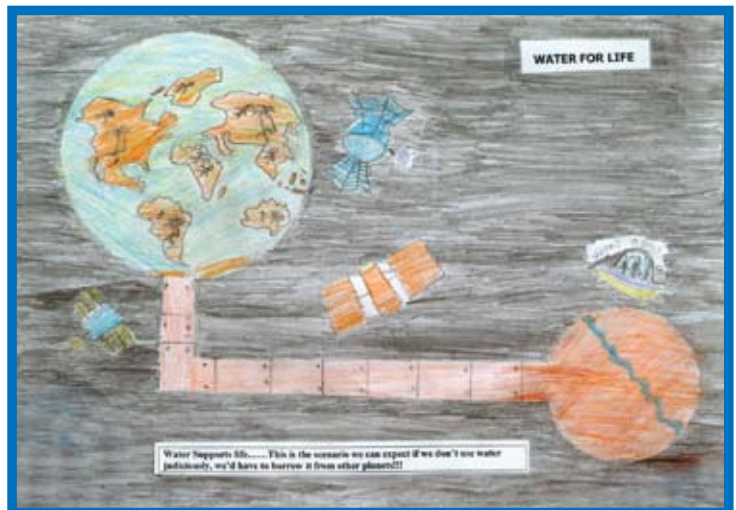
**Mohammad Abdullah**  
11 Years



**Astrid Ana Gomes**  
8 Years



**Kevin Antony**  
11 Years

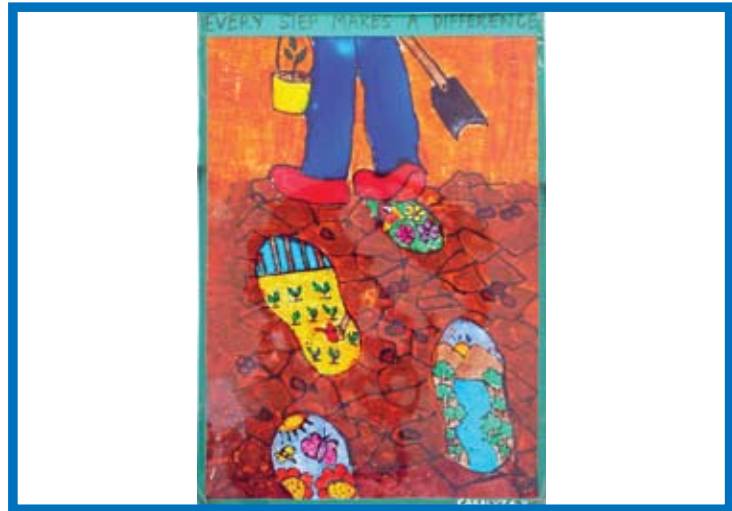




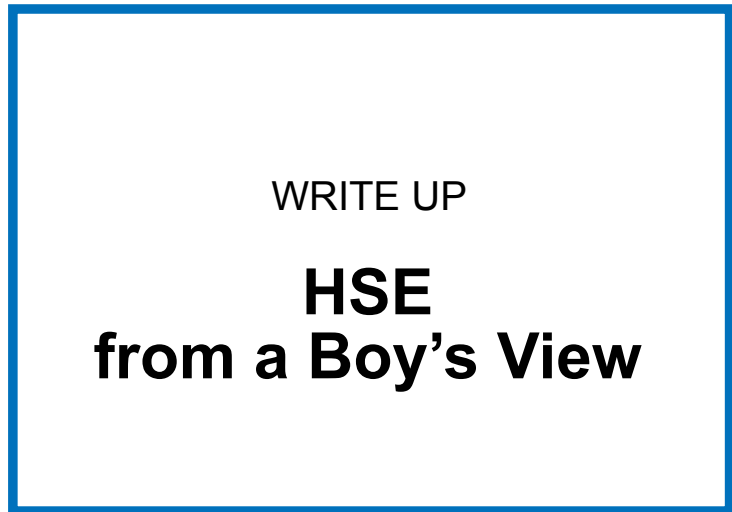
**WINNERS**  
Youth



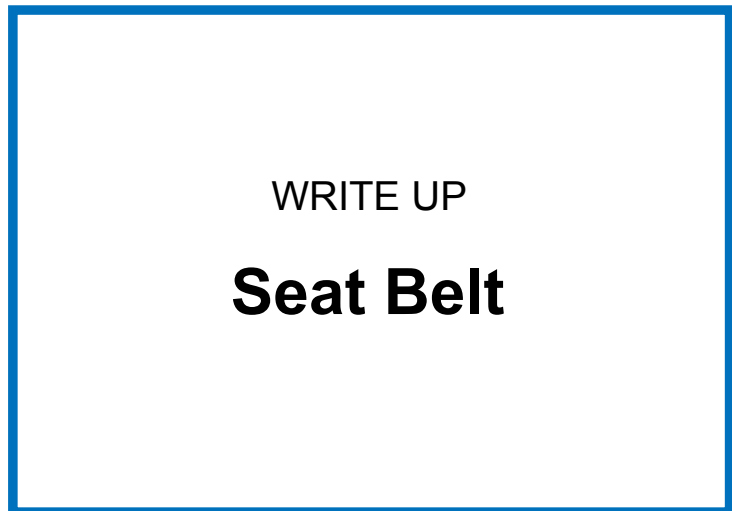
**Caralyza Edwin**  
13 Years



**C.R. Aravind**  
13 Years



**Faraz Ahmad Siddiqi**  
18 Years



# C&MD HSE AWARD 2008



## Contractors

GROUP	CONTRACTOR	TITLE OF PROJECT
Production Development Support	BJ Services Company	Coiled Tubing and Associated Services
Production Development Support	Halliburton Overseas Ltd.	Provision of Powerline Logging Perforation Services, Coil Tubing and Associated Services
Drilling Operations	Weatherford Kuwait for Petroleum Services	HSE Achievements while providing Services for Drilling and Work Over Operations

## Best Drivers

WINNER	KOC NO.	Designation
Shehab Abdullah	61563	TL Risk Management (SD)
Jumaa Malek	61101	TL Job Evaluation
Suwaileh Mohammad Al-Mutairi	61713	TL Budget Control
Fahad Abdul Kareem Al-Qattan	62451	TPL Specialist (HSE)
George Thottan	43591	Controller (Cost & Admin)
Wael Mohammed Al-Adsani	60553	Supervisor Gas



## C&MD HSE AWARD 2008

# STATISTICS

	08	07	06	05	04	03	02	01	00	99	98
<b>KOC EMPLOYEES</b>											
■ The total number of application received	154	102	103	142	78	124	83	95	77	92	85
■ The total number of wining applications	12	13	11	11	10	9	11	10	10	13	16
■ The number of winning groups	11	17	14	13	15	10	9	11	8	7	6
<b>CONTRACTORS</b>											
■ Number of nominations	13	11	19	15	6	17	8	7	10	7	3
■ Number of groups which submitted nominations	5	3	10	9	5	7	5	4	5	3	2
<b>YOUTH &amp; CHILDREN</b>											
■ The Total number of the youth entries	30	21	63	42	26	14	19	30	15	16	11
■ The Total number of the children entries	86	68	101	87	26	25	24	30	24	21	39
<b>WINNING GROUPS</b>											
<b>Group</b>	<b>No. of employees</b>										
Operatiopns (South Kuwait)	12										
Operatiopns (North Kuwait)	9										
Operatiopns (West Kuwait)	7										
Industrial Services	7										
Gas Management	6										
HSE (SEK)	5										
Ahmadi Services	5										
Commercial Affairs	5										
Production Development Support	1										
Export & Marine	1										
Engineering	1										