The Kuwaiti Digest

April - June 2011

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Letter from the Editor

Khaled Madhi Al-Khamees
Deputy Managing Director
Administration and Finance

The highlight of the last quarter was, without a doubt, the momentous occasion of Kuwait's 50th Anniversary of Independence, the 20th Anniversary of Liberation, and the 5th Anniversary of the ascension of H.H the Amir, Sheikh Sabah Al-Ahmad Al-Jaber Al-Sabah, to power. Indeed, celebrations commenced at the beginning of the quarter and will continue well into the next.

The Kuwait Oil Company (KOC) was an integral part of the celebrations and, along with the Town of Ahmadi Governorate, provided impressive lights and entertainment activities to employees and residents alike. On the actual national and liberation days, February 25th and 26th respectively, KOC opened up its Spring Camp to employees and their families in two fun-filled days, including various competitions and corresponding prizes.

Our sister company, the Kuwait National Petroleum Company (KNPC), also celebrated 50 years and the Gulf Cooperation Council (GCC) of which Kuwait is a member, celebrated 30 years. So, one could say that 2011 is a year of celebrations.

The Company itself also had much to rejoice in the last quarter of the fiscal year 2010-2011. With oil prices going once again over US$100/ barrel, the bottom line for KOC is cause for celebration. We can also commend the performance of our employees, who continue to implement new and innovative projects in the best interest of the Company. One such project, the use of Microsoft's Windows 7, was chosen by Microsoft as a case study and as an example of best practice. Corporate social responsibility was also celebrated with the opening of the Kuwait Centre for Autism, with KOC as one of the major financial donators.

Looking back on the past three months, we can all be proud - as individual employees, as members of the KOC family, and as citizens and residents of the great State of Kuwait.

50, 20, 5
Kuwait Celebrates Independence, Liberation, and The Amir

Background

The year 2011 is particularly important for the State of Kuwait as the country celebrates 50 years of independence, 20 years of liberation, and 5 years of the Amir, Sheikh Sabah Al-Ahmad Al-Jaber Al-Sabah, as Head of State. It is also a time for reflection, for remembering the past, and for being thankful for all that the present offers. Indeed, Kuwait has been very fortunate not only in terms of the wealth that oil has brought in the past several decades, but also for the support that it has received from its neighbors and allies.

A group of young Kuwaitis celebrating the National Day

History of Kuwait to Independence

Kuwait was first inhabited thousands of years ago when Greeks settled on Failaka Island and left their mark behind. However, it is thought that these people were only travellers and that the country was only permanently inhabited in the 17th century, when the Bani Utbah people migrated to the region. A letter in the British archives from Sheikh Mubarak Al-Sabah to the British Political Resident in Kuwait states, "Kuwait is the land of the poor in which our grandfather Al-Sabah dwelled in 1613".

The following century was a period of growth as trade and commerce with India and Mesopotamia grew, and the ship and pearl industry expanded. It was perhaps the establishment of a fort in the area by Barrak Bin Ghuraif, the Emir of the Bani Khalid, in 1672, which gave rise to the name Kuwait, as the word fort in Arabic is kut.

In the 18th century, after being driven out of the Al-Aflaj area of central Arabia by drought, the Utub people settled in Kuwait. For the rest of the century and well into the next, Kuwait was a peaceful area. However, in the 19th century as Kuwait prospered, political interest in the region meant that its independence was threatened by both regional (Ottomans) and European (German) powers. Referred to as Mubarak the Great, Sheikh Mubarak (1896 – 1915) ruled Kuwait with a strong, but fair hand, with the result that the Kuwaiti population grew as immigrants settled in the safe area. In 1897, Sheikh Mubaraka employed gunboat diplomacy by asking the British to deploy their gunboats along the Kuwaiti coast, thereby sending a clear message to the Ottomans, who claimed Kuwait for their territories. The result was the Ottoman Empire backing down rather than risking war with Britain. It also resulted in the signing of a protectorate agreement between Kuwait and Britain in 1899, whereby in exchange for protection, Kuwait agreed to never cede any territory or receive agents/representatives of any other foreign power without the prior consent of the British government. This in effect gave Britain complete control over Kuwait's foreign policy

Timeline of the History of Kuwait

3rd century BCE: Greeks colonize Failaka Island
1613: Kuwait is permanently inhabited
1710 CE: The City of Kuwait is established
1756: The Sabah dynasty is established with a sheikh as the leader, under Ottoman rule, but with de facto independence
1899: Kuwait signs a protectorate agreement with the British in the face of Ottoman and German threats
1914: Britain recognizes the independence of Kuwait
1921: Peace between Kuwait and the Wahhabis is restored
1922: Neutral zone established between Kuwait and Arabia
1923: Borders between Iraq and Kuwait are drawn on the map
1938: Petroleum is discovered in Burgan
1946: First oil shipment
1951: The Kuwaiti sheikhs gets control of half of the oil revenues and infrastructure development begins
1961 June 19: Kuwait gains full independence from Britain and the Emir becomes the leader
— Kuwait joins the Arab League, but Iraq objects strongly and claims Kuwait as its own territory
— **December:** An assembly is set down to draft a constitution
1963 January: The constitution is proclaimed. According to this, the Emir has the executive power, organized with a group of ministers
— **January 23:** A national assembly is elected
— **October:** Iraq gives up its claim to Kuwait
1966: Saudi Arabia and Kuwait agree upon borders. The two countries also agree upon cooperation in exploitation of oil reserves in the border area
1975: The Kuwaiti governments take full control over the oil industry in Kuwait
1977: Sheikh Jaber Al-Ahmad Al-Sabah becomes new Emir
1981 February: A new assembly is elected
— Iran bombs Kuwaiti oil installations as a revenge to Kuwaiti aid to Iraq in their warfare against Iran
1985: Expulsions of foreign workers, mainly Shias, after political and violent actions from Shia groups. Most serious was an attempt on the Emir's life.
1987: Military help is sent from the USA and the Soviet Union to protect Kuwait from Iranian attacks.
1990 June 10: Elections for a new assembly. This is boycotted by the opposition that considers it inferior to what the constitution calls for.
— **August 2:** Iraqi invasion
— **August 8:** Kuwait is annexed by Iraq. Few countries around the world recognize this. The Arab League condemns it, as well as the UN
1991 January 16: After months of warnings, a coalition of 28 countries attack Iraqi-occupied Kuwait
— **February 26:** Kuwait is liberated but has suffered much damage
— **March 14:** The Emir returns and martial law is imposed until June 26th
— Kuwait and USA sign a 10-year security pact
1993 January: Iraq is forced by US military attacks to recognize the new borders
2006 June 29: Women partake, for the first time, in parliamentary elections. 28 out of 249 candidates are women, none wins a seat.
2009 May 17: Four women win seats in the Parliamentary elections
Source: LookLex Encyclopaedia.mbt

and national security.

However, the situation with Kuwait and the Ottoman Empire was not made clear until a convention in 1913, The Anglo-Ottoman Convention, where the British agreed with the Ottoman Empire that Kuwait was an "autonomous caza" of the Ottoman Empire and that the Sheikhs were not independent leaders, but rather provincial sub-governors. In addition, the convention stipulated that Sheikh Mubarak had control of an area of 80km in radius from the capital. This convention was not long-lived, however, for just a few years later the Ottoman Empire had been defeated in WWI and Kuwait was declared and independent sheikhdom, but still under British protection. The ruler at the time, Sheikh Salem Al-Sabah, stated that his control extended 140km from the capital in all directions. This claim was not supported by Abdul Aziz ibn Abdul Rahman ibn Saud, the leader of the Nejd area, who argued that the convention had never been ratified and that Kuwait was not in control of any land beyond the walls of the capital. The result was that ibn Saud's Wahhabi Bedouins attacked a Kuwaiti detachment in the south of the disputed territory in May of 1920 and the town of Jahra in October of the same year. The British stood by their Protectorate Agreement and successfully deployed land and air vehicles to drive the Bedouins back. Raids continued and it was not until 1922, with the Uqair Protocol imposed by the British High Commissioner

The Rulers of the Al-Sabah Dynasty

1. **Sheikh Sabah I Bin Jaber:** 1756-1762
2. **Sheikh Abdullah I:** 1762-1812
3. **Sheikh Jaber I:** 1812-1859
4. **Sheikh Sabah II:** 1859-1866
5. **Sheikh Abdullah II:** 1866-1892
6. **Sheikh Mohammad I:** 1892-1896
7. **Sheikh Mubarak Al-Sabah:** 1896-1915
8. **Sheikh Jaber II:** 1915-1917
9. **Sheikh Salem Al-Mubarak:** 1917-1921
10. **Sheikh Ahmad Al-Jaber Al-Sabah:** 1921-1950
11. **Sheikh Abdullah Al-Salem Al-Sabah:** 1950-1965
12. **Sheikh Sabah Al-Salem Al-Sabah:** 1965-1977
13. **Sheikh Jaber Al-Ahmad Al-Jaber Al-Sabah:** 1978-2006
14. **Sheikh Sabah Al-Ahmad Al-Jaber Al-Sabah:** 2006-present

In the name of God, the Merciful, the Compassionate, My dear People, my Brethren, my Sons.

On this proudest of the days of our beloved country, on this day on which we move from one stage to another in our history, and at the dawn of which we turn over a page of the past, with all that it carries and included, in order to open a new page represented by this agreement which you are now reading and according to which Kuwait has obtained full independence and complete sovereignty.

On this day while joy fills our hearts and bright smiles cover our faces, we humbly raise our eyes to God Almighty to praise and thank him for the success which he has given us, and the grace which he has bestowed. The fine example of close co-operation between the Government, represented by those responsible amongst the sons of the Ruling Family, and the loyal people, is such as to spread joy and satisfaction in my soul, and makes me hope for a continuation of such co-operation to the benefit of the country and its lasting progress and prosperity.

I do not omit here to refer to the good spirit which characterized the discussions, or to put on record the open heartedness, the fine understanding and the sincere desire to reach an understanding, which marked the British side. All this made the attainment of the desired end an easy and simple thing. Certain and guaranteed from the beginning.

Finally we hope, as we stand at the gate of a new era, that Kuwait will begin her take off by strengthening friendly and fraternal ties with her sisterly Arab States to work in collaboration and co-operation with them for the good of the Arabs and for the achievement of the aims of the Arab nation. Similarly the new situation demands from us that we work to join the Arab League, the United Nations and other organisations which work for the good of the world and its security and peace in any way possible.

May God grant us success.

An address to the nation by the late Amir Sheikh Abdullah Al-Salem Al-Sabah

Exchange of notes regarding relations between the United Kingdom of Great Britain and Northern Ireland and the State of Kuwait. From Her Majesty's Political Resident in the Persian Gulf to His Highness the Ruler of Kuwait

Kuwait, The 19th of June, 1961.

Your Highness,

I have the honour to refer to the discussions which have recently taken place between Your Highness and my predecessor on behalf of Her Majesty's Government in the United Kingdom about the desirability of adapting the relations of the United Kingdom of Great Britain and Northern Ireland and the State of Kuwait to take account of the fact that Your Highness' Government has the sole responsibility for the conduct of Kuwait's internal and external affairs.

The following conclusions were reached in the course of these discussions:

(a) The Agreement of the 23rd of January, 1899, shall be terminated as being inconsistent with the sovereignty and independence of Kuwait.

(b) The relations between the two countries shall continue to be governed by a spirit of close friendship.

(c) When appropriate the two Governments shall consult together on matters which concern them both.

(d) Nothing in these conclusions shall affect the readiness of Her Majesty's Government to assist the Government of Kuwait if the latter request such assistance.

If the foregoing correctly represents the conclusions reached between Your Highness and Sir George Middleton I have the honour to suggest, on the instructions of Her Majesty's Principal Secretary of State for Foreign Affairs, that the present Note together with Your Highness' reply to that effect shall be regarded as constituting an Agreement between the United Kingdom and Kuwait in this matter which shall continue in force until either party gives the other at least three years' notice of their intention to terminate it, and that the Agreement of the 23rd of January, 1899, shall be regarded as terminated on this day's date.

I have the honour to be,

With the highest consideration,

Your Highness' obedient servant,

W.H. LUCE

(Her Majesty's Political Resident).

in Baghdad, Sir Percy Cox, that the boundaries between Iraq and Nejd and between Kuwait and Nejd were drawn.

The 1920s and 1930s were not kind to Kuwait as the main source of income, the pearl industry, suffered as a flood of cultured Japanese pearls entered the market and drove the prices down. The result was that Kuwait became one of the poorest nations. But fortune would smile on Kuwait once again with the discovery of oil. In 1934, the Emir granted an oil concession to a joint venture between the Anglo-Persian Oil Company and Gulf Oil. Known as the Kuwait Oil Company (KOC), it took only 4 years of exploration to find oil and commercial quantities were found in the Burgan Field in 1938. WWII delayed the development of the industry for a few years, but the first oil shipment in 1946 was just the start of the boom in the oil industry and the corresponding explosion in wealth, infrastructure, and population. Today, oil revenues account for almost 95% of exports and 90% of total government revenues.

50 years of independence

Sheikh Abdullah Al-Salem Signing Independence Agreement

On the 19th of June, 1961, the protectorate agreement of 1899 was terminated by mutual consent and Kuwait became a sovereign state. Britain had long recognized Kuwait's maturity and had even referred to Kuwait as a nation in the 1950s. However, Iraq refused to recognize Kuwait as an independent country, asserting claim to the territory from the Ottoman times. The refusal went so far as Baghdad threatening to invade, but this was quelled with the presence of British troops and the support for Kuwait from the Arab League (Kuwait had joined the Arab League just a few weeks after independence). During the next two decades, the Kuwaiti economy continued to grow, but the border issues were never completely resolved. However, Kuwait did support Iraq in its war against Iran (1980–1988) by providing goods and loans of an estimated US$40-60 billion. This resulted in some of the Shi'a minority within the State of Kuwait waging a war of terrorism against the Kuwaiti Government through bombings, assassination attempts, hijackings, and sabotage. The end of the Iraq-Iran war meant peace until 1990, when Saddam Hussein accused Kuwait of illegally drilling oil in the shared Rumailia field, driving oil prices down, and demanding unfair repayment of the wartime loan. Despite international attempts at mediation, Iraqi forces invaded Kuwait on August 2nd, 1990.

At the time of independence, the newly appointed Emir, Sheikh Abdullah Al-Salem (see inset) had already ruled the country since 1950 and was instrumental in

the development of the country. Upon his death in 1965, the date on which he had assumed power, February 25th, replaced June 19th, the date of the dissolution of the 1899 agreement, as the official National Day.

20 Years of Liberation

The Iraqi invasion of Kuwait lasted seven months and resulted in major destruction to the infrastructure of the country, not to mention loss of lives and widespread plundering. Starting in the early hours of August 2nd, after two days of intense fighting, the Kuwaiti armed forces were overrun and Kuwait was annexed as the 19th province of Iraq.

International condemnation of Iraq's action and its support for Kuwait was seen in the UN's resolutions demanding immediate withdrawal of Iraqi forces from Kuwait, this had no effect and Saddam Hussein appointed Alaa Hussein Ali as the Prime Minister of the "Provisional Government of Free Kuwait". At the same time, opposition from the exiled Kuwaitis (about 400,000 people) and the international community was building. Within a few months, the United States issues an ultimatum to Iraq that it would face war if it did not withdraw by January 15, 1991.

After many failed attempts at negotiations with Iraq, a US-led coalition started the Gulf War on January 17, 1991 by attacking Iraqi forces based in Kuwait. The coalition was made up of the USA and: Argentina, Australia, Bahrain, Bangladesh, Belgium, Canada, Denmark, Egypt, France, Greece, Italy, Kuwait, Morocco, Netherlands, New Zealand, Niger, Norway, Oman, Pakistan, Portugal, Qatar, South Korea, Saudi Arabia, Senegal, Sierra Leone, Singapore,

Oil fires engulfing Kuwait, 1990

Spain, Syria, the United Arab Emirates, and the United Kingdom. Kuwait was eventually Liberated on February 26th, 1991; the damage to the country however was not over. During their retreat, Iraqi soldiers set damaged and set fire to the oil wells and installations and destroyed many buildings. In addition, about 1,000 Kuwaiti civilians were killed and hundreds of Kuwaitis taken prisoner during the invasion were never seen again.

The burning oil wells (estimated at almost 700) took almost nine months to extinguish, and during this time, millions of barrels of burning oil released toxic fumes into the environment. Damaged wells also spilled millions of barrels of oil onto the land and into the sea. The damage exists to this day and Kuwait has plans for full soil remediation in the near future.

As for Iraq, in 1994 it accepted the UN-demarcated border with Kuwait, which was based on the 1932 and 1963 agreements.

5 Years of Rule

The current Amir, HH Sheikh Sabah Al-Ahmad Al-Jaber Al-Sabah, assumed power on January 29, 2006, after the death of his half-brother, HH Sheikh Jaber Al-Ahmad Al-Jaber Al-Sabah on January 15, 2006. In the intervening time between January 16 and January 24, the Crown Prince under Sheikh Jaber, HH Sheikh Saad Al-Abdullah Al-Salem Al-Sabah was the Amir, but was voted by the Parliament as unfit to rule. (The Father Amir Sheikh Saad passed away in 2008 after a long illness.)

HH the Amir is a strong leader and focuses on new projects in Kuwait, many in the tourism area, and in advocating women's rights. This was seen in the granting of voting rights to Kuwaiti women 21 years and over in 2005. His experience in government starting in 1963 when he was appointed Foreign Minister, a position he held for 40 years. In 2003, he was appointed Prime Minister and served in this capacity until becoming the Amir.

His Highness the Amir, Sheikh Sabah Al-Ahmad Al-Sabah

The Celebrations

Celebrations within the State actually began one month before

Two young girls rejoicing the moment

the actual date, on January 26th, on the island of Qaruh, and will continue to June 19th, the date of Kuwait's independence in 1961. Qaruh was chosen since it was the first Kuwaiti territory to be liberated in 1991. As part of the celebrations, the Amir granted every Kuwaiti citizen KD 1,000 and 16 months of free basic food such as oil, rice, tomatoes, chicken, etc. The events themselves were numerous and were of political, military, social, and cultural nature. Included were many parades and on February 26th, a large military parade marking the 20th anniversary of liberation, and in the presence of many international leaders, was seen in Al-Sabiya. On February 27th, parts of the Gulf Road were closed for a special parade that included low-flying helicopters carrying huge Kuwaiti flags, and floats from the various ministries.

Perhaps the highlight of the celebrations was the impressive fireworks display at the Kuwait Towers on the night of February 25th. Starting with the arrival of five parachuters who set off mini-fireworks, the show continued in three segments focusing on Kuwait's 50th anniversary, the 20th anniversary of liberation from the Iraqi occupiers, and the 5th year of H.H. the Amir's ascent to power. The fireworks themselves were amazing as they lit up the sky, but the event was also complemented with a laser show at the base of the towers and the projection of images on the towers themselves. One of the most remarkable components was the burning of real flares on the towers, which symbolized the burning of the oil wells as the Iraqi troops retreated. The fireworks ended with a grand finale that included fireworks at many stations in the water, which gave the effect of having almost the full sky exploding in the range of the Kuwait flag colors. For many attendees, it was the best firework show that they had ever seen.

A folklore show

The Fast Flow of Time

GCC turns 30

For many it seems like just yesterday that the Gulf Cooperation Council (GCC) was founded on May 25, 1981, but already 30 years have passed and the organization is going strong. As the political, social, and economic union of the six Arab states on the Persian Gulf, including Kuwait, Saudi Arabia, Qatar, Bahrain, the UAE, and Oman, the organization plays an important role in the region. Iraq and Iran, the other two countries with borders on the Arabian Gulf are not members, although Iraq was involved in some GCC activities before its invasion of Kuwait. Yemen is currently being considered for membership, and hopes to join by 2016. Yemen and the GCC members are part of the Greater Arab Free Trade Area (GAFTA).

The formation of the council was "not a product of the moment but an institutional embodiment of a historical, social and cultural reality. Deep religious and cultural ties link the six states, and strong kin relations prevail among their citizens. All these factors, enhanced by one geographical entity extending from sea to desert, have facilitated contacts and interaction among them, and created homogeneous values and characteristics.

Therefore, while, on one hand, the GCC is a continuation, evolution and institutionalization of old prevailing realities, it is, on the other, a practical answer to the challenges of security and economic development in the area. It is also a fulfillment of the aspirations of its citizens towards some sort of Arab regional unity".

The Council was originally formed to give more power and stability to the countries in the region, with objectives related to coordination and integration between member countries such as:

- formulating similar regulations in various fields such as economy, finance, trade, customs, tourism, legislation, and administration;
- fostering scientific and technical progress in industry, mining, agriculture, water and animal resources;
- establishing scientific research centers;
- setting up joint ventures;
- having a unified military presence with The Peninsula Shield;
- encouraging cooperation with the private sector;
- strengthening ties between their peoples; and
- establishing a common currency with the name Khaleeji by 2010 (delayed).

In 2008, a common GCC market was initiated and grants national treatment to all companies and citizens of one GCC country in all other GCC countries. There are also moves to establish a single currency, but Kuwait's Foreign Minister, Sheikh Dr. Mohammed Sabah Al-Salem Al-Sabah stated that a single currency may take up to 10 years to realize. This statement may prove to be conservative since Oman and the UAE have revoked their involvement in a single currency for the time being.

The Supreme Council is the authority and is comprised of the Heads of the member countries. The presidency of the council rotates from country to country in alphabetical order and summit meetings are held every year. Resolutions require unanimous approval and procedures require a majority. Quorum is two-thirds.

The Ministerial Council, which meets every three months, consists of the Ministers of Foreign Affairs and is presided over by the country that held the last presidency of the Supreme Council.

The third council, the Secretariat-General, is headed by the Secretary-General, who is appointed by the Supreme Council for three years with the chance of renewal. In addition to the GCC delegation in Brussels and the Telecommunications office in Bahrain, the Secretariat-General also consists of political affairs, economic affairs, human and environmental affairs, military affairs, security affairs, legal affairs, finance and administrative affairs, the patent bureau, the administrative development unit,

The logo of the GCC consists of two concentric circles. On the upper part of the larger circle, the Bismillah phrase is written in Arabic. On the lower part of that circle, the Council's full name is written in Arabic. The inner circle contains an embossed hexagonal shape representing the Council's six member countries. The inside of the hexagon is filled by a map encompassing the Arabian Peninsula, on which the areas of the member countries are colored brown. No borders are shown.

Source: Wikipedia

internal auditing, information center, and the Office of the Secretary-General. The first Secretary General of the GCC was Kuwait's Abdullah Bishara (see inset), followed by Fahim bin Sultan Al-Qasimi of the UAE, Jamil ibn Ibraihm Al-Hujailan of Saudi Arabia, and the current Abdul Rahman ibn Hamad Al-Attiyah of Qatar.

The GCC has proven successful on many fronts, most notably for Kuwait in its support of the nation during the Iraqi occupation. But the future of the organization is full of challenges, with one of the most significant being the demography of the region and the corresponding security and social and cultural development. In all of the member states, citizens make up less than half of the population and in the UAE, foreign workers are more than 90% of the workforce. In Kuwait, the figure is 83%. With most of the expat workforce consisting of unskilled, cheap labor, the opportunities for building employment opportunities for citizens is limited. In addition, increasing the number of government jobs for citizens does not solve the problem. Compounding the problem is the face that almost half the population of the GCC is under the age of 18, and as they age and enter the labor market, the situation will become even more severe. The GCC, therefore, is encouraging its members to encourage small business and to provide incentives to its citizens to move away from public sector employment into the private arena.

The oil industry can help, but only to a small extent since the industry is more capital than labor intensive. In Kuwait, the government offers financial incentives to those working in the private sector and the outcome of this attempt will be followed closely and perhaps copied by the other members. In any case, if the last 30 years or a precedence, the GCC will still be surviving in another 30 years and providing the essential cohesion required in the region.

Ambassador Abdullah Yaccoub Bishara, First Secretary-General of the GCC and current President of the Diplomatic Centre for Strategic Studies in Kuwait

As the first Secretary-General of the GCC, Ambassador Bishara served from the beginning of the GCC in 1981 to 1993. Before that, he was the Kuwaiti ambassador to Brazil and Argentina and was Kuwait's permanent representative to the United Nations.

On Wednesday, December 1st, 2010, Ambassador Bishara spoke at the AWARE Center on "The GCC: Achievements, Ambitions and Challenges", and in particular on gunboat diplomacy. In international politics, gunboat diplomacy refers to the pursuit of foreign policy objectives with the aid of conspicuous displays of military power — implying or constituting a direct threat of warfare, should terms not be agreeable to the superior force (Wikipedia).

"In 1971, I left Kuwait for the United Nations and this was a turning point in my personal life; I thought of Kuwait and I believed then and still believe today that when the environment (nation) does not have good neighbors, then one has to survive by gunboat diplomacy", he explained. Ten years later, Bishara left the UN to join the GCC and was witness to the liberation of Oman, which resulted in added security to the charter of the GCC, with a mixture of 'brain and bullets' diplomacy. According to Bishara, the formation of the GCC made Kuwait, which had been inadequate in its dealing with Iraq on diplomatic grounds, stronger through diplomatic backing and the power of the collective gulf states. "The credibility of the GCC added strength to Kuwait", Bishara reiterated. He also is of the opinion that the ongoing success of the GCC is critical for Kuwait and that the future of Kuwait and the region is with a strong GCC.

"The Iraqi invasion of Kuwait showed the power of the GCC in freeing Kuwait. The GCC is still surviving on gunboat diplomacy and without the GCC, the Gulf region would not be

Ambassador Abdullah Yaccoub Bishara

secure," Bishara stated. In fact, it is the integrity of the GCC leaders and their work in the region through dialogue with Iran and the international community, sanctions against Iran by the UN Security Council that are respected by the GCC, and gunboat diplomacy that ensures regional security. However, the security of the Gulf is also an international responsibility and the GCC works in cooperation with the international community. "There is no shame in containing Iran through gunboat diplomacy; the whole world, after all, lives by this. Iran is a paranoid country and it is our responsibility to contain this paranoia", Bishara explained, "In 1968, the Shah of Iran came to Kuwait and I knew that the balance of power between Iran and Iraq was in question. Iran was a balance to Iraq. Now, we are trying to make Iran a normal country which will survive in its own confines with no radicalism. We also need to ensure that Iraq does not go back to the days of Saddam Hussein".

Bishara believes that the nuclear program in Iran is not for energy and that a dismantling of the program through dialogue through the collective support of the international community is the way to go. The GCC is unanimous in its view to approaching Iran through dialogue and non-use of force. However, the GCC is cautious. Bishara personally does not take all of what Iran says at face value. "Iran tries to build a wedge and they are clever, but I feel that their bark is stronger than their bite", he stated.

During his tenure in the GCC, Bishara heard several times from heads of states that the GCC had bonded and would either survive or vanish together. In fact, the King of Saudi Arabia stated many times that the destiny of the GCC was together. The policy of the GCC is "no winner, no loser, no radicalism', and the power and influence is within the GCC states.

Since leaving the GCC in 1993, Bishara has seen the voice of moderation enhanced; radicals are on the run and the power is going to the moderates.

As for the future of the GCC, Bishara does not think that there will be a single currency within the next five years, but he does think that the GCC can work economically with the Arab world when the focus is on business and economics rather than on politics. As for the question of the use of the large amounts of money being earned in the region, Bishara mentioned that in the 1970s when the first oil money started gushing in, about 50% was used and the other 50% abused. However, today one sees infrastructure and links with the international community and the interdependencies. The role of the euro has served as an example that the GCC should not just jump into a single currency and political differences in the region mean that the local environment is not in harmony with a single currency. However, at this time it is not essential but rather what is imperative is the containment of Iran and the reform of Iraq.

Energy Producer Improves Flexibility, Enhances Security with Operating System Upgrade

From Microsoft Corp.'s Case Studies. Used with permission from Microsoft.

When Kuwait Oil Company considered replacing the Windows XP operating system across its entire desktop infrastructure, executives emphasized the need for a rapid deployment with minimal impact on daily operations. Because the company relies on several business-critical applications that run on Windows XP, executives stressed the importance of maintaining application compatibility throughout the upgrade process. After evaluating Windows 7, the company decided to deploy the solution together with Microsoft Enterprise Desktop Virtualization (MED-V) software. In late 2010, Kuwait Oil Company moved 90 percent of its computers to Windows 7 Enterprise, putting it on track to complete the deployment process well ahead of schedule. Now, in addition to benefitting from accelerated time-to-value, the company has strengthened its capacity for data protection while simplifying PC management.

Situation

Kuwait Oil Company oversees one of the world's largest oil and natural gas upstream operations, engaging in the exploration, drilling, and production. To sustain corporate profitability, even as global demand for energy began to decline sharply beginning in the fall of 2008, Kuwait Oil Company executives placed a renewed emphasis on operational efficiency. This initiative included finding ways to help employees increase personal productivity. Executives concluded that one of the most effective ways to achieve substantial time savings across its 7,500-person workforce was to update the computer hardware and software that its people use each day.

In early 2010, technology leaders led an effort to evaluate upgrading the company's entire IT infrastructure, starting with the replacement of all desktop computers, portable computers, and mobile computing devices. In parallel, IT leaders recommended upgrading the Windows XP operating system, which the company had used for nearly a decade.

Business and technology leaders worked together to map the specific requirements for the solution. Several priorities emerged. They wanted to maximize system performance by adopting technology designed to take full advantage of the 64-bit computers that Kuwait Oil Company was in the process of acquiring.

At the same time, the company wanted to tighten network security to prevent data leakage and more rigorously safeguard its computers

from malicious software, viruses, and other threats. "When we moved to Windows XP 10 years ago, the threat landscape was much different," says Ghada Barakat, Senior Systems Analyst for Kuwait Oil Company. "The web was still emerging as a platform for business communication and external data storage devices hadn't been widely adopted. But now our employees frequently use USB flash drives to transfer files. And we rely so much more on web-based and browser-based applications to connect our global business. In thinking about moving to a new operating system, data encryption and IT asset protection were important factors in our decision process."

Beyond security concerns, executives wanted to ensure that mission-critical applications built to run on Windows XP would immediately be fully available, without the need to invest in additional development. "Many of the applications that operate on Windows XP are vital to our day-to-day business," says Barakat. "They include everything from Windows-based oilfield mapping tools to our Oracle-based enterprise resource planning system. We couldn't risk any downtime or performance degradation with those kinds of applications." This group of applications also includes several web-based tools that support the Windows Internet Explorer 6 Internet browser.

Because the impetus for replacing its aging PC hardware and operating system software was the need for greater productivity, Kuwait Oil Company sought to minimize the amount of time required for deployment and training. "It was imperative that we make the transition quickly and limit the disruption to our employees," says Barakat.

> **"Windows 7 Enterprise fit our vision for reducing complexity, strengthening security and control, and giving our people powerful tools to do their jobs more efficiently."**
>
> Ghada Barakat
> Senior Systems Analyst, Kuwait Oil Company

Solution

In early 2010, Kuwait Oil Company chose to upgrade from Windows XP to the Windows 7 Enterprise operating system. The company wanted to take advantage of such enhancements in Windows 7 Enterprise as improved support for virtualization, 64-bit processing, built-in security features, and seamless application and device compatibility. "Windows 7 Enterprise fit our vision for reducing complexity, strengthening security and control, and giving our people powerful tools to do their jobs more efficiently," says Barakat.

In conjunction with its companywide rollout of Windows 7 Enterprise, Kuwait Oil Company deployed a number of additional Microsoft products and technologies, including the Windows Internet Explorer 8 Internet browser, Microsoft Office 2010, and Microsoft System Center Configuration Manager 2007. The company plans to complete deployment of the Windows Server 2008 R2 operating system and Microsoft SharePoint Server 2010 in the coming months.

Straightforward Deployment

The IT team used the Windows Automated Installation Kit (Windows AIK) for Windows 7 Enterprise—a set of tools and documentation that support the deployment of the Windows 7 Enterprise operating system—to upgrade more than 7,000 PCs in five months.

To accelerate the deployment process, the team took advantage of the Windows User State Migration Tool. A component of Windows AIK, this tool simplifies the process of transferring user accounts and data to the upgraded version of the operating system. In addition, the team used ImageX in the Windows AIK to quickly create and modify PC images. To track all of these activities, including the deployment of images to computers across the company's entire operations, Barakat and her team relied on Microsoft System Center Configuration Manager 2007. By using the Task Sequencer, a feature of System Center Configuration Manager 2007, they were able to visually monitor the progress of each step in the deployment process.

Seamless Application Compatibility

Kuwait Oil Company deployed Microsoft Enterprise Desktop Virtualization (MED-V) software to avoid potential conflicts between Windows 7 Enterprise and the company's pool of applications that operate on Windows XP. These include several best-of-breed geological modeling and reservoir analysis solutions developed by third-party, global engineering firms.

An integral component of the Microsoft Desktop Optimization

Pack, MED-V makes it possible for multiple operating systems to run in a virtual desktop environment. By decoupling applications from the operating system and hardware on which they run, MED-V enables organizations to deliver a full-fidelity experience across platforms without the need for costly development and extensive testing. "Without MED-V, we would need to deal with compatibility one application at a time, which would be too time-consuming," says Barakat. "MED-V gave us a centralized way to provide compatibility for all of our applications that ran on Windows XP, which saved us a tremendous amount of planning work and time throughout the deployment."

The company now uses MED-V to handle delivery and management of more than a dozen different business applications, including an Oracle-based accounting application and several browser-based programs that support Windows Internet Explorer 6. "We depend on a number of web-based production forecasting and reporting tools," says Barakat. "Through MED-V, we were able to make these applications compatible with Internet Explorer 8, so we didn't have to delay upgrading our browser software and we can still provide them with the best possible experience."

Built-In Security

The Company looks forward to capitalizing on enhanced data security capabilities in Windows 7 Enterprise, including BitLocker and BitLocker To Go drive encryption technologies. These technologies help provide powerful, end-to-end protection against data theft or exposure on computers and removable drives. In addition, the IT team will use the simplified administrative tools in Windows 7 Enterprise for configuring user account controls to help standardize its approach to security. To build on these capabilities, Kuwait Oil Company plans to take advantage of new security and privacy features in Internet Explorer 8, including Protected Mode, which makes it more difficult for Internet sites to automatically install malicious software on a user's computer.

> **"We provided almost no training on how to use Windows 7 Enterprise. After a short time, we figured out that there was no need because employees became extremely proficient on their own in a matter of hours."**
>
> Ghada Barakat
> Senior Systems Analyst, Kuwait Oil Company

> **"Windows 7 Enterprise gives us the foundation and the tools for better PC management, so we can deliver the richest experience possible to our employees."**
>
> Ghada Barakat
> Senior Systems Analyst, Kuwait Oil Company

Intuitive Tools

Barakat and her team have received consistently positive feedback from employees throughout the company, who appreciate how easy Windows 7 Enterprise is to learn and use. "We provided almost no training on how to use Windows 7 Enterprise," says Barakat. "After a short time, we figured out that there was no need because employees became extremely proficient on their own in a matter of hours." Employees particularly appreciate the enhanced search capabilities in Windows 7 Enterprise, which they use to quickly find archived email messages, calendar items, and presentations—all in one place. Also, employees have noted how fast and easy it is to connect to wireless network routers, printers, projectors, and other devices, a convenience that helps them save time each day.

Benefits

Kuwait Oil Company has achieved the major objectives that it laid out for upgrading the operating system across its entire PC fleet. Through the rollout of Windows 7 Enterprise, the company has empowered employees to increase productivity by helping them save time on everyday tasks. Moreover, Windows 7 Enterprise and Internet Explorer 8 work together to help give Kuwait Oil Company powerful, multilayered protection against data theft and malicious software. Also, the company's IT team now benefits from enhanced control and simplified management of its desktop infrastructure.

Rapid Time-to-Value

By using the Windows Automated Installation Kit (Windows AIK), including such components as the User State Migration Tool and

ImageX, Kuwait Oil Company deployed Windows 7 Enterprise to an average of 1,500 computers a month. In a period of just five months, the IT team successfully moved more than 90 percent of the company's work force to the upgraded operating system. "We've been able to deploy Windows 7 Enterprise much more quickly than we thought was possible," says Barakat. Because the team used MED-V to ensure seamless access to mission-critical applications that were not yet compatible with Windows 7 Enterprise, they were able to pursue an aggressive deployment schedule while minimizing disruption to day-to-day operations. "Because we're ahead of schedule, we're already starting to realize a return on our investment in terms of greater productivity throughout the organization. Through enhanced search and location-aware capabilities in Windows 7 Enterprise alone, we estimate that each employee saves up to 30 minutes a day."

Powerful Information Security and Strengthened Asset Protection

Kuwait Oil Company is now better equipped to guard against a full range of security risks—from lost or stolen computers to Internet–borne viruses that could impact network performance. For example, through the use of BitLocker and BitLocker To Go drive encryption technologies in Windows 7, the company can support greater work force flexibility and mobility without compromising corporate data. To bolster its security strategy, Kuwait Oil Company will take advantage of built-in network protection capabilities in Windows Internet Explorer 8, which offer an additional line of defense against virus attacks and other threats.

Platform for Enhanced PC Management and Control

By enabling streamlined creation and deployment of PC images and simplified management of user access controls, Windows 7 Enterprise makes it much easier for Barakat and her team to ensure uniform control of the company's desktop environment. Also, through the use of System Center Configuration Manager, the team can automate application and system updates across its entire infrastructure, and track computers and devices with greater efficiency. "Windows 7 Enterprise gives us the foundation and the tools for better PC management, so we can deliver the richest experience possible to our employees," says Barakat.

Solution Overview

Organization Size: 7500 employees

Organization Profile: With 7,500 employees, Kuwait Oil Company is one of the world's largest providers of oil and natural gas production services.

Business Situation: To boost productivity and improve security, the company needed to upgrade the operating system software across its entire desktop infrastructure.

Solution: Taking advantage of the Windows Automated Installation Kit, Kuwait Oil Company deployed the Windows 7 Enterprise operating system to more than 7,000 computers in five months.

Benefits:

- Rapid time-to-value
- Powerful IT asset protection
- Enhanced PC management

Software and Services:

- Windows 7 Enterprise
- Microsoft System Center Configuration Manager 2007
- Microsoft Enterprise Desktop Virtualization
- Windows Internet Explorer 8

Vertical Industries: Oil and Gas Industry

Country/Region: Kuwait

Business Need:

- Business Productivity
- Identity, Security and Access Management

IT Issue:

- Interoperability
- Personal Productivity

Enhancing Skills through Knowledge Transfer and Sharing of Best Practices

South & East Kuwait's initiative

Introduction

The concept of sharing best practices is not new to the Kuwait Oil Company (KOC) and indeed, many communities of best practice have already been established. What is perhaps surprising, however, is the extent to which knowledge transfer and sharing of best practices exist and in what areas, outside the formal Best Practices Program. The Operations Group (EK) led by Manager, Emad Sultan, and in particular the Maintenance Team-I, under Mohammed Al-Rasheedi is just one example and their initiative, Knowledge Transfer and Sharing of Best Practices (KTSPB) was implemented over four years ago.

According to Sultan, the difference between knowledge sharing and best practices is that knowledge sharing is technical and more general in nature, whereas best practices involves initiating a practice for a specific area that could possibly have applications elsewhere in similar areas.

The idea of sharing knowledge came about with the installation of new equipment as part of the upgrading of the 14 facilities in the S&EK Directorate. As a result of lessons learned and the development of best practices, regular meetings were held to disseminate the information. "What started with service contracts and the various vendors gradually developed into the production of manuals and other training material", Sultan explained. This material was then forwarded to other Directorates, some of whom were doing similar activities, and the result was an increase in communication and coordination. For instance, on November 10th, 2010, a session of the Ruston Gas Turbine and its working principles, maintenance philosophy, machinery troubleshooting concepts, best practices, and lessons learned was presented to all new employees and foremen by Khalid Al-Behairi, Snr. Engineer Mechanical Maintenance, from the Maintenance Team –I. The following month, the basics of heater, desalter and other facility critical equipment used in gathering centers and general mechanical problems, troubleshooting techniques and best practices for reducing downtime was presented by Thamer Al-Hajri,

The program

The KTSPB program has the vision of achieving and sustaining high and realizable targets for equipment that meets the Company's production targets and lowers flaring to the minimum level through sound and effective maintenance strategies in combination with a highly-skilled and well-informed workforce. As such, the mission is to ensure that all possible means are used to realize the vision and to continually look for ways to improve. The workforce is the key and it is enabled through sharing of lessons learned and best practices, and educated with enhanced problem solving abilities, work prioritization, creative thinking, and a positive attitude toward work and their important role.

Examples of knowledge transfer and best practices

Many of the projects in recent years have dealt with the installation of technical equipment and come under the knowledge transfer area. For example, East Kuwait took the lead in developing a facility for disposing effluent water to disposal wells. The data was gathered, analyzed and modified to best suit the EF/1490 Effluent Disposal Project, in conjunction with well surveillance. The sessions were very effective not only in transferring best practices but also to stimulate the minds to create new ideas and initiatives.

One of the prime examples of the sharing of best practices is the development of access software for the Directorate. The software was initially developed to track the incoming and outgoing correspondence, but after propagating the best practices,

Emad Sultan
Group Manager Operations (EK)

"The Operations Group (EK) produces marketable quality crude and gas and meets its targets through the safe and efficient operations of the various plants, in line with the mission of KOC. This mission can only be achieved with quality equipment and qualified people; considerable work is carried out through various projects for enhancing the quality of the equipment, but without experienced and trained employees this equipment cannot be maintained. Therefore, we believe that highly-skilled and well-trained employees are the key to ongoing success. In order to bring all newcomers and site personnel on board and to enhance their practical know-how, trouble0shooting, and analytical skills, our experience specialists conduct sessions for imparting knowledge transfer and best practices". Emad Sultan

it was realized that a similar idea could be utilized for tracking leaves, vehicle allocation, failure analysis reports, and other vital information. Now, every senior engineer in the area knows about the deadlines, what is pending, and where it is pending. Another example is the regular major preventive maintenance of the facilities, which occurs every two years. At the end, lessons learned are documented and, along with best practices, are transferred in a two-day session.

Conclusion

One possible next step for the Group would be to establish a formal Best Practices Maintenance Community within KPC's Program of Best Practices. However, regardless of how formal the initiative becomes, the focus will still be on developing the skills of the people and in fact, part of the key performance index (KPI) for employees is the demonstrable transfer of knowledge. As with all key activities, support from upper management is essential and Sultan is thankful for the support from the DMD (S&EK) Mr. Hashem Hashem, who supports the employees along with Sultan through spot bonuses and other forms of recognition.

Mohammed Al-Rasheedi
Maintenance Team-I

"As a key strategic object of the Company's business strategy, where one of the priorities is sustainable development of staff, it is mandatory to transfer knowledge and share best practices. This is done by field experts, who have acquired specialized knowledge in their respective disciplines through years of hard work and effort. As the complexity and size of activities in the oil and gas industry is increasing over the years, sustainability of production can only be achieve with optimal availability and maintainability of equipment by skilled maintenance personnel. Thus, transfer of knowledge and sharing of best practices when it comes to special equipment is essential to finding quick solutions and avoiding potential trouble. This will allow us to deal with problems in the most effective manner". Mohammed Al-Rasheedi

Creative Waste Management

Burgan Crude Recovery Plant

This article is a follow-up on the article on Facility Treatment Centers (FTCs), which appeared in the October – December, 2010, issue of The Kuwaiti Digest. Recovered oil and water from the FTC is transported to the Burgan Crude Recovery Plant (BCRP), and the process at the facility is further explained herein.

Opening of the Burgan Crude Recovery Plant, February 24, 2011

Background

The BCRP came into existence in 2005 under the FENSCO contractor when the need to deal with the contaminated oil, water, and sludge from the Iraqi invasion and from normal operations was recognized. As an in-house project, it is unique in the entire Kuwait Oil Company (KOC) and is yet another example of the creativity and motivation of the Maintenance Team (SK), led by the Team Leader, Yousef Al-Humoud, who came up with the idea. "Our future aim is to have the facility in phase 4 and be seen as a gathering center. This is an environmentally friendly project and the goal is to have zero spills in the entire area and to have a completely enclosed system", Al-Humoud explained. The mission of the Maintenance Team is to look for ways to minimize waste and to reuse whenever possible to demonstrate the commitment and cooperation between teams.

Indeed, the facility complies with KOC's HSE policy, which states, 'We will strive for progressive improvement in the environmental performance of our facilities by reducing emissions and wastes and conserving energy'. As part of KOC's waste management system, the facility also meets expectations, which include:

- Ensuring that waste management complies with Company policy and expectations,
- Ensuring that all waste is managed in compliance with legal requirements,
- Minimizing the generation of waste,
- Minimizing the environmental impact of waste, and
- Ensuring that the management of waste does not disrupt or distract from normal operations.

In addition, most parts used to construct the facility came from spare or used parts from other facilities.

Al-Humoud's idea was made in to reality by many of the team members, most notably Mohammed Meteb Al-Mutairi, Snr. Foreman Mechanical Maintenance, who went beyond the scope of his regular job, and Jarman Abdullah Al-Mutairi, Snr. Engineer Mechanical Maintenance. Indeed, operating the facility is still an extra task for him that he willingly undertakes. "The important point about this facility is the capacity, which is impressive, and the huge difference it makes to how we were handling the material before and what we can do now", Mohammed Al-Mutairi elaborated. For instance, six vacuum tankers are able to unload at the same time and it takes only 7 minutes per tanker (not including set-up and disconnection time).

In addition to contaminated crude and water, the facility also deals with the sludge (15% of the total) associated with oil production. Once the water and oil is removed from the sludge, the remaining soil goes to Shuaiba, where it undergoes further treatment.

The Facility

The upgrade to the BCRP was completed in March of 2010, with daily production of around 750 barrels, from 800 barrels of received contaminated crude. Contaminated crude arrives at the facility in vacuum tankers from all over KOC. According to diagram 1, the contaminated crude is pumped into the facility by the transfer pump to the crude pit 1, where it is allowed to settle during the first stage. This first crude pit is equipped with a drain line to a water pit, which allows the water to be separated from the oil. The contaminat-

ed oil is then transferred to the crude recovery tank where it is also given time to settle. Once settled, the crude is pumped through the main dispatch pumps to either GC-21 or, previously, to the Wafra line.

The facility underwent several phases in its transformation from a simple processing center to a gathering center-like facility. For instance, an upgrade was made to the facility which increased the amount of crude that could be received and dispatched and a sludge recovery unit was added with the following components:

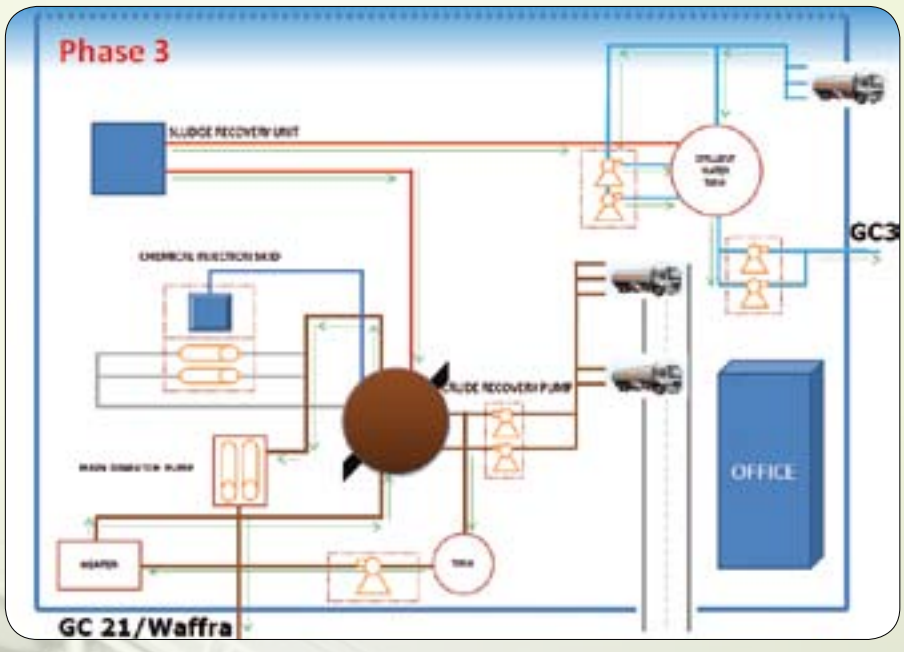
1. Preheating tank for the contaminated crude, which increases separation,
2. Combi-unit of steam and mixing motors which homogenizes the mixture,
3. Chemical dosing system using a chemical (flocculant) agent through the process to help separation,
4. Centrifuge separation system where the mixture is rotated at a high speed to allow water and solids to separate according to their density,
5. Baffle tank where tilted plates are used to separate and skim the settled material and send the rest to the combi-unit, and
6. Recovery tank in the last stage which allows the crude more settling time for separation and readiness for dispatch.

Phase 4 is the final stage of the rehabilitation of the BCRP and includes the following:

- Instrumentation protection,
- Enhancement of fire protection,
- Unmanned process system, and
- Mini lab analysis control room.

Obstacles

Building and operating the facility was not as straightforward as it may appear,



and in fact, many obstacles had to be overcome. For instance, pumps needed to be repaired many times and from lessons learned, the facility now as three operating pumps. Also, vacuum tankers from drilling have chemicals for the drilling process within the crude, so it was necessary to install strainers to prevent the chemicals from damaging the system. Another obstacle was the tanker drivers being able to find the facility at night and not just, out of desperation and time constraints, dump their content just anywhere. The solution was the introduction of a trip ticket, which must be signed/stamped by the night person at the BCRP as proof of receival. Previously, the Wafra lines was being used but was a problem due to the age of the line, and this barrier was overcome by using a crude line going directly to GC-24. The result is a better quality crude.

Opening

The opening ceremony of the BCRP was patronized by the DMD (S&EK), Hashem Hashem, who thanked all those involved and congratulated them on the success of the project. The problem of de-sludging the tanks at the various gathering centers and what to do with the sludge has been solved with the BCRP, and the facility is standard for cleaning that all areas should aim to replicate. Acting Manager for Operations (SK), Bader Mahmoud explained that the decreased time for maintenance, in addition to preventive maintenance work, will increase the integrity of the facilities. In addition, through years of learning and experience, the members involved with the BCRP are now masters in the process.

Conclusion

Starting in March of 2011, the plant will be running 24/7 and be able to handle 14 tankers/hour. The ultimate aim is to have an unmanned and fully automated facility. The Maintenance Team is always looking for ways to continually improve, so perhaps there will be a phase 5 in the future. For instance, increased safety measures are in the plans, particularly an overflow catch for the tanks and increasing the distance between the various structures. Also in the planning phase is the replacement of the temporary control room with a permanent structure. With or without further improvements, the facility is generating lots of interest and even other K-Companies are coming to have a look at this Best Practice.

Security for Industrial Automation and Control Systems

Submitted by Faisal Al-Rashoud, Senior Engineer Planning & Coordination/Network, CIT Group TS Team

Introduction

The Supervisory Control and Data Acquisition (SCADA) network contains computers and applications that perform key functions in terms of providing essential services and commodities (e.g., electricity, natural gas, gasoline, water waste treatment, transport, etc.). As a part of the Kuwait Intelligent Digital Field (KwIDF) project, it becomes the critical infrastructure and required protection from a variety of threats that exist in cyber space today.

SCADA networks provide great efficiency and are widely used. However, they also present a security risk. SCADA networks were initially designed to maximize functionality, with little attention paid to security. SCADA systems themselves are robust, but the security of these systems is often weak. This makes some SCADA networks potentially vulnerable to disruption of service, process redirection, or manipulation of operational data that could result in safety concerns and/or serious disruptions to the critical infrastructure. Action is required by all organizations to secure their SCADA networks as part of an effort to adequately protect the critical infrastructure.

Cyber Security Management System

The Cyber Security Management System (CSMS) provides an overall management system framework that allows organizations adopting the CSMS to tailor it to their own specific needs.

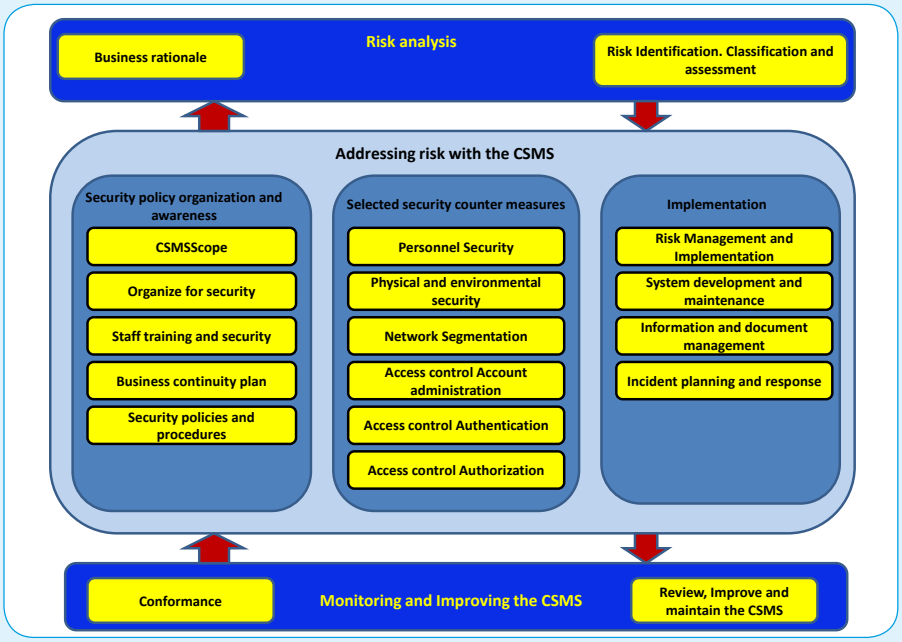
Within each organization, the journey to develop an effective cyber security program for Industrial Automation and Control System (IACS) starts with individuals who recognize the risks the

Faisal Al-Rashoud
Senior Engineer Planning & Coordination/ Network, CIT Group TS Team

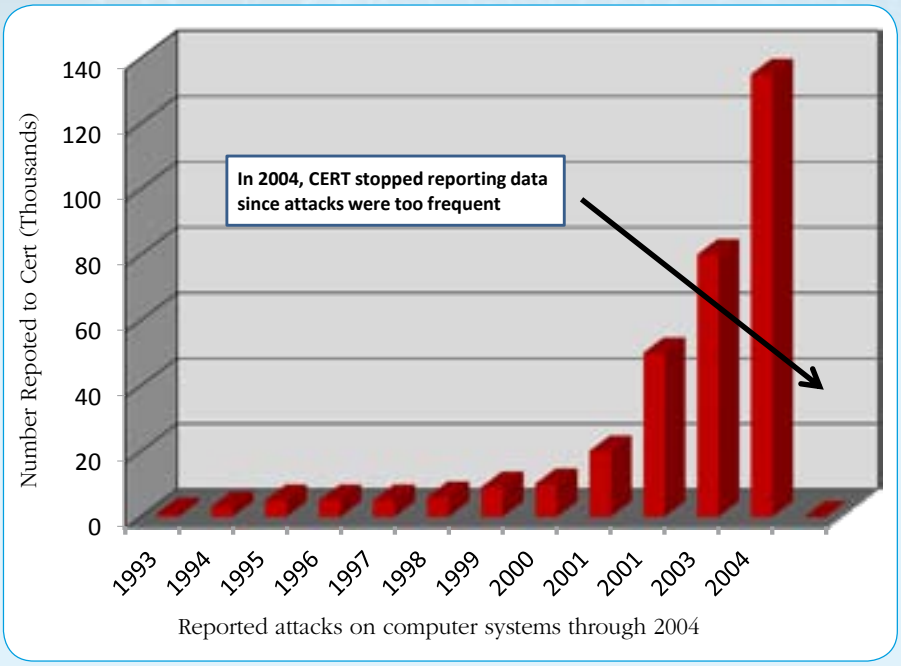
organization is taking and begin to articulate these risks internally, not just in technical terms, but in business terms that resonate with upper management.

The negative business consequences of cyber-attacks against IACS can include the following:

- Reduction or loss of production at one site or multiple sites simultaneously,
- Injury or death of employees,
- Injury or death of persons in the community,
- Damage to equipment,
- Environmental damage,
- Violation of regulatory requirements,
- Product contamination,
- Criminal or civil legal liabilities,
- Loss of proprietary or confidential information,
- Loss of brand image or customer confidence, and



Graphical view of elements of a cyber security management system



Reported attacks on computer systems through 2004

- Economic loss.

Baseline practices

- Identifying and documenting the business objectives, critical business processes, and critical information technology processes, including industrial automation and control systems and interfaces with value chain partners where sensitive information is transferred, stored, or processed.
- Identifying various damage scenarios by the loss of confidentiality, integrity or availability of information.
- Developing business impact analyses for IACS security, value chain or other third-party business partner.
- Determining the organization's risk tolerance profile defined in terms of:

1. Safety of personnel (serious injury or fatality),
2. Financial loss or impact including provisions in the Sarbanes-Oxley Act,
3. Environmental/regulatory consequence,
4. Damage to company image,
5. Impact to investment community, and
6. Loss of customer base or confidence.

Cyber risk for IACS

Although various industries may find certain types of business impact of more concern, and may feel that certain types of threats are more likely, all industries that use IACS should be concerned that they are entering a new risk environment. At the same time that industrial automation and control systems have adopted commercial IT operating systems and network technologies, and users have interconnected their private networks with their IACS networks, the number of threats has also increased greatly.

Risks for traditional IT assets focus on the confidentiality, integrity, and availability of information. In IACS the priorities are generally reversed with focus on availability, integrity, and confidentiality.

Characterize key IACS

Identifying and prioritizing IACS risks requires that an organization locate and identify key industrial automation and control systems and devices, and the characteristics of these systems that drive risk. Without an inventory of the IACS devices and networks, it is difficult to assess and prioritize where security measures are required and where they will have the most impact. The team must meet with IACS personnel to identify the different IACS used throughout the site as wells as those that control remote sites. The focus should be on systems rather than just devices, including but not limited to, control systems, measurement systems and monitoring systems that use a central HMI device.

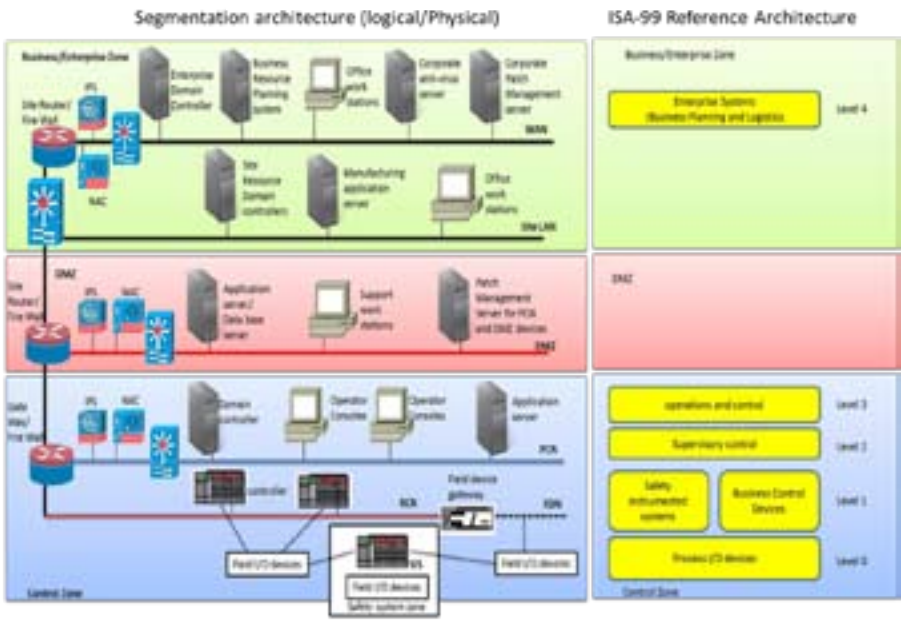
Identify the major devices and kinds of devices that are in use and function collectively to operate the equipment under control. At this point in developing the security program, it is not important to develop a comprehensive inventory of every device in the IACS.

Care should be taken when identifying industrial automation control devices/systems, and focus attention beyond the devices that perform direct control. There are several enterprise-wide inventory tools commercially available that will work across networks to identify and document all hardware, systems, and software resident on the network.

Before conducting prioritization of IACS or a detailed risk assessment, it is important that the Team has a clear understanding of the scope/boundaries of the system to be assessed. The Network diagram is a tool to help visualize the network and aid in performing the risk assessment.

Once the list of IACS devices, assets, and networks has been completed, a preliminary assessment needs to be made as to the relative level of risk associated with the systems, so they can be prioritized for detailed risk assessment. Each individual system must be assessed to understand the financial and HSE consequences as identified in the high-level risk assessment, in the event that the avail-

ability, integrity, or confidentiality of the system is compromised.



Baseline practices

1. Establishing the criteria for identifying which devices comprise the IACS.
2. Identifying devices that support critical business processes and IACS operations including the IT systems that support these business processes and IACS operations.
3. Classifying the logical assets and components based on availability, integrity, and confidentiality, as well as HSE impact.
4. Scoping the boundaries of the system to be assessed, identifying all assets and critical components.
5. Developing a network diagram of the IACS.
6. Understanding that risks, risk tolerance and acceptability of countermeasures may vary by geographic region or business organization.
7. Conducting a risk assessment through all stages of the technology lifecycle (development, Implementation, updating, and retirement).

Staff training and security awareness

Security awareness for all personnel is an essential tool for reducing cyber security risks. Staff training and security awareness programs provide all personnel (employees, contractors, and the like) with the information necessary to identify, review, address, and where appropriate, remediate vulnerabilities and threats to IACS and to help ensure their own work practices include effective countermeasures.

To increase the security of the SCADA networks, the organization must focus on specific actions:

- To ensure high degree of security of SCADA system, isolate the SCADA network from other network connections to a great a degree as possible,
- Harden the SCADA networks by removing or disabling unnecessary services,
- Do not rely on proprietary protocols to protect the system,
- Implement the security features provided by device and system vendors,
- Establish strong controls over any medium that is used as a backdoor into the SCADA network,
- Implement internal and external intrusion detection systems and establish 24-hour-a-day incident monitoring,
- Perform technical audits of SCADA devices and networks,
- Conduct physical security surveys and assess all remote sites to evaluate their security,
- Establish SCADA "Red Teams" to identify and evaluate possible attack scenarios,
- Clearly define cyber security roles, responsibilities, and authorities for managers, system administrators, and users,
- Document network architecture and identify systems that serve critical functions that require additional levels of protection,
- Establish a rigorous, ongoing risk management process,
- Establish a network protection strategy based on the principle of defense-in-depth,
- Establish effective configuration management processes, system backups and disaster recovery plans, and
- Establish policies and conduct training to minimize the likelihood that organizational personnel will inadvertently disclose sensitive information regarding SCADA system design, operations, or security controls.

KOC's Information Technology Disaster Recovery and High Availability Setup

Submitted by: Fatma Al-Otaibi (TPL Specialist) and Hussain Hraish (TPL Specialist), Corporate Information Technology Group

As the importance of information technology increases for the continuation of business critical functions, combined with the demand to work around-the-clock, the importance of protecting and preserving an organization's data and IT infrastructure in the event of a disruptive situation has become a paramount priority. Since the passing of the Y2K dilemma without any incident, the Kuwait Oil Company's Corporate Information Technology Group (CITG) has been working diligently on making our business available to our users and clients. All CITG teams regard availing critical ERP applications 24x7x365-days/year as essential for meeting the Company's 2030 targets and saving the company money, especially when an interruption of the business occurs.

In order to achieve such a highly available environment, CITG has constructed a Disaster Recovery (DR) site that

Hussain Hraish
TPL Specialist, CITG

can be utilized when a disaster strikes our Production Computer Center and/or if one of our critical applications fails. Disasters fall under two different categories; the first is natural, such as floods, earthquakes, etc., and the second is a man-made, such as fire, terrorist and malicious attacks, etc. Proper planning in avoiding and/or mitigating the impact of both categories of disasters is highly essential.

Brief History

Before the year 2000, all of our applications were running on servers located in the Computer Center without any disaster recovery and high availability solutions. The only contingency plans we had were the backing up of our data and the storing of the backup tapes in a dedicated different location in Ahmadi. Although this solution was adequate at the time, it was also cumbersome, complicated, and time consuming. If a disaster were to strike the Computer Center, then we would need to build our application from scratch. This includes availing the hardware servers, installing the operating system, manually downloading the backup data from the many backup tapes, and finally, building the application. Such a scenario was full of faults would rarely work. In addition, backup procedures were developed

in-house and all backup handling was performed manually.

As the technology evolved and our business transformed from home-grown solutions and applications to ERP solutions, another approach was inevitable. The high availability solutions started within the Information Technology Operations Team with the blessing of other IT teams and the encouragement and vigor of the Manager (CITG).

To build a strong, high availability infrastructure, the first thing ITG did was to adopt state-of-the-art backup technology. As everyone knows, backup is the first line of defense against any data loss or data corruption. Without a comprehensive backup strategy, all high availability and disaster recovery plans will be invalid. For a backup solution, IT has researched the market and studied many solutions before adopting IBM's Tivoli Management Solution (TSM). Tivoli provides a state-of-the-art backup solution without any manual intervention, as every backup is performed according to a planned schedule and tape handling is performed robotically, with all tapes being labeled by the backup software.

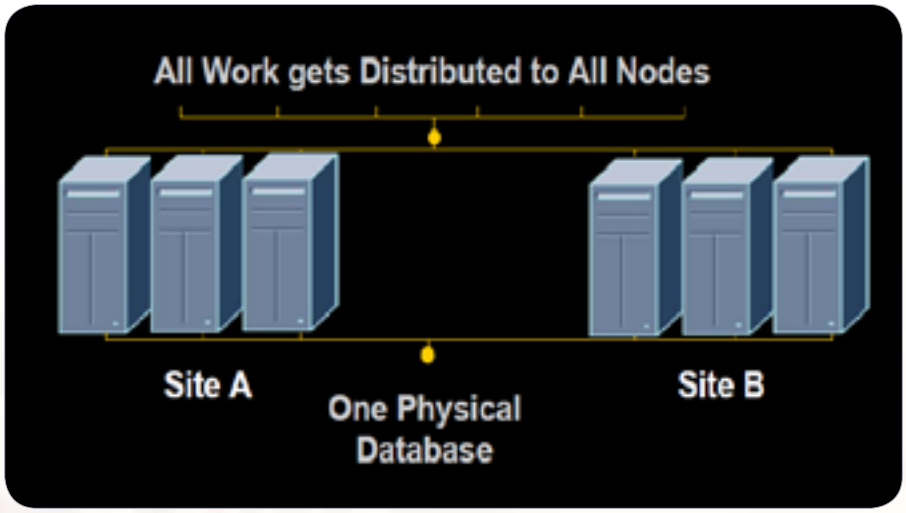
To complete the high availability cycle, CITG conducted a business impact analysis (BIA) study in order to identify mission critical applications that require disaster recovery and high availability setup. Once this was completed and finalized, a decision was taken to approach the high availability and disaster recovery setup by addressing the following components:

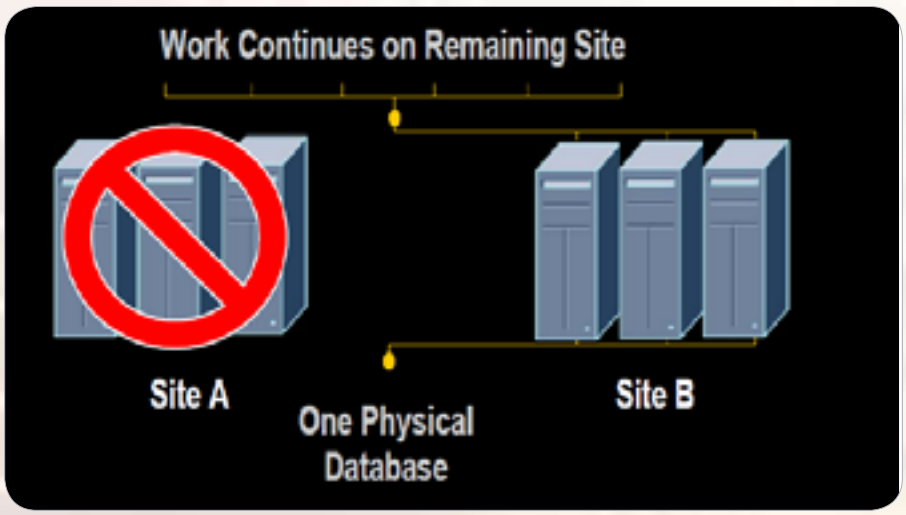
1. Network

2. Database

3. Backup

4. Application





1. Network

Network availability and reliability is a key element for the KOC network architecture. Best practice standards have been followed for the fault-tolerance within the network infrastructure. Hardware level redundancy has been achieved in the core switches and distribution switches.

2. Database

All of our mission critical applications run using the Oracle database. Oracle provides a high availability solution for databases. This solution is called Oracle Real Application Cluster (RAC). RAC allows Oracle database to run any package or custom application across a set of clustered servers.

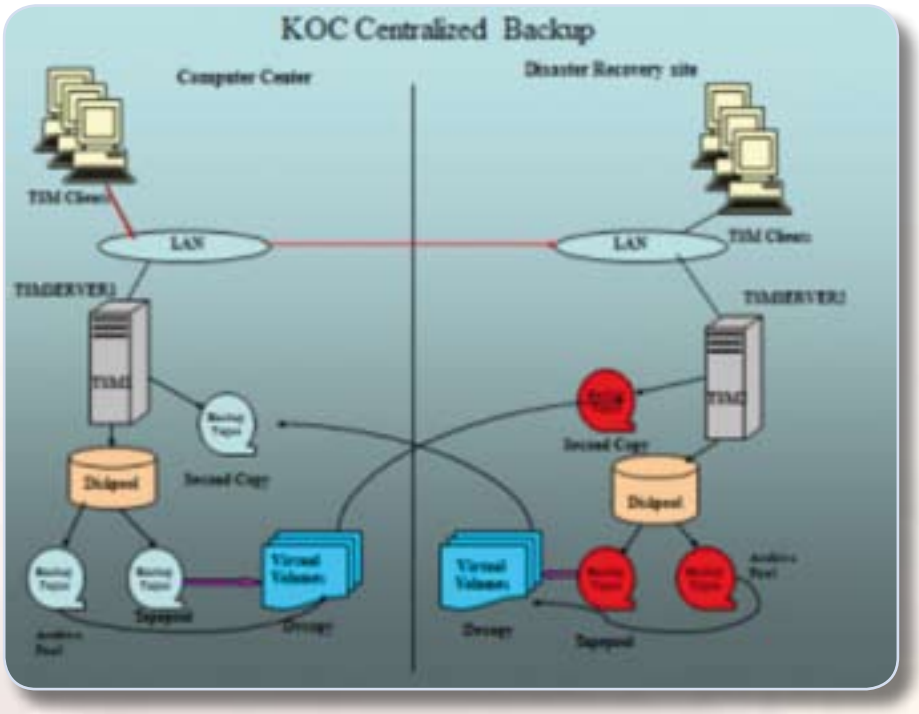
If one cluster server fails, the Oracle database will continue running on the remaining server.

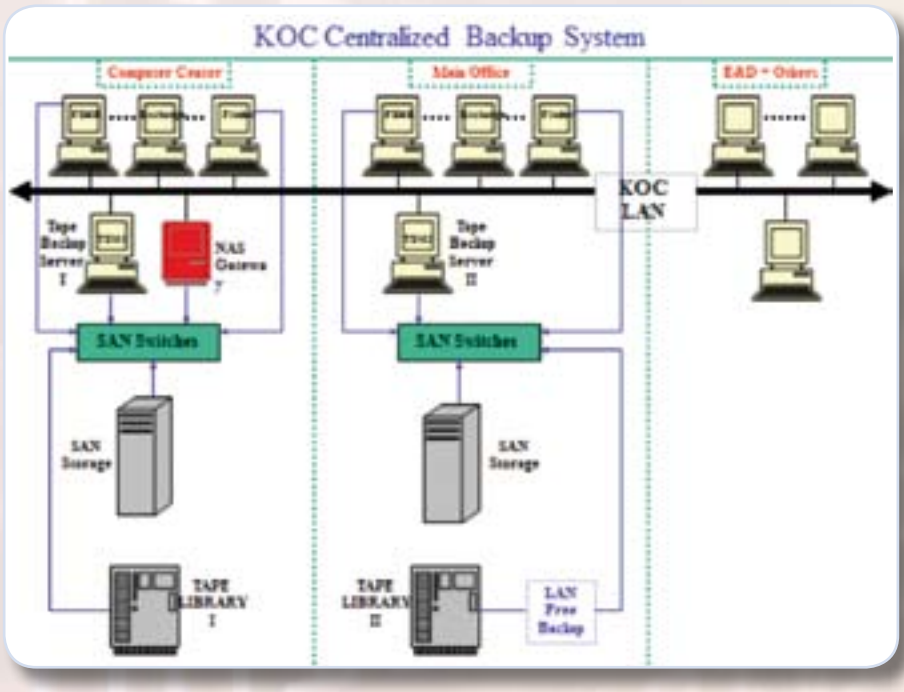
The following are the main benefits of adopting such a solution:

- High availability: Provide highest level of database availability. Each server contains one instance, but all are treated as one physical database. This database is spread on more than one server, and a failure on one of the servers will keep the database running on the other servers without the users noticing the failure. Once the failing server is fixed and comes back to the pool of servers, Oracle will update the new server with the new data.
- Reliability: Removing the database server as the single point of failure; if an instance fails, other instances in the cluster are open and active and will continue running.
- Recoverability: Easy recovery of the database from all type of failures.

3. Backup

KOC has a centralized backup system





to backup KOC critical data using IBM's Tivoli Storage Manager (ITSM) Software.

The following are the main benefits of ITSM in the KOC environment:

- Centralized backup of the heterogeneous environment where we have different operating systems like Windows, AIX, Solaris, IRIX, HP-UX, and Linux,
- Online backup of different databases such as Oracle and Microsoft SQL server,
- Electronic vaulting of tapes (for 2nd copy of backups) and no manual tape handling,
- Automated generation of disaster recovery scripts, which will help in faster recovery in case of TSM server crash,
- Daily automated online backups exchange mail store and daily automated restore of exchange mail store at the disaster recovery site,
- Policy driven backup retention. Different policies as per requirement of different applications, and
- LAN free backups – faster backups and reduction in LAN traffic.

4. Application

Changes to the application happen by applying new patches, bug fixes and/or new releases. Although an application does not change as often as a database, it is vital that the application be secured and high available. Building the same application in many different servers between the Computer Center and the disaster recovery site, using a load balancer, will provide the highest availability in case of a failure in one of the servers or a major disaster in the Computer Center. In case of such failure(s) the load balancer will guarantee that the other computer server(s) will continue functioning without any notice from the users.

A load balancer is dividing the amount of work that a computer has to do between two or more computers so that more work gets done in the same amount of time and, in general, all users get served faster. In addition, a load balancer can be utilized to segregate connections according to business function. An example is having internet and external users accessing one server only. Load balancing can be implemented with hardware, software, or a combination of both. Typically, load balancing is the main reason for computer server clustering.

Conclusion

Building a disaster recovery (DR) is a dynamic and on-going live process. It requires a lot of attention, maintenance, and continuous investment. Providing a high availability setup for our critical applications is essential in keeping KOC's business running without interruption.

Research and Technology Group's Leading Edge

Submitted by: Garry Kolafa, Consultant, R&T Group

Introduction

There has been a wealth of new technologies that have, and have not, hit the market yet. One of the R&T group's main activities is to monitor and time such developments into the needs of our upstream operations at KOC. Here is a fresh look at some of the more important technologies that may play a part in KOC's future and that are under study with the Research and Technology Group's consultants.

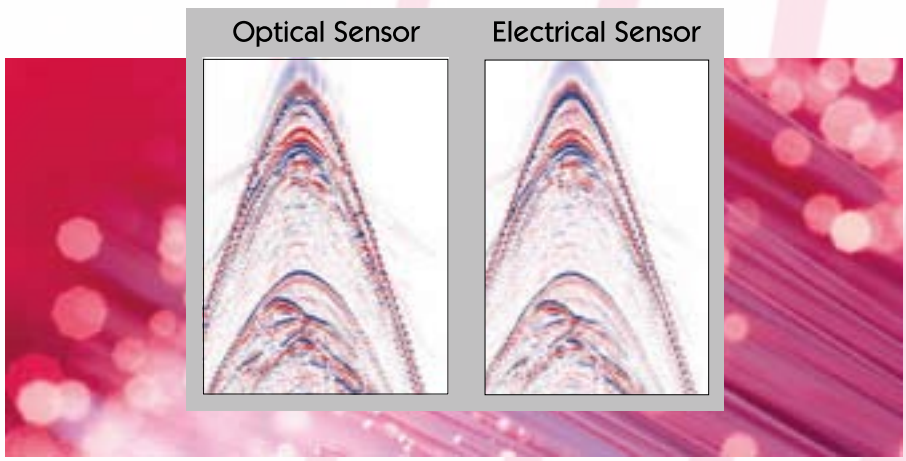
First, we will look at two technological developments that are designed for exploration and production activities and their significance in our operations. One is the development of fiber-optic seismic recording systems that are used in Life of Field Seismic feasibility studies (LoFS) and permanent reservoir monitoring (PRM). By applying such systems we are able to overcome many of our challenges in monitoring older and mature fields where the ambient noise levels have risen since the first days of recording over them, when no surface facilities were in place and only camel's footsteps and shepherds walking produced noise on the seismic records, and secondly, in offshore reservoirs where we also are interested in overcoming costly challenges of deployment and long-term monitoring. The second technology which complements offshore seismic in a very positive way and mitigates risk and helps increase success rates in drilling is known as "CSEM", or Controlled Source Electromagnetics.

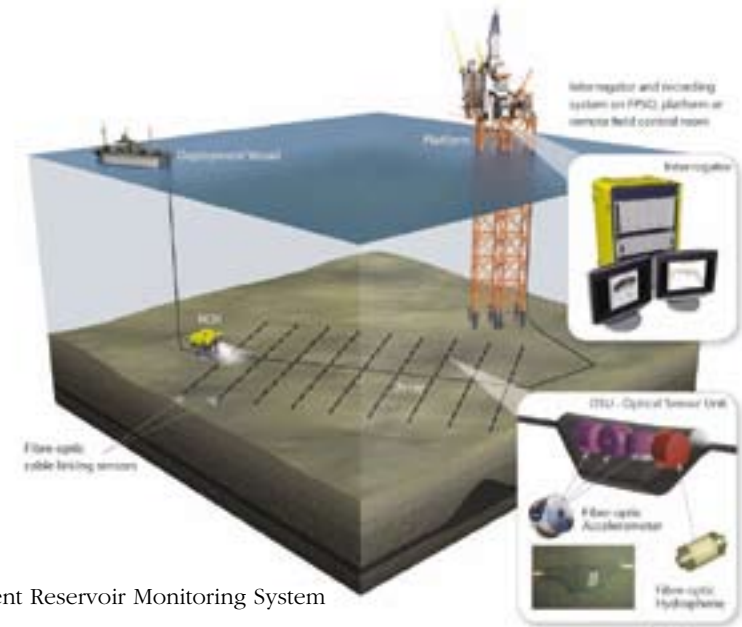
Garry Kolafa
Consultant, R&T Group

Permanent Reservoir Monitoring

Seismic Permanent Reservoir Monitoring (PRM) systems use highly efficient multiplexing architectures to combine high performance fiber-optic hydrophones and accelerometers into an electrically passive sensor network which, when deployed over a producing oilfield, allows seismic imaging of the reservoir. This imaging, over time, enables a greater understanding of reservoir behavior as it is drained, assisting oil companies in increasing total recovery while reducing production costs and risks. It is thoroughly complementary to our existing efforts with our KwIDF pilots and roll-outs. Seismic PRM may be used to monitor flood fronts, map changes in pressure, identify bypassed compartments, and monitor fracturing and stimulation operations. One may use the system to also plan infill drilling locations, sweep remaining oil more effectively, and maintain production with injection management.

Conventional seismic data acquisition systems are based on electrical sensor technology, which requires large amounts of underwater electronics and electrical power. Fiber-optic systems, being powered by light, offers reduced size and weight, reduced environmental impact, more efficient installation and significantly increased reliability. Additionally, they are largely immune to undesired noise sources that permeate conventional systems via electromagnetic induction (EMI). Fiber-optic seismic systems enable oil and gas companies to accelerate production and increase





A Permanent Reservoir Monitoring System

their reserves while reducing cost and risk through improved reservoir management strategies. Complete solutions from planning, equipment supply and installation, acquisition, processing and answer products are now available and may have great impact when applied. The most effective project approaches will understand the interdependencies and opportunities provided by taking an integrated approach to the supply of equipment and its installation.

As we speak, IOCs are moving rapidly with reference LoFS studies and solutions that are being conducted and exercised on the Clair field. A second study evaluates the impediments and risks associated with cost-effective LoFS solutions for the Schiehallion field on the Atlantic margin. The fields are produced through sub-sea completions and an FPSO, resulting in an obstructed and changing seabed environment which brings new challenges for the installation of PRM systems.

Controlled Source Electromagentics

We can now move on to have a quick look at CSEM technology, which is a geophysical method for resistivity mapping. By mapping the resistivity of subsurface bodies we are in a position to discriminate between low resistivity bodies such as seawater, and mid-resistivity bodies such as formations with varying saline water saturations, and highly resistive bodies, such as oil-bearing formations. This ability to distinguish the amount and extent of highly-resistive bodies is helpful when integrated and co-plotted along with seismic data, to establish an interpretation that not only indicates the structure, but where inside the structure, the oil is actually located.

The CSEM data and the seismic data may be acquired and processed three-dimensionally, one may invert both types of data to produce valuable attributes in reservoir characterization, that may be applied over time in understanding changes in the reservoir four-dimensionally, or as in a permanent reservoir monitoring solution.

On land, electromagnetic techniques have long been used to help recognize resistive anomalies and identify hydrocarbon bodies, as well as, mapping basements. They include techniques such as, transient electromagnetics (TEM), controlled-source magneto-audio tellurics, (CSMAT). [CR] Complex Resistivity (multi-frequency IP), [RP/TDIP] Frequency and Time Domain IP, [ERT] Electrical Resistivity Tomography, [CSAMT] Controlled Source Audio-Frequency Magnetotelluric, [MT] Natural Source Magnetotellurics, [TDEM] Transient Domain Electromagnetics, [NanoTEM] Early Time TDEM.

Conclusion

In an effort to balance our R&T portfolio, and engage and implement environmental technologies that leverage oil production with alternative energy sources, and produce CDMs, we are working with new discoveries by MIT and others, where R&T is taking a leading role in scaling up these discoveries to commercial and green applications, and mixing and matching other newly developed environmental technologies to produce viable solutions for the oil and gas industry in Kuwait and elsewhere.

Kuwait Goes Nuclear

Plans underway to build four power stations

"Opposition to nuclear energy is based on irrational fear fed by Hollywood-style fiction, the Green lobbies, and the media. … Even if they were right about its dangers - and they are not - its worldwide use as our main source of energy would pose an insignificant threat compared with the dangers of intolerable and lethal heat waves and sea levels rising to drown every coastal city of the world. We have no time to experiment with visionary energy sources; civilization is in imminent danger and has to use nuclear, the one safe, available energy source, now, or suffer the pain soon to be inflicted by our outraged planet." James Lovelock- From the London Independent – May, 2004

Introduction

The power generation issue in Kuwait has been at the forefront of discussion during the past several years, particularly during the summer months when a shortage in power often results in power brownouts and blackouts. Air conditioners are the main source of electrical consumption, so it is not surprising that in such a hot country, demand is much higher during the summer months. According to the Ministry of Electricity and Water (MEW), in 2009 electricity and potable water production required (in equivalent per day) 15,000 barrel oil of imported gas, 40,000 of crude, 85,000 of local gas, and 200,000 of crude refined products.

Given that the government subsidies power to a huge extent, there has been little incentive for residents to reduce consumption. Campaigns have helped the situation, but it has not been enough. In addition to changing attitudes and behaviors, the State also has to look at increasing the supply to meet demand. According to MEW, peak load measured as installed kW/ Kuwaiti is expected to increase from 3.9 in the year 2010 to 4.8 by 2030.

But how exactly should the country meet the increasing demand? There is lots of oil in the country, this is true, but burning crude oil in the power plants is not the most economically viable solution. It would be better, depending on the price of oil of course, to sell the oil on the international market and to use other sources of energy for local consumption. In addition, the current OPEC cap on Kuwait's oil production of 2.7mpbd means that extra oil cannot be produced in order to satisfy local consumption.

One form of energy being seriously considered is nuclear, which is coming under some controversy. However, when one takes a closer look, it does make sense. Not to mention that other countries, France most notably with 75% of its electricity coming from nuclear power, serve as an example that nuclear can indeed work.

One of the most attractive points of nuclear power is that it is a relatively clean form of energy. Yes, there is the waste that needs to be dealt with, but nuclear does not produce the greenhouse gases that result from the burning of oil and coal. In the State of Kuwait, for instance, it is estimated that over 25 tons of CO2 equivalent per capita is produced every year. According to Dr. Jeremy Whitlock of Canadian Nuclear, "the waste stream from nuclear energy is the most manageable of any option for large-scale electricity production. Each 20 kg spent fuel bundle is a compact, highly inert package, containing all of the waste products created by over a million kilowatt-hours of electricity. This amount of electricity produced by coal would create 100 tonnes of ash, 1000 tonnes of carbon dioxide, and 5 tonnes of acid gases, deposited in the atmosphere or in landfills."

However positive nuclear energy looks on the one hand, there is also a flip side to the argument. For instance, the issues of nuclear waste and how to effectively dispose of it, having access to a safe and steady supply of nuclear fuel, selecting the right technology, developing a skilled workforce, and security need to be addressed.

Kuwait National Nuclear Energy Committee (KNNEC)

The seriousness with which Kuwait is considering nuclear power was evident in 2009 when the Kuwait National Nuclear Energy Committee (KNNED) was formed. Headed by the Prime Minister, the committee has the following goals:

- Develop policies for a peaceful nuclear program,
- Prepare all the requirements and needs for hosting a peaceful nuclear program,
- Collaborate with the owners of well-developed and safe nuclear technologies,
- Cooperate with competent organizations to have access to information, studies, and research facilities on the use of nuclear energy for peaceful purposes,
- Follow-up on the latest developments and techniques in the field of nuclear energy for peaceful purposes, and
- Cooperate with the International Atomic Energy Agency (IAEA) and follow its guidelines.

To reach these goals, the committee has already signed MOUs and agreements with leading businesses in countries such as France, the USA,

Kuwait power fact file, 2009

Installed generating capacity (MW)	**10,825**
Peak power demand (MW)	**10,500**
Growth in peak power demand (%)	**8**
Reserve power margin (%)	**3**
Largest generator	**MEW**
Number of power customers	**800,000**
Number of IPPs/IWPPs concluded	**0**
Additional capacity requirement by 2019 (MW)	**17,925**
Estimated cost of required capacity ($bn)	**21.5**

IPP=Independent power project; IWPP=Independent water and power project. Source: MEED Insight

Japan, Korea, and Russia. In addition, Ahmed Bishara, Secretary-General of KNNEC, announced in 2010 that Kuwait plans to build four nuclear 1,000MW power reactors by the year 2022. "Nuclear energy would help Kuwait cut high carbon dioxide emissions, that reach 30 tons annually per capita, and would meet 15-20% of Kuwait's total electricity needs", he said.

According to a presentation by KNNEC in Tunis in December of 2010, the committee is also considering all aspects of a nuclear program and, as such, has many programs in place to deal with a wide variety of concerns. Some of these programs include:

- Consultancy Studies Program, which looks at the supply and demand situation within the State of Kuwait, prepares feasibility studies and nuclear power plants sitting studies, models the electrical load and the electric grid network, prepares terms of reference for power stations, and reviews opportunities in terms of operation and supply of international operators;
- Capacity building for staff;
- Communication and Public and External Relations;
- Legal and Regulatory Affairs, which prepares national legislation, develops a nuclear energy policy, identifies and complies with international agreements, prepares domestic approval agreements, and deals with the budget estimates;
- Regulatory and Institutional Requirements, which examines the organizational needs, establishes the National Atomic Energy Authority, establishes an authority for the monitoring of the environment and the health of the population, and asses the security needs;
- Development of National Work Force, which includes the preparation of engineers and scientists in conjunction with Kuwait University and the Kuwait Institute for Scientific Research;
- National Coordination Program; and
- Scientific and Technical Information of Nuclear Energy.

The International Atomic Energy Agency (IAEA)

The IAEA assists countries in implementing nuclear programs and has a 'milestone' method for new countries based on 19 issues in three project phases:

Pre-project. The first phase of the project lasts between one and three years and results in knowledgeable commitment and the establishment of a Nuclear Power Program Implementing Organization (NEPIO).

Project Decision-Making. Lasting 3 to 7 years, it includes all of the preparatory work and the establishment of a regulatory body.

Construction. Including building, commission, and operation, this phase lasts 3 to 10 years.

Conclusion

The State of Kuwait needs to address the energy situation in the country and has ambitious plans for the near future. Whether or not the time targets will be met will depend largely on how quickly the legal and regulatory frameworks can be established and whether or not the extensive safety guidelines can be met. It will also depend on how supportive the Parliament is of the idea and whether or not blocking mechanisms are put in place. Regardless, neighboring countries with a similar interest in nuclear power will be watching Kuwait closely and if all goes well, Kuwait will go nuclear in the near future.

A Positive Example for All

Ashok Garlapati is recognized

A familiar face to many working at the Kuwait Oil Company (KOC) and involved in various organizations within the State of Kuwait, Ashok Garlapati, Sr. HSE Specialist - Health Safety & Environment Team (E&PD), sets a positive example for all. His work within the Company and on committees of various engineering voluntary organizations has gained him national and international recognition.

Most recently, Garlapati was appointed Chair of the ASSE (American Society of Safety Engineers) Diversity Committee for the year 2010-2011. The objective of the committee is to promote the principles of fairness and respect for all individuals and develop the leaders of the society through diversity. It also supports the society through the provision of technical support necessary to meet the challenges of an ever-changing world. He is the first international ASSE member to be appointed Chair of the Diversity Committee. His appointment was not unexpected as he has served for many years in the ASSE – Kuwait Chapter in different positions including Committee Head, Secretary, Vice-President, President and Advisory Committee member. ASSE is an international non-profit organization with the objective of protecting people, property and the environment.

Garlapati explained that HSE engineers have a particular mindset and believe that safety is everybody's responsibility. As such, it is their duty to focus on the safety and health of the people and the protection of the environment and property, while advising employers, employees, clients, the general public, and the appropriate authorities of the potential dangers and risks. This attitude is evident in every sphere of their lives and is inherent in their nature.

Receiving the Charles Culbertson Award in the year 2008 from Mr. Mike Thomson, the then President of ASSE

"HSE is everybody's responsibility. I joined ASSE to develop my technical and professional skills as ASSE is based on well-established guidelines. I can confidently say that ASSE has given me the platform upon which I could develop my technical skills and earn a string of HSE-certifications in the process", Garlapati said in praise of ASSE. Garlapati holds international Certifications of CSP (Certified Safety Professional from BCSP, USA), QEP (Qualified Environment Professional from IPEP, USA) and CMIOSH (Chartered Member of the Institute of Occupational Safety & Health, UK). In addition, Garlapati was able to use his ASSE connection as a base to reach the larger community and was involved in the annual "HSE Pupil's Week", where debate, elocution, and drawing competitions get kids focused on HSE issues and inculcates HSE attitude. He was also involved in beach and garden clean-ups, poster competitions for school children, and blood donation campaigns for the community at large.

His contributions have not gone unnoticed and in 2010, Garlapati was awarded the Safety Professional of the Year (SPY) by Region VI of the ASSE. The award is given to members who have:

- Demonstrated knowledge and expertise in both technical and operational aspects,
- Served ASSE at the chapter,

regional, and international levels,

- Contributed to the HSE field through authorship of papers in journals and conferences, to community services and academics, to the development of codes and standards, etc.,
- Received previous honors and awards in innovation and improvement of conditions in his/her area of influence in HSE,
- Shown a proven track record in management and leadership,
- Received endorsements from other ASSE members and pioneers in the field of HSE, and
- Demonstrated relevant accomplishments in the HSE area.

"I provided OSHA outreach training to many ASSE members and they are, in turn, continuing to make a positive difference in their places of work. Recently, we introduced the ASSE GCC HSE Excellence Award for the private sector and I played a key role in promoting this award scheme. This is the first of its kind in recognizing private sector companies and good HSE performance. Serving ASSE is my passion and I really enjoy this service", Garlapati explained, "the SPY Award was a great encouragement for me and I have dedicated it to my family, my fellow ASSE members, and my Team members for their unwavering support of my endeavors."

Another award, the Charles Culbertson Award (2008), was granted to Garlapati for his contributions to the globalization of ASSE; he was a member of a Global Taskforce in 2007 aimed at enhancing ASSE. One of his biggest contributions was the introduction of annual membership fees based on the World Bank criteria for different countries. The annual fees for ASSE are US$120, which is fine for members in developed countries, but steep for those in developing and underdeveloped countries. With the new system, membership fees range from US$60-US$120 depending on the area. He was also awarded the ASSE president's Award in 2009 for his work with the Kuwait Chapter.

Recognition is rewarding, but arguably even more important is the link between ASSE and professional work; Garlapati is adamant that his association has allowed him to access the latest in HSE knowledge, which in turn has improved his, and other's, work performance. "We have a diverse community in our workplace and it is a challenge to deal with such a diverse workforce in terms of implementing HSE initiatives", he explained. It is also due to the support of KOC management that such improvement has been possible, and Garlapati is quick to thank his Team Leader, Hamad Al-Kandari; Manager, Yousef AbdulRahman; and DMD, Khalid Al-Sumaiti for their consistent support for his participation in ASSE activities.

Garlapati's Safety Tips for the Home

- Conduct regular checks of all electrical appliances, including cords and outlets
- Use light bulbs appropriate for the wattage of the fixture to avoid overheating and possible fire
- Use extension cords only on a temporary basis and use only those that can carry the intended load
- Never use an extension cord for large appliances such as air-conditioners
- Protect all electrical cords from damage due to abrasions and cuts and replace all damaged cords
- When purchasing electrical appliances ensure that they have a safety test mark such as the UL or TUV
- Be sure to use three-pronged electrical items in three-pronged outlets
- Give televisions, stereos, and computers enough air clearance so that they do not overheat
- Use appliances only for their intended purpose
- To prevent overloading, never use more than two appliances in one outlet
- When a fuse or circuit breaker trips, find the cause and correct it; there is a reason why it happened
- Help to conserve energy by using lights and appliances only when necessary

Learning to See

KOC Adopts Lean Six Sigma

Project Overview

The Kuwait Oil Company's (KOC's) balanced scorecard for 2010/11 includes a strategic initiative that involved the implementation of Lean Six Sigma. Consequently, in November of 2010, the Exploration and Production (E&PD) Directorate along with the Research and Technology Group and the Planning Group employed SSA & Company and together started the process, with the selection of Green Belt candidates who will initially run part time projects expected to deliver $50,000/project or equivalent business benefit which do not extend beyond the Group level.

R&T Manager, Dr. Adel Al-Abassi, addressing the audience

This was followed a few weeks later with the introduction of the project to upper management, identification of smaller four-month long projects where the concepts could be introduced, and training of the Green Belt employees.

> Six Sigma is a methodology that allows companies to drastically improve their bottom line by improving processes and monitoring everyday business activities in ways that minimize defects and waste while maximizing customer satisfaction.

Championed by DMD (E&PD), Khalid Al-Sumaiti, the introduction of Lean Six Sigma will be more than just a pilot project. According to Dr. Adel Abassi, Head of the Steering Committee, "this represents a huge shift in our quality". Using Petrochemical Industries Company (PIC) as an example, where 10% of the organization is certified as either Green Belt or Black Belt, and 100% of employees are involved to some extent with Lean Six Sigma, KOC is eager to follow PIC's example and to realize the same benefits in savings, efficiency and staff development.

The difference between Six Sigma and Lean Six Sigma

Most people have heard of Six Sigma; indeed, it has existed since 1986 when Motorola introduced it as a business management strategy. Originally, it was designed to improve manufacturing processes and to reduce the number of quality defects, but the concept quickly expanded to other types of business process. The definition of defect is now applied to any process output that is not meeting customer expectations. The output of a process is a function of its inputs, so Six Sigma practitioners work to understand and control the sources of variation in process inputs in order to deliver a higher quality output with lower variation. A stable process with low variation in its output quality will, measured statistically with standard deviation, be able to maintain six standard deviations between the mean average output and the customer specification limits. These Six Sigma (Standard Deviations) mean that 99.99966% of all outputs are expected to be defect-free. The concept of Six Sigma is to reach this measurement in the outputs, regardless of what they might be, and it is a goal, a vision and a measure of process capability.

As with other quality control principles, Six Sigma looks at

C&MD, DMDs and other senior officials at the event

attaining stable and predictable results, continuous quality improvement, and support from top management. In addition, Six Sigma considers the financial implications of the projects, emphasizes management support, and uses provable data for the basis of decisions rather than guesswork. The focus here is on defects and other variability. As a process, it reduces variation through the use of the DMAIC (Define, Measure, Analyze, Improve, and Control) methodology by identifying the root causes of variation, implementing solutions, and having control plans to maintain gains identified.

Lean Six Sigma extends the concept of Six Sigma and combines it with Lean Principles allowing broad process issues as well as detailed technical problems to be improved. As a tool, it helps organizations improve processes that impact margin and cash flow, and is a way to execute business. In other words, it removes the barriers that impede the flow of value in a process, and can be summarized in five principles:

1. A focus on value,
2. Identification of the value stream,
3. Enabling value to flow without interruptions,
4. Allowing the customer to 'pull' value, and
5. Continuously pursuing perfection.

Lean Thinking comes from the Toyota Motor Company and its elimination of non-value-added waste, or in other words, fat. So the idea is to trim the fat in all areas of business operations; done by identifying the value stream, focusing on the value for the customer, allowing the customer to pull value, and identifying and using methods for continuous improvement. The fat, or waste, can be identified and may include:

- Defects,
- Overproduction,
- Transportation,
- Waiting,
- Inventory,
- Motion (excess movement within a process),
- Excess processing (gold plating), and
- Not leveraging human intellect.

SSA & Company's methodology takes Lean and Six Sigma, in addition to change management strategies, and applies it to all areas. The results include:

•Reduced Cycle Time,

•Improved Resource Utilization,

•Defect Reduction,

•Increased Customer Satisfaction,

•Improved Process Capabilities, and

•Significant Reduction in Operating Costs.

What is a Green Belt?

Green Belts are employees in the company who have expertise in an area and are able to evaluate processes and procedures, both quantitatively and qualitatively, on factors such as customer satisfaction, cost, time, etc. and recommend improvements.

Green Belt candidates in KOC were chosen according to how well their profile matched the Green Belt qualities, which included:

- Interest in Lean Six Sigma,
- Process orientation and an ability to see the big picture,
- Knowledge of the process and how the projects will impact the organization,
- Ability to spend the required time (50% of work time),
- Eagerness to learn,
- Ability to perform mathematical analysis,
- Customer orientation,
- Basic facilitation and group-work skills, and
- Organizational and administrative skills.

In addition to leading smaller project, Green Belts are used in organizations to assist the higher-level Black Belts on larger projects, to assist management in reviewing improvements and in ensuring that the approved changes are sustained, identify new potential projects, execute the Breakthrough Strategy methodology, and communicate to all stakeholders.

Green Belt training at E&PD

Initially, 16 employees are given Green Belt training and manage Green Belt projects, which are characterized as 'a discrete, well-scoped, planned activity that is focused on fixing a customer or business problem within a finite time frame'. The time frame at KOC is four months.

As with any project, having a project charter is essential, and each Green Belt is responsible for refining the project charter as well as other project management processes. The Green Belt leads project team members to solve business problems by applying the DMAIC methodology and guides the team to apply the right tools for their situation. However, they are not on their own and receive support from the Project Champion (the Green Belt's Manager or Team Leader), who is responsible for removing barriers and ensuring that the project progresses to completion, and the Master Black Belt (Ian Buxton of SSA & Company), who provides technical direction.

When looking at potential projects, Green Belt candidates need to consider the following objectives:

- 70% reduction in defects is a typical goal, and
- First-time projects should:

  - Have high priority,

  - Include opportunities to learn and apply the appropriate tools,

  - Have a high probability of success, but solution is unknown,

  - Have commitment of resources,

  - Focus on processes with frequent units and defects,

  -Have a Measurement System in place,

  -Be executable in 4 – 6 months,

  - Be tightly focused with a precise defect definition, and

  - Preferably be within the work area of the Green Belt.

The initial Green Belt training at KOC took place during the last two weeks of January, 2011, and was divided between Lean and Sigma. In addition to learning the Six Sigma concepts of DMAIC, candidates were also given statistical, problem solving tools and waste identification tools. During the course, process simulation was used to apply the tools in practice and gain this experience prior to using the tools in the projects. The steering team reviewed draft charters for the projects and approved the selection and assignment to individual Green Belts from Planning, Development Drilling, R&T, Deep Drilling and Well Surveillance.

Next steps

After initial training, the Green Belts are on the project for four months, committing up to 50% of their time to project activities. Ian Buxton provides coaching support in Kuwait on both 1-1 and group basis for 2 weeks of every month. Once the projects are completed, best practices and lessons learned will be documented and presentations on the individual projects will be made by the Green Belts.

The next step after that is to look at applying Lean Six Sigma in the other Directorates, to expand the program to include Black Belts, and ultimately to reach the level of PIC where 100% of employees are involved to some extent in the application of Lean Six Sigma to improve quality and achieve KOC's 2030 Strategy. The result will be a fact-based, data-driven, decision-making culture that will drive continuous improvement in all areas of KOC and unlock the potential of KOC staff.

Centre for Leadership Development

Identifying and developing tomorrow's leaders today

Background

The Center for Leadership Development (CLD) at the Kuwait Petroleum Corporation (KPC) was established in November of 2008, with the aim of developing the capabilities of the leaders in the Kuwait oil sector. With a vision to 'identify and develop competent and talented leaders to support the KPC vision, mission, and strategic directives', the Center is an important focal point for the future of the K-Companies.

As an independent body reporting directly to the CEO, it is responsible for establishing active leadership development, enhanced performance, and the implementation of a succession planning process within the Kuwaiti oil sector. As such, the philosophy of the Center reflects a focus on the entire oil sector, rather than just a KPC focus, and includes:

1. Establishing a 'Think K' culture that will create a strong and integrated organization,
2. Ensuring that oil sector leaders are ready to take up executive positions,
3. Helping executives develop their full potential against validated career aspirations,
4. Facilitating inter-company and cross-functional career progressions, and
5. Promoting the KPC value system.

Salma Al-Hajjaj
Director of the CLD

The main areas of work of the Center are:

- Setting a leadership development strategy – this would include development of a leadership model focusing on 'need of the hour' competencies and setting leadership development strategic directives that will ensure achievement long-term business goals.
- Executive Performance Monitoring & Gap Analysis - Planning, conceptualizing and monitoring implementation of performance management and gap analysis

initiatives that will help build an accurate and objective profile of every potential leader of the oil sector.

- Leadership Development - Monitoring implementation of various leadership development initiatives overseen by the Leadership Development Committees for various executive levels.
- Succession Planning & Executive Selection - Assisting various Leadership Development Committees in ensuring setting up of objective and effective succession planning initiatives and implementation of a fair, objective and consistent executive selection process.

Once the identification process is completed, the development of the leader is accomplished through individual development plans, leader development activities, competency monitoring, professional advice, database maintenance, leadership development committee meetings, and one-to-one feedback sessions.

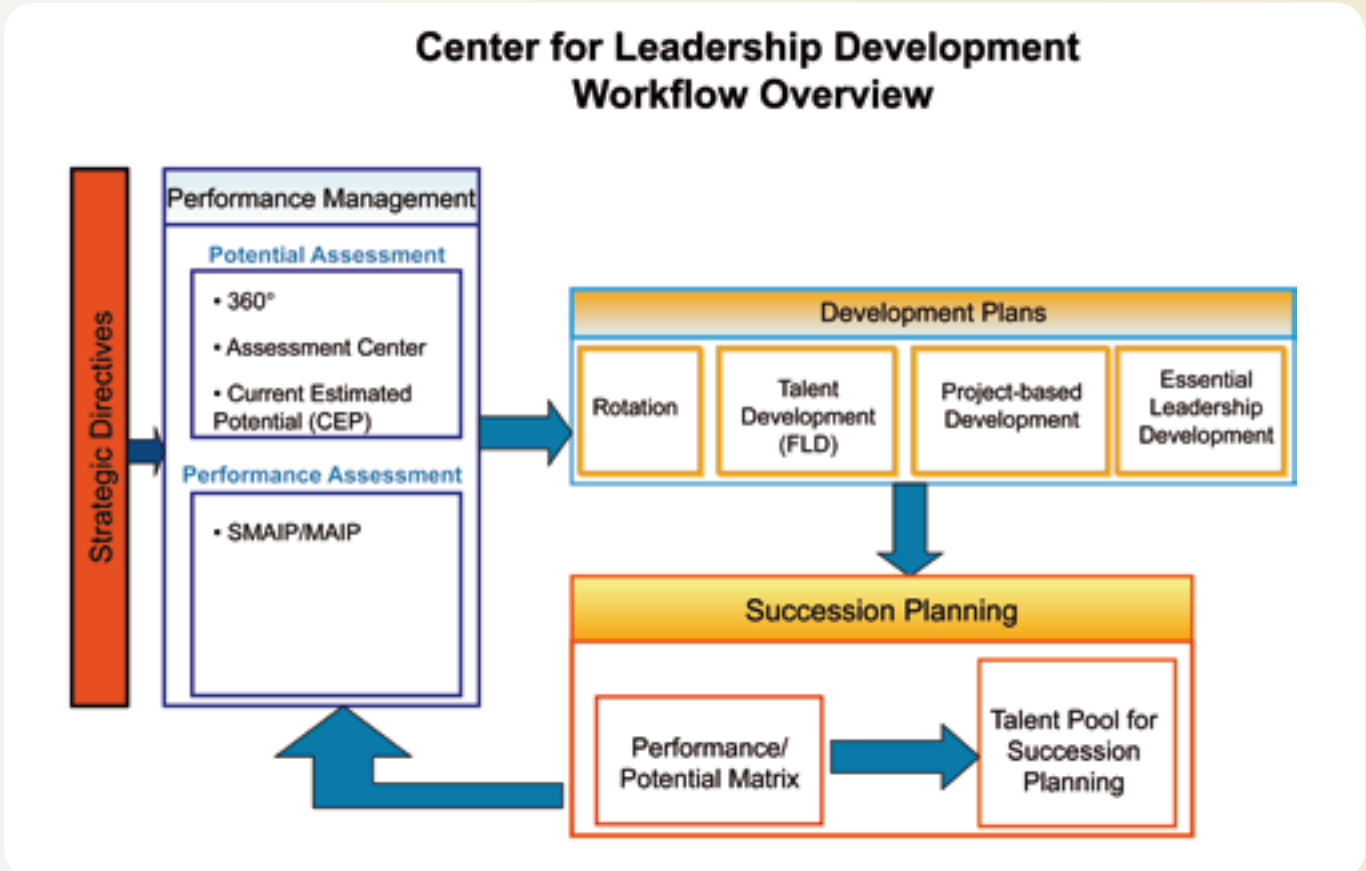
It should be noted that the CLD is complementary to the existing training for all oil sector employees and focuses exclusively on developing upper management. Indeed, there is close communication and cooperation between the various training programs to ensure that leadership training is actually enhanced rather than duplicated.

> CLD is a formal establishment of the process of leadership development based on state-of-the-art practices that will serve the requirements of not just the oil sector, but the State of Kuwait.

Leadership Model

Speaking with Salma Al-Hajjaj, Director of the CLD, she explained that the first thing required to set the scene for CLD was to establish a Leadership Model that reflects the competencies required in our current and future leaders in order to take the oil sector into the next millennium. CLD, after undertaking extensive research and with the involvement of senior leaders, developed the oil sector leadership model under the umbrella of Think K; meaning think not only about the K company, but about Kuwait as a whole:

"Think K is a leadership model that has four competencies: taking ownership, focusing on people, driving performance, and creating integrated value", Al-Hajjaj explained. In particular, taking ownership means holding oneself, as well as others, accountable for delivering results and demonstrating assertiveness, optimism, and composure at all times. Focusing on people is, not surprisingly, acting as a coach who



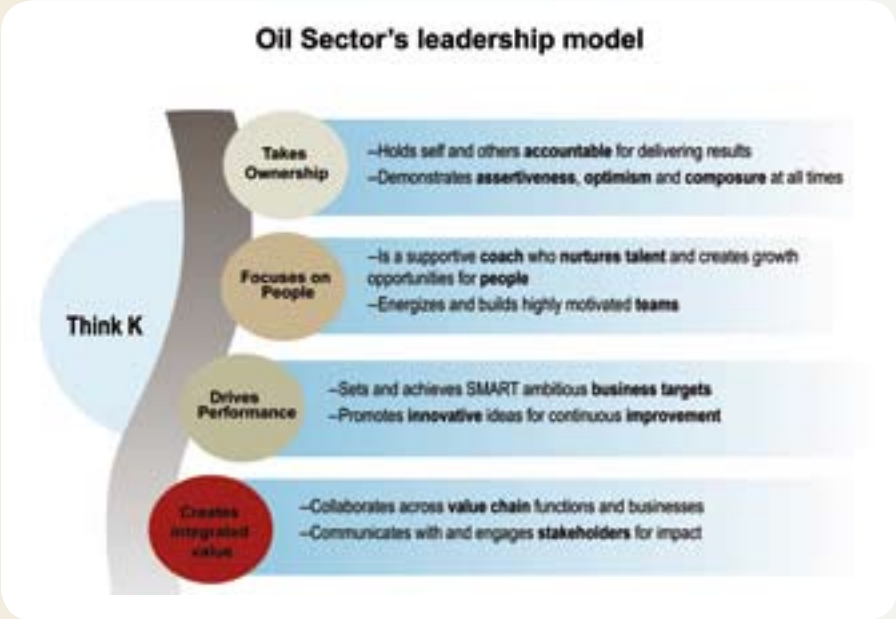
nurtures talent and creates growth opportunities for people and who, as a result, builds and maintains highly motivated teams. According to Al-Hajjaj, "Coaching is the process of equipping people with the tools, knowledge and opportunities they need to develop themselves and to become more effective. It is the role of the coach to shape the environment, equip the coachee, and orchestrate the development process". Driving performance means setting and achieving SMART ambitious business targets, and promoting innovative ideas for continuous improvements

Think K

Al-Hajjaj explains that Think 'K', is a new and innovative program at the Centre. The idea is to have 'senior management play a positive and effective role as change enablers by implementing the Think K concept through meetings among senior management in the oil sector that focus on accomplishments, major projects, news and reviews of the industry, and best practices'.

The aim is to promote the Think K concept through the following elements:

1. Ensuring synergies in operations resulting in the advancement of KPC's 2030 strategic objectives with specific roles of various subsidiaries/sectors,
2. Improving relationships with sister companies which have interdependent operations in order to improve efficiency, realize cost savings, and optimize the value chain,
3. Promoting an understanding of KPC values and building value-adherent workforce,
4. Demonstration of leadership behavior based on the leadership competencies,
5. Promoting a culture of innovation and professionalism through the sharing best practices and ensuring knowledge management, and
6. Playing a positive role in shaping the careers of the next generation employees



To reach the objectives, each MD and DMD is required to hold at least 2 events per year, with a target of 3 events, and a stretch of 4 events.

K Lead - Essential Leadership Learning Curriculum

Another new project currently underway in the Center is K Lead, which is a leadership program with a built-in curriculum that covers all the needs of leaders and establishes a culture of leadership. K Lead is a learning curriculum that defines the framework for the level of sophistication, learning and finesse required of the leaders of the Oil sector.

The anticipated outcomes of the project are increased employee competencies including:

1. A deeper appreciation of the key strategic mission and businesses of KPC and increased knowledge of the value chain within the context of the corporate whole – Think 'K',
2. A broader perspective on the oil & gas industry and global context,
3. Improved managerial and leadership skills, understanding and effectiveness, resulting in superior results and emergence of a distinctive 'KPC Leader' ,
4. The ability to work effectively as members of teams and cross-functional groups,
5. The ability to drive and manage the change process, and
6. Improved decision-making, founded upon a strong understanding of underlying business principles.

Conclusion

KPC strives continuously for improvement and to maintain its world class status. The CLD is an important piece in the overall puzzle to ensuring that the leadership of all the K-Companies is, and will continue to be, up to the standard. In addition, the success of the Centre benefits not only the local oil industry, but serves as a best practice for the entire global industry.

A Concept for Collaboration

Why the GCC cannot do it alone

Introduction

Early in February of 2011, representatives from various GCC companies convened in Kuwait for a one-day workshop on enhanced oil recovery (EOR) entitled "EOR Technology Implementation Workshop". This was a logical succession to the Kuwait Oil Company (KOC) joining the industry technology facilitator (ITF) (see inset), in late 2010, and was the first time for ITF to run a workshop in the GCC region.

Organized by KOC's Subsurface Team and ITF, the workshop focused on areas of collaboration within the GCC, stressing that the companies within the region will have difficulty in operating alone and that collaboration is not only more cost effective but also more creative with more potential solutions. Indeed, creativity across the globe and regardless of the industry is the key to success. The interest in the workshop was indicated by the number of companies in the region who attended and included from PDO, ADCO, Woodside, Total, Qatar University, Maersk Oil, Kuwait

Welcoming address by DMD (NK), Hosnia Hashem

University, QRI, Chevron and, of course, KOC.

The workshops

Welcomed by DMD (NK), Hosnia Hashem and Manager –R&T, Dr. Adel Al-Abassi, the purpose of the workshop is to stimulate informed discussion among the attendees on a variety of chosen topics. Hashem, who is also the Head of the EOR-KOC Committee stated that 30% of KOC's production by 2030 will be from EOR and the questions now are which technology to use, how much capital to invest, and how much resource to apply.

According to Al-Abassi, "32 billion barrels of oil are being used very year worldwide and there is great pressure to keep the price of oil down to prevent the development of alternative sources. We (in the GCC) share common challenges so it makes sense to collaborate. This workshop is a good opportunity to work together and face the challenges in a more efficient way."

Nigel Jenvey, Director of EOR for Maersk Oil delivered one of the opening talks and outlined EOR challenges in other regions. Specifically, he mentioned that EOR developments lag 5 years behind the price of oil and that not much has been done in EOR technology since the 1980s due to the high-price of oil. The 20 years of inactivity makes it hard to implement commercially-viable options today. The EOR Trilemma (see chart) explains the balance between technology

ITF

ITF is a not for profit organization owned by 25 major international oil and gas operator and service companies, which facilitates the funding, development and implementation of new technologies into the global oil and gas industry. It believes that ideas are the seed of innovation and has developed over 700 ideas in the last decade. Each year, ITF runs a series of international technology challenge workshops in conjunction with member companies; Aramco Services Company, BG Group, BP, Chevron, ConocoPhillips, DONG Energy, Eni, ExxonMobil, GE Oil and Gas, KOC, Maersk Oil, Marathon, Nexen, Petronas, PSN, Schlumberger, Shell, Statoil, TAQA, Technip, Total, Tullow Oil, Weatherford, Wintershall and Woodside. For more information on the ITF process and for example successful project case studies, see www.oil-itf.com.

and other factors such as cost, and highlights the important role that gas plays. In addition, a synergy exists between carbon capture and storage (CCS) and EOR, with a win-win situation where EOR has the potential to support the first 45 years of CCS and produce 1 trillion barrels of oil, while at the same time negating the need for the development of more costly, and unproven, CO2 storage options.

ITF facilitated the session in Kuwait, which focused on EOR challenges and technology implementation and included:

- High temperature – high salinity solutions. The challenge is to find commercially available, low-cost solutions. Today, 50g of salt/litre and 80°C are considered the lower end. However, not enough studies are being done today even though the potential is huge for EOR applications.
- Screening methods. The challenge is to have a screening process for candidates and an awareness of the new technology. Any method needs to be unbiased and to consider economics.
- Hybrids. The challenge is to leverage the strengths of the different processes to get the maximum benefits, including economic and time benefits.
- EOR chemical database. The challenge is to create the database, and there is a need to create a model, train staff, and have access to the data. Critical are transparent knowledge sharing and transferring.
- Reservoir management.
- Large-scale N2 injection.
- Heavy oil EOR.
- Low-cost chemicals.
- Fill simulation gaps.
- Smart water.

Manager –R&T, Dr. Adel Al-Abassi

Conclusion

The next step after the workshop is to capture the detailed discussions, analyze the information, create a call for proposals, and distribute the proposals to the global technology development community (over 2,000 developers). The received proposals will then be screened to see if they fit the challenges and appropriate proposals will be sent to ITF members for them to decide which ones they would like to fund. This could also result in the formation of collaborative join industry project (JIPs) with other companies. According to ITF, "This novel way of working leverages KOC R&T investment money, spreads the associated risks, and ensures that the industry is working in partnership to solve some of the most pressing EOR technology challenges".

The idea then is to have a project as a trial in order to determine where the barriers exist and to prove the potential success of collaboration. According to Al-Abassi, "What we have seen today is just the start, the planting of the seed, and we hope in the future to be able to harvest the fruit".

Participants and organizers of the workshop

PMI-AGC held the 13th PMI-AGC International Conference

"Delivering Value through Project Management: Lessons Learned from the Boom and Bust Cycles"

Submitted by: Masouma Nasser, Chief Multimedia Officer, Information Team

Under the auspices of His Royal Highness Prince Sheikh Khalifa Bin Salman Al-Khalifa, Prime Minister of the Kingdom of Bahrain, PMI-AGC held the 13th PMI-AGC International Conference in the Kingdom of Bahrain on January 24–26, 2011. The theme of the conference was "Delivering Value through Project Management: Lessons Learned from the Boom and Bust Cycles".

In his opening remarks, the Minister of Public Works, Engineer Isam Khalaf, who deputized for His Royal Highness to open the conference, noted that the theme of the conference makes it incumbent upon us to make reference to the impact of the economic crisis on the concept of credit sovereignty merit in the Middle East. He explained that the repercussions of the crisis had an evident effect on long-term loans. "The recovery from the global economic crisis won't be achieved unless infrastructure projects are encouraged", he said.

For his part, Minister of State for Foreign Affairs, Nizar Al-Bahranah delivered a speech in which he commended the holding of such a conference in Bahrain, saying that this occasion provides an opportunity for stakeholders to share ideas pertaining to project management.

The Kuwait Petroleum Corporation (KPC) took part in this event, alongside its subsidiaries. The delegation was headed by the Managing Director of the Oil Development Company and Chairman of PMI (Kuwait Chapter), Hashem Al-Refaie. KOC was equally represented by DMD (Technical Affairs), Mazen Al-Sardi, DMD (WK), Captain Ahmed Al-Rasheed, Manager (Public Relations), Abdulkhaleq Al-Ali, Chief Multimedia Officer, Masouma Nasser and PR Officer, Abrar Al-Mahdi.

KPC delegation at the conference

On the occasion, Al-Sardi stressed that companies and corporations can grow and expand only through capital projects, which immensely contribute toward meeting development and strategic goals in a speedy manner. He added that such conferences provide a rare opportunity for sharing expertise and to familiarize with the experience of companies working in the region as well as keep track of the international market growth trends. The DMD recalled the unprecedented hike in steel prices two years ago worldwide and the impact it had on the execution of projects. He added that this development has also led to the disruption of certain projects and an increase in cost, and at times, resulted in the dissipation of the economic feasibility of certain projects.

Al-Sardi, in the meantime, affirmed KOC's unflinching support for the PMI conference, and noted that the company has taken part and continuously supported the foundation of the PMI, Kuwait Chapter.

Furthermore, DMD Al-Rasheed pointed out that PMI is concerned with project management, adding, meanwhile, that KOC has executed numerous projects over the last five years, including the construction of GC-24 and the modernization of booster stations as well as export facilities. Al-Rasheed was keen to note that the Company has won the Best Project Award for its projects in North Kuwait, noting that the award was received by DMD (NK), Hosnia Hashem.

He also mentioned other mega projects such as GC-16 and the Early Production Facility (EPF), explaining that KOC is a strategic shareholding company, and hence many companies deal with it as such. He underlined the importance of partaking in such events to get other companies familiarized with KOC's potential, with a view to sharing experiences.

In addition, at least 90 papers were discussed in this technical conference over two days, focusing mainly on project management, innovation and services.

Proof that Hard Work Pays

BEAMS Champion explains the secret to his success

Abdul Mubin Abdul Gafoor, Technical Assistant, Drilling & Workover Technical Services Team II, Technical Support Group, has proven that hard work pays; winning the BEAMS Roadshow Grand Finale by beating out the finalists from the six other Directorates in the Kuwait Oil Company (KOC) was the result of a lot of preparation and study. "I planned two to three hours of study per day and I also spoke with other winners and reviewed the questions from each of the Directorate competitions", he explained.

Mubin receiving his award from C&MD, Sami Al-Rushaid, and DC, and DMD (P&G), Mohammad Husain

Born in Mumbai, Mubin obtained a BComm degree before coming to Kuwait in 2002. After working in the Warehouse Team at KOC for five years, he moved to Drilling & Workover where he is a valued member of the team, interpreting and ensuring that the terms of the various contracts are met and that invoices are paid. Interestingly, although he won the BEAMS contest by answering the most number of questions correctly, Mubin will not, at least initially, even be working with BEAMS. His win, and he won by a large margin (almost 200 points more than the second-place contestant) is therefore even more impressive, particularly given that he was competing against others whose daily work involves interaction with the software package.

"I was able to reach the BEAMS final because of the support of my Team Leader, Eman Al-Kandari, as she really encouraged me, even as a contractor, to attend all the BEAMS information and training sessions. Without her, my journey to become the KOC eBEAMER would not have been possible", Mubin said. His studying was also helped by his friend and office mate, Sayed Asim, who came in second-place in the E&P Directorate final.

The journey for Mubin started when he read the announcement for the online quiz (to determine who would compete in the Directorate final) on the KOC portal. At the time, he realized the opportunity to prove his potential to upper management and set the goal in his mind. In addition to collecting the available resources and study material on the intranet, Mubin also contacted friends working in different areas of KOC when some of the material was not clear. He also researched the online quiz and determined that 23-25 seconds was the minimum required to complete the quiz (the contestants with all the correct answers and the fastest times were selected for the Directorate finals). "Two things were on my mind at the time; one was that even if I were not selected I would at least gain knowledge, which is the most important thing, and second was that if I did reach the final I would not give up", he explained. His attitude and preparation paid off and he answered all the online questions correctly and quickly. But his study did not end here and he prepared himself even further for the final by recording his own voice and determining when to buzz (contestants were penalized and lost the chance to answer the question if they buzzed before the MC had finished asking the question). As a result, Mubin went on to win the Directorate final and ultimately to become the KOC BEAMS Champion.

Although the cash prize for the Grand Finale win (KD1500) was a bonus for Mubin, he explained that other factors were also important; he wanted to learn about BEAMS for the sake of learning, and was very proud as a contract employee and a member of the E&PD Directorate to be able to demonstrate how both are part of the backbone to the success of the Company as a whole.

Motivational factors are for Mubin, as for most employees, very important in his day to day work. He believes that a motivated employee will add much more to the Company than one who is not motivated and that management needs to seriously consider this aspect for the benefit of the Company. Fortunately, his Team Leader supports this philosophy and encourages her team members to recognize their potential and to be rewarded accordingly. This philosophy also fits in well with KOC's aim to be an Employer of Choice.

In the future, Mubin would like to continue to grow and stay in the oil industry, although he is looking at expanding into the finance area. With his hard work and dedication, regardless of where he ends up, he will keep on proving that hard work pays. In his own words, "If we want to achieve a goal, we need to aim, plan, organize, be dedicated, and never give up, for surely, He rewards those who work hard".

Breast Cancer

It can be beaten

Introduction

Breast cancer, which is a cancer originating from the breast tissue, is more than a cancer of the modern age and has actually existed for thousands of years. One of the first written descriptions is from Egypt in 1600 BC where the author states that there is no treatment for the disease. Painters through the centuries have also depicted women with what looks like breast cancer; with Ruben's 'The Three Graces' being one of the better known. However, it was not until the 19th century that breast cancer became more common, most likely due to the fact that people were living longer and women who previously were dying very young were now living to the age to develop cancer.

Interestingly, although the disease is more prevalent in women than in men, it is not exclusively a women's disease and 1% of cases in the US occur in men. Also, another popular myth is that only those with a family history will get the disease, but statistics indicate that 75% of women diagnosed with the cancer have no known risk factor! This means that anyone is susceptible. In fact, breast cancer is the second leading cause of cancer death in women, exceeded only by lung cancer, according to the American Cancer Society.

The pattern of the cancer varies in different areas of the world in terms of incidence and mortality rate, and in Kuwait, for instance, according to a study published in the IJMS in June of 2006, breast cancer patients in the country tend to be relatively young. In addition, breast cancer is more prevalent in the developed world compared to the developing world.

Risk factors

Breast cancer can occur at any age, although it is more prevalent in women, and those over the age of 40. Indeed, only 5% of all cases occur in women under the age of 30. Studies have also concluded that women who have not born children and those who have not breastfed, may also be at higher risk. In addition, hormone levels, race, economic status, diet, physical activity, and education also play roles. Recently, the use of hormone replacement therapy in menopausal women has been linked with a higher incidence of breast cancer.

Symptoms and detection

Breast cancer normally originates from either the lining of the milk ducts (known as ductal carcinoma) or from the lobules that supply the

ducts with milk (lobular carcinoma). In addition to a lump in the breast (most breast cancer is discovered by the patient discovering a lump), the cancer can also be indicated through a change in the size or shape of the breast, dimpling of the skin on the breast, inversion of the nipple, or discharge out of one nipple. In addition, lumps in the lymph nodes located in the armpits can also be an indication of breast cancer.

Mammograms, which detect variances in tissue density, are the best means of early detection and most women over the age of 50 are encouraged to have a mammogram done every year. For those women at high risk, mammogram screening is started at an earlier age and additional testing for BRCA genes may also be done and an MRI performed. Clinical breast exams are recommended every 3 years starting at age 20 and every year starting at age 40. In addition, a breast self-examination (BSE) should be done by every woman monthly (refer to inset).

Classification

Many methods exist for detecting breast cancer, but only a biopsy of the tissue gives definitive proof. Once determined, the cancer is classified according to different criteria, and this classification is used to determine the best course of treatment. Different criteria include:

- Stage (TNM),
- Pathology,
- Grade,
- Receptor status, and
- Presence or absence of BRCA1 or BRCA2 genes. BRCA1 and BRCA2 are abnormal genes that, when inherited, markedly increase the risk of breast cancer to a lifetime risk estimated between 40 and 85%. Women with these abnormal genes also have an increased likelihood of developing ovarian cancer. Women who have the BRCA1 gene tend to develop breast cancer at an early age (Health Discussion Forum).

Cancers are classified in stages according to the progression of the disease. According to emedicinehealth, the following is used to classify:

- Stage 1 cancer, has an excellent prognosis and is generally treated with lumpectomy and sometimes radiation. The tumor is less than 2 cm (3/4 in) in diameter and is localized.
- Stage 2 and 3 cancers, with a progressively poorer prognosis and greater risk of recurrence are generally treated with surgery (lumpectomy or mastectomy with or without lymph node removal), chemotherapy, and sometimes radiation. Tumors in stage 3 are greater than 5 cm (2 in) and have spread to the lymph nodes.
- Stage 4, metastatic (spread to other areas) cancer has poor prognosis and is managed by a combination of all treatments.

Treatment

Treatment normally starts with surgery and can be followed with hormone therapy, chemotherapy, and/or radiation. For breast cancers that are sensitive to hormones such as estrogen or progesterone, treatment is relatively easy and involves blocking the effect of the hormones long-term on the cancerous tissue. For other types of tumors, and for those that have spread to the lymph nodes, treatment is more aggressive and the outcome is not as positive.

Radiation, which kills cells in the area of exposure to the beam, is considered a local treatment and is targeted. Treatment is normally five days a week for up to six weeks and each session takes only a few minutes. Chemotherapy is more invasive as it is wide-spread, being administered either through an IV line or by pill. It works by preventing cancer cells from growing, and being widespread can includ cancer cells

Steps to Breast Self-Examination (BSE)

(source: Susan. G. Komen for the Cure.)

BSE is a tool that may help you learn what is normal for you. BSE includes looking at and feeling your breasts. If you notice any changes in your breasts, see your heal care provider right away.

Step 1: Look for Changes

In front of the mirror:

- Hold your arms at your side
- Hold your arms over your head
- Press your hands on your hips and tighten your chest muscles
- Bend forward with your hands on your hips

Step 2: Feel for Changes

Lying down:

- Lie down on your back with a pillow under your right shoulder
- Use the pads of the three middle fingers on your left hand to check your right breast
- Press using light, medium and firm pressure in a circle without lifting your fingers off the skin
- Follow an up and down pattern
- Feel for changes in your breast, above and below your collarbone and in your armpit
- Repeat on your left breast using your right hand

Participants at a breast cancer workshop

that exist away from the primary area, but it also has some undesirable side effects such as hair loss, nausea, fatigue, and low red blood cell count. Chemotherapy is given in cycles that last a few days to a few weeks, followed by a period of rest. The number of cycles given to a patient will depend on the type of cancer and how effective previous cycles have been.

Prognosis

Prognosis and survival rates are dependent on many factors including the cancer stage (i.e., tumor size, location, grade, whether disease has spread to other parts of the body), recurrence of the disease, age of patient, etc. As a result, a 10-year disease-free survival rate varies greatly from 98% to 10%.

Awareness

The pink ribbon, the symbol for breast cancer awareness, has become a common site since it was introduced in 1991. Numerous campaigns to fight breast cancer are organized around the world and the month of October is the official breast cancer month. In addition, February 4th is World Cancer Day and events to raise awareness of breast cancer and to procure funding are also organized in conjunction.

The Kuwait Oil Company is also doing its part to educate its employees and their families, as well as the larger society, about breast cancer. In fact, starting in October (international breast cancer awareness month) Dr. AbdulRida Dashti and Summer Al-Awadhi of the Ahmadi Hospital started breast cancer awareness sessions in KOC. Working as a team, Dr. Dashti presents the theoretical information while Al-Awadhi leads a practical workshop. The aim of their project is to reach 100% of the women working at KOC, and to expand to the K-companies and to Kuwait in general. According to them, breast cancer awareness in Kuwait is currently low, with a lot of disinformation floating around. So, if they can reach a part of the female population, who will then spread the information, their goal will eventually be reached. Feedback from the sessions has been very positive and the project, which started off small, is expanding to the point where more staff will soon be needed. "Women really welcomed the sessions and learned a lot. They did not realize that there is something that they can do!" Dr. Dashti explained.

Conclusion

Breast cancer is a serious disease and any possible symptoms should be investigated as soon as possible. However, many of the symptoms can also have other underlying causes and may not necessarily be an indication of cancer (80 -90% of discovered lumps are benign). Reducing the risk of breast cancer is something everyone can do by not smoking, maintaining a healthy weight, getting enough vitamin D, drinking less alcohol, being physically active, and for women, breastfeeding their children. In addition, advances in screening and therapy, combined with increased awareness, have resulted in a decline in the death rate.

If you have any of the symptoms of breast cancer, or would like more information, please see your doctor or health care provider. In addition, more information and a short film on BSE can be found on the Susan G. Komen for the Cure website at www.komen.org.

Dream by Night and Work by Day

The Kuwait Center for Autism

What is autism?

According to the Autism Society, autism (or ASD) is a complex developmental disability that typically appears during the first two years of life and is the result of a neurological disorder that affects the functioning of the brain, impacting development in the areas of social interaction and communication skills. Both children and adults on the autism spectrum typically show difficulties in verbal and non-verbal communication, social interactions, and leisure or play activities.

Autism is one of five disorders known as Pervasive Developmental Disorders or PDD, and is the most common of the group. Normally, signs of autism, which varies greatly according to the individual, and may be mild or severe. It crosses all racial, ethnic, social, economic, and educational boundaries and can affect anyone.

The cause of autism is not known and there is no test; diagnosis is made based on observation of the individual by those in close contact such as family members and educators. Researchers are examining genetic links as well as environmental influences, and what is known is that those with autism have abnormalities in their brain structure and function. As such, early intervention when the brain is still developing is crucial to reduce the symptoms.

Autism occurs in an estimated 1 in 100 births (Centers for Disease Control Prevention, 2007) and is on the increase; the Autism Society in the USA estimates that the number of Americans affected will soon reach 4 million. It is four times more common in males than in females, but again, the reason is not known.

What is important to know about autism is that those with the disorder are ordinary people; they have the same feelings and emotions, even if they do not express them the same way.

Dr. Samira Al-Saad being awarded by Parliament Speaker, Jassem Al-Kharafi

The Kuwait Center for Autism (KCA)

The idea for a center in Kuwait for autism started 15 years ago in 1994. At the time, it was the first education center in the entire Arab world focusing on addressing the needs of families with autistic children. The Awqaf Public Foundation also supported the initiative and set aside annual funds, and aid was also given by the Ministry of Education, who provided teachers for the center. Currently helping 110 students and an additional 250 children, the center has room to expand even further but is restricted by the number of qualified teachers; it takes two years to train a teacher and the center insists on having quality teachers with the proper training and attitude. The attention to detail and quality that is core to the center has been recognized in accreditation for its education programs from the UK and the USA, and for its ISO certification.

Led by Dr. Samira Al-Saad, the aim of the center is to incorporate current theories and philosophies from around the world into the Kuwaiti culture, in particular:

1. Behavior Adjustment Theory,
2. Sensuality Integration Theory,
3. Auditory Training Theory,
4. Education,
5. New treatment interventions and application possibilities,
6. Preparation for developmental stages,
7. Independence and finding suitable employment, and
8. Educational programs to develop abilities and enhance skills.

The various philosophies are then implemented in education programs that work with each child individually to maximize development, encourage special abilities and hobbies, and assist in the integration with the larger society.

"The truth is, volunteer work gives back a whole lot more than what someone puts in through their money, time or effort; it gives them a sense of achievement, a feeling of self-worth, it

An autistic child with his family


A group of autistic children playing

gives them a cause to believe in and be responsible for. Volunteer work helps a person to recognize their true potential and to acknowledge the blessings they are endowed with. Above all, volunteering gives them a sense of satisfaction and price in a work well done. The general outlook in the country is that helping and caring for others is the responsibility of the government – the Ministry of Health or the Ministry of Social Affairs. What they often fail to realize is that having compassion and empathy for another human being is everyone's responsibility", said Dr. Al-Saad

The center also is involved in research and works with the Kuwait University's Faculty of Medicine in cooperation with Harvard University. In addition, it provides training programs, lectures, and workshops, both in Kuwait and abroad, for parents and those working with autistic children. In February of 2000, it organized the 1st Kuwait International Conference for Autism and Communication Deficits, which was attended by over 1000 guests from many of the Arab countries, and followed up with another conference in 2003.

In 2009, the center received the European Union's Chaillot Prize, and was a finalist in 2010. The Chaillot Prize is awarded to organizations that promote the rights of vulnerable groups and/or that promote general awareness of human rights in the GCC region.

Reach, a volunteer group under the umbrella of KCA open to all, was formed in 2009 and works to raise awareness of autism through various activities. Also located within the center, the Kuwait Autism Society (KAS) was established in 2006 with the goal of supporting volunteer work in the field of autism, encouraging research and studies related to autism, and organizing scientific conferences and training in the field of autism.

More information on KCA can be found on their website at 222.q8autism.com.

World Autism Organization

The World Autism Organization (WOA) was formed in Luxembourg in 1998 and focuses on improving the quality of life for people with autism and their families all over the world. Member countries include: Belgium, Costa Rica, Denmark, England, Germany, Greece, India, Ireland, Italy, Japan, Kuwait, Lebanon, Luxembourg, Morocco, Norway, Spain, and Sweden. Dr. Samira Al-Saad, was nominated in 2006 to represent the Middle East Branch and serves in this capacity today. In addition to disseminating information, the organization holds a major international congress every four years, with Mexico holding the congress in 2010 and Kuwait scheduled to host in 2014.

Dr. Samira Al-Saad

The founder and current Director of the KCA, Dr. Samira Al-Saad, has a strong personal reason for being so involved in its development; her daughter has autism. In 1985, when her daughter, Fatima, was only three years old, she was diagnosed with autism. Dr. Al-Saad had not even heard of it before then. Making a sacrifice by leaving her two older children with her mother, Dr. Al-Saad moved to the United States with her husband and two younger children, where she spent four years focusing on her daughter and learning as much as she could about autism. Part of her education included earning a Master's Degree in Special Education at Lesley College while she was living in Boston.

"I could only have accomplished all that I have through the support from my husband and my children", Dr. Al-Saad explained. As an example, upon returning to Kuwait, Dr. Al-Saad took over her husband's diwaniya and made it into a classroom for Fatima and other children with autism. As fate would have it, Dr. Al-Saad and her children were in Saudi Arabia at the time of the Iraqi invasion of Kuwait and ended up spending 4 years in the country, during which time she wrote a book on autism, upon the encouragement of her husband, opened a "Friendship Classroom" for autistic

A workshop on autism

Dr. Samira Al-Saad being awarded by HH the Amir

children at the Help Centre, and established the Jeddah Center for Autism (1993).

Upon returning to Kuwait, Dr. Al-Saad accepted an offer from the Kuwait Awaqaf Public Foundation to start a school for children with autism. In addition to running the school and training the teachers, she also earned her PhD from the University of Leicester. "Ours has been a long and often difficult journey, but one worth taking, which started with the cry of our daughter, Fatima, and led to the establishment of a pioneer center for autism in our region." Dr. Al-Saad concluded.

KOC's Corporate Social Responsibility

The Kuwait Oil Company (KOC) demonstrated corporate social responsibility in its support of the Kuwait Centre for Autism through a donation of KD75,000, available upon the signing of the construction contract, in 2004 to help build the new center. All money to build the new centre was from private and corporate donations which were placed in an endowment fund. However, it took hard work and years to raise the over KD3 million needed. Construction of the centre in Mishref did eventually begin in 2009?, and the inauguration of the center, which took place on January 12th, 2011, under the patronage of His Highness the Amir, Sheikh Sabah Al-Ahmad Al-Sabah, was attended by the Crown Prince, Sheikh Nawaf Al-Ahmad Al-Sabah and many prominent politicians. KOC's C&MD, Sami Al-Rushaid, was also present.

On the occasion, Al-Saad reiterated that 'the center demonstrates the love of the citizens for their country and attempt to provide differently-abled children with the best facilities". The new center, which covers over 10,000 m2 will allow many more children to receive the assistance they need.

The money donated by KOC was used to build a gym facility and the company is recognized by a plaque at the door.

As we advance the universal human rights of children with disabilities, let us focus on building enabling environments for them to prosper as future members of their communities, citizens of their countries and as fully-fledged members of the global community. Let us pay tribute to the courage of children with autism and their families, as they strive every day to confront the disability with a powerful combination of determination, creativity and hope. Let us empower them and respond to their needs today, so as to make our societies more accessible, enabling and empowering for all our children tomorrow. Source: United Nations

World Autism Day

The first Autism Awareness Day was held in Kuwait by KCA in 2002, and after the establishment of the Gulf Autism Union in Kuwait in 2002, April became the month to celebrate. In fact, April 2nd was declared World Autism Awareness Day by the United Nations in 2008 after being suggested by the Gulf Autism Union, with the purpose of increasing awareness and knowledge of autism. The aim is to work with organizations around the world to 'give a voice to the millions of individuals worldwide who are undiagnosed, misunderstood, and looking for help'. A letter from the UN Secretary-General on the inauguration of World Autism Awareness Day states, 'Today the world marks the first commemoration of World Autism Awareness Day. I commend this important initiative spearheaded by the State of Qatar, and applaud the leadership of Her Highness Sheikha Mozah Bint Nasser Al Missned, the Constort of His Highness the Emir of Qatar, in raising awareness about children with developmental disabilities. Her Highness's vision and initiatives have helped to empower children with disabilities and their communities in the Arab region and worldwide.' The theme for 2011 is 'Stand up for Autism'.

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