

TRANSMISSION

YOUR WAY OF STAYING IN TOUCH

DECEMBER | ISSUE 27 2010

Kharafi National is one of the first indigenous companies in the Middle East to develop the capability to undertake green building. Several engineers in the Engineering Services Department in Kuwait have already achieved LEED certification.

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NATIONAL**





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STAFF ACHIEVEMENTS

Transmission is Kharafi National's corporate newsletter. It contains news and stories about your company. Its purpose is to inform and stimulate.

Kharafi National prides itself on the culture of excellence it brings to every project it undertakes and **Transmission** is expected to reflect this culture. Hence our 'new look' – another step in the process of improvement your newsletter has been undergoing over the last few years.

Here in the editorial office and in the Branding Unit, we would very much appreciate your comments on the new design and layout of your corporate magazine.

Please send your constructive criticisms to:

Editor Paul Kennedy –
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MESSAGE FROM THE VICE CHAIRMAN & MANAGING DIRECTOR

Congratulations to every member of the Kharafi National Family – our backlog has doubled in less than three years from US\$2.1 billion to US\$4.8 billion and our CV has expanded enormously. We are also the lowest bidder in the 7.5 year, US\$1.5 billion Early Production Facility (EPF) contract with KOC.

These marvellous achievements were attained despite the disappointment we experienced when the MEW Emergency Contract was cancelled a few years ago. All of us can be proud that we have since grown our company rapidly and sustainably against all odds.

For many years we enjoyed an excellent reputation in Egypt for electro-mechanical works but found obtaining a wider range of contracts a hard slog. After back-breaking negotiations, we recently made that long-awaited breakthrough with the Turbine Project – a US\$1 billion award from East Delta Electricity Production Company for two generating stations powered by a total of 12 turbines. Our scope of work includes everything from design, procurement, fabrication and commissioning to training the operators of the plants.

As I write, we are in the final stages of negotiation for the EPF contract with KOC. We will be building and operating the facility which will separate out the oil, water, gas and sulphur in Kuwait's crude oil. This BOT project, for which we will also be responsible for financing, will further increase our backlog to US\$6.3 billion.

The effect on Kharafi National's technical CV of these developments will be dramatic. Execution of the new turbine contracts will make KN the only EPC player in the water, waste-water and power market. Gaining the EPF contract will prove that we are capable of operating on a stand-alone basis in the lucrative BOT markets.

Our growth is sustainable. To continue to expand, we need to make sure that each project we tender for has an adequate margin and generates a positive cash-flow contribution to our central overheads.

Keep up the good work and thank you all for your unrivalled commitment and sincere dedication for which I am grateful.

Samer G Younis



Vice Chairman & Managing Director



DEVELOPING GREEN BUILDING SKILLS

Kharafi National is one of the first indigenous companies in the Middle East to develop the capability to undertake green building. Several engineers in the Engineering Services Department in Kuwait have already achieved LEED certification.

..... Eng Fathi Mortaga explains



Name

Fathi Mortaga

Title

Department Manager

Location

Kuwait

Green building is the practice of creating and using more resource-efficient methods throughout the whole process of a building project – from planning and design through choice of materials, construction, operation, maintenance, renovation, and demolition.

Green buildings reduce the overall impact of the built environment on human health and the natural environment (a) by using energy, water and other resources more efficiently than conventional buildings, (b) by creating healthier living and working environments, and (c) by reducing waste, pollution and environmental degradation.

Green buildings also cost less to run than conventional buildings. Studies on the performance of green buildings have shown sustainable average savings of:

- 13% lower maintenance costs
- 26% less energy usage
- 27% higher levels of occupant satisfaction
- 33% lower carbon dioxide emissions.

Most green buildings cost slightly more (typically 2%) to design and construct than conventional buildings. However, when up-front costs are compared to life-cycle costs, there is usually a saving of ten times the extra initial cost – savings that arise from lower energy costs and increased productivity from those who work in green buildings.

Project owners who want structures to be designed and constructed on a green basis need some means of measuring 'greenness' and ensuring they are getting a green solution. Leadership in Energy and Environmental Design (LEED) is a third party certification programme to define and measure green building (see box).



Sustainability is the capacity of systems to endure. For human beings, sustainability is the potential for the long-term maintenance of well being, which in turn depends on the well being of the natural world and the responsible use of natural resources.

LEED promotes a whole building approach to sustainability by recognizing performance in location and planning, site development, water savings, energy efficiency, materials selection, indoor environmental quality, innovative strategies and priorities in regional issues.

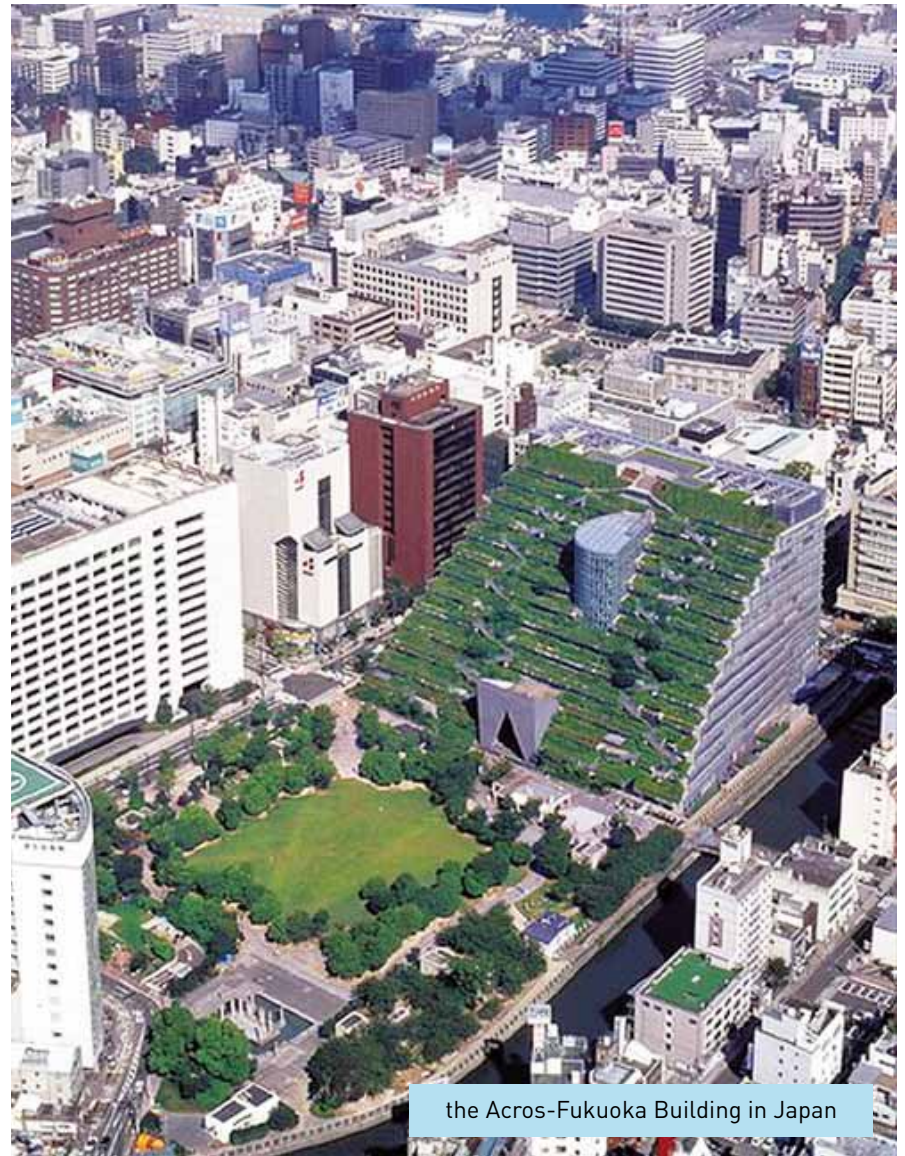
LEED measures and enhances the sustainability of buildings by establishing metrics and rating systems to measure and recognize buildings based on their performance in the three main dimensions of sustainability: (a) society, (b) environment, and (c) economy. Projects certified under the LEED rating systems demonstrate that they have addressed the elements that enhance these three areas in a balanced way.

The LEED rating systems are tools a design team uses to ensure that it designs, constructs and accounts for a

project's green features properly. The LEED process ensures that the whole building process is value engineered from the start.

There are nine different rating systems for the design, construction and operation and maintenance of buildings, homes and neighbourhoods. These rating systems are continuously evolving in order to incorporate emerging green building technologies.

The LEED green building rating system used on a particular project will depend on the nature of the project.





Net zero-energy homes a reality

Living in a cloudy climate is now longer a drawback, it seems, in the use of solar energy. Our photograph shows an A1-rated passive property in Dublin, Ireland.

The house achieves negative energy use through solar roof panels, highly-insulated doors, windows, frames, walls, floors and roofs, and photovoltaic panels. As it is airtight, it has a low space heating load.

The house also has a waste-water heat recovery system, which uses a heat pump to extract waste heat from showers and utility appliances. The system uses geo-thermal heating by dumping excess solar heat into the ground for later use.

On overcast days the house draws electricity from the national grid and exports it back on sunny days.

Despite Ireland's cloudy climate, the house produced more energy than it consumed in its first year as a family home.

For further information, check out www.besrac.net

For example, the certification criteria for the new construction or the major renovation of a retail complex will be different than the criteria used to certify a new home or a neighbourhood.

To achieve LEED certification, the project team (which must include all major players in the whole process) needs to study and document the trade-offs inherent in their design decisions. For example, installing solar energy panels entails a large upfront cost but will save money in the long run through energy savings.

Vegetated roofs will add design and construction costs but will lower energy costs as less cooling will be required and, at the same time, the vegetated roof will enhance the environment by providing a habitat for local flora and fauna.

However, not all green criteria add significant cost; eg, light detectors to control the energy used on lighting and carbon dioxide detectors to adjust fresh air requirements are not costly to install.

Under the LEED certification system, points are awarded across major categories of criteria such as site sustainability, efficiency in the use of water and energy, materials and resources, and the quality of the indoor environment. The distribution of points over these categories will vary depending on the location of the project in order to take the local climate into account.

Certain prerequisites or minimum requirements have to be achieved before points are awarded. The number of points awarded determines the level of certification as follows:

- Certified : 40–49 points
- Silver : 50–49 points
- Gold : 60–79 points
- Platinum : 80+ points

Having a construction project LEED certified does cost time and money. However there are three reasons why project owners should seek certification: **commitment, legitimacy, and marketability.**

Commitment: by registering a project with the USGBC, the owner shows that he is committed to meeting the standards required by the appropriate LEED rating system for that type of project.

Legitimacy: LEED certification tells clients and the general public that the sustainable features of the project have been verified by a third party.

Marketability: LEED certification is a strong marketing tool. Several studies in 2008 found that, compared to conventional office space, higher rents could be charged for LEED certified office space which also had higher occupancy rates.

Construction companies worldwide are now aware that a capability in green building is becoming more important in their marketing efforts. By becoming the first green contractor in its markets, KN will reap significant benefits as the demand for green building increases.

However this will require a skilled workforce that is knowledgeable about environmentally friendly technology and motivated to search for new and more cost-effective ways to achieve the goals of green building.

KN Engineering Services Department (ESD) now has the knowledge and experience to design green buildings and to undergo the LEED certification process. ESD offers guidance and study material to any KN colleague who would like to sit for the LEED certification examinations as LEED green associates or accredited professionals (see box).

Indeed the ESD workforce in Kuwait now includes two LEED AP certified engineers and many team members are studying for the LEED certification. The department's target is that by the end of year 2011 all ESD engineers in KN will be LEED certified.

ESD is also planning to arrange regular meetings for a proposed **Kharafi National Green Team** with the help of the Learning and Development Department, to which the ESD will be able to give presentations on LEED certifications and green building.

The department strongly recommends that project managers encourage young engineers to obtain LEED certification, as this will strengthen their career prospects and will enhance KN's image when dealing with foreign or local consultants.

When the ESD relocates to the UAE, hitting that market as a green contractor will increase the company's chances of gaining projects, either construction or design and build projects. Since the UAE follows the ESTIDAMA regulations, which are very similar to LEED certification, the ESD believes that KN will be able to capture the UAE market provided it is ready with the right tools.

LEED

Leadership in Energy & Environmental Design (LEED) is an internationally recognized green building certification system. It provides third-party verification that a building or community has been designed and built using strategies that improve performance in metrics such as energy savings, water efficiency, reductions in carbon dioxide emissions, and the quality of indoor environments.

LEED was developed by the US Green Building Council (USGBC) in 1998 in order to provide building owners and operators with a concise framework for identifying and implementing practical and measurable green solutions to building design, construction, operation and maintenance.

The Green Building Certification Institute (GBCI) was established by USGBC to provide third-party certification for projects that are following LEED criteria. More than 14,000 projects in over 30 countries covering 99sq km of development area are now LEED certified.

The GBCI is also an examining body that allows individuals to gain accreditation for their knowledge of the LEED rating system – either as LEED Green Associates or LEED Accredited Professionals.

LEED Green Associates understand the basic criteria and knowledge required for projects to be LEED certified and the process for taking a project down the road to certification.

LEED Accredited Professionals have a thorough knowledge of the LEED requirements for green building. They have up-to-date expertise on green building technologies, best practices and the rapidly evolving LEED rating systems. They understand the entire life-cycle of projects, from inception through the certification process to hand-over to owners, and know how to integrate project teams and guide the documentation process for successful certification.

For more information, check out: www.usgbc.org/LEED.



NEW VENTURE TO COMPLEMENT GREEN BUILDING SKILLS

Kharafi National has joined forces with Ralos Zala Energy FZ LLC, the MENA subsidiary of Ralos New Energies AG, Germany's leading solar photovoltaic (PV) systems integrator, to develop, build and operate medium-sized and large-scale solar photovoltaic systems.

This new joint venture, Ralos Kharafi National Ltd, will exploit the opening market for solar power in the UAE which is planning to generate 1,500MW of electricity from renewable resources by 2020.

Full details of this exciting new business in the next issue of Transmission!

NEW FABRICATION FACILITIES FOR ABJ IN ICAD III

To support its exponential growth, ABJ, Kharafi National's fabrication subsidiary, is investing heavily in purpose-built large-scale state-of-the-art workshops in Abu Dhabi.

The new fabrication facilities of ABJ Industries PJSC are being built in Zone Three of the Industrial City of Abu Dhabi (ICAD III) in the UAE. The choice of ICAD III was a strategic decision.

ICAD III will enable ABJ to cater for clients in the oil and gas, power, water and waste water and industrial infrastructure sectors in Abu Dhabi. The location will also enable the company to fulfil its contractual commitments to GASCO for deliverables to the Habshan 5 project and to serve the South African, Middle Eastern and Western regions while retaining its cost competitiveness.

The new workshop will be just three kilometres from a major sea-port and the acquisition of their own Nicolas hydraulic trailers means that ABJ Industries PJSC will be able to easily handle the logistics of delivering massive fabricated consignments to far-away projects.

The fabrication facilities at ICAD III will have a footprint of over 250,000 square metres. All the necessary permits required to commence the civil works have been secured.

Indeed, the preparation of the land and the construction of office blocks, covered workshops, warehouses and radiography bunkers began in June 2010, while the sub-contracts for pre-

engineered steel fabrication have been concluded and implementation is in progress.

In addition, delivery of state-of-the-art plant and machinery – such as CNC plate cutters (gas and plasma), plate rolling machines, CNC pipe profile cutters, SAW and FCAW column and boom automatic welding machines, pneumatic bevelling machines, a hydraulic press, motorized rotators with idlers, air compressors, hydro test pumps, radial drilling machines, milling machines, lathes, and so on – have been ongoing since June 2010.

The new work shops will have six covered bays with EOT Cranes. The rest of the plant will have spaces allocated to facilities that will include:

- a welding training centre identical to the training centre in ABJ's facilities in Kuwait, where welders will receive 'hands-on' training prior to qualification by a third party examiner;
- radiography bunkers for the radiographic testing of pre-fabricated pipe spools and structure to ensure an uninterrupted work flow while protecting the health and safety of workers;
- covered storage and a warehouse for storing bulk materials procured for projects as well as 'free-issue' materials from clients;

- dedicated blasting and painting areas, both covered and open, for surface preparation;
- a post-weld heat treatment furnace;
- a large area for assembling, testing and pre-commissioning several finished products simultaneously.



ABJ is renowned for its use of advanced design technologies. At ICAD III, design and detail engineering software – such as Compress, PVElite, Stadd-pro, Nozzle-Pro, AUTOCAD, Strucad, and Tekla Structures – will be implemented gradually as they are needed for the first fabrication of various products.

The company's production facilities in Kuwait are certified to international standards. During the first quarter of 2001, ABJ Industries PJSC will begin the steps needed to obtain ISO 9001 Quality Management accreditation as well as authorization from the American Society of Mechanical Engineers (ASME) and National Board of Boiler & Pressure Vessels (NB) to apply 'U', 'U2', 'S', 'PP' accreditations and the 'NB' and 'R' stamps to its fabricated products.

To ensure the quality certification of products in a stringent and unbiased

manner, destructive and non-destructive testing will be carried out by a qualified third party.

Protection of health, safety and the environment is a prime concern at ABJ. In Kuwait ABJ has, over the years, developed HSE standards that compare favourably with international benchmarks.

These exemplary safety standards, which are undergoing continuous modification in the light of circumstances and which are enforced strictly, will be transferred to its operations in Abu Dhabi. They will be implemented using dedicated teams to supervise incentive-based HSE programmes under the supervision of the KN Corporate HSE department.

The new facilities will be operational by the final quarter of 2010. When they open they will have a backlog of

approximately one million inch dia of pipe spools and associated structural steel to be fabricated as part of ABJ's commitment to GASCO for the Habshan 5 project. Once these are being manufactured, production will be stepped-up in a phased manner to include pressure vessels and a host of other products.

Supported by ABJ's impressive track record in fabrication and its wide-ranging product portfolio, and through the use of brand-new highly-advanced facilities, the professional teams in ABJ Industries PJSC will be able to guarantee their clients consistent, high-quality products at very competitive prices.

ABJ's Building B in ICAD III – the massive scale of just one building is obvious



IMPROVING COMPETITIVENESS WITH STRATEGIC SOURCING

**Name**

T Bala

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Corporate Procurement Unit Head

Location

Kuwait

Sourcing is now a strategic component in the drive to maximize competitiveness and Kharafi National has taken its first steps to source materials directly from China and Korea.

... Corporate Procurement Unit Head T Bala explains

To be able to deliver materials in ever-tighter competitive environments, procurement processes have had to become sharper and faster. Sourcing no longer focuses almost exclusively on immediate cost considerations but has to take hundreds of factors into account in order to address the buyer's goals.

Strategic sourcing is an on-going procurement process in which the purchasing activities of a company are continuously re-evaluated and improved in order to obtain the best products and services at the best value.

Optimisation techniques are used in strategic sourcing to evaluate hundreds of different inputs into the procurement process. These inputs include the state of the global market, current conditions in a specific supply chain, and factors relating to individual suppliers (such as quality and reliability). Optimization enables many outcomes to be evaluated, so that the procurement officer can select the ones that yield the best solutions.

Systematic strategic sourcing was initiated by General Motors in the 1980s and soon became a common business tool. By continuously re-evaluating purchasing activities, it enables organizations to adapt quickly to changing market forces. And by segmenting a company's external spending, it ensures that procurement resources are concentrated on the most important categories.

In response to the rise of China as a global manufacturing hub and the recognition of Korea for its potential to deliver highly reliable products, many companies around the world have reviewed their purchasing activities and initiated strategic sourcing programmes.

KN procurement and supply chain practices can be compared favourable to the best industrial practices internationally and, as part of its procurement strategy, KN is

continuously endeavouring to identify reliable suppliers of quality products around the globe to fulfil its material requirements. The Procurement Department is currently placing a specific emphasis on China and Korea.

Recently, the Department initiated direct sourcing activities, ie, without the involvement of local agents, with Chinese and Korean vendors who have long-term business ambitions, and a dedicated team from Procurement has begun exploring opportunities to source materials directly from China and Korea.

KN Procurement is initially targeting materials that are not project specific and can be sourced economically from quality-conscious and reliable suppliers in China. An analysis of

procurement spending for Kuwait indicates that this category of items constitutes 20 to 25 per cent of KN's gross spending. Studies indicate that sourcing these commodities directly promises potential savings on the landed cost of the items compared to offers from local agents.

To further strengthen its strategic sourcing, the Procurement Department, in coordination with the Trading Department and Business Development, recently conducted a two-day 'vendor pre-qualification' workshop in Korea. The event was supported by the Korea East West Power Company (KEPCO). More than 120 vendors of various commodities participated in the workshop and they showed a keen interest in working with KN on a long-term basis.

The event was a good first step and has helped KN to:

- identify potential suppliers who can strengthen KN's competitiveness by providing direct sourcing options from Korea;
- identify original equipment manufacturers with the potential to enter into agency agreements for the MENA region with KN's Trading Department.

KN Procurement will continue its efforts to explore strategic sourcing in other markets around the world, with the aim of improving Kharafi National's competitiveness without compromising on material quality and delivery.



The general manager of KEPCO greeting KN Corporate Procurement Manager **Ali Sakkijha** at the vendor pre-qualification workshop in Korea.

HABSHAN 5

GASCO is building a fifth gas processing plant at Habshan in Abu Dhabi and Kharafi National is the subcontractor for the construction of the plant. This is the largest project ever undertaken by KN and is a clear indication that our company is now a major player in the oil and gas sector in the Middle East.

Abu Dhabi Gas Industries (GASCO) is a 68% subsidiary of ADNOC (the state-owned Abu Dhabi National Oil Company) in the UAE, in which international majors in oil and gas hold minority interests. The new plant is part of the emirate's integrated gas development (IGD) project.

The purpose of the IGD is to expand and consolidate Abu Dhabi's gas production facilities into a single integrated scheme of offshore and onshore facilities. It requires the revamping of current facilities and the creation of new processing units at the HAP



Foundation works for underground sulphur pit at Habshan 5

offshore platform, Das Island, Habshan and Ruwais.

The gas from Abu Dhabi's Umm Shaif field and Khuff reservoirs is 'associated', ie, it is mixed with crude oil, which means that the output of crude cannot be increased unless the additional gas can be used. The UAE is also experiencing an ever-expanding demand for gas as a domestic fuel.

The IGD is expected to increase Abu Dhabi's offshore production of high pressure gas by 1 billion cubic feet per day (bcfpd), ie, to double its current capacity, thus increasing its output of crude oil significantly, from 1.4 to 1.8 million barrels of oil per day (mmbopd), and satisfying its demand for domestic gas.



The additional high-pressure gas will be produced from the offshore Umm Shaif field and Khuff reservoirs. This gas will initially be processed in the ADMA-OPCO facilities at Umm Shaif, sent to the ADGAS facilities at Das Island, where it will be conditioned, and then sent through a new 30 inch offshore associated gases pipeline, which will have a total throughput of 1000 million cubic feet per day under standard conditions (mmscf), to Habshan.

At Habshan, the gases will be further processed for optimum lean gas production in the existing and new facilities. This gas will then be sent to the sales gas header, while the NGL will be sent to the GASCO facilities at Ruwais, where a fourth NGL processing train is to be added, for further fractionation.

The new gas processing plant will have an input capacity of 1 bcfpd of natural gas. Its output will be 900 million cfpd of sales gas, 12,000 tonnes per day (td) of natural gas liquids (NGL), and 7,000 td of liquid sulphur. The plant is expected to have a recovery efficiency of up to 99.9%.

The **scope of Kharafi National's** work on this project is impressive in both its scale and complexity. KN will be constructing:

- Four gas sweetening and dehydration trains, two for rich gas with capacities of 1300mmscf each, and two for lean gas able to handle 850mmscf;
- Two rich gas NGL recovery trains designed for high ethane recovery
- Four sulphur recovery units of 1300tp each, which will include

“HABSHAN 5 IS THE LARGEST CONTRACT KHARAFI NATIONAL HAS UNDERTAKEN SO FAR”

The overall development of the IGD has been valued at around US\$9 billion and GASCO has split it into four engineering, procurement and construction (EPC) packages, all on a lump-sum turnkey basis. The largest of these EPC projects, a US\$7.4 billion construction contract for the gas processing plant, known as Habshan 5, was awarded to a consortium of Tecnimont of Italy and JGC of Japan.

The EPC contract for the new process plant has been split into two parts. Tecnimont of Italy is working on the main plant, while JGC of Japan is developing the associated facilities.

Kharafi National is the sub-contractor for the actual construction of the plant. Work by KN is already in progress and the project is expected to be completed by the third quarter of 2013.

tail gas treating units and are designed for better than 99.9% sulphur recovery;

- Six substations;
- Four instrument equipment shelters;
- Four operator's maintenance shelters.

The new process plant at Habshan will be able to handle both rich and lean gas.

To process the rich gas, compressed feed gas from the OAG and Thamama-B fields will be combined to create a rich acid stream that will be fed to two trains of rich-acid removal units, each with a capacity of 1300 mmscf. In these units, most of the hydrogen sulphide (H₂S) and a portion of the carbon dioxide (CO₂) will be removed.

PROJECTS ■ CONSTRUCTION

The sweet rich gas will then be sent to two trains of ethanol dehydration units which will use Mol Sieve technology to produce wet regeneration gas. This gas will then be sent to utilities for further compression and export to Habshan-3. There the mercury will be removed from the sweet dry rich gas and the gas will then be fed to the NGL recovery units. The liquid NGL product will be sent to storage and for further handling.

In parallel, approximately 850mmscfd of lean gas will be sent to two lean-acid gas removal units where most of the H₂S and a portion of the carbon dioxide CO₂ will be removed. The sweet lean gas will then be sent to two triethylene glycol dehydration trains for the removal of water. The pressure of the sweet dry lean gas will be boosted by a single train for re-compression and export.

Acid gases from both the rich and lean acid gas removal units will be combined into a single header and sent to four trains of sulphur recovery units, each with a capacity of 1300td.

Habshan 5 is a true mega-project for Kharafi National. KN will be using massive quantities of materials (see box).

ABJ, Kharafi National's fabrication subsidiary, is currently building large-scale state-of-the-art fabrication workshops in Zone Three of the Industrial City of Abu Dhabi (see page 8 in this issue) and, once it is operational in Q4 2010, much of the prefabricated products required for Habshan 5, such as pipe spools and associated pipe supports, will be made there.

In the meantime, in order to meet the demands of its construction site and avoid delays, KN is erecting temporary facilities on a 401,500sq m area near Habshan 5. These facilities will have the capacity to fabricate 400 inch dia piping per day, prepare and paint 400sq m of piping per day, as well as producing scaffolding units and insulation materials.



Habshan 5 is one of largest contract Kharafi National has undertaken so far. Obtaining the contract for the construction of the gas processing plant is a testament to the high regard with which the company is viewed by major international players in the oil and gas market such as Tecnimont and JGC, with whom KN has undertaken contracts in the past, and to the success of KN's business diversification programme.

Project Brief

Habshan 5 Gas Processing Plant

Client	: GASCO - Abu Dhabi Gas Industries
Main Contractor	: Consortium of Italy's Tecnimont and Japan's JGC
Construction	: Kharafi National
Project Number	: 2031
Scope of Work	: Construction of a gas processing plant
Start	: 1st May 2010
Finish	: Q3 2013
Employees (at peak)	: 8,500

Immense quantities

The scale of KN's work at Habshan can be seen from the vast amounts of materials and prefabricated products it will use during construction of the gas processing plant. All quantities are approximate.

Concrete works	: 218000cu m
Steel structure erection	: 40,000 tons
Piping prefabrication and erection	: 2,100,000 inch dia
Piping & equipment insulation	: 360,000sq m
Underground piping	: 37,000m
Painting	: 910,000sq m
Buildings	: 6 substations, 4 instrument equipment shelters, and 4 operator maintenance shelters

OPERATIONS NEWS

A driving centre in Egypt and another district cooling plant in the UAE are just two of Kharafi National's recent project starts. Meanwhile KN's long experience and superior skills in refinery maintenance are already generating substantial savings for KNPC, whilst Instant Access has taken up abseiling down high-rise buildings in Dubai.

FIRST TOURISM DRIVERS TRAINING CENTRE IN THE MIDDLE EAST

Kharafi National is constructing a training centre for drivers in the tourism industry at 15th May City, Cairo, on behalf of the Egyptian Tourism Federation.

The centre will train new drivers and upgrade the skills of those who are already driving, so that they meet the highest international standards and are capable of driving under any weather conditions and on any types of roads.

Covering an area of 433,000 square metres, the centre will contain advanced tuition facilities with a 3km track, an administrative building with five lecture and seminar halls, each with a capacity of 120 trainees, exhibition halls, a cafeteria and a large parking area.

The driving centre is being built to the specifications of the Austrian based Test and Training International (TTI) – Planning and Service GmbH, a subsidiary of the Austrian Automobile, Motorcycle and Touring Club. TTI will also be delivering driver training at the new centre.

The ETF driving centre will offer courses in defensive driving, eco-driving, and driving in emergency situations (such as medical emergencies, fire, and terrorist attacks). The courses will include basic maintenance, programmes for beginning drivers and professional drivers, as well as



instruction for limousine, van, and micro-bus drivers. There will also be courses for motorcycle riders, truck drivers and school-bus drivers.

The target for the first year is 15,000 trainees and the number of trainees is expected to increase to 35,000 annually thereafter.

As the main contractor, Kharafi National's scope of work on this project is comprehensive. KN will be constructing the administration building, the water tanks, sewage station, transformer and electricity distribution rooms, the main gate and the auxiliary buildings.

KN will also be installing 11km of water, irrigation and fire fighting networks,

including the pump valve chambers, as well as 6km of waste water networks with the sewage pumps, manholes, force mains and catch basins. The company is also undertaking the MEP works for the administration and utility buildings.

The scope covers the electrical cable network consisting of 20km of cabling, along with the high masts, lighting pools, electrical ring mains units, transformers, switchgear and low voltage systems. KN will also be laying 97,000sq m of road works.

The project began at the start of June 2010 and, with 80 staff on site at the peak, is expected to take about 10 months to finish by the end of March 2011.

DISTRICT COOLING PLANT FOR RIHAN HEIGHTS

On the 18th July 2010, Kharafi National began work on the construction and installation of a district cooling plant to serve Rihan Heights in the Arzanah Development in Abu Dhabi in the United Arab Emirates. KN is the prime contractor.

The client is Capitala, a joint venture between Mubadala Development Company (51%) and CapitaLand. This joint venture designs, builds, manages, operates and maintains mixed use, predominantly residential, developments in Abu Dhabi.

Mubadala is a government-owned Abu Dhabi investment company. Its mission is to develop sustainable businesses across a wide range of sectors in order to diversify the emirate's economy and reduce its reliance on hydrocarbons. Mubadala focuses on long-term investments that deliver strong financial returns and tangible social benefits.

CapitaLand is based in Singapore. It is the largest real estate company in South East Asia by market capitalisation, the largest owner or manager of retail malls in Asia and the largest owner-operator of serviced residences in the world. CapitaLand's portfolio spans more than 100 cities in over 20 countries and it is highly experienced in the entire real estate value chain – from investor, developer, property manager and operator to financial services advisor and fund manager.

Arzanah is a 1.4 million square metre development on land surrounding the Zayed Sport City Stadium. A mixed-use integrated development – with residential, retail, commercial, sports

and leisure components – it will include a two-kilometre prime waterfront area and will offer an active urban lifestyle for residents and the community at large.

Rihan Heights is situated on 38,000 square metres of prime land in the north eastern corner of Arzanah. Five luxurious residential towers with 854 apartments in total as well as 14 villas on the site's perimeter are currently under construction. The buildings will be surrounded by luxuriant gardens.

Rihan will also have a swimming pool, a children's playground, a gym and fitness suite, a clubhouse and state of the art security and management systems.

The scope of KN's work on the district cooling plant (DCP) for Rihan Heights covers the design, procurement, civil construction, architectural finishing and MEP works, including the district cooling plant itself, the reticulation network and the energy transfer stations. KN will also test and commission the DCP and will operate and maintain the plant for 12 months following commissioning.

This plant has been designed to be modular in construction and to be self-contained within a compound of 1,000sq m, from which it will supply chilled water to the apartments and villas in Rihan.

The plant will consist of chillers, cooling towers, pumps, storage tanks, ancillary plant, both medium-voltage and low-voltage power distribution and switchgear, compound services, an accommodation unit and the compound

wall. KN is sourcing the chillers from York (USA), the pumps from Armstrong (UK), the electrical switch gear from Schneider (France), and the transformers from ABB. The cooling tower will come mainly from Western Europe with some components from the USA.

The reticulation network will include the supply-and-return jacketed pipelines, control valves, chambers and control systems for the interface equipment – all of which will be coordinated with the other contractors on the site so that they fit in with the general infrastructure of the development.

The energy transfer stations will provide the interface with the consumers and will include heat exchangers and connections for the chilled water reticulation pipes coming from the chilling plant to the primary side of the heat exchangers. They will include all valves, controls and accessories.

KN manpower on the project will peak at about 70, excluding subcontractors' manpower. The project is a fast track one and is due for completion by the 13th May, 2011.

The DCP in Rihan Heights will be a relatively small plant. However it is being wholly designed by KN using the experience, capabilities and know-how Kharafi National has built up in recent years on several successful district cooling projects and the Rihan Heights project is already helping to consolidate the company's reputation in this field.

Equipment Division



Six Grove and Terex-Damag mobile cranes, with lifting capacities of up to 120mt, arrived recently from Germany and have been added to KN Equipment Division's fleet

OPERATIONS NEWS ■ EPCM - EPC + CON

ED DEWATERING SKILLS IN THE UAE

The Equipment Division is carrying out dewatering activities at the Saadiyat Island and Habshan-5 sites in the UAE.

On the environmentally-sensitive Saadiyat Island, which is being developed as a multi-faceted leisure destination, KN is designing and building a sewage treatment plant (see Transmission, Issue 26) that it will operate once the STP has been commissioned. Due to the need to protect the environment, the dewatering requires superior professional skills. ED is deploying technicians with higher qualifications as well as specialists in dewatering.

To carry out the dewatering work, the department is using 6 inch suction and discharge pumps, both diesel-driven

and electric. These pumps cover more than 120 well points and are connected with pipes that discharge the water in designated areas. In some places the same water is being used to control dust prevention by pouring.

At the Habshan-5 site, where KN is constructing the process plant (see KN Projects in this issue), ED is dewatering the sulphur pits. These pits cover an area of about 160 linear metres. Prompt dewatering is required in order to facilitate concreting activities 10m below ground level.



Equipment Division's dewatering pumps connected to various well points in Saadiyat Island, UAE

MECHANICAL MAINTENANCE AT MINA AL AHMADI REFINERY

Mina Al-Ahmadi (MAA) refinery in Kuwait is the second largest refinery in Asia. It has a total footprint of 10.5 million square metres and a throughput of 415,000 barrels of oil a day. MAA is operated by the state-owned Kuwait National Petroleum Company (KNPC).

ABJ Engineering & Contracting Company, Kharafi National's wholly-owned subsidiary, was awarded a five-year mechanical maintenance contract by Kuwait's Central Tenders Committee in the face of intense competition for this challenging and complex project. ABJ began work on the 20th November 2009.

The **scope of work** covers the complete mechanical maintenance of the refinery complex. ABJ is maintaining all the main process plants in the old refinery, the refinery modernization project, the further upgrading project, the gas liquefaction plant, and the fluid catalytic cracking unit.

The scope of work also covers ancillary units including the atmospheric residue desulphurization unit, the south and north oil piers, and the acid gas removal plant, as well as the utilities – in all, more than 80 units.

ABJ is delivering a complete range of services – daily routine maintenance, preventive maintenance, and shutdown maintenance for both individual units and blocks. The company is also undertaking major refinery turn-around and general refinery turn-around shutdown maintenance. ABJ also overhauls all stationary equipment in the refinery including distillation columns, pressure vessels, de-salters, heat exchangers and rotary equipment such as turbines, compressors and pumps.

More than 900 engineers, supervisors, foremen and technicians are working on the project on a daily basis. In addition, ABJ mobilizes additional manpower as necessary for short durations of two to four months – anything from 300 to 1,500 employees at various levels – for handling shutdown maintenance works.

To support its activities at MAA, ABJ has deployed a large fleet of heavy and light equipment that includes cranes, trailers, boom trucks, vacuum tankers, water tankers, forklifts, and pick-up trucks. The company's technicians have access to the whole range of hand and power tools as well as special maintenance tools such as hot taping machines and tube bundle extractors, all of which are mobilised by ABJ.

Working in a refinery is dangerous. ABJ employees are unavoidably exposed on daily basis to a variety of hazards arising from the handling of chemicals and sulphur, working inside confined spaces which may pose severe risks to health through exposure to welding fumes, and the use power tools and heavy machinery.

To counter these risks, ABJ has a team of safety engineers working full-time on an exclusive basis at MAA. ABJ has also given its employees intensive training in general safety procedures and job specific topics and has provided them with appropriate personal protective equipment. As a result, ABJ has achieved 1.5 million safe man-hours without a lost time incident at MAA in the last 6 months.

Shutting down a unit in a refinery for maintenance, while absolutely necessary, represents loss of income for the refinery operator and KNPC

has been endeavouring to reduce the duration of these shutdowns. ABJ's expertise in refinery maintenance and ability to manage shutdowns professionally and efficiently are now paying dividends for KNPC.

In the block shutdown maintenance that took place from April to June 2010, ABJ used its technical expertise, culture of team work and professional management to reduce the length of time for which various units were shut down by 2 to 7 days through the early completion of work. This resulted in significant savings for KNPC.

Practising for Emergencies

Safety First at KN is given concrete expression in the numerous evacuation drills undertaken in our work sites and camps. These exercises are crucial in building the team knowledge needed to deal with emergency situations. The result: staff awareness of proper evacuation procedures has delivered one of the best safety-under-pressure records in the Middle East.

SAFETY PAYS!

ABSEILING IN DUBAI

Instant Access in Abu Dhabi continues to grow well. Recent additions to the external rental fleet include a 14m telescopic forklift and case skid-steers transferred from Kuwait. The company is eagerly awaiting delivery of Hinowa tracked articulated booms which will allow Instant Access UAE to further engage the more lucrative facilities management and interior contractors – this is a market where supply is in demand and service is highly valued.

Throughout the UAE, the specialist dual-fuel (electric and diesel) Omme 30m boom-lifts are in high demand for facilities management and interior works. Meanwhile, the Maeda Mini Crane fleet continues to be well utilised on curtain-walling projects at the new Zayed University and on Abu Dhabi's Sowaah Island.

Indeed the Maeda mini-cranes are being put to a variety of uses. As can be seen from our photos, Maeda MC174 Mini Cranes were used by abseiling installation teams on the 80th floor of Dubai's Princess Tower – this job, for the Jiayu Company of Beijing, was a great success and Instant Access more than exceeded the expectations of the client.

As well as servicing a growing list of external clients, the company is continuing to provide top quality machines to the KN projects at Habshan and ICAD 3. To further develop the service at Habshan, Instant Access in the UAE will be installing a team of highly trained mechanics on site in Q4 2010.



Exterior installations at the Princess Tower in Dubai – safe abseiling courtesy of a Maeda MC174 Mini Crane from Instant Access

EXTENSION TO SEIF PALACE

Kharafi National has received letters of appreciation for the construction of an extension to Building 400 at the Seif Palace in Kuwait from the client, the General Secretariat of the Council of Ministers.

The extension contains a new diwaniya for the prime minister on the ground floor and a council chamber on the first floor, which includes audio/visual conferencing systems using the latest technology and is serviced by two VVIP elevators.

The project, which began on the 7th October 2009, was handed over to the client on the 6th June 2010 and the first meeting of Kuwait's Council of Ministers was held in the new building two weeks later.

Kharafi National's scope of work covered the design and execution of all civil and electro-mechanical works, including testing, commissioning, start up, and operation and maintenance. KN will now be undertaking the civil maintenance for one year and electro-mechanical maintenance for two years.

The majority of the civil works were executed using pre-cast concrete structures, while the finishing and furnishings reflect the traditional style of the Ruling Family of Kuwait, as does the landscaping.

KN also supplied and installed building services of the highest standards and a smart building management system. The electro-mechanical works included an extension of the central plant equipment that will meet the additional loads demanded by the extension to Building 400 and the expected future loads on the systems.

With 318 staff on site at the project's peak, the extension to Building 400 took 555,545 man-hours. Despite time and quality constraints, this prestigious project was completed, to the client's total satisfaction, on time and within budget.



The meeting chamber created by KN for the Council of Ministers in Kuwait

KN GRADUATES IN CRISIS MANAGEMENT

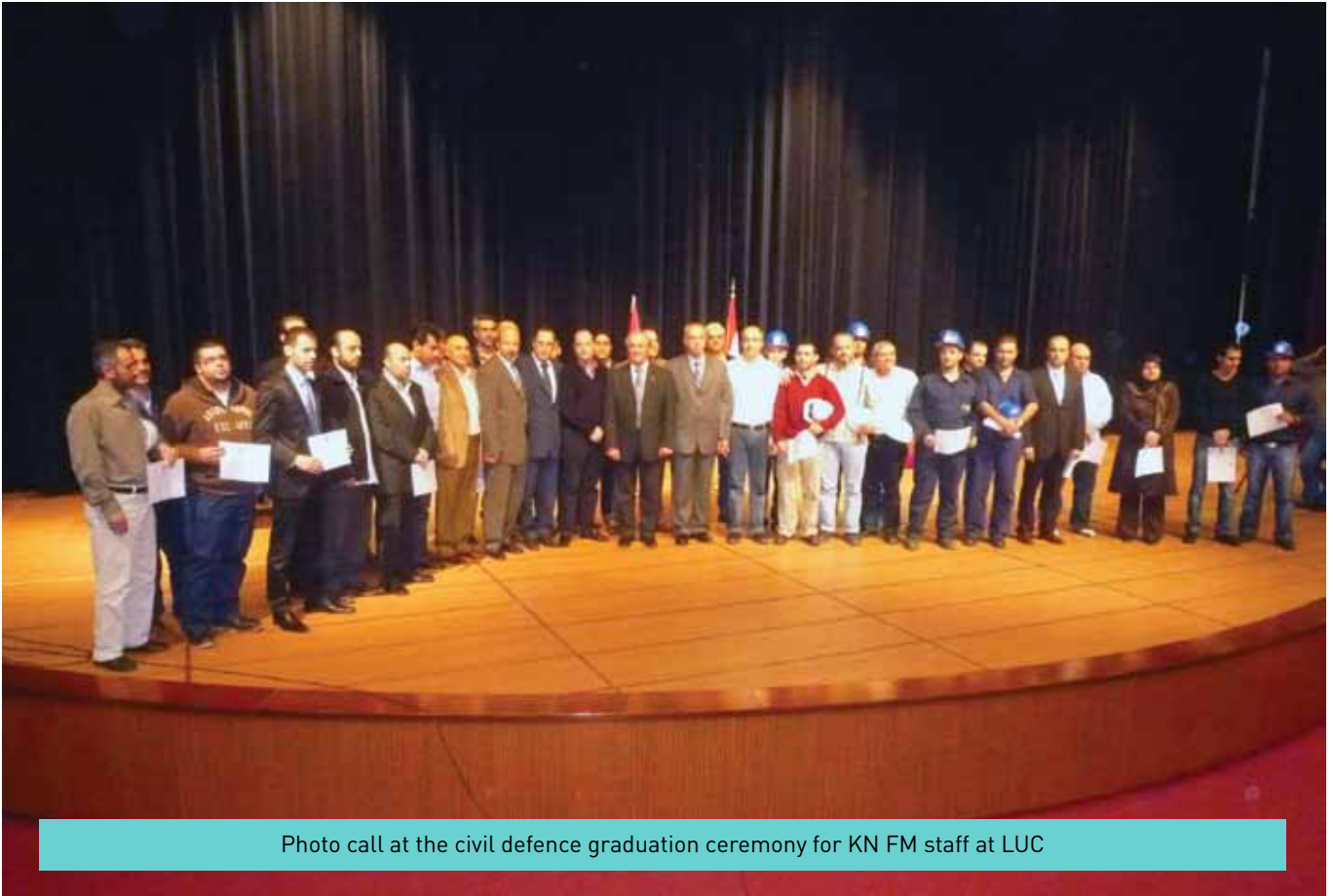


Photo call at the civil defence graduation ceremony for KN FM staff at LUC

On the 22nd March 2010, Kharafi National conducted a civil defence graduation ceremony for 43 employees of KN Facility Management at the Lebanese University Campus, President Rafic Hariri University, in southern Beirut, where KN operates and maintains the facilities. The KN graduates had attended a two-week course in theoretical and hands-on training in first aid conducted by Lebanese Civil Defence (LCD).

The ceremony was opened by Air Force Major Darwish Hobeika, Director General of LCD, who outlined the role and major accomplishments of LCD in

times of crisis. He praised the joint efforts of LCD and KN to broaden the role of the KN team at LUC in crisis management. Major Hobeika spoke highly of KN's efforts to establish teams at LUC capable of handling emergency situations, the level of preparedness at all levels of management and the company's accomplishments over the five years since the Lebanese University project began.

The presentation took place in the presence of senior managers from KN, including Project Manager Ossama Abdel Kader, Assistant MP Ghassan Al Hajj, and Operation Specialist Mahmoud Itani. The KN Safety Department and all KN supervisors at LUC also attended, as did engineers from the employer's representative (LACECO), the management team at LUC and subcontractors' staff. The presentation was followed by a cocktail party and photo opportunity at the LUC conference Centre.

Training staff in first-aid related civil defence techniques illustrates KN's pursuit of excellence in all aspects of facility management.

STUDENT ENGINEERS GAIN VALUABLE WORK EXPERIENCE AT KN

A carefully selected group of engineering students from the most prestigious universities in the Middle East attended Kharafi National's annual summer training programmes in Kuwait, the UAE and Lebanon from the 26th of June to the 20th of August 2010.

... Superintendent HRD
Learning & Development
Tamer Hamed reports



MD Samer Younis surround by smiling summer trainees

KN's summer training programmes provide engineering students with on-the-job experience through exposure to a variety of projects and departments so that they can develop their skills, knowledge and experience and better understand their career opportunities.

The programme provides KN with an opportunity to observe the potential of young engineers and evaluate them for inclusion in the graduate engineers programme. Some students who were on previous summer programmes are now with KN as graduate engineers.

The programmes kicked off with an orientation session, followed by a tour of the company's main facilities in the country in which the students were undergoing training. They were then placed in projects according to their engineering discipline, where they were each assigned a project mentor.

To provide support and guidance and to check on progress, weekly visits to each trainee were conducted by L&D. Trainees were required to record their experiences in workbooks and to prepare a professional report on their project, its activities and purpose.

All students enjoyed quality time with MD Samer Younis who described the programme's role in community building. The MD explained the importance of policies and procedures. He also discussed corporate values and how hard work and achieving results would be the primary key for a successful career within KN. The MD outlined the development of KN and its potential for growth, and closed with sage advice on how to enjoy a successful career.

At the end of their placements, the students were appraised by their mentors and project managers. They submitted their final reports which included an evaluation of their learning experience.

The last day of the programme involved a debriefing session. The feedback from students was extremely positive. The trainees were thanked and presented with gifts and certificates.

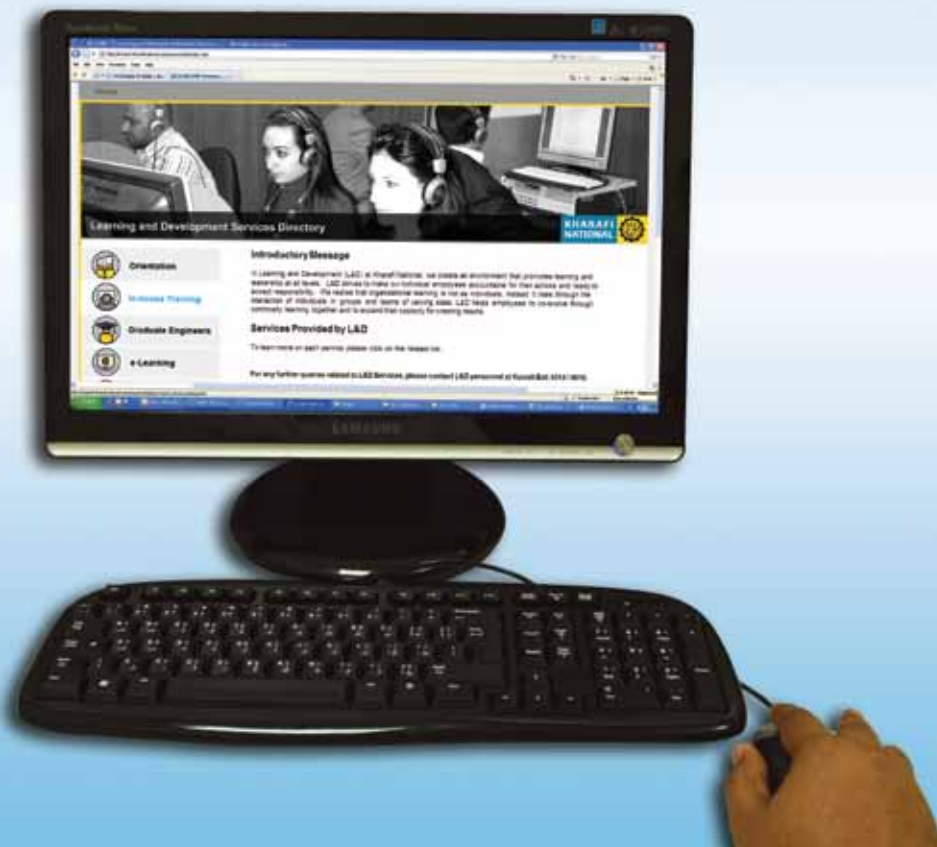
The success of the summer training programme relies on the combined efforts of many departments and projects across Kharafi National. The HRD Learning and Development Unit thanks all of those whose time, effort and contribution ensured, once again, a positive and rewarding experience for the company's young guests.

Learn more!!

Know More!!

Receive More!!

Enjoy the learning!!



<http://corpnet/common/L&D/index.html>

COMMITMENT TO LEARNING PAYS OFF

A strong commitment to continual learning and professional development generates very positive outcomes for both KN and the employees involved. Recently L&D had an opportunity to discuss the e-learning experience with two recent PMP graduates.

In Kuwait, Amir Taher Khater, who works in the Project Controls Department of ABJ, became a project management professional (PMP) on April 26, 2010, whilst in the UAE, Ahmed Suliman, who works as a cost and planning engineer in IPD, achieved PMP status on May 19, 2010.

Amir found the L&D Unit's e-learning courses an excellent route to gaining a PMP certificate and he was able to complete the required PMP units in six weeks. Ahmed, who already had a diploma in project management, found fitting L&D e-learning courses around his current workload was not difficult.

Have these courses benefited you?

Amir: After finishing, I realised that project management has standard processes, and each process has its inputs, techniques, and outputs. Now I can determine what processes we need and what techniques will ensure the success of a project.

Ahmed: The courses helped refresh my memory and gave me the confidence to do the exam by confirming that I was doing the right things.

Amir: A lot of people think they are doing project management but this is not so. Taking these courses helps recognise that project management is a profession which needs extensive study.

What about the way the course materials were delivered?

Amir: The modules are available online. So, wherever I was, I could go through them. The tests are very close to the actual PMP test and provided me with valuable experience for the exam.

Ahmed: The e-learning was very similar to an external preparation

course I took and I feel that the PMP modules are all you need to complete all your preparation for the exam.

Did you find it easy to navigate your way around the course?

Amir: Because the course is organized by the various areas in project management, it was very easy to get the information in a well-organized pattern that helps you to learn quickly.

Do you need any additional learning support to complete the courses?

Amir: It is more than enough.

Are you considering any other e-learning courses?

Amir: I am planning to go through the six sigma e-learning courses offered by L&D.

Ahmed: I also undertook some Access modules to assist me with carrying out specific tasks.

How did you find the support from the L&D team during your studies?

Amir: They were very helpful. They showed me how to access and download the materials. They also helped me generally in my studies and provided materials and sample tests.

What would you say to other employees thinking of taking e-learning courses?

Amir: The e-learning programme is a very valuable opportunity that everyone in KN should hunt out. Search out what you don't know, learn, and upgrade your skills. Learning will enable you to adapt to other roles in your working life and help you develop an attitude of perseverance.

DEVELOPING EMPLOYEES THROUGH E-LEARNING

Kharafi National considers its employees to be its greatest asset. However, so the company can adapt readily and quickly to changing market demand, its people need up-to-date knowledge and the latest skills. Thus, employee development is accorded the highest priority at KN.

E-Learning was introduced into Kharafi National in 2006. The response from users was excellent – they found it informative, resourceful, motivating, and a convenient way to learn.

In 2007, the e-learning courses were expanded and the system was made accessible to all non-manual regular employees. Over 500 courses are now on offer relating to finance and accounting, economics, human resources, management, project management, strategic planning, industrial skills, consulting, information technology, leadership and much more.

Today e-learning is one of the most used sources of knowledge in KN. It gives employees multiple opportunities to develop professionally and personally. For instance, completing e-learning courses provides engineers with professional development credits they can use when they are applying for certification as project management professionals.

To promote e-learning in KN, competitions are held regularly. These recognise employees who have demonstrated commitment to their professional development by taking courses.

On the 5th August 2010, the distribution of prizes for the competition period of the 16th March 2010 to the 31st May 2010 took place.

To enhance their knowledge and develop their careers, all KN employees are urged to make use of the company's

learning facilities, such as e-learning and In-house soft skills training.

Congratulations, Winners!

Winners – E-learning Competition – March to May 2010

Grand Prizes

Prize	Employee ID	Name
KD 200	11114	Ismail Ibrahim Darwish El-Sammak
KD 100	39380	Adel Mohamed Ahmed Mostafa
KD 50	36115	Shibu Manjery Mani

Consolation Prizes

Prize	Employee ID	Name
Cross Pen	11190	Hesham Mostafa Hashem Mostafa Ayesha
Cross Pen	15529	Mustafa Al Sayed Baydoun
Cross Pen	6551	Ahmed Mohamed Abd El-Samie Keshta
Cross Pen	14001	Hakam Abdelrahim Abdelqader Idais
Cross Pen	(UAE) 29374	Amr Mohamed Gamal
KN Polo Shirt	(UAE) 27125	Ramesha Chithoor Shanmugam
KN Polo Shirt	8019	Ayman Mohamed Abou El-Fetouh
KN Polo Shirt	10007	Abdel Ghani Yasser Shehab
KN Polo Shirt	8728	Shringare Sharad Janardan
KN Polo Shirt	15368	Ahmed Abd El Azem Ibrahim Mosa
KN Polo Shirt	5722	Mohammad Muin Mohammad Farah
KN Polo Shirt	(UAE) 91223	Varicadu Narayana Kurup Purushothaman
KN Polo Shirt	16034	Mohamed Ahmed Ali Abdalla Elhadedi
KN Polo Shirt	17116	Ayman Mohamed Fathi Abdul Ghani Sayed
KN Polo Shirt	7759	George Jose Kollashani
KN Polo Shirt	8969	Wael Mohamed Fathy Mahmoud Hagag
KN Polo Shirt	26690	Ali Fatehi Mahmoud Hamadeh
KN Polo Shirt	22252	Penke Venkateswara Rao
KN Polo Shirt	37046	Hosam El-Din Mahmoud
KN Polo Shirt	10650	Hadi Hassan Abou Chacra
KN Polo Shirt	(UAE) 7676	Chinthagupala Sanjeev Murali Krishnan
KN Polo Shirt	16094	Yasser Abdel Hamid Mahmoud
KN Polo Shirt	(Leb) 40002	Ghassan Omar El Hage
KN Polo Shirt	12765	Amr Abbass Hassan Abbass
KN Polo Shirt	37729	Mohamed Ahmed Elsayed Elmay
KN Polo Shirt	13886	Illuri Ramesh
KN Polo Shirt	34238	Francis Viray Enriquez
KN Polo Shirt	34293	Suneesh Thachakunnel Narayanankutty
KN Polo Shirt	13628	Syed Mujaddid Peeran Syed Riaz Peeran
KN Polo Shirt	32083	Anita Derrick Coutinho
KN Polo Shirt	18536	Pavate Shakeel Ahmed
KN Polo Shirt	13480	Munaf Mohammed Bashir Fakir
KN Polo Shirt	26669	Jun Saldua Labong
KN Polo Shirt	3092	Afzal Baig Husain Baig
KN Polo Shirt	39268	Jahid Mohammed Ikbal Sheikh

Enjoy Learning! Will YOU be a WINNER next time?

ERGONOMIC BREAKS, REST PERIODS AND STRETCHES


Name

Paul J Humphreys

Title

Corporate Health & Safety Manager

Location

Kuwait

Ergonomics is the science of designing the job, equipment, and workplace to fit the worker. It has two goals: health and productivity.

The purpose of ergonomic design is to prevent repetitive strain injuries and to enhance productivity.

Ergonomics is concerned with the 'fit' between people and the tools and technologies they use and the environments in which they work. It takes account of user capabilities and limitations in seeking to ensure tasks, equipment, information and the environment suit users. This new science is relevant to the design of things such as safe furniture, tools and easy-to-use interfaces to machines.

Ergonomics shows us the relationship between injuries and the design of the working environment. However, there are plenty of things a worker can do to avoid injuries related to ergonomics at work.

..... Corporate Health and Safety Manager
Paul J Humphreys explains

Not all working environments are ergonomically perfect. Ergonomics is still a young science and the principles of ergonomic design are still developing. However, there are several sensible things a worker can do to minimise his or her chances of suffering an ergonomic-related injury.

Risk factors for ergonomic injuries include forceful movements, repetitive motions, awkward postures, and lack of rest. Overall fitness and flexibility, adequate sleep, task rotation, and rest breaks can help limit the overall risk of injury.

Rest periods give the body time to recover from work; break time exercises and stretches strengthen the body. Workers should think of themselves as industrial athletes; athletes would not participate in a sport without proper rest and warm-up, so use the same preparation on the job.

Maintaining overall health reduces the risk of injury. Getting a good night's sleep rests the body and maintains

alertness. Eating healthy foods and drinking plenty of fluids boost energy and keep the body hydrated. Aerobic exercise and weight training increase strength and vitality. Stretching, yoga, and running improve flexibility and build core body strength.

You should pay attention to signs of discomfort and fatigue on the job; these are warning signs from your body. As muscles tire during a work task, slouching can lead to poor posture, sloppy and uncontrolled movements, and injuries.

Rest breaks mean recovery for the body. During a job task, you should take micro-breaks lasting 10-15 seconds every ten minutes, and take mini-breaks lasting 3-5 minutes every 30 to 60 minutes. These short breaks give the body a rest, reduce discomfort, and improve performance.

You should also alternate your work activities and postures throughout the day. Rotating tasks may seem inefficient, but the rest and use of different muscle groups increases



Good posture and regular breaks are vital for preventing repetitive-strain injuries and maintaining productivity

energy and maintains productivity. For example, if you are a landscaper, do not trim all of the shrubs, sweep up the trimmings, and then leaf-blow the whole area; work in sections and trim, sweep, and leaf-blow in alternating tasks. If you work at a single workstation and job task all day, move into different postures while you work; first standing, then standing with one foot resting on a stool, then sitting.

Stretches help you warm-up before work and relax during breaks; they increase flexibility and boost blood flow and oxygen to muscles. Perform stretches slowly and gently; avoid extreme postures and stop stretching if you feel pain or discomfort.

5,000,000 Man-hours without an LTI

Congratulation to everyone on BS 160 for achieving an amazing FIVE MILLION man-hours without a lost time incident.

This achievement is a testament to the health and safety compliance on this hazardous site where a new booster station for KOC is being constructed.

SAFETY PAYS

DOUBLE AWARDS AT KOC SAFETY DAY

At the safety day hosted by Kuwait Oil Company at KOC's Hubara Centre in AL-Ahmadi City in southern Kuwait on the 30th September 2010, Kharafi National was honoured with two awards:

- As the best contractor site office in KOC's Gas Management Group; **and**
- For the company's contribution to the achievement of HSE Excellence by the West Kuwait Directorate of KOC.

The oil and gas sector in Kuwait is booming and, to make KOC fields across the country as safe as possible, advanced safety techniques are being applied. KN has provided the most up-to-date techniques for detecting leaks from gas transmission lines and these have been implemented.

The awards demonstrate KOC's appreciation of the efficiency and success of these techniques.



KOC Chairman & Managing Director **Sami Fahed Al-Rushaid** presenting **Hakam Idais**, acting project manager for KN project 1629 (patrol, surveillance and operation of consumer network pipelines), with commemorative plaques

KN SAFETY PRACTITIONERS

The days when the word 'safety' was just a smirk on the face of the project manager and only 'lip-service' was paid to the concept are long gone. Indeed, those days never existed in Kharafi National where attention to safe-working practices and procedures has always been paramount.

In KN, safety practitioners have always been seen as a 'must have' rather than a 'could have'. They are never labeled as an unwanted, unnecessary expense but, rather, are accepted as professionals. They are respected in much the same way as engineers and doctors.

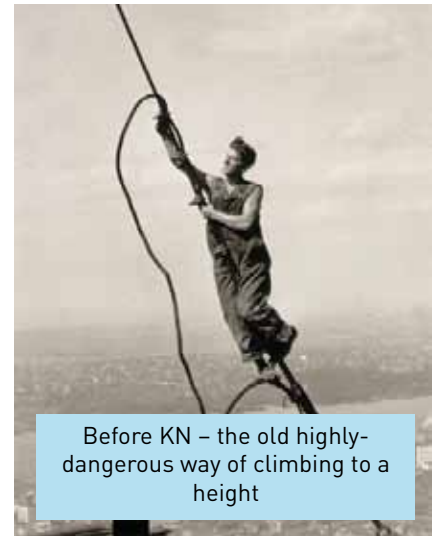
Safety practitioners in KN face a multi-tasking, multi-disciplined labour force with wide vocational backgrounds which encounters extreme levels of risk in the diversity of KN's projects and products.

As a result the KN safety practitioner must be fast-thinking and persuasive and able to keep abreast of the ever-expanding and demanding health and safety compliance required by KN's accreditation to OHSAS 18001: 2007.

This means that the KN safety practitioner has to finely balance his work as a carer, keeper of information, clerk, judge and jury, advisor, enforcer, planner, trainer, teacher, communicator and friend. He must be everywhere at once, attentive, physically fit and a great lateral thinker.

Safety practitioners in KN are highly trained professionals who have found a career where they can practice their belief that safety is supreme and be the person who save limbs, lives and assets in a company which respects the primacy of safe-working above profit and all other considerations.

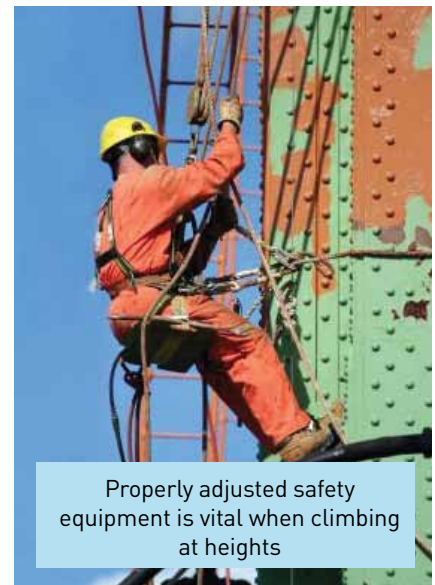
Therefore the next time a safety practitioner appears and states: 'Your risk assessments and method statements need updating', you must listen to him. Remember, he is your safety professional.



Before KN – the old highly-dangerous way of climbing to a height



Practising a rescue drill at KOC's booster station #160



Properly adjusted safety equipment is vital when climbing at heights

IMPROVING THE SAFETY CULTURE IN EGYPT

Moustafa El Halim is KN's first senior safety engineer in KN Egypt. Moustafa's route to a successful career in safety is an interesting one.

... interview by Corporate Health and Safety Manager
Paul John Humphreys



When Moustafa graduated from college in May 2001 he did his compulsory military service in the Egyptian army's Corps of Engineers where he served for three years.

MEH: My responsibilities were to maintain a huge amount of mechanical equipment. During this time I became very interested in implementing safety standards to protect my team and found I was happy working in a job where I could use my education to protect human life.

PJH: After the army, how did you continue with health and safety at work?

MEH: I joined the Gulf of Suez Petroleum Company and was assigned to Port Said as their safety specialist. I was responsible for all fire engineering related issues at the West Harbour onshore gas plant.

PJH: What did you achieve in this position?

MEH: I became a member of the environmental management certification team for the implementation of ISO 18001 and I also participated in preparing the documentation for ISO 14001 including the identification and evaluation of environmental matters. I eventually left GUPCO to participate in HAZOP studies for the installation of two new gas turbines at an onshore gas processing plant.

PJH: You joined KN in November, 2006. Why Kharafi National?

MEH: As a certified trainer for Dupont's Safety Training and Observation and Behaviour Based Safety programmes, I felt my future was with a growing progressive company. In 2008 KN obtained OHSAS 18001:2007 accreditation. I coordinated with the project managers in Facilities Management to increase safety awareness and safety performances over all projects. Once I was certified by the Egyptian Organisation for Standardisation as an internal auditor for OHSAS 18001, I helped to prepare most projects for their KN audits. Most of my projects achieved 95% pass grades.

PJH: I understand you also have another qualification in fire engineering.

MEH: Yes. I am accredited with the Kuwait Fire Services Directorate (KFSD). I am

also a registered member of the Kuwait Society of Engineers.

PJH: What goals will you have working in KN Egypt's Health and Safety Department?

MEH: I am looking forward to improving the safety culture of KN's workforce in Egypt by establishing, implementing, maintaining and continuous improving an effective health and safety management system, and thereby realise KN's high-level goals in safe-working practices.

PPE - did you know?

... that the SAFETY HAT was first patented in 1919 when it was made of steamed canvas, glue and black paint. It wasn't until 1938 that the first hard hats were made of aluminium. The safety hat was first used by workers on the Golden Gate Bridge in San Francisco.

... that SAFETY GLASSES were first patented in 1880. Their first large-scale practical application was in gas masks during World War I. But it wasn't until the 1940s that safety glasses went into production as eye protectors for workers undertaking welding, chipping, tool grinding and metal shaping.

... that the SAFETY HARNESS was originally made of cotton and leather in the form of a massive but simple belt for use by utility linesmen in the early 20th century. The modern safety harness is based on the military harness used by paratroopers.

CORPORATE ■ EVENTS

AUSTRALIAN COLLEGE IN KUWAIT VISITS ABJ

On the 3rd June 2010, three teachers and a small group of Kuwaiti students from the Australian College in Kuwait (ACK) visited the Equipment Division and the fabrication workshops at ABJ.

The students were introduced to a large industrial working environment where multiple tasks are performed, amidst numerous hazards, by workers from a variety of cultures. This gave them first-hand experience they could relate to their course work in business studies.

Prior to their visit, most of the students thought that KN only built shopping malls and at the end of their tour they express their amazement at how much Kharafi National actually does. Kharafi National is always happy to host visits from schools at their facilities.



ACK students enjoy a visit to KN ED and ABJ fabrication works



On 20th July 2010, Utilities Development Company received Keisha Toms, the Economic Affairs Officer of the American Embassy in Kuwait, at Sulaibiya WWT&RP, where she visited the SCADA control room, the laboratory and the plant.

Dr Edward Cichon, the COO of KN IPD, and Dr Ibrahim Al-Ghusain, the General Manager of UDC, welcomed Ms Toms and provided her with a detailed explanation of the contractual and financial aspects of the concession.



Lt Col Saif Hamdan Al-Kaabi, Director of Engineering Project Administration in the Abu Dhabi Police Dept was taken on a tour of Sulaibiya WWT&RP on 24th July 2010 by Nasr Fawzi, Monzer Yazji and Samir Lutfi.

NEW FACES



Name
Hesham Abdel Hamid Mohamed
Ibrahim
Title
Lead Engineer

... has joined Engineering Services. He has a BSc in electrical engineering from Helwan University (Egypt) and 14 years experience in electrical design for high-rise buildings in Egypt and Kuwait. Hesham joins from KEO International Consultants where he was a senior electrical engineer.



Name
Prabhat Kumar Verma
Title
Business Development Manager

... has joined FM Industrial Services. He has a primary degree in electrical engineering from Bangalore and an MBA from Amity (India) and 20 years experience in industrial automation and power solution products. Prabhat was previously head of business development for power utilities in Honeywell Automation in India.



Name
Philip Jones
Title
Service Manager

... has joined Instant Access in Kuwait. He has a certified diploma in motor vehicle craft (electrical and mechanical engineering) from City & Guilds Institute (London) and 18 years experience with a wide variety of access equipment. Philip was previous the country manager for Rapid Access in Saudi Arabia and Bahrain.



Name
Thomas Joseph Hannigan
Title
Senior Contract Administrator

... has joined Projects Controls Services. He has a BSc in quantity surveying from Heriot-Watt University in Ireland and 17 years experience in quantity surveying and contract administration. Thomas joins from Hannigan Surveying Services where he was the managing director.



Versatility from Instant Access

Construction and maintenance jobs in large industrial buildings can pose impossible-to-reach problems.

As can be seen from our photo, the incredibly versatile Hinowa spider cranes from Instant Access – with working heights of up to 23m – are ideal for reaching awkward interior places.

Hinowa equipment is available from KN Instant Access in Kuwait +965 2225 9970/2 and Abu Dhabi +971 2555 7223.

CORPORATE ■ PEOPLE

STAFF ACHIEVEMENTS



Congratulations to **Amir Taher Mohammad Khater** for achieving project management professional status by passing the examinations of the Project Management Institute, Pennsylvania, USA.

Amir joined ABJ in Kuwait as a cost engineer in December 2008. Beginning in January 2010 he used a combination of self-study and the e-learning courses delivered by KN's Learning & Development Department. After just three months of study, he sat the exams within April 2010. Amir expects that his new qualification will advance his career prospects within KN significantly.



Congratulations to **Giri VM** on becoming a certified cost engineer (CCE) with the Association for the Advancement of Cost Engineering (AACEI) in West Virginia in the USA.

Giri joined KN in August 2008 as a contract administrator on project 1041 and is currently with PCSD. He studied for the Association's examinations, which covered contracts management, cost engineering and planning, on his own and passed the exams in April 2010. Giri expects his new, internationally recognized, qualification will further his career goals significantly.



Congratulations to **Ahmed Mohammed El-Ashry** on gaining an Executive MBA from Alexandria in partnership with George Washington University AND a Diploma in Marketing Communications from the International Advertising Association, both in July 2010, for which he had been studying on his own since 2006.

Ahmed joined KN in March 2004 as a planning and cost control engineer in PCSD and is currently the unit head of material control in Stores Administration. He expects his studies in strategic thinking and planning as well as his new marketing acumen will expand his career opportunities greatly.



Congratulations to **Ahmed Suliman Mahmoud** for achieving project management professional status by passing the examinations of the Project Management Institute, Pennsylvania, USA.

Ahmed joined IPD in the UAE as a planning engineer in April 2008, with a diploma in project management. After attending the Cambridge Institute in Abu Dhabi he used L&D's e-learning facilities to prepare for the exams in May. Ahmed's PMP qualification has boosted his self-confidence and professionalism and he expects to gain enhanced recognition within KN.

EMPLOYEES OF THE QUARTER

The winners of the employees of the quarter awards for the second quarter of 2010 were:

Kuwait



Kishor Kottakkal, a secretary in cost centre 001913400, for coordinating with colleagues, doing extra jobs, handling administrative duties, following procedures and finishing his tasks on time



Prasad Maindappa, a janitor in cost centre 001913400, for being very punctual, hard working, calm and pleasant, as well as obedient and responsive to emergency requirements at all times

UAE



Nissar Madathil, a secretary in the Proposals Department, for performing his duties as a document controller with consistent excellence, for being organised at all times and for passing quality audits with flying colours



Mohamed Eliyas, who, as a tea-boy in Office Services, developed his potential by taking a CADD course on his own as a result of which he was upgraded and became a non-manual employee in Engineering Services

Egypt

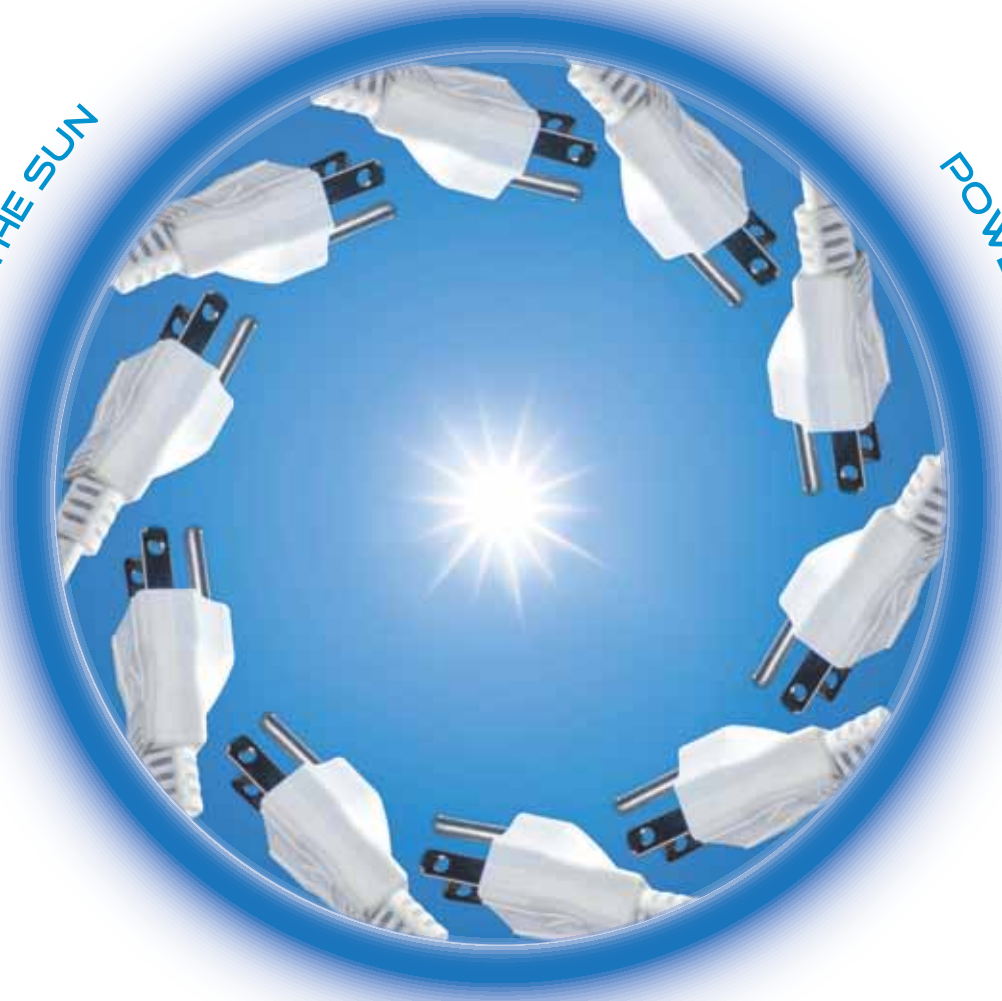


Hassan Saied El-Hariry, head of the Payroll Department, for his leadership during implementation of the ERP payroll module, working nights as necessary to get it up and running on time.



Abdallah Abdlatif Amin, an electrical foreman in cost centre 3039, for his knowledge, accuracy, intuition, cooperation, communication skills, and for following orders while adhering to safety procedures.

ENERGY FROM THE SUN



POWER FROM US

LIGHT, YEARS AHEAD



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