### InHouse:

## A Fruitful Year

Whith the recovery of the economies in the region, 2006 had been an active and fruitful year for JEL and its Group of Companies. Its turnover for the financial year ended 31 December 2006 was S\$340 million. Overall, the Group secured a total of S\$359 million worth of contracts, with the majority of the newly secured contracts coming from countries in the Middle East and Africa.

For the year 2007, Mr Osamu Abiko, JEL's Managing Director, is challenging all employees in JEL and the Group to be more profit-oriented. This requires everyone to creatively seek innovative opportunities at reducing costs and attaining higher profit margins.



Tanjong Jati "B" coal-fired power plant project... active in the region.

#### **New Project: Sime Power Plant, Thailand**

# **TJEL Wins Onshore Construction Project**

Thai Jurong Engineering Ltd (TJEL) was recently awarded an onshore construction contract for the 60 MW Combined Cycle Gas Turbine Cogeneration Power Plant Expansion Project (SLP) from Sime LCP Power Co Ltd in Chonburi, Thailand.

The existing plant, LCP1, consists of two Frame 6B GE gas turbines, two heat recovery steam generators (HRSG) and one steam turbine. LCP1 has been in operation since July 2001 and is currently selling 60 MW of electrical output to the Electricity Generating Authority of Thailand (EGAT) and the remaining electricity and up to 45 tons/hour of process steam to local industries in the Laem Chabang Industrial Estate.

To increase its generating capacity to sell more to industries, the

owner intends to place a turnkey contract for a gas turbine combined cycle cogeneration plant with an approximate generating capacity of 60 MW of electricity and 45 tons/hour of process steam (SLP).

SLP will be annexed to and interconnected with LCP1. However, the two plants are able to be operated independently.

TJEL will be responsible for project management, including detailed engineering and design, procurement and supply of piping, cabling and structural bulk materials, construction and installation, pre-commissioning and commissioning work.

Work commenced in the last quarter of 2006 and the Provisional Acceptance Certificate is expected in October 2008.

## **Working To Meet Completion Dates**

In June 2006, JEL secured a major contract from Marubeni Corporation of Japan for the supply of bulk materials and to erect three power stations for the National Integration Power Project in Nigeria.

The three gas turbine power projects are located in the Niger Delta area of Calabar, Ihovbor and Sapele and are owned and managed by the Ministry of Power and Steel of Nigeria.

JEL will be executing the mechanical and engineering (M&E) erection work, engineering and procurement of bulk materials (piping material and cabling material) for all the three projects.

JEL's engineering section has taken up the detailed engineering for mechanical, electrical and control and instrumentation work since July 2006 and is in full swing now at the Calabar and Ihovbor projects. Supplies of major piping, supports and valves have already been dispatched from Singapore.

For the electrical system, MV cables for the Calabar project have been dispatched and the balance of cables for the two projects is under various stages of manufacture. Completion of dispatches of major supplies for the two projects is planned by June 2007.

Currently, the whole team (engineering,

procurement and project management) is working on the two projects in parallel, and is confident in being able to meet the target completion dates. Most of the shipments from various countries like Singapore, Malaysia, Indonesia, South Korea and Britain are on schedule, and planning has been completed to dispatch the items to site without any hitch.

JEL has deployed two strong teams, including site managers, for the projects. They have been working hard under the severe conditions found in Nigeria. For the third project, namely Sapele, detailed engineering work is expected to start by June 2007 followed by other activities such as procurement and dispatches.

### **Project Update: Tutong Power Plant, Brunei**

## M&E Work Almost Completed

The Tutong Combined Cycle Power Station is located in Bukit Panggal of Negara Brunei Darussalam, about 50km from the capitol. This is the first combined cycle power plant in the country.

This project is funded by the Department of Electrical Services of Brunei and Baharuddin PMS Associates Sdn Bhd.

The project is lead by a consortium consisting of Marubeni and General Electric (GE), with Marubeni as the consortium leader and GE providing the main equipment, consisting of two GE Frame 6 G gas turbines and one steam turbine with an output of 33MW each, making a total output capacity of about  $100 \, \text{MW}$ .

JEL is the main mechanical and electrical (M&E) erection contractor of this project and its scope of work includes: certain BOP design and supply of equipment, i.e., plant lighting system; heating, ventilation and air-conditioning (HVAC) system; overhead crane; emergency diesel generator and air compressor system.

The 110MW Bukit Panggal Combined Cycle Plant... first in the country.



### **Project Update: Liquefied Gas Plant, Qatar**

# Fabrication, Installation Work On 5 Tanks

JEL has begun work on a 140,000-tonne liquefied natural gas (LNG) storage tank for the owner, Qatar Liquefied Gas Company Limited.

The project is located in Ras Laffan, at the upper east coast of Qatar, about 130km north of the capital city of Doha.

The project owners, Qatar Petroleum and ExxonMobil Corporation, have commenced a number of significant activities to advance the \$12 billion Qatargas II project. The completed project will supply LNG from Qatar to Britain by the winter of 2008.

Ishikawajima-Harima Heavy Industries (IHI) was awarded the engineering, procurement and construction (EPC) work to build LNG tanks 1 to 5, and Chiyoda/Technip JV has been assigned as

consultant. IHI has also completed two LNG tanks in RASGAS (RasLaffan Liquefied Natural Gas Company Limited).

In June 2006, IHI issued a "Letter of Intent" to JEL for the pipe prefabrication, piping, electrical and instrument installation of tanks 1 to 5. They involve approximately up to 52,000 diameter-inches of pipes and 125,000 metres of cable.

The project is well known for its stringent quality and environment, health and safety (EHS) requirements and JEL is well prepared to take the challenges to meet these requirements.

JEL site facilities are being set up and pipe fabrication commenced in early April 2007. Installation work is expected to be completed by the middle of 2008.

### **Department Update:**

# 90 PLBs Delivered To Asian Airports

JEL and our strategic partner Shin-Maywa have again registered positive growth in passenger loading bridge (PLB) construction in 2006 when a total of 90 PLBs had been delivered to airports in Asia.

Having developed and installed the third PLB for a single gate in Singapore Changi Airport, ShinMaywa & JEL are among the few companies in the PLB business to have successfully built PLBs that enable the Airbus A380 aircraft to be docked at three doors.

The region's general economic uptrend has pushed most airport projects forward in meeting their growing air traffic needs.

Moreover, competition in the Middle East to be the region's "Airport Hub" and the boom in India have given the PLB business more years of growth.

Through the synergy of JEL and Shin-



A passenger loading bridge ready for delivery... meeting growing needs.

Maywa, their market share in the PLB business has grown rapidly in Asia with quality and reliability their key product values. In addition, the partners' consistency in before- and after-sales service is also a major success factor.

To date, JEL has already completed and supplied 437 PLBs and 54 Fixed Gangways

(FGWs) to Japan and ASEAN countries, and is targeting to deliver 120 PLBs in 2007 from its PLB manufacturing facilities in Thailand and Vietnam.

With the rapid expansion and advancement in air traffic, JEL and ShinMaywa have begun to focus on new arenas such as India and the Middle East.

# Repeat Work On Phase 4 Extension

ork has started on the Phase 4 extension plant of the 210 MW Rojana Combined Cycle Co-Generation Power Plant in Thailand. This is an engineering, procurement and construction (EPC) project located within the existing plant boundary.

The extended plant has a capacity of 64 MW to meet growing customer demand. The plant is able to produce electricity from steam and to supply process steam of 25 tonnes/hour after integration with the existing Phase 3 and future extension project.

The project is funded by Rojana Power Company Limited. Ishikawajima-Harima Heavy Industries (IHI) and JEL have formed a consortium for the execution of the project. IHI will provide the main equipment for the project consisting of a IHI-LM6000PC gas turbine generator, a non duct-firing, a natural circulation heat recovery steam generator



Piling work in progress for Rojana Phase 4... high quality standard.

(HRSG), a steam turbine generator, as well as a condenser and auxiliary units.

The remaining balance-of-plant (BOP) equipment, such as the cooling tower, fuel gas compressor, compressed air system, miscellaneous pumps and transformer, will be provided by JEL. In addition, TJEL is the local contractor for the construction of civil, mechanical, electrical and instrumentation works.

The final notice to proceed was issued in January 2007. JEL's high standard of quality has been rewarded by this "repeat order".

The civil-engineering team has already been mobilised at the site and first piling has started after a small prayer session attended by the owner in mid-March 2007. Substantial completion of the plant is scheduled in November 2008.

### **Project Update: Amran Cement, Yemen**

## Installation Work On Schedule

JEL commenced mechanical installation work on the expansion of the Amran cement plant, located in Amran, Yemen, at the end of 2003. By August 2006, JEL had achieved substantial completion in accordance with the latest revised construction schedule prepared by Ishikawajima-Harima Heavy Industries,

the main contractor of the plant.

In early December 2006, an "Individual Idle Run Test" was conducted and it is projected that production of clinker would begin by the middle of May 2007.



Amran cement plant... substantial completion achieved.

#### InHouse:

# **JEL Staff Play Hard Too**

JEL held its annual staff party at Raffles City Convention Centre in early February 2007. Joining the celebration were: Mr Bob Tan, Chairman; Mr Osamu Abiko, Managing Director; and Mr Tsutomu Yoshida, Deputy Managing Director.

The party was a joyous night of fun and games, great food and free flow of drinks for everyone. In his speech, Mr Abiko urged everyone to "Work Hard and Play Hard". The most interesting event was the karaoke session when talents from each department exhibited their singing skills. The main highlight of the night was the high-spirited singing of "JEL Song" with everyone joining in.

In the finale, Mr Yoshida led the staff in the traditional Japanese end-of-ceremony thunder claps of three rounds.

The active participation and friendly interaction among staff dem-



JEL staff having a great time... strong team spirit.

onstrated a strong team spirit that puts JEL in a better position in the competitive business world.

### **COUNTRY FOCUS: THAILAND**

## Wet Way To Have Fun

Thailand's Songkran festival, the official Thai New Year, fell on 13 April. It is popularly known as "Water Festival".

Most people believe that bad luck or evil can be washed away by water. Actually, the word "Songkran" means "move" or "change the location".

The Songkran tradition has much value in Thai society because it gives a chance for family members to meet one another, and for the younger to pay respect to their elders by pouring the scented water on their hands. They in turn wish their younger members good luck and prosperity.

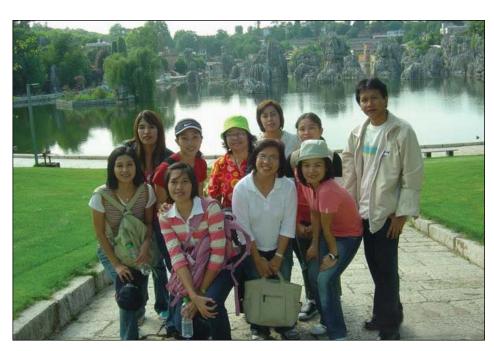
Normally, all Thais return home to celebrate this important festival with their families. However, for TJEL, the management at sites (Amata, Bangpakong, Leam Chabang, Rojana and Rachaburi) in which it operates organised a celebration on their own.

"We have always worked as a team in all our projects and, at a time like this, it is natural that we celebrate as members of one big family," said Mr Koh Kew Sek, Managing Director of TJEL, who has been working in Thailand since 1993 and who has become as local as his Thai colleagues.

"This occasion also enables us to bond more closely together."

(Right) Mr Koh Kew Sek, Managing Director of TJEL...one big family.
(Below) Mr Koh's Thai colleagues...own celebration.





#### InHouse:

# **Keppel Project Conferred Safety Award**

In July 2006, JEL's Keppel Turbine Project was conferred a safety award for chalking up 700,000 manhours of work without a single lost-time injury.

The excellent safety performance by JEL was contributed by two projects teams, one in the heat recovery steam generator (HRSG) and the other in the balance-of-plant portions. During peak period, the projects had at least 720 workers.

There is no secret recipe in the achievement of this outstanding performance for these two teams. They are managed by experienced and dedicated safety personnel and site management staff with extensive working experience in similar projects under strict safety standards, such as Black & Veatch and Foster Wheeler.

Having such exposure of high safety standards of working environ-

ments, there has been no difficulty in implementing JEL's own safety management system and client safety requirements.

The safety team comprises: Mr R T Kannan, who has successfully completed Tanjung Jati Project prior to joining JEL; Mr Ali Abdul Razak, JEL's safety veteran who has worked extensively in various projects under Ishikawajima-Harima Heavy Industries (IHI), Mistubishi Heavy Industries (MHI), Dupont, Black & Veatch, and ExxonMobil; Mr Fernando Cecil, who has worked extensively with IHI, Shimizu, Cockerill Maintenance & Ingenierie (CMI) Alstom; and Mr Azmi Abdullah, who has extensive lifting experience in heavy lifting operations, both locally and overseas.

The safety team received much support and encouragement from Project Managers, Mr Lee Chin Fatt and Mr Wong Chow Yee, and Site Managers, Mr Ngooi Sew Woon and Mr Norlyne Gagarin.

### InHouse:

# 2 New Safety Achievements

Two JEL project teams at the Kobelco project were the proud recipients of safety awards for achieving 1,008,856 and 3,004,157 man-hours worked with zero lost-time accident as at 28 February 2006 and 9 August 2006, respectively.

In addition, as at 21 November 2006, the site where the teams worked in, the high briquetted iron/direct reduction iron (HBI/DRI) combo plant at Mesaieed, Qatar, had achieved 4.39 million man-hours without lost-time injury.

The two awards were the achievement of the civil, mechanical and electrical work teams, which have a total manpower strength of about 1,300 workers each, led by their individual safety teams and site management staff for their continued on-site control and enforcement of Environment, Health and

Safety (EHS) rules and regulations.

The safety teams are led by their Project Managers, Mr Chia Kok Boon and Mr Sim Siang Huat, who had painstakingly built up their own teams not only with skilful and efficient management and execution, but, more importantly, with strong safety processes.

The teams were regularly sent for safety enhancement courses.

The engineers, supervisors and lead workers have benefited from the foresight in building up a strong and reliable safety team.

JEL has also received from its client, Kobelco, positive comments for Safety Coordinators, Mr Thomas Chee and Mr Pok



Presentation of the best worker safety award at the Qatar HBI/DRI combo plant... strong and reliable.

Chee Choong, and Safety Supervisors, Mr Joseph Daniel and Mr Mahbud Hossain, for their introduction of a strong safety culture at the Qatar plant.

They attributed their success to the strong support and advice from JEL's EHS Department at the Singapore head office.

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