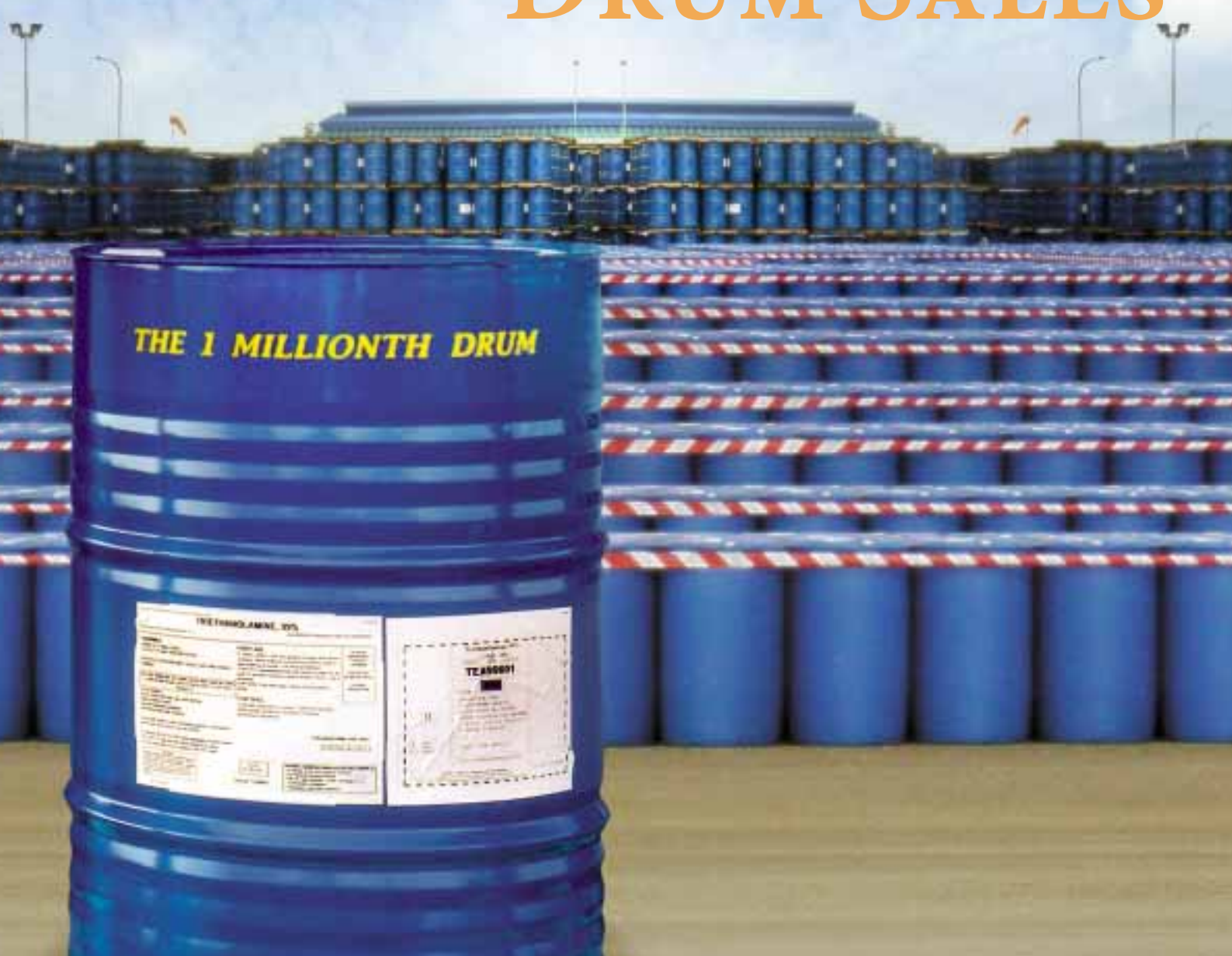


OPTIMAL ACHIEVES 1 MILLION DRUM SALES



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2006 has been a year of continued growth for the petrochemical industry, which has benefited significantly from strong demands in the region. Prices of our products continue to remain high as we draw to the close of 2006 due to high oil prices and tighter supply in the region. This augurs well for OPTIMAL as the extended peak in the industry's cycle has eased our efforts to address plant reliability issues apart from refining all areas of our operations before large capacity of our main products enter the market from the Middle East. However, I'm confident that OPTIMAL will be well positioned to remain ahead of the competition by implementing our business plan and maintaining a low total cost position.

Our journey towards world-class performance remains clearly on track with the implementation of the Dow Complementary Assets reaching sustaining stage after three years of transfer and implementation. This is indeed a cornerstone in OPTIMAL's journey which has resulted in numerous plant-wide and Company-wide initiatives over the last couple of years. Implications of the Dow Complementary Assets implementation have gone beyond work process changes to influence people behavior, organizational structure and work culture in OPTIMAL. However, our challenge ahead is to fully sustain the gains and ensure that the transfer of technology and know-how translates into superior performance as well as seamless integration with other plants within the PETRONAS Petroleum Industry Complex (PPIC).

In this regard, the recent ISO 9001 certification for OPTIMAL's Derivatives Business has successfully proven the effectiveness of our Operating Discipline Management System (ODMS) which is part of the Dow Complementary Assets. By bringing this capability into OPTIMAL, we have established strong fundamentals to drive continuous improvement in the way we do things to remain competitive and meet our customers' expectation. The recognition has already started rolling in as our Derivatives Business continues to cement its reputation as the preferred manufacturer for EOA and Brake Fluid. I'm confident that we will be able to achieve much more in the near future by implementing according to our processes, which is the essence of our operating discipline.

In this issue of OPTINEWS, it gives me great pleasure to share another significant achievement for OPTIMAL which is the sale of the 1,000,000th drum. What makes this record even more gratifying is that it was achieved without any incidents or injury. For this, I would like to thank everyone involved for their commendable effort in making this a truly remarkable achievement for OPTIMAL.

In addition to this, our success at the recent CICM Responsible Care Awards has also been a highlight for OPTIMAL. It is a testament of our firm commitment towards the industry's Responsible Care initiative. Responsible Care is more than a set of principles and declarations in OPTIMAL. It is the implementation of world-class management systems, verified by independent auditors; tracking our performance through established environment, health and safety measures; and extending these best practices to business partners through the industry supply chain. As such, a Gold Award for the Distribution Code and a Silver Award for the Pollution Prevention Code is a commendable achievement as we continue to focus on the implementation of the six codes of management practices. And as we progress, OPTIMAL will continue to make Responsible Care integral to every aspect of our business by managing our activities and products safely, continuously improving our environmental, health and safety performance, and being responsive to the concerns of the community in which we operate.

From a HSE perspective, we have demonstrated our efforts to achieve premier HSE performance by adopting a proactive HSE culture and maintaining our goal towards Vision Zero. By surpassing the two million man-hours mark without loss time case and incident on September 6, 2006, we are clearly making great progress together. Well done!

And as the calendar year winds to a close, I would like to take this opportunity to wish all our employees and their families, our customers and business partners a Merry Christmas and a Happy New Year. There's certainly more accomplishments to look forward to in 2007!

YM Datu' Tengku Mahamad Tengku Mahamut
Chief Executive Officer,
OPTIMAL Group of Companies

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OPTIMAL VISION

A world class manufacturer and supplier of chemicals for the Asia-Pacific region

OPTIMAL MISSION

To be a successful and profitable chemical company; supporting shareholders' business strategies and creating value from Malaysian petroleum resources

OPTIMAL VALUES

- * Responsible Care®
- * Customer Focus
- * Business Excellence
- * People Excellence
- * Cohesiveness

OPTIMAL ACHIEVES SIGNIFICANT MILESTONE – ONE MILLION DRUM SALES RECORD

The OPTIMAL Group of Companies recently achieved its one million drum sales record without any lost time incident. This achievement not only sets a record for OPTIMAL, but also affirms OPTIMAL's proactive HSE culture. OPTINEWS had the opportunity to talk to Graham Daley, Chief Operating Officer about this significant milestone.



The one million drum sales record is indeed a great achievement for OPTIMAL. What is the general feeling of all in the organization about it?

This is an interesting milestone in that it involves the number 'one million'. My personal opinion is that, though I do not have the original plans for the sale of drummed products, we should have reached this milestone between one and two years ago. What then shines through in the 'achievement' is that it was done with no Recordable Injuries and with a very high level of accuracy in terms of the product drummed, correct weights, correct packaging and correct paperwork. These were indeed fine achievements.

What do you think were the factors involved that enabled OPTIMAL to record such an achievement?

It all comes down to both OPTIMAL and Kertih Terminal Sdn Bhd (KTSB) striving for excellence in safety and the environment, and also in all of the

thousands of small things embedded in our procedures, processes, training and the like. The first-class cooperation between our two companies has made it possible.

What is OPTIMAL's next target after the one million drum sales record?

This is not a target like safety where we wish to just go longer and longer between incidents or eliminate them altogether. We actually generally prefer to sell in bulk. Given this, the next target is to fill another one million drums as safely as the first one million and with 'defects' perhaps reduced to half – the timing is immaterial.

Currently the Company's production capacity is more than one million metric tonnes per annum. Would this be sufficient for the near future?

An interesting question! I recently came across a study on a very large German chemical company. It showed all their major products on a chart with Structural Attractiveness on the Y-Axis and their Business Position on the X-Axis. They have a product mix not dissimilar to ours. ALL our MAJOR products fell in the desired top half of Structural Attractiveness. Combine this with our large plant scale, the excellent Business Position of Dow and MEGlobal for our products that they distribute, a medium level salary regime, low to medium hydrocarbons costs and

our isolation from major competitor's facilities – and indeed one million tonnes is sufficient.

The other side of this is that, given that our fixed costs remain unchanged, every extra piece of production that we can get to market is of far higher profitability than the base production. Hence we need to squeeze as much out of our existing facilities as possible. Once we do this reliably, we then need to expand where it makes sense.

What challenges are expected for OPTIMAL and the chemical industry in general?

We in OPTIMAL have been operating in a dream business environment. When OPTIMAL started up, the industry was still in the depths of depression. Then in 2003, recovery began with MEG leading the way followed by other chemicals and plastics. The peak came in 2004, which was two years earlier than anticipated. Then oil prices went through the roof – OPTIMAL is insulated from these increases – and continued to hold up prices. This is definitely not the norm for our industry. The norm is that in times of high prices, such as now, the industry builds too much capacity. Once these expensive capital intensive units come on line there is a heavy incentive to run them at as high a capacity as possible. This then causes prices to plummet, profitability disappears, new plant construction almost completely ceases and a small number of the most inefficient units are shut down.



Presentation of the replica drum to Li Jin Wang (center), General Manager of Yi Feng Chemicals (Jiangmen) Ltd. Flanking him are (from left) Graham Daley and Ken Jewsbury, Commercial Director (Basic & Performance Chemicals) of Dow Greater China.



OPTIMAL's products ready for export.

Meanwhile demand continues to grow and soon supply becomes insufficient, prices start to rise and we are in the position we found ourselves back in 2003. Over the next several years, we are going to experience the ongoing story per the above. This time it can be more extreme. In 2002, ethylene was selling for \$360/MT. Recently, it hit \$1,500/MT. In 2002, the Middle East had 10 million tonnes of ethylene capacity. By 2009, this is forecast to be 30 million tonnes – and all of it based on extremely low priced natural gas. This will NOT be a fun ride for anyone, including the new Middle East producers with their new expensive plants.

How does OPTIMAL plan to overcome these challenges?

We are actually in an enviable position here – given all the advantages I have previously mentioned. In addition our plants were built during a depressed time for the industry and the capital costs were quite reasonable. For this cycle, the Middle East 'threat' is more geared to large volume products like MEG and polyethylene. The EO and Butanol based derivatives that make up a significant part of our product mix provide a partial shield. OPTIMAL's path is clear – "We need to run VERY RELIABLY and VERY EFFICIENTLY at HIGH RATES" and we will come through with flying colors.

What are the short and long term objectives of the company?

Our short term objective is to run VERY RELIABLY and VERY EFFICIENTLY at HIGH RATES. We plan to achieve this by fully utilizing all the excellent processes we have already implemented. We also plan to rigorously complete the implementation of those remaining, to complete all the projects identified to

improve RELIABILITY and to FINE TUNE all aspects of OPTIMAL. Once we have mastered the short term objectives and delivered to plan, we will use this as justification to expand many of our operations, and upon completion, to become the best petrochemical/ chemical company in the world!

Finally, how does OPTIMAL maintain public confidence in the integrity of its operations?

There are two aspects to public confidence in the integrity of our operations. First there is the confidence of the Kertih community. Here at least there is no 'lack' of confidence. There have not been environmental incidents that have impacted the community nor a mass of people returning home ill or injured. The OPTIMAL ecoCare Kertih River Mangrove Rehabilitation Project is already generating positive views about us. These will be further reinforced once the Environmental Education Center is up and running.

The second aspect is that of our customers having confidence that OPTIMAL is indeed a RELIABLE SUPPLIER. This is slowly achieved – one day at a time. Some day, our customers will forget the period of 2002 to 2005 and gain a comfortable feeling that orders placed with OPTIMAL are always met very smoothly. You cannot tell customers that 'we are now a reliable supplier', you earn their respect as described: one day at a time, one order at a time. THAT IS OUR CHALLENGE!



Chemical drums used by OPTIMAL.

KTSB CELEBRATES 1 MILLION DRUMS FILLED WITHOUT LTI

On August 17, 2006, Kertih Terminal Sdn Bhd (KTSB) held a celebration in achieving 1 million drums filled without LTI. This is an important achievement as it demonstrates KTSB's success in working with its customer and business partner in shaping a proactive HSE culture.



The highlight of the function was the 1 million drums filled without LTI launching ceremony by Graham Daley, OPTIMAL Chief Operating Officer and Law Say Huat, Chief Executive Officer of Kertih Terminal Sdn Bhd (KTSB).

The OPTIMAL drumming facility on Lot N began its operations in March 2002. Over the years, its capacity has steadily increased from 400,000 drums to approximately 500,000 effective financial year 2006, reflecting improved operations efficiency.

OPTIMAL SET TO SUSTAIN GAINS FROM Dow's CA IMPLEMENTATION

OPTIMAL is now ready to sustain the organization and personnel capabilities after three years of transfer and implementation of Dow Complementary Assets (CA), which comprise all the Produce Product Work Processes and Supporting Systems including ODMS and Department Effectiveness/Empowerment. The transfer had cost over US\$3 million with Dan Pegolo, Organization Effectiveness Leader leading the project in OPTIMAL.

These work process changes had proven successful, as local employees were involved in the design, piloting and implementation phases. This 'hands-on' approach has resulted in many success stories such as the turnaround execution through Global Turnaround Methodology (GTM); overall organization and business results improvement of over US\$30 million at Derivatives over the last three years; the effective redeployment of Shift Supervisors in the plants by having operators and department employees take on the responsibilities and activities of coordination and leading including the critical role of Incident Leaders; the engaging of more than 50 leaders in the company in structured 'leadership retreats' and broad leadership development programs.



Joe Achierno, Senior GM (Plant), receiving a token of appreciation from Joyce Woods, Dow Business Director for Complementary Assets Licensing.

The gains are typically sustained when the work processes have reached a level of 80 to 90% of implementation through external auditing. While there are still some gaps in implementation in some areas, plans are in place to close these gaps and achieve an implementation level of around 90% by the second quarter of 2007.

The CA transfer is now entering the critical phase of 'independence' from the Dow resources and contacts. To ensure the gains are maintained and improvements are continued by growing a supportive work culture, Control Plans for Sustainability are being finalized to address the challenges.

The implementation may be 'fragile' in some areas, and the next 1 – 2 years will be critical in ensuring ongoing success and leveraging of practices across the operating units and the company.



(L – R) Dan Pegolo (Organization Effectiveness Leader), Bryan Abadie (Dow Project Manager) with Schazeril Shamsuddin (Manager Organizational Effectiveness).

CHALLENGES TO SUSTAINING THE GAINS

- * Work process and Empowerment represent REVERSIBLE change.
- * Success is dependent on changing individual behaviors (Performance Management, HR Systems, Goals, MI Plans).
- * OPTIMAL leadership behaviors drive the Change Process.
- * Complementary Assets represent cultural change in the way work is done – change is always difficult.
- * Complementary Asset Change Process may challenge social culture.
- * OPTIMAL isolation from Work process/Empowerment culture base/networks at Dow.
- * Added complexity associated with OPTIMAL's exposure to different corporate cultures.

OPTIMAL CHEMICALS RECEIVE ISO 9001:2000 CERTIFICATION

ISO 9000 is a set of international standards for quality management systems. Through the ISO 9001 certification, OPTIMAL would have in place accredited practices in quality management and customer satisfaction.

OPTIMAL's quest for long term sustainability began in 2004 with the implementation of the Operating Discipline Management System (ODMS) by OPTIMAL CHEMICALS (M) SDN BHD, which includes quality management system development, documentation review, internal audit, self-assessment, management of corrective and preventive actions and management system review.

Internal audits and self-assessments were carried out from early 2005 to mid-2006 to ensure compliance with the ISO 9001:2000 and ODMS requirements. The final validation of OPTIMAL CHEMICALS' management system was carried out in a comprehensive adequacy and certification audit by SIRIM QAS International in July 2006. The following month, OPTIMAL CHEMICALS was accorded the international standard, ISO 9001:2000 Quality Management System, for the manufacture and supply of Derivatives products in Kertih as well as for the sales and marketing of Derivatives products in Kuala Lumpur.

Over the next three years, OPTIMAL CHEMICALS will continue to conduct self-assessments and internal audits as part of its continual improvement process.

STAFF FETED AT ISO 9001:2000 RECOGNITION GATHERINGS



Employees enjoying themselves at the gathering.

OPTIMAL held recognition gatherings in Kertih and Kuala Lumpur as a gesture of appreciation for the efforts and contribution of employees in relation to the ISO 9001:2000 certification for the Derivatives Business.

Invited staff in Kertih were treated at the Kelab

Desa Rantau Petronas on September 3, 2006, while in Kuala Lumpur, a hi-tea was held on September 22, 2006 at the Malaysian Petroleum Club.

Tuan Hj Mohamad Nasir Abdul Wahid, the Senior General Manager of Certification & Inspection, SIRIM, was present at the function in Kertih to hand over the ISO 9001:2000 certification to Graham Daley, OPTIMAL's Chief Operating Officer. In Kuala Lumpur, Megat Rosman Megat Kamarul Zaman, the Quality Manager presented tokens of appreciation to 25 Kuala Lumpur-based staff who attended the function.

The certification affirms OPTIMAL's approach of conducting work through ODMS/QMS to meet customers' and other related stakeholders' requirements.

Tuan Hj Mohamad Nasir Abdul Wahid presenting the certificate to Graham Daley.



The people who made it happen!

OPTIMAL has won a Gold Award for the Distribution Code and a Silver Award for the Pollution Prevention Code at the Chemical Industries Council of Malaysia (CICM) Responsible Care Awards Dinner, held on August 14, 2006 at the Hilton Kuala Lumpur.

YM Dato' Tengku Mahamad Tengku Mahamut, OPTIMAL CEO, received the awards from Deputy Prime Minister, YAB Dato' Sri Mohd Najib Tun Abdul Razak. The awards demonstrate OPTIMAL's commitment to continuously improve all aspects of safety, health and environmental protection of the Company's operations and products.

OPTIMAL is amongst the current 101 local chemical companies in Malaysia that have signed up as Responsible Care signatories. At the dinner, CICM also launched the Responsible Care logo that is recognized worldwide. CICM will be the sole custodian of the registered

OPTIMAL is among the winners at the CICM Responsible Care Awards 2005.



OPTIMAL TRIUMPHS AT CICM RESPONSIBLE CARE AWARDS 2005

trademark in Malaysia and all Responsible Care signatories will be required to meet certain criteria and conditions before they are allowed to use the logo.

Other recipients of the Responsible Care Awards 2005 included four other PETRONAS subsidiaries and associate companies namely, PETRONAS Penapisan (Melaka) Sdn Bhd (PPMSB), BASF PETRONAS Chemicals Sdn Bhd, PETLIN

Malaysia Sdn Bhd and Aromatics (Malaysia) Sdn Bhd. PETRONAS, a Responsible Care signatory since 1994, is the sponsor for the 2005 CICM Responsible Care Awards and also the first local sponsor of the awards.



YAB Dato' Sri Mohd Najib launching the Responsible Care logo.

SUPPLIER EXCELLENCE AWARD FROM EASTMAN CHEMICAL

OPTIMAL has recently been awarded the Supplier Excellence Award for Year 2005 by the Eastman Chemical Company in

recognition of the Company's outstanding quality performance as a supplier to the Eastman Group.



The award affirms OPTIMAL's firm commitment towards realising its vision in becoming A World Class Manufacturer and Supplier of Chemicals for the Asia-Pacific Region.

Graham Daley, OPTIMAL's Chief Operating Officer, in his congratulatory note said, "The Company is aware that operations have made a major contribution to put top quality products in the tanks, but the efforts of the staff are the service determinant. The greatest compliment a customer can give us is to be an 'Invisible Supplier', to provide everything that they need, when they need it, so they don't even notice they are getting it."

The prestigious award is accorded yearly by Eastman to 12 suppliers globally. OPTIMAL is the first Asia-Pacific company to be recognized since 2001.



OPTIMAL SEALS IMPROVED PROJECT FINANCING FACILITY

To mark the successful completion of the re-pricing exercise for OPTIMAL's USD468 Million Syndicated Project Financing Facility, a signing ceremony was held on August 21, 2006 at the Malaysian Petroleum Club, KLCC.

The re-pricing exercise will reduce the margin for OPTIMAL OLEFIN's Facility from 44.5 basis points (bps) per annum to 30 bps per annum, while the margin for OPTIMAL GLYCOLS' and OPTIMAL CHEMICALS' Facility will be reduced from 70 bps per annum to 48 bps per annum.

OPTIMAL was represented at the event by YM Dato' Tengku Mahamad

Tengku Mahamut and Hor Wai Kong, General Manager, Finance & Accounts while other signatories included George Ratilal, Vice President, Finance, PETRONAS and

Chris Ng, Senior Finance Director, South East Asia/Australia & New Zealand, Dow Chemical Pacific (Singapore) Pte Ltd.

The Syndicated Project Financing Facility was part of the landmark dual tranche, dual currency financing undertaken by the OPTIMAL Group of Companies in 2004 which comprises a RM1.27 billion Islamic serial bonds and a USD468 million Syndicated Loan Facilities.



A better deal for OPTIMAL. YM Dato' Tengku Mahamad exchanging documents with Susan Yuen, Managing Director, Corporate Banking of HSBC.

PROMOTING PRODUCT STEWARDSHIP



Enlightening lecture during the training session.

In line with OPTIMAL's initiative to advocate and educate its customers and distributors on Product Stewardship and Responsible Care, the first OPTIMAL Product Stewardship training was held at the Awana Kijal Resort from September 18 to 20, 2006.

Lee Yeowchong, the Product Stewardship focal point from OPTIMAL, led the training which was themed 'Let's

Make Safety Our Main Priority', involving 28 participants comprising OPTIMAL distributors and key customers. Other speakers at the training were Audrey Boon, Yushadi Pane and Andrew Ong.

At the end of the two-day session, participants pledged their commitment towards applying the Product Stewardship Code of Practice by signing a plaque that also served as a record of their participation in the training. The distributors and customers later signed a letter of commitment to safety, demonstrating their support towards Responsible Care.



A token of appreciation.

On their final day in Kertih, the participants had the opportunity to go on a river cruise to see OPTIMAL's Kertih River Mangrove Rehabilitation Project that showcases the Company's commitment towards environmental conservation and community outreach.



Participants on a tour of OPTIMAL's Kertih River Mangrove Rehabilitation Project.

OPTIMAL STAFF FULFILL ORPHANAGE CHILDREN'S WISHES

OPTIMAL personnel sponsored 22 children from the Saujana Orphanage Home for the PETRONAS' Sentuhan Kasih' Program where they were specially treated at a function held on October 15 at the Dewan Sri Intan Kompleks Operasi Petronas.



In support of this program, OPTIMAL personnel in Kertih initiated personal contribution. They had successfully collected RM5,012.70 to be spent on realizing the children's wishes.

Representatives from the respective departments visited the home, located at Setiu, on October 7 to select children from the orphanage. The children, who were basically from hard-core poor families or orphans, were given the opportunity to make their wishes come true for the forthcoming festive celebrations. They were then taken to Kuala Terengganu to shop for items from their wish lists, which included Hari Raya clothes, shoes, school shoes and watches.



The children, accompanied by their respective department representatives, were presented with their gifts together with the sponsored children of other PETRONAS OPU. To end a special day, the children were taken to McDonald's, which brought big smiles to their little faces.



HARI RAYA JOY FOR KERTIH COMMUNITY



Representatives from OPTIMAL and Committee Members of ecoCare and Malaysian Nature Society brought festive joy to the community in Kertih involved in the OPTIMAL ecoCare project. Hari Raya goodies were given to around 50 residents of Kampung Gelugor, Kampung Tengah and Kampung Telaga Papan. The objective of the contribution was to strengthen the ties between OPTIMAL and its surrounding community, as well as to promote community participation in the ecoCare project. This long term initiative focuses on conservation and environmental education and aims to encourage appreciation for the country's natural heritage.



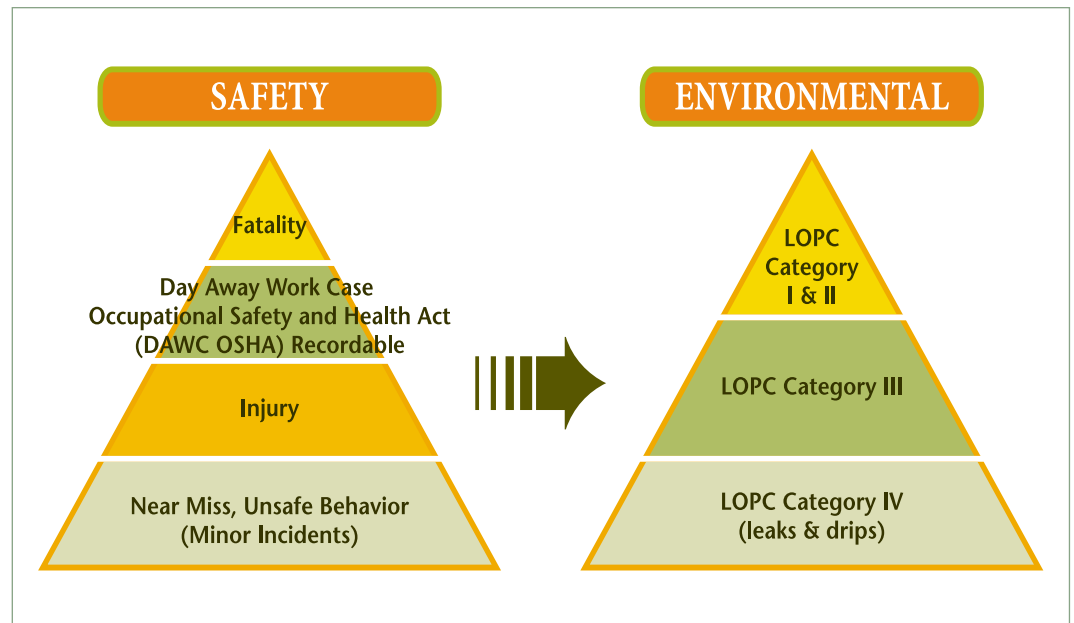
STOPPING THE LEAKS: AN LOPC REDUCTION INITIATIVE

Loss of Primary Containment (LOPC) Reduction Initiative is a program used in OPTIMAL for leak prevention and one of the tools used to achieve our vision for zero HSE incident. Leaks are classified as LOPC Category I, II, III and IV. The first three categories form part of OPTIMAL's KPIs for HSE Performance.

The key elements are:

- ♦ **Reporting LOPC Category IV (<50 kg)**
 - All leaks are to be reported, even the drips. Reporting minor leaks will help prevent bigger leaks.
- ♦ **Spill-Free Behavior**
 - These are the behaviors that all OPTIMAL employees must follow for leak prevention.
- ♦ **Dry Slab Concept**
 - We want to keep our slab/concrete in the operations area dry at all times, even from dripping water.
- ♦ **Leak Busters** – Group initiative to look for leaks in the operations area.
- ♦ **LOPC Top Leak Program**
 - Its purpose is to evaluate the spill data to generate a list of situations that pose the highest potential for spillage. Once identified, the affected areas will receive the resources needed to improve results.

INCIDENT PYRAMID



WHY REPORT LOPC CATEGORY IV?

Using the incident pyramid concept above, reporting LOPC Category IV and acting on it will definitely prevent the occurrence of bigger leaks (LOPC Category I, II & III). It is similar to reporting all near misses. The targeted reporting ratio is:

LOPC Category I, II & III:LOPC Category IV = 1:40

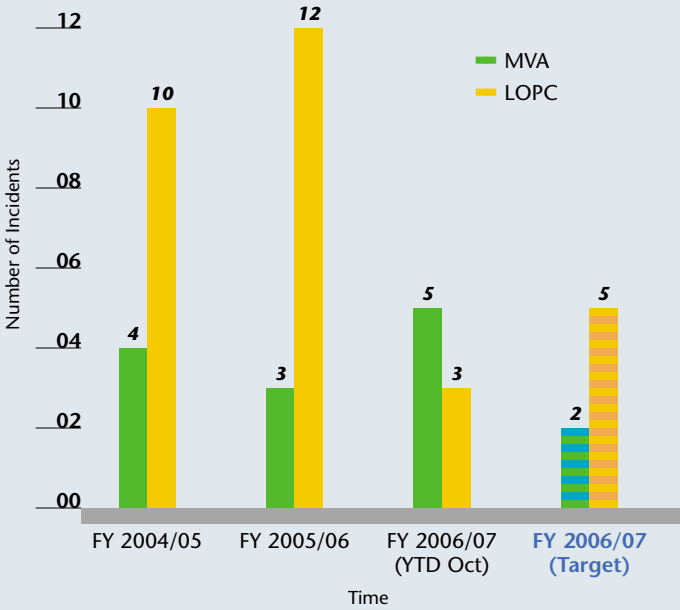
AS AN OPTIMAL EMPLOYEE, WHAT CAN YOU DO TO SUPPORT THE LOPC REDUCTION INITIATIVE PROGRAM?

Report **ALL** dripping and minor leaks in the Accident Incident Potential Hazardous Condition Quality Non-Conformance Report (AICQ). Remember our target ratio of 1:40 and we are not there yet. Awareness and co-operation from everyone is important for the success of the LOPC Reduction Initiative Program.

HSE KPIs

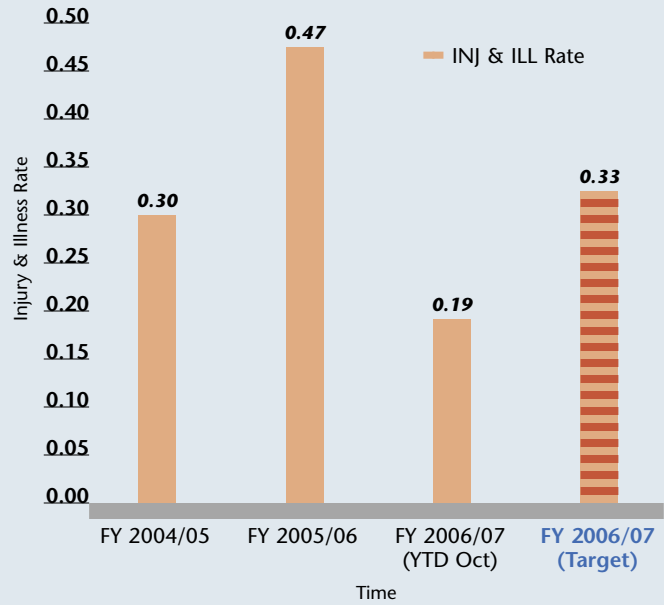
Improvements have been made in the Injury/Illness and Loss of Primary Containment (LOPC) area.

MOTOR VEHICLE ACCIDENT (MVA) AND LOSS OF PRIMARY CONTAINMENT (LOPC)



LOPC improvement is encouraging and based on the current trend, the FY 2006/07 goal is achievable and will be a significant improvement from previous years.

INJURY & ILLNESS



On September 6, we passed the 2 million hours worked without a Lost Time Case and incident. This means that no one was away from work due to being injured while doing work at OPTIMAL.



The Director of DOE Terengganu, Encik Rusli Bin Che Husin, officiated the training.

E-CONSIGNMENT TRAINING

OPTIMAL participated in an e-Consignment training organized by PETRONAS Corporate Health, Safety and Environment (CHSE) on November 14, 2006 at the OPTIMAL Training Center. Officers from the Department of Environment (DOE) conducted the training, which was attended by about 30 participants from OPTIMAL and other PETRONAS plants in Kertih.

Completion of consignment notes are a regulatory requirement for disposal of scheduled (or hazardous) wastes. Currently, all documentations are in hard copies (paper), but by year 2007, DOE will begin implementing e-consignment, where documentation will be conducted online. During the training, DOE officers trained the participants on how to use the e-consignment notes. Encik Aziz Parmin (DOE officer) concluded the training with a briefing on the new Performance Monitoring Guideline.



Participants from OPTIMAL discussing issues with the DOE officer during the training.

PROCESS SAFETY ON THE RADAR

IN OPTIMAL'S ROADMAP TOWARDS RESPONSIBLE CARE

The OPTIMAL Group of Companies places great emphasis on responsible health, safety and environmental protection that will sustain the quality of life of the community in which it operates. In this regard, the OPTIMAL manufacturing facility is designed, built, operated and maintained by trained personnel to meet statutory requirements as well as industry standards in order to prevent incidents, pollution and reduce risk to lowest practicable level. This is part of a HSE commitment that has been incorporated into the Process Safety Program in OPTIMAL.

The Process Safety program includes evaluation of hazards and risks carried out through audits, reviews by experts from both PETRONAS and Dow and also through self-assessments. Once the potential risks are evaluated, process safety tools are used to identify the type of design improvements required to reduce these risks. These improvements are then implemented in stages and monitored periodically. Process safety tools that OPTIMAL utilizes to perform this evaluation are as follows:

- ✦ Loss Prevention Principles (LPP)
- ✦ Layer of Protection Analysis (LOPA)

- ✦ Fire and Explosion Index (F&EI)
- ✦ Chemical Exposure Index (CEI)

Process safety is part of OPTIMAL's Operating Discipline Management System (ODMS) under Section 06.08 Process Safety.

The Operating Discipline Management System (ODMS) is a system that integrates common management processes within OPTIMAL to drive overall performance improvement. ODMS also provides access to company policies, requirements, processes, best practices and procedures.



HEALTH TIPS



Every job has a certain amount of stress. But when you are under too much stress over a long period of time, you could develop job burnout. Job burnout can be managed and even prevented if you're willing to make some changes. Identify the factor that causes the most difficulty for you, and try some of these ideas.

- ✦ Schedule work tasks to fit your energy levels.
- ✦ Take good care of your health and general wellbeing – emotionally, physically, socially and intellectually.
- ✦ Volunteer for meaningful and challenging tasks that match your strengths. Try to work on a variety of tasks and projects.
- ✦ Seek balance between work, family, friends and time for yourself. Remember that life balance is a matter of perception.
- ✦ Look at your situation objectively, not emotionally.
- ✦ Don't be too hard on yourself. Acknowledge your accomplishments.

Be sure to seek help if you feel that your burnout is beyond your control.



Butyl acetate is a colorless, flammable liquid. It is produced by the esterification of acetic acid using butanol in the presence of a catalyst. The acetic acid, butanol and catalyst are heated in a reactor. Vapors containing butyl acetate, butanol and water are separated from acetic acid in the distillation column and then condensed water is separated from organic mixture in the decanter. The organic mixture undergoes a second distillation to separate the butyl acetate from unreacted butanol. Unreacted butanol is recycled back to reactor.

The major use for n-butyl acetate is as a solvent for lacquers because it gives good flow and brush resistance when used in film-coating resins such as cellulose nitrate, cellulose acetate butyrate, ethyl cellulose, polystyrene and methyl methacrylate resins. It is also used in the preparation of artificial leathers, textiles and plastics. It has a pleasant, fruity odor and is used in the flavoring/fragrance industry as an artificial flavoring. It is also used as an extracting agent and dehydrating agent.

In recent years, demand has risen for its use as an oxygenated solvent substitute for hazardous air pollutants (HAP), such as aromatics and ketones.

“The major use for n-butyl acetate is as a solvent for lacquers because it gives good flow and brush resistance when used in film-coating resins.”

BUTYL ACETATE

TOXICITY AND SAFETY

Butyl acetate is flammable both as a liquid and a vapor since it is a conductive material. It is volatile and can generate static electricity. It reacts violently with strong oxidants, posing a fire and explosion hazard. When heated or exposed to fires, it will burn and even cause explosions.

It is harmful if swallowed or inhaled and irritates the eyes, skin and respiratory tract. If inhaled at high concentrations, it can cause a narcotic effect. If spattered on skin, it must be washed off completely with suds or clean water at once.

OUTLOOK

The fastest growth will be seen in Asia where demand could rise by 5 – 7% per year, mainly driven by the paints and coatings sector.

Global capacity is sufficient and there is enough installed capacity to meet demand. Most producers have spare capacity available and there is more potential to debottleneck existing plants to meet any growth in demand.



ECO CARE MANGROVE REHABILITATION PROJECT TAKES OFF

OPTIMAL, together with the Malaysian Nature Society (MNS), successfully launched the ecoCare Mangrove Rehabilitation Project at the Kertih River on September 16, 2006. The event was launched by Yang Berhormat Dato' Mohamed bin Awang Tera, Chairman of the State's Industrial Development and Tourism Committee, representing the Menteri Besar of Terengganu, YAB Dato' Seri Idris Jusoh.

The project is a major milestone in Phase 1 of the ecoCare Program.

During the event, Yang Berhormat replanted a *Rhizophora mucronata* seedling, which is found naturally within the Kertih River ecosystem. YBhg Dato' Seri Dr Salleh Mohd Nor, Chairman of the ecoCare Project Steering Committee and YM Dato' Tengku Mahamad Tengku Mahamut, OPTIMAL CEO, also replanted a *Rhizophora mucronata* seedling each. Attendees at the launch were also invited to participate in the replanting activity and a total of 200 *Rhizophora mucronata* seedlings were replanted that day. About 300 representatives from OPTIMAL, neighboring plants, local community and government agencies attended the event.

Dato' Mohamed launching the project.



UPDATES

REPLANTING OF MANGROVE SEEDLINGS

Following the launch of ecoCare Mangrove Rehabilitation Project on September 16, 2006, the next step in this initiative is to replant 1,500 mangrove seedlings, comprising mainly *Rhizophora mucronata*, *Avicennia* and *Bruguiera* mangrove species.

PARTICIPATION IN SCHOOL NATURE CLUBS (KELAB PENCINTA ALAM) EAST COAST ZONAL CAMP

School children from Kelantan, Terengganu and Pahang were introduced to the ecoCare project. The establishment of the Environmental Education Center in Kertih, the first of its kind to be built in the East Coast of Peninsular Malaysia as part of Phase 2 of the ecoCare project, received positive support from the teachers.

FLORA SURVEY

Dr Wong Koon Meng from University Malaya together with Prof Dr Christian Proof from a foreign university conducted a flora survey along a five km stretch of the Kertih River. The purpose of the survey was to identify the types of flora found along the Kertih River. Findings of the survey will be documented and later archived at the Environmental Education Center.

ADOPT-A-SCHOOL PROGRAM Fun Learning Activities

OPTIMAL conducted five sessions of Fun Learning Activities for school pupils this year, which were facilitated by OPTIMAL employees who volunteered for the task. The objectives of the Fun Learning Activities were to stimulate the pupils' minds to make learning more enjoyable and also complement their school subjects. Fun Learning Activities include story-telling, mind-mapping, puppet play, quizzes, role-playing and coloring.

In line with OPTIMAL's continuous effort to reinforce a safe and healthy lifestyle, students from Sekolah Kebangsaan Tebing Tembah were invited to participate in a drawing competition themed 'Towards A Safe & Healthy Lifestyle'. A total of 71 students took part in the competition and 12 winning drawings will be featured in the OPTIMAL 2007 Calendar.



Children engrossed in creating their masterpieces during the drawing competition.

'BERBUKA PUASA'

WITH STAFF AND LOCAL COMMUNITY

OPTIMAL, through BAKOP, organized a 'Majlis Berbuka Puasa' on October 3, 2006 at Masjid Jamek, Paka to foster stronger ties with its staff and neighboring communities.

OPTIMAL CEO, YM Dato' Tengku Mahamad Tengku Mahamut attended the event and in his speech, he expressed OPTIMAL's genuine intention of fostering better ties and bringing value to the community in which it operates. The event was attended by more than 1,000 people including Paka State Assemblyman, Encik Zakaria @ Mohd Ariffin Abdullah, the Chief Executive Officer of Petronas Penapisan Pantai Timur, Tuan Haji Yusa Hassan and the General Manager of ECRO, Tuan Haji Zulkifly Ismail.



On behalf of OPTIMAL, YM Dato' Tengku Mahamad presented Hari Raya contribution, food hampers and new clothes to 103 orphans and approximately 120 single mothers as well as hardcore poor families from Paka. It was then

followed by the breaking of fast and Maghrib prayers.

A similar event was also held for employees in Kertih on October 2 at Kelab Desa Rantau Petronas, and in KL on September 28 at the 'Al Marjan' Restaurant.



ENHANCING TIES WITH LOCAL COMMUNITY

OPTIMAL participated in the PETRONAS Petroleum Industrial Complex (PPIC) Community Awareness Day held on 30 November 2006. The event's objective was to strengthen the existing good relationship between the PETRONAS Group of Companies in PPIC and the surrounding communities as well. The program for the day included a briefing on the company profile of each plant, crisis and emergency communication and general actions that the public need to take during an emergency, community program, exhibition on product application and community outreach project. The event ended with a guided plant tour to deepen the community's level of awareness and understanding of PETRONAS Group of Companies' operations and products. The event also extolled the benefits of the oil, gas and petrochemical industry to the surrounding communities and to the nation.

Approximately 350 guests attended the event, including representatives from head of local authorities and government agencies from Kemaman and Dungun, local leaders and representatives of schools under the Program Bakti Pendidikan and other nearby schools.

Some of the guests who visited the OPTIMAL exhibition booth.



Hazmat demo by CEFS.



O P T I M A L



**Accidents
Injuries
Environmental
Harm**

**HSE EXCELLENCE IS ACHIEVED
ONE DAY AT A TIME, EVERY DAY,
TODAY & TOMORROW**

VISION ZERO
... Today and Tomorrow