



Annual A.C.T.I.V.E. Day mass workout.

# PROMOTING HEALTH, SAFETY, SECURITY AND ENVIRONMENT

## Healthy and Active Living

*Believing that a healthy and motivated workforce would translate into positive benefits for the Group, Sembcorp Marine provided a holistic range of workplace health promotion programmes to help employees achieve total wellness in body, mind and spirit. Lending their strong support and commitment, senior management representatives participated actively in these programmes that focused on health and wellness, active living and work-life balance.*

### Health & Wellness

As education provided the foundation to effective healthcare and disease prevention, the Group held a range of workshops and talks covering topics from healthy eating, cancer prevention and HIV/AIDs awareness to smoking cessation, stress management and cholesterol reduction.

To keep chronic illnesses in check, yards conducted health screenings to provide targeted treatment and timely interventions to employees identified with high-risk ailments such as hypertension, high blood pressure, stroke, high cholesterol and diabetes. Jurong Shipyard further continued its Chronic Disease Medical Plan for retired employees, which subsidised the medical treatment costs for those diagnosed with chronic illnesses for five years after their retirement.

Special events were also organised to raise awareness among staff about healthy and active living. In September 2008, Jurong Shipyard's annual A.C.T.I.V.E. (All Companies Together in Various Exercises) Day saw employees enjoying a low-impact half-hour exercise session where they learnt to use special elastic workout bands to tone and shape up.



Health screening for early detection.

Yards also distributed fruits and nuts during key health events to highlight the importance of a high daily intake of vitamins and minerals. To promote the benefits of a balanced diet, Jurong SML designated a Healthy Sandwich Day during the year, offering a sandwich buffet of healthy vegetables, fillings and sauces.



Healthy food education.

Various dengue prevention programmes were also in place at the Group's yards for the well-being of personnel. Besides educating employees and contractors about the disease and proper housekeeping practices, regular inspections were also conducted to identify and prevent the breeding of Aedes mosquitoes.

### Fit & Active Living

To make exercise convenient and accessible, yards offered a wide variety of workplace fitness classes. Featuring both low-impact and high-energy workouts, these classes ranged from tai chi, yoga, hi-lo aerobics and kick-boxing to line dancing and belly dancing to suit employees of different age groups and interests.

Jurong Shipyard recently replaced its former gymnasium with a bigger and better facility to encourage employees to adopt a regular fitness regime. The new gymnasium now offers a comprehensive range of cardio- and

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Learning stretching exercises.

weight-training equipment, supported by part-time trainer services for employees to engage in full-body workouts. It also featured a well-furnished studio for the yard's series of workplace exercise and dance classes. Both Jurong Shipyard and PPL Shipyard, which introduced gymnasium facilities in 2007, have dedicated workout days solely for ladies to motivate more female employees to exercise.

Participation in sporting tournaments for games – such as soccer, basketball, badminton, table-tennis, sepak takraw and bowling – after work offered another avenue to build team spirit and rapport among staff of all levels within their yards and across the Group.

The Group's yards were also actively involved in events initiated by external organisations during the year. These included the Maritime and Port Authority's International Sports Meet for Seafarers and Singapore



Southern Ridges Nature Trek.

Nautical Run; SAFRA's Singapore Bay Run and Army Half Marathon; Singapore Air Force's Paya Lebar Airbase Run, and the Standard Chartered Marathon.

### Work-life Balance

The Group encouraged employees to maintain a healthy work-life balance for optimal performance at work. The numerous outdoor activities organised throughout the year provided an avenue for them to workout, interact and have fun beyond the workplace.

During the year, Jurong Shipyard and Jurong SML organised treks through the Southern Ridges, one of Singapore's latest nature attractions. Besides visiting key attractions along the nine-kilometre chain of green open spaces, employees tucked into healthy feasts of fruits at the end of their journeys. Sembawang Shipyard also held a 'Get Fit With Your Feet' event and



Building team bonding beyond the workplace.



Representatives from Sembcorp Marine's shipyards displaying their Singapore HEALTH Awards.

a walkathon for employees to build up their stamina, fitness and endurance. Recreational trips to destinations such as Pulau Ubin, Bintan, Kukup and Desaru were further organised for employees to relax and recharge their mind, body and spirit.

Another important area saw the imparting of vital skills for the proficient management of work, family and personal lives. The Group's yards held talks on topics such as effective child management, healthy marriage maintenance, retirement preparation and good financial planning.

Stress management techniques were also covered. Jurong Shipyard ran holistic therapy workshops to educate staff in massage and stretching techniques for stress and backache relief, while Sembawang Shipyard, Jurong SML, PPL Shipyard and SMOE held talks and workshops for staff to pick up practical tips and knowledge for achieving total wellness and mental well-being.

### Recognition and Awards

The workplace health promotion efforts of Sembcorp Marine and its yards did not go unnoticed. Jurong Shipyard, Jurong SML and Sembawang Shipyard bagged top accolades during the Singapore HEALTH (Helping Employees Achieve Lifetime Health) Awards ceremony organised by the Health Promotion Board.

Additionally, Jurong Shipyard and Jurong SML set a milestone by being the first in the industry to achieve the prestigious Platinum HEALTH Award, while Sembawang Shipyard bagged a Gold HEALTH Award for the second consecutive year. Jurong SML was also a recipient of the Smoke-Free Award, which recognised its comprehensive and effective quit-smoking initiatives at the workplace.

Since the launch of their workplace health programmes in the late 1990s, Jurong Shipyard, Jurong SML and Sembawang Shipyard had seen significant improvements in their employees' health. Participation rate for health-related activities had also increased. Notably, Jurong Shipyard had witnessed a decrease in cholesterol and blood pressure levels over the years, a rise in health screening participation from 28% in 2000 to almost 78% in 2007, and a drop in average medical cost per employee by one-third during the same period.

Jurong SML's targeted interventions on smokers, hypertension, obesity and diabetes had also shown good progress. The yard's quit-smoking initiatives and smoking cessation programme demonstrated commendable results, with smoking rates declining from 36% in 2002 to 19.2% in 2007.

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## Workplace Safety & Security

Sembcorp Marine remained ever vigilant in its efforts to ensure high standards of safety and security in its operations. By creating a safe and secure work environment, the Group was able to inspire confidence among its people, customers and stakeholders to stay ahead in today's competitive business environment.

### Benchmarking for Excellence

The steadfast commitment of Sembcorp Marine's yards towards health, safety, security and environmental excellence was recognised globally. Classification societies – such as ABS Quality Evaluations, Det Norske Veritas and Lloyd's Register – endorsed the yards with accreditations for achieving high standards in quality, safety and environmental management.

The Group also appointed external safety consultants to conduct validation audits to ensure safety processes and systems complied with regulatory requirements and industry code of practices.

Shipyards	Quality	Safety	Environment
Jurong Shipyard	ISO 9001:2000 ABS Quality Evaluations Inc. 2007 Recertification	OHSAS 18001:2007 ABS Quality Evaluations Inc 2008 Recertification	-
Sembawang Shipyard	ISO 9001:2000 Det Norske Veritas 2006 Recertification Maintained Level 9	OHSAS 18001:1999 Det Norske Veritas 2006 Recertification (Level 9)	ISO 14001:2004 Det Norske Veritas 2006 Recertification
PPL Shipyard	ISO 9001:2000 ABS Quality Evaluations Inc 2007 Recertification	-	-
Jurong SML	ISO 9001:2000 ABS Quality Evaluations Inc 2006 Recertification	OHSAS 18001:2007 ABS Quality Evaluations Inc 2007 Certified	-
SMOE	ISO 9001:2000 Lloyd's Register Quality Assurance Ltd 2006 Recertification	OHSAS 18001: 2007 ABS Quality Evaluations Inc 2007 Recertification	ISO 14001:2004 Det Norske Veritas 2007 Recertification

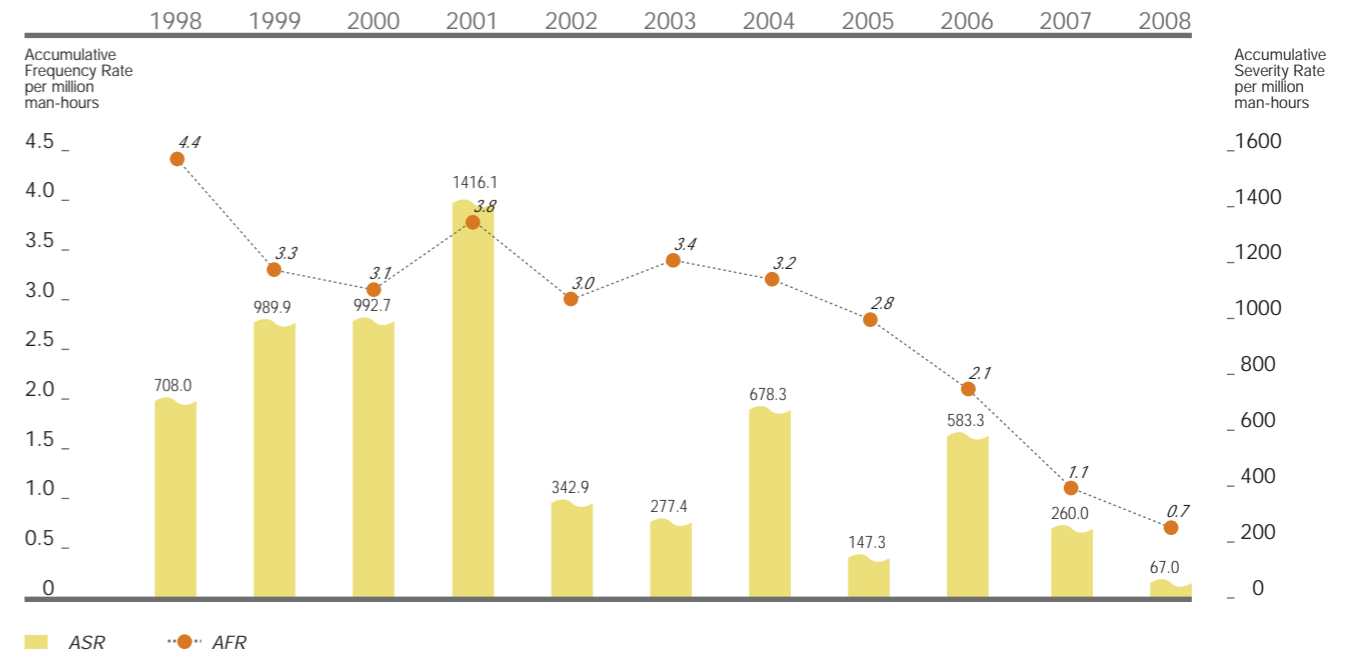
### Safety Performance in 2008

Sembcorp Marine's efforts in promoting greater workplace safety and health within its yards led to a lower Accumulative Frequency Rate for the year. Based on the number of considerable accidents per million man-hours, the Group attained an Accumulative Frequency Rate of 0.71 this year, an improvement from 1.09 in 2007. The Group's Accumulative Severity Frequency Rate, which measured the number of man-days lost per million man-hours, also improved significantly to 67.01 in 2008, from 260.01 in 2007.

### Safety Achievements for Projects

SMOE and Sembawang Shipyard achieved an outstanding safety track record of 25 million man-hours without Lost Time Incidents for their work on the floating-production-storage-offloading (FPSO) Hai Yang Shi You 117, involving the modularisation and integration of 32,000 tonnes of topside facilities. This largest-ever project undertaken by both yards to date also received recognition from the Ministry of Manpower in 2007 and 2008.

## SAFETY PERFORMANCE



3 million man-hours without LTI Safety Award from Chevron Shipping.



1 million man-hours without LTI Safety Award by BP Shipping.

Customers also commended the yards for their safety excellence in ship repair. Chevron Shipping presented a special safety award to Jurong Shipyard for attaining more than 3 million man-hours without Lost Time Incident for Chevron projects since August 2001, while Sembawang Shipyard received an award from BP Shipping for achieving 1 million man-hours without incident for BP vessel repairs since October 2006.

### National Recognition

Jurong Shipyard, Sembawang Shipyard and SMOE won a series of accolades at the Workplace Safety and Health

Awards hosted by the WSH Council and supported by the Ministry of Manpower in October 2008.

Sembawang Shipyard bagged five Safety and Health Award Recognition for Projects (SHARP) awards for Aban Abraham, Aban VIII, BW Endeavour, Hai Yang Shi You 117 and Sapura 3000, which achieved zero incidents over a million man-hours.

Jurong Shipyard's Safe Stage team and Sembawang Shipyard's Hull Spiderz team each received the WSH Innovation Award for innovation in developing better and safer working methods for safety excellence and

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workplace improvement. In addition, Mr Selathorai s/o KR Suppiah, a lifting supervisor from SMOE, was recognised with the Safety & Health Award for Supervisors for his team's incident-free track record of more than three years.

### A Robust Framework

Sembcorp Marine maintained a robust health, safety and environment framework aimed at fostering a safe working environment for employees and contractors, promoting a proactive safety culture and harnessing innovation for safety excellence.

This strategy was effectively carried through by all business units via Occupational Health & Safety Steering Committees chaired by the managing directors of the respective yards. The strategic directions were further translated to specific action plans by the Workplace Safety and Health Committees and Vessel Safety Coordination Committees, which were then communicated to managers and supervisors who would brief their charges in small groups. Keeping foreign employees in the loop, the yards would use various channels and languages to disseminate safety reminders.

Further emphasising the importance of safety, the Group's yards jointly implemented the REV programme

in mid-2008. The three components of the REV strategy – Review, Educate and Validate – were focused on reinforcing safety and minimising risks at work.

Implemented every quarter, the REV programme involved heightened onboard safety inspections for all vessels and projects, comprehensive multi-lingual safety briefings with a clear focus on specific risk areas as well as on-site safety audits and proactive risk assessments to heighten safety awareness and minimise the possibility of incidents.

### Workplace Safety and Health Culture

All yards within the Group have specific health, safety and environmental work plans covering safety in education, engineering, enforcement, environment, evaluation and efficiency. These plans also include behavioural-based safety initiatives and promotion activities that reinforce the safety culture. These promotional initiatives ranged from safety campaigns and innovation competitions to safety quizzes and contests to encourage greater awareness of occupational health and safety.

Where excellence in safety performance was achieved, cash benefits and awards went out to project teams, yard subsidiaries and contractor partners. Some yards, such as Jurong Shipyard, Sembawang Shipyard and



bizSAFE safety training for contractors.



Workers testing their safety knowledge at the mobile exhibition.

Jurong SML, further implemented a complementary merit and demerit point system to motivate employees and contractor partners towards zero-incident and greater health, safety and environmental performance.

### Promoting Greater Awareness

As a role model in safety, Sembcorp Marine became a key sponsor in the Ministry of Manpower 'Safety Starts with Me' national campaign, which sought to encourage a proactive attitude and greater involvement towards safety on a national level.



Towards safety excellence.

The Group also held several WSH Innovation Carnivals to encourage the sharing of creative ideas across its yards and showcase projects that had enhanced safety and operational efficiency. Jurong Shipyard, for example, held a 'Towards Safety Excellence' campaign in June 2008, attended by key Ministry of Manpower representatives. The event saw the launch of a new in-house produced safety DVD on scaffold safety.

That same month, Sembawang Shipyard took a different approach by organising its carnival under its Programme-based Engagement (ProBE) strategy of engaging employees and stakeholders to advance occupational health and safety standards. The event, themed 'Safety Starts with Me', was attended by representatives from the Singapore Civil Defence Force, Traffic Police, National Environment Agency and Health Promotion Board.

PPL Shipyard also took the initiative to introduce a joint inspection programme where employees from other departments were taught to carry out health, safety and environment inspections. Besides fostering greater participation in safety monitoring, this initiative encouraged knowledge exchange and improved rapport between departments.

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## Education & Training

Yards within the Group continued to hold safety inductions to familiarise new employees and contractor workers with safety rules, regulations and risk assessment guidelines before they commenced work. Supplementing these were other internal and external courses that focused on safety in specific areas, including the usage of aerial platforms, overhead and gantry cranes, fork-lift driving and working at heights.

Reaching out to contractor partners, the yards in Singapore were active supporters of the Workplace Safety and Health Council's bizSAFE programme, which would progressively recognise contractors for occupational health and safety advancements as they strive for third-party certification. This programme encouraged contractors to integrate risk management and workplace safety and health management systems into their operations.

## Emergency Preparedness

Ensuring a high-level of emergency preparedness, Sembcorp Marine included its employees, contractors and customer partners in its total health, safety, security and environment as well as risk management strategy.

During the year, more than 148 emergency evacuation drills were held at workshops and offices as well as onboard vessels and rigs across the Group's yards in Singapore.



Safety drills at Sembawang Shipyard and SMOE.

The drills, which covered a range of scenarios from terrorist threats to fire hazards, enabled employees and partners to practise their emergency response techniques and familiarise themselves with emergency evacuation procedures.

Joint patrols and emergency exercises were also conducted together with partners from the Singapore Civil Defence Force, Singapore Police Force and the Police Coast Guards to ensure seamless coordination during contingencies.



Codename 'Ex Red Whale', an exercise onboard British Confidence jointly organised by Sembawang Shipyard and Singapore Civil Defence Force in cooperation with BP Shipping.



Sharing safety and security insights with Home Team Western Sector.

## Security Controls

To mitigate the risk of security threats, Sembcorp Marine and its yards continued to maintain high levels of vigilance in protecting its people, assets and operations.

In line with international security concerns, increased precautions were laid in place in prevention of terrorism. Waterfront and shipside security was also heightened with increased close-circuit camera monitoring around the yards supplemented by daily 24-hour surveillance patrols.

The yards kept an active vigil with patrols at strategic access points and stringent security checks on employees, visitors and vehicles entering the premises. At Jurong Shipyard, employees and contractors underwent additional authentication with a vein-pattern recognition biometric security system and RFID smartcards.

Security personnel were also dispatched upon request to control access and security onboard vessels and rigs while in the yards or during sea trials.

## Joint Cooperation with Partners

Sembcorp Marine's yards continued to forge close relationships with various government agencies and

industry associates in the areas of joint cooperation and knowledge sharing in preventing and countering safety and security threats.

Jurong Shipyard, together with two neighbouring yards, worked closely again with the Jurong West Neighbourhood Police Centre under the West Zone Shipyard Safety & Security Watch Group partnership to reinforce safety and security within the yard and its vicinity.

The Group's yards also participated in various knowledge sharing activities with external safety and security partners. One such event was the Home Team Western Sector Workshop participated by Jurong Shipyard in February 2008. Organised by the Singapore Civil Defence Force, the event allowed the yard to exchange knowledge with teams from other industries and to build stronger links with Home Team personnel from the Singapore Civil Defence Force, Immigration Department, Singapore Police Force and Singapore Prisons Department.

Jurong Shipyard was also invited by the Singapore Police Force to share its innovation excellence strategy at the SPF 3i (Ideas, Improvement, Innovation) Convention in August 2008.

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## Environmental Preservation

*A strong proponent of environmental care and protection, Sembcorp Marine demonstrated its commitment towards environmental conservation and social responsibility through its conscious efforts to further the green cause within and beyond its yards. The aim was to protect the best interest of its people and the community.*

### Towards Greener Operations

Understanding the close inter-relationship between the business and the environment, Sembcorp Marine and its yards were constantly seeking greener solutions for environmental safety and conservation.

ISO-14001-accredited subsidiaries Sembawang Shipyard and SMOE put in place structured and proactive environmental management systems to ensure that their operations complied with the regulatory requirements and were in line with industry best practices.

Eco-friendlier production processes, such as hydroblasting and enclosed blasting, were practised in the shipyards as far as possible to minimise the impact of yard operations on the environment.

### Recycling & Conservation

To optimise resources and minimise wastage, Sembcorp Marine and its subsidiaries continued their efforts in the recycling of by-products and other materials.

At Jurong Shipyard, used copper slag, a by-product of blasting operations, continued to be recycled by another subsidiary, JPL Industries. The copper slag would first be treated and then used to produce building bricks and pavement blocks for sale and yard development purposes.

Employees were encouraged to adopt the good practice of recycling as part of environmental conservation efforts. The placement of additional bins for the recycling of paper, plastic and glass at convenient

and strategic venues across the Group's yards was an additional measure to enhance recycling participation among staff.

Resource optimisation was another important focus as the Group took steps to make energy-saving and eco-efficient processes a way of life in the workshops and offices. The message of recycling and resource conservation was also actively communicated to employees through publicity efforts in various mediums such as posters, banners and newsletters.

### Enhancing the Workplace

To ensure a clean, conducive and safe work environment, the Group's yards continued to instill the value of good housekeeping among employees and contractor partners through various initiatives.

At Jurong Shipyard, a Housekeeping Day was designated every week in which personnel went through a systematic process of cleaning and tidying their respective work areas. PPL Shipyard also implemented a comprehensive housekeeping programme that included weekly inspections and an award recognition system to reward departments with the best housekeeping practices.

The creation of green spaces was actively undertaken through the regular planting of trees and flowers across the Group's yards. The concept of a 'Garden Shipyard' environment continued to flourish since the launch of Sembawang Shipyard's Tree Planting Campaign in 2006. The yard held its Tree Planting Day in December 2008 to add to its growing showcase of trees and flowering plants in its landscape.

### Promoting Community Awareness

Sembcorp Marine took its steadfast green commitment further by organising and supporting various green initiatives to promote greater environmental awareness within the community.

Sembawang Shipyard took the lead by organising its 2008 Green Wave Environmental Care Project, an annual competition which aims to inspire and motivate youths to develop innovative solutions and ideas for environmental protection and improvement. The competition, which was launched in 2003, saw very positive response this year with a total of 260

entries from almost 1,000 students from primary schools, secondary schools, junior colleges, institutes of technical education and tertiary institutions.

The top 50 projects teams were recognised with cash prizes and commendation awards during a ceremony in January 2009. The contest continued to be a testament of the yard's close relationship with its alliance partners – Shell International Trading and Shipping Company and BP Shipping – who generously provided the top cash prizes as well as work attachment opportunities for post-secondary school winners.

In addition, Sembawang Shipyard sponsored the National University of Singapore Green Carnival in August 2008. Supported by the National Environment Agency, the event sought to fight climate change and promote environmentally sustainable lifestyles.

Another project with the National Environment Agency saw Sembawang Shipyard participating in the Clean & Green Singapore Schools' Carnival held during Clean and Green Week 2008 to encourage environmental care and protection among students. More than 15,000 students from over 190 schools, from pre-school to pre-tertiary levels, took part in the carnival, which was launched by Dr Amy Khor, Senior Parliamentary Secretary, Ministry for the Environment & Water Resources.

The Group's subsidiary, JPL Industries, was one of the key sponsors of the "Semakau Corporate Environmental Outreach (CEO) Run 2008" organised by the National Environment Agency on 19 October 2008. Senior Management from JPL Industries took part in the run and tree planting activities to mark their commitment towards environmental conservation and protection.



Green Wave Environmental Care Competition launched since 2003 aims to inspire and motivate youths to develop innovative solutions and ideas for environmental protection and improvement.



Senior management from JPL Industries at the Semakau CEO Run 2008.