

**Our ERM framework provides a holistic and systematic process for managing significant risks.**



**ENTERPRISE RISK MANAGEMENT**

The Keppel O&M Group employs a holistic and rigorous Enterprise Risk Management (ERM) framework which systematically identifies, evaluates and manages significant risks in the operating environment.

The top management reviews these significant risks in relation to the Company's corporate strategies, and formulates mitigating actions during the annual strategy meeting in Singapore.

These are then cascaded down to the individual business units and departments and applied consistently.

At the operational level, the risk management process is incorporated in the day-to-day operating procedures as well as all significant projects carried out by the Group.

A large proportion of the Group's operations is project-based, and runs over an extended period of time. Major risks for each significant project from tender through the execution stages, are addressed by means of a standardised and systematic approach.

During tender stage, the risk template consists of various factors grouped under pre-tendering, competition, project, contract, execution, people and safety. The robust risk assessment process was applied in the tender evaluation of the US\$1.2 billion Petrobras P-56 semisubmersible (semi) production platform contract, awarded to the Keppel FELS Brasil/Technip consortium in October 2007.

At the execution stage, key risk factors being monitored include on-time on-budget delivery, quality control, meeting customers' specifications, and safety.

For the earlier semi production platforms P-52 and P-51, certain portions such as lower hull and nodes were built in

Singapore and transported to Brazil for assembly. The challenge for P56 is that the semi will now be fully fabricated in Brazil. To ensure seamless quality control, the project will receive continued engineering and operational support from Keppel FELS in Singapore.

With a record orderbook, the Group's main challenge lies in the execution of projects to ensure on-time and within-budget delivery while meeting quality and safety standards. The major risks associated with this would largely be related to execution risks with stretched resources. A template has been developed for monitoring the schedule risk, cost risk and quality risk of all major works in progress.

In order to manage the execution risks with stretched resources, Keppel FELS made effective use of its expanded facilities at Shipyard Crescent in Singapore and Bintan in Indonesia. Keppel FELS continues to subcontract portions of its work to its other yards in Singapore, Keppel Batangas and Subic Shipyard in the Philippines, Arab Heavy Industries in the United Arab Emirates and Keppel Verolme in the Netherlands. Whilst carrying out specialised newbuilding activities, Keppel Nantong Shipyard in China is starting to take on offshore newbuilding work subcontracted from Keppel FELS. Keppel FELS has also leased a new piece of land on a short term basis at Tuas for fabrication work and to store project materials.

An equally important challenge to the Group during project execution is safety awareness and enforcement. In addition to the Keppel O&M Group Safety Committee, a Board Safety Committee in Keppel Corporation has been set up to review the effectiveness of the Group's safety management systems for added emphasis.

The system for internal control, established by the Group, is designed to manage and reduce the risk faced by the Group in the course of achieving its strategic goals.



## BUSINESS CONTINUITY MANAGEMENT

To manage potential threats or disruptions to our operations arising from unforeseen factors such as SARS, bird flu and terrorism, a Business Continuity Management (BCM) framework has been incorporated as part of ERM.

A BCM Committee was set up to look into critical threats that could severely disrupt the yards' operations, and to develop action plans to mitigate these threats. Some of the critical threats identified are epidemics, terrorism, damage to critical physical assets such as buildings, IT infrastructure, drydocks and cranes, and loss of critical supply chains.

Championed by department heads, mitigating action plans addressing these critical threats have been developed to ensure business continuity. In addition, emergency plans have been drawn up to address possible epidemic outbreaks. Simulated temperature testing for the Avian flu was conducted at several yards

1. The yards simulate temperature testing to arrest possible outbreaks of the Avian flu.
2. Simulations of various hazards such as chemical spillage on-board vessels are an integral part of the BCM plans.

during the year. A disaster recovery plan for IT infrastructure was also implemented. Various evacuation and fire safety drills are conducted regularly to gauge the effectiveness of the emergency plans.

To counter terrorism threats, the Group's yards have implemented security procedures which comply with the International Ship and Port Security Code adopted by Maritime and Port Authority of Singapore. The detailed response plan covers various scenarios such as fire outbreaks and sea intrusions by terrorists which may affect the yards' security. Further to the intrusion response exercises, simulations of chemical slippage onboard vessels were conducted during the year to assess the effectiveness of the yards' security and safety procedures.