

Completing the New Management Plan

The business environment surrounding Japan's construction industry has continued to be extremely harsh for some time, and these adverse circumstances now require us to demand more of ourselves than ever before. Thanks to over two decades of consistently strong and decisive leadership by former president Rempei Mizuno, who retired that position during the term under review, we are now better equipped to meet these challenges than at any time in our history. Chairman Mizuno continues to represent the Company in an important capacity, working actively to develop new sales channels in Japan and overseas. As president, I plan to use my experience as senior managing director in charge of international trade to promote Penta-Ocean's interests in overseas markets, as well as at home.

A New Vision

In fiscal 2001, the Penta-Ocean Group formulated the New Century Management Plan, with an aim to integrating it fully, backed by the support of all employees. The key areas of the plan include (1) reinforcement of the Group's sales capabilities, (2) cost reduction, (3) nurturing subsidiary companies, (4) establishment of new construction businesses, (5) reinforcement of financial stability, and (6) strengthening the Company's fundamentals.

In implementing the plan, our focus has moved from one of increasing project scale and business size to micro-management and increased profitability. As part of this plan, we will concentrate our efforts on urban renewal projects, particularly in coastal areas, where future growth is anticipated. Penta-Ocean is also expanding its capabilities in environment-related areas and engineering technology, with an aim to capturing projects that required a high level of technological

expertise in multiple disciplines. The Company is already a leading developer of construction-related technology, and backed by our formidable capabilities in this area, we expect to continue to lead the industry in the commercialization of advanced construction materials, machinery and methods.

Overseas, Penta-Ocean is concentrating its efforts on developing new markets for its construction and marine engineering expertise, participating in an increasing number of large-scale urban development projects encompassing buildings, transportation networks, marine construction projects and other important social infrastructure.

In order for the Company to prosper in the new century, we are going to have to maintain a primary focus on cost reduction and on profitability. As the scale and number of construction projects decrease, the total for potential sales also continues to decline. In this finite environment, it has become increasingly important that

Century



Hideaki Kato, *President*

Group operations reflect this trend in real terms. Cost reducing measures are expected to include office closings overseas and the integration of regional offices in Japan. Retirement incentives and pension reductions, expense accounts, and directors' fees are other areas where spending will be curtailed.

In June 2002, the Company introduced a scheme to make the board of directors' more effective and improve decision-making by reducing the number of directors. The scheme is expected to make the governing body more effective and decisive in dealing with all contingencies, increase transparency, and more clearly delineate the duties and responsibilities of each officer.

Fiscal 2002 promises to be a landmark year for the Penta-Ocean Group, as we focus our efforts on improving business management, strengthening our project executing skills, and helping our employees to be more effective, as all members of the Penta-Ocean Group work together to achieve our mutual goals.

IMPLEMENTING THE NEW CENTURY MANAGEMENT PLAN

- The first step is to maintain the Company's competitive edge by adopting a client-first approach and facilitating the steady commercialization of new construction-related technology.
- The second step is to reduce operating costs by cutting outsourcing expenses and eliminating unnecessary expenditures.
- The third step is to strengthen the capabilities of affiliated companies to maximize their contributions to the Group.
- The fourth step is to promote the development of our environment-related business and other new business areas, by expanding the activities of the Company's new IT Promotion Division, and the formation of the Institute of Environment.
- The fifth step is to strengthen the Group's financial base by paying down interest bearing debt and increasing internal reserves.
- The sixth step is to revitalize Penta-Ocean's corporate culture by focusing on employees and maximizing their individual potentials. Key to our goal is the establishment of more open communication internally and among Group companies and the removal of bureaucratic within the Penta-Ocean organization. New information technology-based formats being employed by the Company are expected to play a major role in accomplishing these objectives.

Under the plan, all business groups will strive to respond decisively to rapidly changes client needs, and to achieve sustainable profitability.



Clear water and fervent green create an oasis of beauty and comfort at the Park Collina Kamiohka (Yokohama, Kanagawa Prefecture)

REVIEW OF OPERATIONS

During the year under review, Japan's construction industry continued to stagnate owing to poor economic performance at home and the gradual slowdown in the global economy. The number and scale of construction projects also continued to decline, as a result of sweeping spending cuts on the part of the Japanese government. Private sector capital investment also waned, as companies worked to deal with lower profit margins and growing employment problems. At the same time, increasingly severe competition among Japanese, North American and European construction companies made for more challenging conditions overseas, and particularly in Southeast Asia, where Penta-Ocean is most active. Against this backdrop, the Group made strenuous efforts to enhance management capabilities and strengthen sales in order to maximize income potential.

Construction

Major accomplishments for the Group during fiscal 2001 included land reclamation work at two of Japan's leading international air transportation hubs, the Kansai and Chubu airports. At the Kansai International Airport, Penta-Ocean completed landfill and ground improvement work, making the construction of a second runway possible. The airport was completed in 1994 and already the volume of traffic has grown so rapidly as to require



Park Collina Kamiohka condominium, Kanagawa



Kansai International Airport reclamation work Phase II, Osaka

an expansion of its runway system. The Phase 2 project was considered to be more technologically challenging than the work completed in Phase 1, and Penta-Ocean is receiving praise for the marine engineering expertise that made this project a success.

At the Chubu International Airport, the Company was involved in revetment building work and completed the project ahead of schedule during the term under review. The project is expected to be completed in time for the greatly anticipated Aichi Exposition.

Other construction activity during the term included pre-treatment plant construction work at the Rokkasho Reprocessing Plant and the Japan Nuclear Fuel Processing Plant; work on the National Diet Library Kansai Building, commissioned by the Kinki Regional Department; and construction of the Park Collina Kamiohka condominium from Itochu Urban Development Co., Ltd. and four other companies.

The Park Collina Kamiohka project, located in southwestern Yokohama, encompassed two residential buildings housing 327 dwellings, vast park-like gardens and playgrounds, an expansive plaza and common building areas.



Caritas Medical Centre, Hong Kong

Overseas, the Group completed revetment-piling work at Keppel Harbor for Keppelland International of Singapore; and the construction of the Caritas Medical Centre, commissioned by the Hong Kong Government's Hospital Authority. The Caritas Medical Centre project involved the construction of a 14-storey medical and acute care wing. The project was completed without suspending services at the existing medical facility. Penta-Ocean has built many medical facilities in recent years and its reputation for excellence is well known in Hong Kong.

As a result of its strenuous efforts in this business area, Penta-Ocean recorded consolidated sales amounting to ¥430,473 million (US\$3,230 million) for the term under review. This represented a slight increase of 0.5% over the previous term.

When reviewing the Group's performance based on non-consolidated data, sales for the term under review amounted to ¥394,230 million (US\$2,958 million), a 4.8% drop from the previous term. Civil engineering

accounted for ¥238,582 million (US\$1,790 million), a 4.9% year-on-year decline. Sales from overseas markets amounted to ¥51,738 million (US\$388 million), or 21.7% of civil engineering segment sales. This represented a 6.6% decrease from the previous term's level. The domestic market shared the remaining 78.3%, or ¥186,844 million (US\$1,402 million), with sales to central and local governments occupying 85.8% of the total.

The Architectural segment accounted for ¥155,648 million (US\$1,168 million), a 4.6% decrease from the previous year. Domestic sales occupied 83.3%, or ¥129,600 million (US\$972 million) of the total, which represented a year-on-year decrease of 12.3%. The private sector accounted 77.3% of domestic sales. Overseas, sales represented 16.7%, or ¥26,047 million (US\$195 million) of the total for a year-on-year increase of 67.9%.

In overseas markets, civil engineering and architectural business sales amounted to ¥77,785 million (US\$583 million), a year-on-year increase of 9.6%.

Consolidated orders received in the construction segment amounted to ¥351,331 million (US\$2,636 million), a 26.9% decrease from the previous term. This decline represented a 69.8% decline in the volume of orders for large-scale landfill projects in Singapore from the previous term.

Principal orders received during fiscal 2001 in Japan included landfill work for the Airport Island Landfill project Phase II, from Kansai International Airport; the Tomei Highway No. 2, Shimizu Tunnel No. 1, from the Japan Highway Public Corporation; the Meiko Railway Plant construction project, from Nagoya's Transportation Department; and the Moriyoshiyama Dam construction project, from the Tohoku Regional Bureau. Overseas, new orders included the Constantza South Port improvement project from the Romanian Government and the Toa Payoh Redevelopment Contract 30, from the Singapore Housing & Development Board.

Penta-Ocean received an order for landfill work in the Phase II project at Kansai International Airport. This followed the successful completion of Phase I work in 1994. The Company is also involved in the construction of the Fujieda Tunnel No. 1 on the Tomei No. 2 Highway, and received an order for work on the Shimizu Tunnel No. 1.



Shimoda Tunnel of Tokai-Hokuriku Expressway, Gifu



Nukui Dam, Hiroshima

In November 2001, the Company received an order for improvement work on the Constantza South Port from Romanian Government, N.C Maritime Ports Administration Constantza SA, for the South Container Terminal Project, Port of Constantza. This is the largest port in that country and is expected to become a major trading port on the Black Sea by increasing capacity at its container terminals.

Successful bidding for orders in eastern Europe landed Penta-Ocean projects in Poland, and dredging work in the Port of Bourgas Expansion Project Contract Package No.1: Civil and Dredging Works, from the Ministry of Transport and Communications of the Government of the Republic of Bulgaria, Port of Bourgas PLC. These projects are expected to increase the Company's presence in eastern Europe.

Penta-Ocean received an order for the Building Works at Toa Payoh Redevelopment Contract 30 from Singapore's Housing & Development Board, for the construction of four, 40-storey residential buildings, the first in that country, together with a 5-storey parking building. The Company's Automated Building Construction System will be utilized to complete one of the four buildings. The highly automated system is expected to



Fukuyama Transporting Distribution Center, Chiba

improve safety and cut labor costs, by incorporating precast segments to construct more than 80% of the building.

Principal projects now under way and nearing completion include the Esplanade-Theatres on the Bay and the Jurong Island landfill projects in Singapore, the construction of the Tsuen Wan Station and a tunnel project for the Kowloon-Canton Railway Corporation in Hong Kong, as well as the construction of ESTATERA Shonandai in Fujisawa, the Group's first high-rise RC-constructed building and Urban View Grand Tower in Hiroshima, western Japan's tallest high-rise building.

Contract backlog for the domestic market amounted to ¥295,916 million (US\$2,220 million) and ¥185,549 million (US\$1,392 million) for the overseas market, resulting in a total of ¥481,466 (US\$3,613 million).

During fiscal 2001, the Japanese economy remained stagnant and the business environment surrounding the Group remained as severe as in the previous term. In these circumstances, domestic consolidated sales amounted to ¥362,698 million (US\$2,721 million), a year-on-year decrease of 1.7%. For the Company's Southeast Asia operations, consolidated sales increased by 7.7% over the previous year's level to ¥69,230 million (US\$519 million). This increase was attributable to sales connected with large-scale landfill work in Singapore and construction projects in Hong Kong. Project completions in Egypt and Bulgaria resulted in a substantial



increase in consolidated sales of 25.8%, to ¥8,731 million (US\$65.5 million).

New Business Expansion

New business divisions, including the Environmental Division, the Project Renewal Division, and the Engineering Division, were established in FY 2000. The activities of this group have expanded to include a wind power plant project in Yasugi, Shimane Prefecture, and waste treatment and other environment-related projects in Japan.

In the term under review, this group won orders for waste incineration plant-dismantling projects from the Hiroshima and Toyama Prefectural governments. These projects are carried out to eliminate dioxin, heavy metals, and other hazardous substances remaining in ash and wall scaling prior to dismantling of the facilities. Top priority is given to safety during the dismantling process and Penta-Ocean's experience in this work is expected to improve its chances to receive new orders for similar projects.



Naoetsu Pier, Niigata

The Company is also involved in construction sludge recycling projects. Ten million tons of construction sludge is produced every year, however only about 14% is recycled. The recycling ratio is smaller than for other construction waste materials, and most solid waste is used for landfill.

Since the number and capacity of such sites are limited, demand for the recycling of construction sludge has continued to increase. Although conventional recycling methods exhibited poor handling capabilities, Penta-Ocean's system improves construction sludge with high water content without dehydration and drying, and the improved handling facilitates easier recycling. The Company also continues to find ways to further reduce treatment costs.

As more and more focus is placed on environmental conservation, soil contamination has become an increasingly important issue. Penta-Ocean has long been engaged in the treatment of contaminated soil, and this business group works closely with the Company's in-house Institute of Environment to develop methods for

removing waste materials from the soil, and for decomposing contaminants directly in soil. Both methods are proving very successful and sales performance for this group continued to improve during the term under review.

Real Estate Development and Others Businesses

The Development segment suffered from the negative influences of stagnating real estate prices in Japan and this resulted in a 59.9% decrease in sales for the term to ¥2,382 million (US\$17.8 million). Although operating income was secured in the previous term, thanks to profitable transactions, an operating loss of ¥237 million (US\$1.7 million) was recorded for the term under review.

Other activities included shipbuilding work, sales and leasing of construction materials and equipment, and rent of ocean vessels, and consolidated sales in this area amounted to ¥18,459 million (US\$138.5 million). This represented a 23.8% increase over the previous term's level. Operating losses amounted to ¥112 million (US\$0.8 million), decreasing by 38.2% from the previous term.



ESTATERRA Shonandai, Kanagawa



Penta-Ocean is well known for its research and development capabilities, and adding to its many accomplishments in the construction field, has successfully developed plant-dismantling technology at its state-of-the-art R&D facility in Nasu.

R&D Results and Environmental Report

Although the business environment surrounding the construction industry has remained severe in recent years, Penta-Ocean has continued to focus on the development of advanced construction methods, materials and technologies aimed at preserving the natural environment and the earth's dwindling natural resources. It has drawn on the expertise and experience of each of the Group's business divisions to achieve a remarkable level of success in this area.

Throughout the term under review, the Group engaged in the development of environmentally friendly technologies and innovative recycling formats. R&D expenses for the term amounted to ¥2,149 million (US\$16.1 million). Penta-Ocean filed 98 patents in fiscal 2001, bringing the total number of patents held by the Company to 366 and utility models 45.

Principal R&D results in the consolidated fiscal year included several environment-related successes, including a process for rendering dioxins harmless,



Environmental Report 2002

expanding applications of construction sludge-recycling technologies, and making dismantling technologies for waste incineration facilities safer.

Throughout its R&D activities, the Group has made environmental concerns a top priority, and by 2000, its Research Institute and nine branches in Japan had received ISO 14001 certification, in recognition of its state-of-the-art environmental management systems.

In the past, Penta-Ocean has prepared an annual environment report based on accumulated data on recycling sites and construction by-products. In the term under review, the Company published a report entitled Report on Environmental Conservation.