

Domestic Civil Engineering

Penta-Ocean is utilizing its technological capabilities for construction in coastal areas – developing brand technologies and expanding sales

Shikawa Dam Fukuyama City, Hiroshima



Public investment in domestic construction markets continued to remain depressed, while private sector capital investment increased steadily. The upturn in corporate profits owing to strong demand for housing in large urban areas supported construction investment during the term.

Against this backdrop, the Company and its consolidated subsidiaries formulated aggressive sales strategies for the coming fiscal period. In the domestic civil engineering field, the Company reinforced its strategic efforts to accommodate a new official overall evaluation system that will be introduced in public works and worked to expand the number of orders received for private civil engineering works. Technological development remained a cornerstone of Penta-Ocean's strength and a key factor in maintaining a competitive edge in both domestic and overseas construction markets during the fiscal period.



Kamaishi HBC Installation Project **Kamaishi City, Iwate**

Kamaishi Port Municipal Pier had a single quay side only and was always congested. In 2006, a peripheral facility was constructed when a new earthquake resistant pier was installed, in line with the "Kamaishi Port Wharf Construction Project."

Caissons were installed by use of a 3,000-ton hoisting crane. Although more than one typhoon hit the port during the project period and the crane vessels were removed to a safe location during each incidence, the project was successfully completed. Now 15,000-ton cargo carriers utilize the pier.

Ibi-Nagaragawa Bridge Aseismic Retrofit Project, **Higashi-Meihan Expressway Kuwana City, Mie**

This project encompassed aseismic retrofitting of piers supporting the Ibi-Nagaragawa Bridge on the Higashi-Meihan Expressway. The work was carried out by winding RC components around the supports. Since ten out of the 12 target piers were in the river, it was necessary to complete the work, which ranged from temporary cutoff to reinforcement, within a single drought period, and Penta-Ocean's NDR method was adopted to handle the cutoff procedures. The Group's steel casing materials and installation technology made it possible to complete the project in record time and at significantly reduced cost.



Land Reclamation Work – Aga Marino Polis **Kure City, Hiroshima**

This very-large-scale land reclamation project began in 1994 and was completed during the term under review under the theme of "Creating new land in a spirit of play, transport and creation." When the Great Marino Bridge and San-yo Expressway are connected to existing national highways, physical distribution capabilities will be greatly improved and this is expected to impact positively on local economies in the region.

New Sea Area Disposal Site Block C Life Extension **Test Work (by accelerating subsidence)** **Metropolitan Tokyo**

The New Sea Area Disposal Site was planned as part of the southern addition to the disposal site outside the Tokyo Bay Central Wharf. This project represented a step forward in efforts to extend the life of this solid waste facility. An innovative marine vacuum compression and draining method was developed by Penta-Ocean for the project, and resulted in significant construction cost savings and improvement in dredging techniques. Based on data collected from this project, Penta-Ocean plans to expand its business capabilities in this important area in order to make full use of its new vacuum compression and draining technology.

