

PROJECT BRIEF

Pipe Upgrading at the Philippines National Bank Head Office using the TYFO® Fibrwrap® Composite System



Manila, Philippines
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The Philippine National Bank (PNB), headquartered at Roxas Blvd. in Manila, houses a staff of around 2,000 employees, with a floor area of 15,000 square metres. The building has a centralized cooling system for its air conditioning comprising of a water-cool chilling system.

When the air conditioning was running, the original fiber reinforced polymer (FRP) pipes, that allow the water to circulate to the chiller, leaked at various places. In the past, various polymers had been used to remedy these leaks but they succeeded in plugging the leak for only a short while before the problem recurred. It was found that the due to age and poor design, the original pipes were weakening at certain locations due to vibrations, thus causing the leaks. An alternative method using the TYFO® Fibrwrap® Composite System was proposed by EC Structural Composite Inc., Fyfe Asia's preferred applicator in the Philippines.

The TYFO® Fibrwrap® Composite System uses aerospace technology and materials, such as carbon/glass/aramid fibres and epoxy composites and works on the principle of wrapping entire pipes from the inside or outside to further enhance the capacity of the pipe as well as stop any existing leaks.

The system was accepted for its speed of application, as well as cost effectiveness, allowing work to continue in the confined space with ease. The project was completed in two months with no further leaks up to the present.

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