Structural and Leak Repairs to Diesel Generator Foundations

STRUCTURE: Reinforced Concrete Block Foundations
LOCATION: Hamilton, Bermuda
PROJECT DATE: November/December 1998
PRODUCT USED: Kemko 051, Kemko 068, Caprock EX Clear
JOB DURATION: 4 weeks
CLIENT: Bermuda Electric Company
AREA: 1700 lin.ft. of Cracks
VALUE: US$ 100,000
CONTRACTOR: BCM McAlpine Ltd.

PROJECT DESCRIPTION:
Vector Construction Group provided technical expertise and a crew of three technicians to work with the contractor in the completion of this project. The remainder of the labour was provided by the local contractor. The scope of the project was to repair all existing cracks in the concrete foundation of the two diesel generators, which were shut down one at a time for maintenance. Some of the cracks required structural repairs and most of the cracks needed to be filled with epoxy to prevent further damage of the concrete structure by vibrations and oil penetration. The main challenge was to remove the existing engine oil from the cracks. This task was accomplished by selecting the proper detergent for the job and flushing the cracks several times before injection. It was critical to schedule the repair works around the other trades working around the foundations (electrical, plumbing, mechanical, etc.). Each foundation was in operation 24 hours after the last crack repair had been completed.

This project was designed to train the local contractor to perform this specialized type of work. Vector’s involvement in the project was to provide the specialized materials, equipment and to train the local contractor’s crews to perform the work. During the project the Vector Technical Specialists provided technical support and on-site supervision of the project to ensure quality control.