

Corrosion Damage Evaluation of Port Structure in Thailand's Eastern Economic Corridor (EEC)

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This study presents the visual inspection of a reinforced concrete port located in Chonburi province after 17 years of exposing to the marine environment. The corrosion damage assessments play a crucial role in maintenance planning. Then, this study was conducted aiming to standardize evaluation of port. A major cause of deterioration was reinforcement corrosion. Severe corroded reinforcing steel were investigated and result in the formation of rust with a larger volume and staining, cracking, and spalling of the cover concrete. Some reinforced concrete elements were inadequate cover thickness even though high strength concrete was used. This information provide a key parameter in the repair process to minimize loss to the structure. When dealing with a very severe damage structure, the investigative team is often faced with hazardous situation limiting collected data. The results of the study are carried out to help in the decision making process for repair strategy.