

Committee Report: JCI-TC125FS

Technical Committee on Feasibility of Establishment of Infra-dock for Concrete Structures

委員会報告：JCI-TC125FS

コンクリート構造物のインフラドック構築フェージビリティ調査研究委員会

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Abstract

It is a prime task to establish technologies and systems for maintaining, inspecting and diagnosing existing concrete structures. However, inspection methods currently available, which mainly involves visual inspection and diagnostic measures might be insufficient. Therefore, a technical committee that aims for establishment of “infra-dock”, which is referred to “ningen (human)-dock” in concept, was proposed toward sustainable maintenance of concrete structures. The committee consisted of three working groups, which worked on 1) improvement of in-situ measurement methods as inspection technologies for construction of the infra-dock (WG1), and 2) organization of inspection methods for the infra-dock and production of scenarios (WG2). A working body at the infra-dock was proposed, and application of authorized concrete diagnosis engineers as “doctors” in charge was investigated (WG3). The results are summarized below.

1. Introduction

The 21st century is an era of sustainable society. The concept of elongating the lifespan should be applied not only to people but also to infrastructures. For the future, which also includes total restoration from the Great East-Japan Earthquake, technologies and systems need to be established for maintaining, inspecting and diagnosing existing concrete structures. However, current inspection relies on mostly visual examination

and not sufficient for maintenance, for judging the time of reconstruction. Therefore, establishment of “infra-dock”, which is referred to “ningen (human)-dock” for human, is proposed toward sustainable maintenance of concrete structures.

In medical treatment, diagnosis is an act of specifying the cause of a disorder or disease after onset. On the other hand, prognosis implies examinations.....