

Practical Guideline for Investigation, Repair and Strengthening of Cracked Concrete Structures – 2003-

CONTENTS

Chapter 1 General	1
1.1 Scope and Objective	1
1.2 Procedure for Investigation, Repair and Strengthening	2
1.3 Definitions of Technical Terms	5
Chapter 2 Investigation	8
2.1 General	8
2.2 Standard Investigation	9
2.3 Detailed Investigation	19
Chapter 3 Cause Estimation	35
3.1 General	35
3.2 Cause Estimation based on Standard Investigation	36
3.3 Cause Estimation Based on Detailed Investigation	65
Chapter 4 Judgment on Necessity of Repair and Strengthening	68
4.1 General	68
4.2 Judgment based on Results of Investigation and Cause Estimation	70
4.3 Judgment Based on Advanced Judgment by Engineers	75
Chapter 5 Repair Methods	80
5.1 General	80
5.2 Repair Design	80
5.3 Repair Methods	83
5.4 Repair Materials	95
5.5 Repair Work	102
5.6 Repair Inspection	102
5.7 Confirmation of Repair Work	103
5.8 Inspection and Record Keeping after Repair	103
Chapter 6 Strengthening Methods	106
6.1 General	106
6.2 Strengthening Design	106
6.3 Strengthening Method	108
6.4 Strengthening Material	122
6.5 Strengthening Construction	123
6.6 Inspection of Strengthening	126
6.7 Confirmation of Strengthening Effect	126
6.8 Inspection and Record Keeping after Strengthening	127