

## TABLE OF CONTENTS

|                                                         |     |
|---------------------------------------------------------|-----|
| <i>About the Author</i> .....                           | iii |
| <i>Preface</i> .....                                    | v   |
| <i>Acknowledgements</i> .....                           | vii |
| <i>Summary Table of Contents</i> .....                  | ix  |
| Introduction.....                                       | 1   |
| Chapter 1 — The Organization .....                      | 3   |
| Managers .....                                          | 4   |
| Supervisors .....                                       | 5   |
| Workers .....                                           | 5   |
| Leadership and Coaching.....                            | 5   |
| Capabilities .....                                      | 7   |
| Capacities.....                                         | 7   |
| Commitment.....                                         | 7   |
| Partnerships .....                                      | 8   |
| The Organization's Managed System.....                  | 9   |
| The Organization's Internal Responsibility System ..... | 10  |
| Chapter 2 — Organizational Elements .....               | 11  |
| Safety Performance .....                                | 12  |
| Safety Culture.....                                     | 13  |
| Integrating the Elements .....                          | 13  |
| Managed System .....                                    | 14  |
| Plan/Do/Check/Act.....                                  | 14  |
| Internal Responsibility System.....                     | 16  |
| Chapter 3 — Managed System.....                         | 19  |
| Managed System Element — Plan .....                     | 21  |
| Vision/Mission/Values .....                             | 21  |
| Strategies/Goals/Objectives .....                       | 21  |
| Legislation/Corporate Governance.....                   | 22  |
| Standards and Best Practices .....                      | 22  |

## Table of Contents

|                                                               |    |
|---------------------------------------------------------------|----|
| Policies/Procedures.....                                      | 23 |
| Managed System Element — Do .....                             | 23 |
| Roles .....                                                   | 24 |
| Duties .....                                                  | 24 |
| Performance.....                                              | 24 |
| Work Assignment .....                                         | 24 |
| Training .....                                                | 25 |
| Managed System Element — Check .....                          | 25 |
| Inspections .....                                             | 25 |
| Field Visits.....                                             | 26 |
| Observations.....                                             | 26 |
| Audits .....                                                  | 26 |
| Managed System Element — Act.....                             | 27 |
| Review Variances .....                                        | 27 |
| Access Impact.....                                            | 28 |
| Develop Actions.....                                          | 28 |
| Assign Tasks.....                                             | 28 |
| Improvements.....                                             | 29 |
| Chapter 4 — Internal Responsibility System .....              | 31 |
| IRS — The Model.....                                          | 32 |
| IRS — Line Organization .....                                 | 33 |
| IRS — Internal and External Groups.....                       | 38 |
| IRS — Health & Safety Committees .....                        | 40 |
| Chapter 5 — Managing Risk.....                                | 43 |
| Understanding Risk .....                                      | 43 |
| Risk Evaluation.....                                          | 45 |
| Risk Assessment.....                                          | 46 |
| Workplace Elements .....                                      | 47 |
| Workers .....                                                 | 47 |
| Equipment .....                                               | 47 |
| Workplace.....                                                | 48 |
| Documentation.....                                            | 48 |
| Risk Assessment Process .....                                 | 49 |
| Management of Change .....                                    | 52 |
| Chapter 6 — Situational Awareness .....                       | 55 |
| Accident/Incident Theory.....                                 | 56 |
| Situational Awareness for Supervisors .....                   | 63 |
| Situational Awareness for Managers and Safety Committees..... | 68 |
| Situational Awareness Objectives .....                        | 69 |

## Table of Contents

|                                                 |     |
|-------------------------------------------------|-----|
| Chapter 7 — Safe Work Planning.....             | 71  |
| Energy Analysis.....                            | 71  |
| Job Safety Analysis.....                        | 73  |
| Safe Work Plan.....                             | 74  |
| Supervisory Field Visits.....                   | 75  |
| Supervisor/Worker Relationship.....             | 78  |
| Supervisory Due Diligence .....                 | 81  |
| Chapter 8 — Safety Committees .....             | 83  |
| Workplace Inspections.....                      | 84  |
| Accident Investigations.....                    | 85  |
| Unresolved Concerns.....                        | 86  |
| Work Refusals/Stoppages.....                    | 86  |
| Activities and Initiatives .....                | 87  |
| Policies and Procedures .....                   | 87  |
| Communications .....                            | 87  |
| Terms of Reference.....                         | 88  |
| IRS and the Safety Committee.....               | 89  |
| Committee Agenda Development Process .....      | 90  |
| Committee and the Line Organization.....        | 91  |
| Chapter 9 — Safety Programs .....               | 93  |
| Risk-Based System.....                          | 93  |
| Behaviour-Based System .....                    | 93  |
| Safety Program Process .....                    | 95  |
| Chapter 10 — Communications .....               | 101 |
| Relationships .....                             | 103 |
| Communications .....                            | 104 |
| Integration of the Organizational Elements..... | 105 |
| Other Forms of Communication .....              | 110 |
| Chapter 11 — Audits.....                        | 113 |
| Legal or Compliance Audits .....                | 114 |
| Safety Program Evaluations.....                 | 114 |
| Workplace Inspections.....                      | 115 |
| Hazard or Risk Assessments.....                 | 115 |
| Safety Managed System Audits .....              | 115 |
| Employee Perception Surveys .....               | 119 |

## Table of Contents

|                                        |     |
|----------------------------------------|-----|
| Chapter 12 — Investigations.....       | 121 |
| Sequence of Events .....               | 124 |
| Energy Barrier Analysis.....           | 125 |
| Change Analysis.....                   | 127 |
| Root Cause Analysis .....              | 127 |
| The Incident Investigation Report..... | 128 |
| Conclusion .....                       | 131 |
| Index .....                            | 133 |