



MAGNUM CONSTRUCTION SERVICES INC.

ROOT CAUSE ANALYSIS FORM (5-WHY / TAPROOT / FISHBONE)

Document Code: MCS-QHSE-18B | Revision: 1.0 | Effective Date: October 31, 2025

1. PURPOSE

To provide a structured method for analyzing incidents, near-misses, non-conformities, and environmental releases to identify **root causes** and develop **effective corrective and preventive actions**.

This form supports Magnum's continuous-improvement objectives under **ISO 45001, ISO 9001, and ISO 14001**, and complements the **Incident Reporting & Investigation Procedure (MCS-QHSE-18)**.

2. INCIDENT DETAILS

Project Name:

Incident No.:

Location:

Date / Time:

Type: ☐ Injury ☐ Near-Miss ☐ Property ☐ Environmental ☐ Quality

Reported By:

Supervisor:

Department / Crew:

Investigator:



3. EVENT DESCRIPTION

Provide a factual, chronological description of what occurred. Include sequence, conditions, and contributing factors.

(Attach photos, witness statements, sketches if applicable.)

4. IMMEDIATE CAUSES (Direct Factors)

List unsafe acts, conditions, or mechanical failures that directly led to the event.

Immediate Cause Category (Human / Equipment / Environment / Process)

1

2

3

5. ROOT CAUSE ANALYSIS

A. 5-WHY METHOD

Problem Statement:

Why 1: _____

Why 2: _____

Why 3: _____

Why 4: _____

Why 5: _____



Root Cause Identified: _____

B. FISHBONE / ISHIKAWA DIAGRAM (optional visual tool)

(For comprehensive investigations — attach drawing.)

Evaluate contributing factors under:

- **Manpower:** training, supervision, fatigue
- **Methods:** procedures, planning, JHA quality
- **Machines:** tools, maintenance, design
- **Materials:** quality, compatibility, handling
- **Environment:** lighting, weather, workspace
- **Management:** communication, culture, leadership

C. TAPROOT ELEMENTS (for complex incidents)

Category	Findings
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Human Performance

Equipment Reliability

Procedural Adequacy

Training & Competence

Management Systems

Organizational Factors



6. CORRECTIVE & PREVENTIVE ACTIONS

Action No.	Description of Action	Responsible Person	Target Date	Completion Date	Verification Method	Status (O/I/C)
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1

2

(O = Open, I = In Progress, C = Closed)

All corrective actions must be logged in the **Corrective Action Register (MCS-QHSE-17C)**.

7. LESSONS LEARNED / SYSTEMIC IMPROVEMENTS

Summarize key learnings and recommended updates to training, procedures, or controls.

8. VERIFICATION & CLOSE-OUT

Verification Completed By: Title: Date:

EHS Manager Signature:

Project Manager Signature:

Corporate EHS Director Approval:



9. RECORD CONTROL

- Store all RCA Forms electronically within **Corporate EHS Database**.
 - Retain for **five (5) years** per **Records Management Policy (MCS-ADM-04)**.
 - Link RCA number to corresponding Incident Report (MCS-QHSE-18A) and CAR number.
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