



MAGNUM CONSTRUCTION SERVICES INC.

RISK ASSESSMENT AND CONTROL PROCEDURE

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1. PURPOSE

To define a systematic method for identifying, evaluating, prioritizing, and controlling risks that may affect the health, safety, environment, and quality performance of Magnum Construction Services Inc.

This procedure ensures all activities are planned and executed within acceptable risk levels through proactive hazard elimination and control.

2. SCOPE

Applies to all corporate, project, and field operations managed by Magnum Construction Services Inc., including employees, subcontractors, suppliers, and visitors.

This procedure covers:

- Operational risks (construction, logistics, equipment, etc.)
 - Environmental risks (pollution, spills, waste, emissions)
 - Health and occupational exposure risks
 - Business continuity and reputational risks
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3. REFERENCES

- **ISO 45001:2018 §6.1 – Actions to address risks and opportunities**
- **ISO 14001:2015 §6.1 – Environmental Aspects**
- **OSHA 29 CFR 1926 Subpart C – General Safety and Health Provisions**
- **ANSI Z10 – Occupational Health and Safety Management Systems**
- **Corporate HSE Manual (MCS-QHSE-01)**
- **Job Hazard Analysis Procedure (MCS-QHSE-08)**



4. DEFINITIONS

- **Hazard:** A source or situation with potential to cause harm (injury, illness, property damage, or environmental impact).
 - **Risk:** Combination of the likelihood of an occurrence and the severity of its consequences.
 - **Risk Assessment:** Process of identifying hazards, analyzing risk, and determining appropriate control measures.
 - **Residual Risk:** Risk remaining after control measures are applied.
 - **Hierarchy of Controls:** Method used to determine the most effective means of risk reduction — Elimination, Substitution, Engineering, Administrative, PPE.
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5. RESPONSIBILITIES

Role	Responsibilities
Executive Director / CEO	Approves corporate risk policy and reviews significant risk reports quarterly.
Corporate EHS Director	Oversees implementation of this procedure; maintains corporate risk register; leads training and audits.
Project Managers	Identify and assess project-specific risks; ensure mitigation measures are budgeted and implemented.
Superintendents / Foremen	Conduct field-level risk assessments (JHAs) daily; ensure crew awareness.
Site Safety Officers	Verify control implementation and document residual risks.
Employees / Subcontractors	Participate in risk assessments; comply with established controls.

6. RISK ASSESSMENT PROCESS

Step 1 – Hazard Identification

- Identify hazards associated with each activity or phase of work.
- Use tools such as JHAs, inspections, and incident analyses.
- Consider design, logistics, materials, equipment, and human factors.

Step 2 – Risk Analysis

Assess **likelihood** and **severity** for each hazard using the 5×5 Risk Matrix:

Severity (S)	Description
1	Negligible – First aid only / No impact
2	Minor – Medical treatment / Contained spill
3	Moderate – Lost time injury / Localized impact
4	Major – Permanent disability / Significant impact
5	Catastrophic – Fatality / Severe environmental damage

Likelihood (L)	Description
1	Rare – Unlikely to occur in 5 years
2	Unlikely – Possible once in 5 years
3	Possible – May occur annually
4	Likely – Occurs monthly
5	Almost Certain – Occurs weekly

Risk Rating = S × L

1–5 (Low) | 6–10 (Moderate) | 11–15 (High) | 16–25 (Critical)



Step 3 – Risk Evaluation

- Determine whether risks are acceptable based on corporate criteria.
 - Prioritize high and critical risks for immediate mitigation.
 - Document decisions and justification in the **Risk Register**.
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Step 4 – Risk Control

Apply the **Hierarchy of Controls** to eliminate or reduce risk:

1. Eliminate the hazard.
 2. Substitute safer materials or processes.
 3. Apply engineering controls (guardrails, ventilation, isolation).
 4. Use administrative controls (training, rotation, procedures).
 5. Provide PPE as last resort.
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Step 5 – Residual Risk Assessment

After controls are applied, reassess and document the residual risk rating.
Residual risks must fall within **Acceptable** or **Tolerable** thresholds before work begins.

Step 6 – Documentation & Communication

- Complete the **Risk Assessment Form (MCS-QHSE-09A)**.
 - Communicate controls to all affected workers through tailgate meetings.
 - Retain assessments in project files and digital archive for 5 years.
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7. CORPORATE RISK REGISTER

The Corporate EHS Director maintains a live **Corporate Risk Register** summarizing top risks across projects.

Each entry includes:

- Risk ID, Description, Category



- Inherent Risk Level
- Control Measures in Place
- Responsible Owner
- Review Frequency
- Residual Risk Level
- Status (Open / Closed)

Registers are reviewed:

- **Monthly** – By Project Managers
 - **Quarterly** – By Executive Leadership
 - **Annually** – During ISO Management Review
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8. MONITORING & REVIEW

- Risk assessments are verified during site audits.
 - Trends are analyzed via EHS Performance Dashboard (MCS-QHSE-07).
 - Changes in scope or process require risk re-evaluation.
 - Lessons learned are fed into the Corporate Risk Register for continuous improvement.
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9. TRAINING REQUIREMENTS

- **Supervisors:** Risk assessment and control leadership training annually.
 - **Workers:** Hazard identification awareness during orientation and refresher courses.
 - **EHS Team:** Advanced risk assessment methods (HAZID, HAZOP, FMEA).
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10. RECORD CONTROL & RETENTION

All risk assessments, JHAs, and registers are controlled documents per Records Management Policy (MCS-ADM-04) and retained for **5 years** minimum.



11. APPROVAL SIGNATURES

Approved By	Title	Signature	Date
Michael Gaya	Executive Director / CEO	_____	_____
Anthony Magadino	President / Managing Partner	_____	_____
Corporate EHS Director		_____	_____
