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Second Edition



Guidance Note on Risk Based Internal Audit of Cement Industry

The Institute of Cost Accountants of India

Headquarter:

CMA Bhawan, 3, Institutional Area, Lodhi Road, New Delhi-110003

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Behind every successful business decision, there is always a **CMA**

“

VISION STATEMENT

The Institute of Cost Accountants of India would be the preferred source of resources and professionals for the financial leadership of enterprises globally.

”

“

MISSION STATEMENT

The CMA Professionals would ethically drive enterprises globally by creating value to stakeholders in the socio-economic context through competencies drawn from the integration of strategy, management and accounting.

”



Guidance Note on Risk Based Internal Audit of Cement Industry



**Internal Auditing and Assurance Standards Board
The Institute of Cost Accountants of India**
(Statutory body under an Act of Parliament)

Headquarter: CMA Bhawan, 3, Institutional Area Lodhi Road, New Delhi-110003

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GUIDANCE NOTE ON RISK BASED INTERNAL AUDIT OF CEMENT INDUSTRY

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This material has been compiled on the existing legal and regulatory requirements. Since these keep changing frequently, the users are advised to refer to the latest changes if any.



FOREWORD OF THE PRESIDENT

Cement forms the silent foundation of modern civilization. From the infrastructure that powers our cities to the homes that provide safety and shelter, it remains one of the most indispensable materials in the world. With rapid urbanization and expanding developmental needs across nations, the demand for cement continues to grow steadily, playing a pivotal role in economic progress, industrial advancement and the strengthening of communities.

The cement industry today operates in an increasingly dynamic and complex environment shaped by evolving regulatory expectations, environmental and sustainability imperatives, technological advancements, operational challenges, and heightened stakeholder scrutiny. In such a landscape, effective governance frameworks, robust risk management practices and resilient internal control systems have become indispensable for ensuring operational excellence, regulatory compliance and long-term sustainability.

Recognising these evolving developments and the need to keep professional guidance aligned with contemporary industry practices, the **Second Edition** of the **“Guidance Note on Risk Based Internal Audit of Cement Industry”** has been brought out. Building upon the strong foundation of the earlier edition, this revised publication incorporates updated perspectives, emerging risks, enhanced regulatory and ESG considerations and contemporary risk-based internal audit methodologies relevant to the cement industry.

The Guidance Note provides a structured and practical framework for understanding the unique risks, governance requirements, and internal audit processes specific to the cement sector. It comprehensively covers enterprise risk management, operational controls, compliance frameworks, environmental, social and governance (ESG) considerations and risk-based audit approaches, thereby serving as a valuable reference for professionals engaged in strengthening organisational governance and risk management.

Sincere appreciation is extended to CMA Avijit Goswami, Chairman, Internal Auditing and Assurance Standards Board (IAASB) and CMA Chittaranjan Chattopadhyay, Former Chairman, IAASB, for their valuable guidance and leadership in bringing out this revised edition. Appreciation



GUIDANCE NOTE ON RISK BASED INTERNAL AUDIT OF CEMENT INDUSTRY

is also conveyed to the Secretary, IAASB, for the effective coordination and support extended in facilitating its publication.

Special appreciation is due to CMA Malay Paul for his remarkable contribution, unwavering dedication, and extensive research in revising and enriching this Guidance Note. His professional commitment and insightful efforts have significantly enhanced the quality, relevance, and practical utility of this publication.

It is expected that this Second Edition will serve as a comprehensive and reliable knowledge resource for Cost Accountants, internal auditors, industry professionals, academicians, regulators, and other stakeholders associated with governance, risk management, and internal audit in the cement industry.

The efforts of the Internal Auditing and Assurance Standards Board and all contributors associated with the preparation of this publication deserve sincere appreciation. Best wishes are conveyed for the wider acceptance and continued success of this publication in promoting excellence in risk-based internal auditing across the cement industry.

CMA TCA Srinivasa Prasad
President
The Institute of Cost Accountants of India

Kolkata, 21st July 2026



FOREWORD OF THE VICE-PRESIDENT

The cement industry occupies a vital position in the economic and infrastructural development of the nation. As one of the most widely consumed construction materials in the world, cement continues to serve as the backbone of urbanization, industrial growth, housing, transportation networks, and national development. With increasing emphasis on infrastructure expansion, sustainability, digital transformation, governance, and regulatory compliance, the operating environment of the cement sector has become significantly more dynamic, demanding stronger internal controls and more resilient risk management frameworks.

In this evolving landscape, the role of Risk-Based Internal Audit has assumed greater significance. Organizations are expected not only to ensure compliance with statutory and regulatory requirements but also to proactively identify, evaluate, and mitigate emerging strategic, operational, financial, technological, environmental, and governance-related risks.

It is, therefore, a matter of great satisfaction that the Internal Auditing and Assurance Standards Board (IAASB) of the Institute has brought out the Second Edition of the ***“Guidance Note on Risk Based Internal Audit of Cement Industry.”*** Building upon the strong foundation of the earlier edition, this revised publication has been comprehensively updated to reflect the latest developments in the regulatory framework, evolving industry practices, technological advancements, ESG considerations, and contemporary risk management methodologies. The enhanced guidance will enable professionals to perform more effective, value-driven, and risk-focused internal audits aligned with current business realities.

The publication adopts a comprehensive and practical approach, covering the entire spectrum of risk-based internal auditing in the cement industry. It systematically addresses critical areas including corporate governance, enterprise risk management, internal audit methodology, operational and compliance audits, ESG assurance, information systems and technology audits, process reviews, performance audits, internal control frameworks, risk governance models, applicable provisions of the Companies Act and SEBI Regulations, audit reporting mechanisms, and emerging dimensions of internal auditing.



GUIDANCE NOTE ON RISK BASED INTERNAL AUDIT OF CEMENT INDUSTRY

To further enhance its practical utility, the Guidance Note incorporates updated audit methodologies, risk assessment techniques, process flows, reporting guidance, checklists, industry-specific audit considerations, and illustrative case studies, making it an invaluable reference for professionals engaged in internal audit and risk assurance assignments within the cement sector.

I am confident that this Second Edition will serve as an authoritative reference for internal auditors, cost accountants, management professionals, policymakers, industry practitioners, academicians, and students, while also contributing to the strengthening of governance, risk management, and internal control practices across the cement industry. ***The Guidance Note has greatly benefited from the sincere efforts and invaluable contributions of Chairman – CMA Avijit Goswami, CMA Chittaranjan Chattopadhyay, Former Chairman, IAASB, along with CMA Malay Paul, who played a pivotal role as the principal contributor along with the Secretary to the IAASB Board. Their commitment and dedication deserve heartfelt appreciation and recognition.***

I also congratulate the Internal Auditing and Assurance Standards Board for its continued commitment towards developing high-quality technical literature that strengthens professional excellence and promotes best practices in internal auditing.

CMA Neeraj Dhananjay Joshi
Vice President
The Institute of Cost Accountants of India

Kolkata, 21st July 2026



FOREWORD OF THE CHAIRMAN OF IAASB

The cement industry forms the backbone of economic development and nation-building. As one of the most indispensable construction materials, cement has played a pivotal role in shaping modern infrastructure, urban landscapes, transportation networks, industrial establishments, and housing across the globe.

Today, organizations operating in the cement sector face multifaceted challenges arising from evolving regulatory expectations, technological transformation, environmental and sustainability commitments, operational complexities, and heightened stakeholder expectations. In such a dynamic environment, strong governance practices, effective risk management frameworks, and robust internal control systems have become essential not only for regulatory compliance but also for ensuring operational excellence, business resilience, and long-term value creation.

Against this backdrop, I am pleased to note that the Internal Auditing and Assurance Standards Board (IAASB) of the Institute have brought out the Second Edition of the Guidance Note on Risk-Based Internal Audit of Cement Industry.

The Guidance Note provides a structured and practical framework for understanding the unique risk landscape and governance requirements of the cement sector. It comprehensively addresses enterprise risk management, internal control systems, operational and compliance audits, ESG-related risks, information technology controls, audit planning and reporting, and industry-specific risk-based audit approaches. The inclusion of practical guidance, updated methodologies, illustrative audit considerations, and process-oriented insights significantly enhances the relevance and usefulness of this publication for professionals.

Sincere gratitude is extended to **CMA Chittaranjan Chattopadhyay, Former Chairman, Internal Auditing and Assurance Standards Board (IAASB)**, whose visionary leadership, invaluable guidance, and unwavering support have been instrumental in bringing out this revised edition. Appreciation is also placed on record for **Ms. Rashmi Gupta, Secretary, IAASB**, whose effective coordination and meticulous oversight ensured the timely and successful completion of this publication.



GUIDANCE NOTE ON RISK BASED INTERNAL AUDIT OF CEMENT INDUSTRY

Special appreciation is due to **CMA Malay Paul** for his exemplary contribution, extensive research, technical expertise, and unwavering commitment in comprehensively revising and enriching this Guidance Note. His dedicated efforts have significantly enhanced the technical quality, practical relevance, and overall value of this publication, making it an authoritative reference for the profession.

Many congratulations to the Internal Auditing and Assurance Standards Board and all those associated with this publication for their commendable efforts in strengthening professional excellence and promoting best practices in risk-based internal auditing.

I extend my best wishes for the wide acceptance and continued success of this publication.

CMA Avijit Goswami
Chairman, IAASB

Kolkata, 21st July 2026



FOREWORD OF THE FORMER CHAIRMAN OF IAASB

The Cement industry is witnessing profound transformation driven by evolving regulatory requirements, technological innovation, digitalization, environmental and sustainability imperatives, and increasing expectations from investors and other stakeholders. These developments have significantly broadened the risk landscape, making effective governance, enterprise-wide risk management, and robust internal control systems indispensable for achieving organizational resilience and sustainable performance.

In this changing environment, Risk-Based Internal Audit has emerged as a strategic function that not only evaluates the effectiveness of internal controls but also provides valuable insights to management on emerging risks, governance practices, operational efficiency, regulatory compliance, and business sustainability. Internal auditors are now expected to adopt a forward-looking and value-driven approach that aligns assurance activities with organizational objectives and evolving risk priorities.

Recognizing these developments, the Internal Auditing and Assurance Standards Board has brought out the **Second Edition of the Guidance Note on Risk-Based Internal Audit of Cement Industry**. This revised publication builds upon the earlier edition while incorporating significant updates relating to regulatory developments, enterprise risk management, ESG considerations, technology-enabled auditing, emerging operational risks, and contemporary risk-based internal audit methodologies.

The Guidance Note adopts a practical and comprehensive approach by covering the governance framework, enterprise risk management, internal control mechanisms, audit planning and execution, operational and compliance reviews, information systems audits, ESG-related considerations, reporting practices, and industry-specific audit procedures. The inclusion of updated methodologies, practical illustrations, process flows, risk assessment techniques, checklists, and case studies makes this publication a valuable technical resource for professionals engaged in the cement industry.

This publication is the result of the collective efforts of several dedicated professionals. I express my sincere appreciation to **CMA Avijit Goswami, Chairman, IAASB**, Reviewers and the IAASB



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Board members for laying a strong foundation and providing valuable guidance during the revision process.

*My heartfelt appreciation is also extended to **CMA Malay Paul**, whose extensive research, technical expertise, and unwavering commitment have played a pivotal role in substantially revising and enriching this Guidance Note. I also acknowledge the valuable coordination and support extended by the Secretary, IAASB, in facilitating the timely completion of this publication.*

I also take this opportunity to thank all members of the Internal Auditing and Assurance Standards Board and the contributors whose collective knowledge and dedication have made this revised edition possible.

I am confident that this Second Edition will serve as a comprehensive and authoritative reference for Cost Accountants, internal auditors, management professionals, industry practitioners, regulators, academicians, and students. It will significantly contribute to strengthening governance, enhancing risk management practices, and promoting excellence in risk-based internal auditing within the cement industry.

I sincerely hope that this publication will receive wide acceptance and continue to support the profession in delivering high-quality, value-added internal audit services.

CMA Chittaranjan Chattopadhyay
Former Chairman of IAASB

Kolkata, 21st July 2026



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4 June 2026

Foreword

The cement industry operates in an increasingly dynamic and risk-intensive environment, making effective governance and risk-based internal audit more important than ever.

I am pleased to see this Guidance Note, authored by my esteemed former colleague, whose deep industry experience and practical insights have resulted in a valuable resource for auditors and industry professionals alike.

I am confident that this publication will contribute significantly to strengthening risk management and internal control practices across the cement sector.

Aditya Saraogi
Chief Financial Officer
Birla Corporation Limited



GUIDANCE NOTE ON RISK BASED INTERNAL AUDIT OF CEMENT INDUSTRY



श्री प्रदीप कुमार चंद

निदेशक (वित्त)

Shri P.K. Chand

Director (Finance)

(भारत सरकार का उद्यम)

Cement Corporation of India Ltd.

(A Government of India Enterprise)



Dear Colleagues,

It gives me immense pleasure to forward the “Guidance Note on Risk Based Internal Audit of Cement Industry in India” published by the Internal Audit Standards Board (IASB) of the Institute of Cost Accountants of India, at a time when the cement industry is facing rapid transformation driven by global competition, sustainability imperatives, digitalisation, regulatory changes, and evolving business risks. In this dynamic environment, Risk Based Internal Audit (RBIA) has emerged as a vital strategic tool for strengthening governance, enhancing operational efficiency, improving risk management, and supporting sustainable long-term growth.

This Guidance Note provides a contemporary framework for strengthening internal audit in the cement industry by integrating ERM, ESG, digital and cyber risks, supply chain resilience, energy efficiency, compliance monitoring, governance practices, and global best practices in internal control and assurance.

Internal auditors serve as trusted strategic partners by evaluating processes, identifying emerging risks and inefficiencies, and recommending improvements that strengthen governance, controls, and decision-making.

- Risk-Based Internal Audit (RBIA) enables management and the Board to ensure that key risks are effectively identified, monitored, and managed within the organization’s defined risk appetite.
- Internal auditing supports the creation, protection, and long-term sustainability of organizational value through independent, objective, and risk-based assurance, insight, and foresight.
- RBIA strengthens accountability of management and the Board for robust governance, effective internal controls, sound risk management, and sustainable business performance.

This Guidance Note may be read alongside the Global Internal Audit Standards issued by the Institute of Internal Auditors (IIA), USA, combining global professional frameworks with sector-specific guidance for effective Risk-Based Internal Audit in the cement industry considering its unique operational, environmental, technological, and strategic risk landscape.

For Public Sector Enterprises as well as private sector cement companies, robust risk-based audit mechanisms are indispensable for ensuring transparency, accountability, strategic agility, and long-term institutional sustainability.

I am confident that this Guidance Note will serve as a valuable reference document for Directors, Audit Committees, Chief Internal Auditors, finance professionals, operational managers, regulators, and other stakeholders associated with the cement industry.

I sincerely hope that this initiative will contribute meaningfully towards strengthening governance standards, enhancing risk maturity, and building globally competitive and sustainable cement enterprises in India.

With best wishes,


(Pradeep Kumar Chand)
Director (Finance)

Cement Corporation of India Limited

हिंदी में पत्राचार का स्वागत है।

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Chapter 1:

UNDERSTANDING INTERNAL AUDIT AND ROLE OF GOVERNANCE

Definition – Corporate Governance, Internal Audit

The word “Audit” has come from the Latin “Audire”, means “to hear”. In ancient time, the King of state **used to listen** Income/Expenditure and transaction Report from the designated persons - “King’s Men”. Chanakya in ‘Arthashastra’ mentioned that **“it is very difficult to ascertain how much water the fishes are consuming from a pond full of water, similarly it is difficult to stop unauthorized use of funds by King’s men unless proper controls are in place.”** To assess the above, requirement of a ‘class of people’ called Auditors are being felt and adopted in the social eco-system.

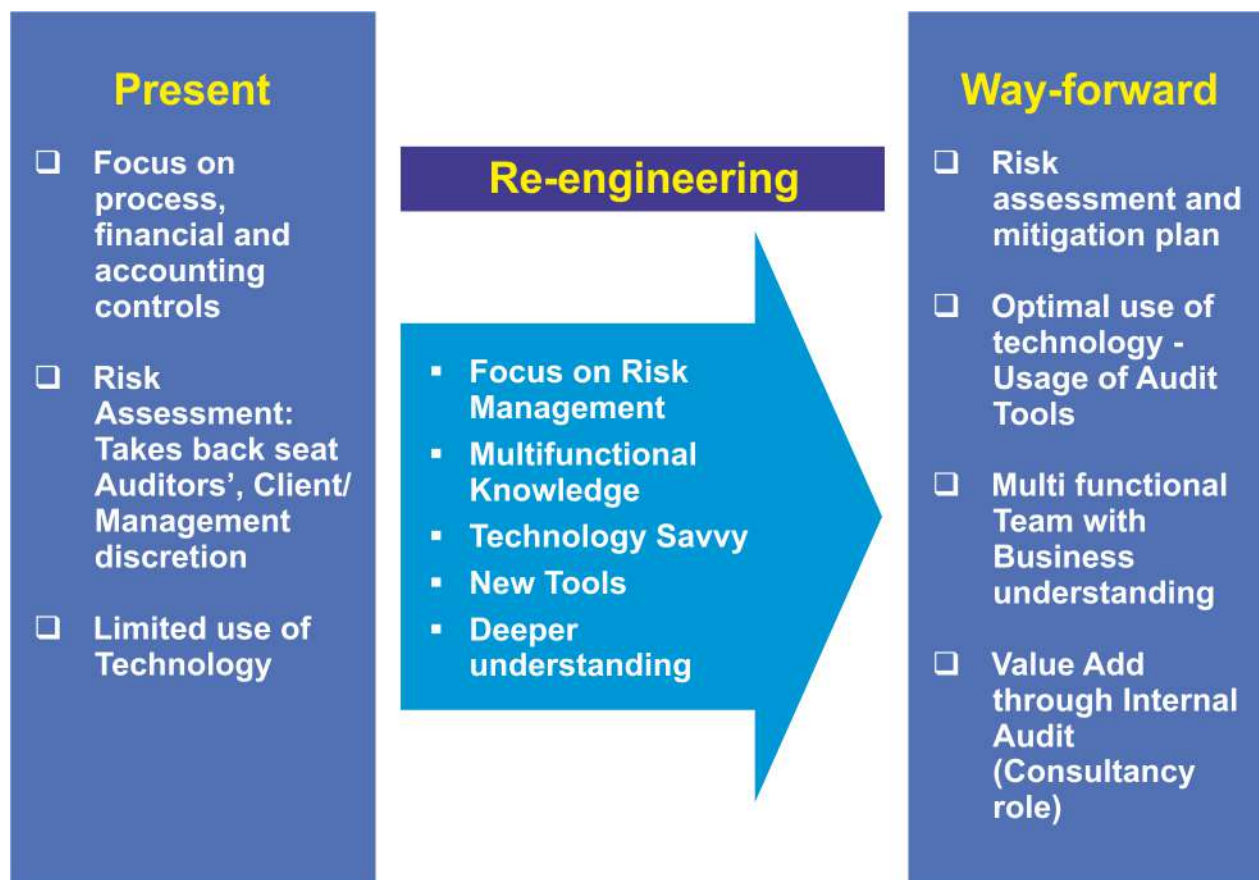
Governance sets the tone and encompasses Risk. Governance having its own characteristics means ‘Dharma’. The five elements i.e Earth or *Prithvi*; Water or *Jal*; Fire or *Agni*; Air or *Vayu* and then Ether or *Akasha* has its own ‘dharma’/character. As for example ‘Fire’ having the dharma to ‘Burn’; Water’s dharma is to flow; Air having its own dharma of blowing hot and cold etc. **Similarly, ‘governance’ also having its own dharma i.e ‘supervision’ over every activity of the entity to protect the interest of stakeholders for which the organization stands for.** Bhagavad Gita emphasized on wellbeing of people, “Dharma is the foundation of governance, for it ensures the well-being of all.” (Chapter 4, Verse 7) **The ancient Indian philosophy of Governance echoed even in the today’s definition of Governance.** Mahabharata described “Dharma is the foundation of governance, for it ensures the protection of all beings.” (Shanti Parva, Chapter 109, Verse 12). The new concept of those who ‘charged with Governance’ is the extension of Manu Smriti’s ideology “The king’s duty is to uphold dharma, for it is the source of all governance.” (Chapter 7, Verse 26).

“The key elements of good corporate governance principles include honesty, trust and integrity, openness, performance orientation, responsibility and accountability, mutual respect, and commitment to the organization. Rights and equitable treatment of shareholders, interests of other stakeholders, roles and responsibilities of the board, disclosure and transparency are the main principles to be followed in adopting effective corporate governance strategies for the companies.” A company’s “Corporate Governance Index” expresses the opinion about the extent to which a company adopts and conforms to codes and guidelines of good corporate governance practices that clearly serve the interests of its financial stakeholders. (Corporate Governance Ratings, Reha Cirak, 2007)



IIA definition of Auditing, Assurance

“It is an independent, objective assurance and consulting activity designed to add value and improve an organisation’s operations. It helps an organisation accomplish its objectives by bringing a systematic, disciplined approach to evaluate and improve effectiveness of risk management, control and governance process.”



Definition – Corporate Governance, Internal Audit

The word governance was said to have been derived from the Latin word “gubernare” which means to steer or to govern (Cadbury, 2002). The ASXCGC (Australian Security Exchange Corporate Governance Council) describes corporate governance as “...the framework of rules, relationships, systems, and processes within and by which authority is exercised and controlled in corporations . . . it encompasses the mechanisms by which companies, and those in control, are held to account. Corporate governance influences how the objectives of the company are set and achieved, how risk is monitored and assessed, and how performance is optimized. Good corporate governance structures should encourage companies to create value (through entrepreneurialism, innovation, development, and exploration) and provide accountability and control systems commensurate with the risks involved” (ASXCGC, 2006).



Literature reveals specific Governance Models (Models and Practices of Corporate Governance Worldwide, Ungureanu, Mihaela 2012), Cross-country Comparison of the Evolution of Corporate Governance from a Shareholder to a Stakeholder Perspective, Jacques 2014). The leading Models are-

1. Anglo – Saxon Model (USA, UK): This model emphasizes entrepreneurship and private ownership with a dominance of independent shareholders. Shareholders exert control primarily through financial means, and regulations encourage transparency and accountability. It features a significant degree of capital dispersion.
2. Continental-European Model (Germany, Italy): This model indicates a high concentration of capital, with major shareholders often involved in strategic decision-making. Managers are accountable to a broader group of stakeholders, including employees and business partners. It has dual governance structure (2-tier Board), which includes both an executive board and a supervisory board.
3. China Model: Shareholder rights on disclosure of Related Party Transactions, protection of Minority Interest and other disclosures like Continental European Model are the hallmarks of Chinese governance model. A 2-tier Board and stress on Corporate Social Responsibility also incorporated in the model.

Overall, these models reflect the different historical, economic, and cultural contexts of their respective regions, each with distinct advantages and challenges in governance efficiency.

4. In developing countries (Aspects of Corporate Governance in Developing Countries Dr. Muhammad Bagram et.al, 2024) explored the corporate governance and issues affect economic development w.r.t four developing countries viz. Pakistan, Mexico, Brazil, and Bangladesh. The study identifies the constraints faced in establishing good corporate governance and recognizes the cultural contexts that affect these practices. The research emphasizes the significant associations between governance quality, economic growth, and poverty reduction, including a lack of awareness among stakeholders regarding their rights and responsibilities, which negatively impacts corporate performance. The authors noticed that family-owned companies and weak enforcement of laws often lead to governance failures. There is a call for better awareness and adoption of governance practices to improve economic conditions and corporate performance in these developing regions. The findings suggest a need for a strategic approach to enhancing corporate governance, which could involve cultural change, legal reforms, and better stakeholder engagement to create an environment conducive to good governance

Corporate governance involves mechanisms, processes, and relations by which corporations are controlled and directed (OECD). Theoretical underpinnings in chronology of time includes:

- Signaling Theory -Michael Spence (1973) indicates disclosure is a signal that conveys the company's intentions to external parties. A company with strong risk management practices may disclose more risks to signal its transparency and credibility to investors and stakeholders.



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Both present and future investors can peruse such signals for making timely and appropriate investment decision.

- Legitimacy Theory - Richard Dowling & Frank Pfeffer (1975) suggests that companies disclose information to maintain their legitimacy in the eyes of society. Legitimacy Theory proposes that organizations seek to maintain or enhance their legitimacy by engaging in activities that align with societal expectations and values. Perceived right of the organization to exist and operate within a society. There exists an implicit agreement between an organization and society, where the organization provides benefits in exchange for societal approval and support. Provision relating to CSR (Corporate Social Responsibility) as introduced in Companies Act 2013 is fallout of such legitimacy approach. Organizations engage in activities that demonstrate their commitment to societal values and expectations.
- Agency Theory - Michael Jensen & William Meckling (1976), which focuses on the relationship between principals (shareholders) and agents (managers), highlighting the potential conflicts of interest due to information asymmetry and the need for disclosure to align these interests. A company may disclose more risks to reduce the perception of management opportunism, thus aligning the interests of managers with those of shareholders.
- Institutional Theory - John Meyer & Brian Rowan (1977), DiMaggio & Powell (1983) examined how organizations respond to and are shaped by their institutional environment, including social, cultural, and political norms, values, and expectations. Disclosure requirement and information reported to conform to institutional norms and expectations. The risk and mitigation strategy and practices followed by the entity requires to be in line with industry requirement to gain legitimacy.
- Resource Dependence Theory - Jeffrey Pfeffer & Gerald Salancik (1978) theory suggests that organizations are dependent on their environment for resources, and disclosure is a way to manage these dependencies and reduce uncertainty. By appropriate disclosure on risk and managing therefor the entity can assure the stakeholders of its resilience and reliability. Resource Dependence Theory can be interpreted as a precursor for ESG. The theory's emphasis on external resources, environmental sustainability as organizations seek to reduce their dependence on natural resources and minimize their environmental impact. The theory's focus on interdependence with stakeholders and the environment aligns with the social aspect of ESG, which considers the impact of organizational activities on society and stakeholders.
- Stakeholder Theory - Edward Freeman (1984) posits that companies should consider the interests of all stakeholders, not just shareholders, when making disclosure decisions. Unlike agency theory, stakeholder theory argues that managers in the organization are not only responsible for the interests of the shareholders, but also serve the network of relationships to include suppliers, employees and business partners. Stakeholder theory goes beyond the orientation of the shareholders, which means that decisions are made regarding the different companies beyond the shareholders of the company. A company may disclose risks that are of particular concern to employees, such as health and safety risks, to demonstrate its commitment



to these stakeholders.

- Management Entrenchment Theory- Michael Jensen (1986) explains how managers may prioritize their own interests over those of shareholders, leading to agency problems. This is contrary to good governance practices. This theory highlights the conflict between managers (agents) and shareholders (principals), where managers may prioritize their own interests over shareholder value. This may impact the Organization heavily because business decisions like production decision, Project selection and investments etc. are in the interest of managers only. They may resort to window dressing to hide reality and stakeholders will suffer their value of investment. It can be mentioned here that such personal motivations are reined by Companies Act 2013, which placed restriction on executive compensation with a role to be played by ‘remuneration committees’ as a prescription for good governance.

Corporate Governance Framework in India

In India, corporate governance is framed by laws and stock-market rules. The Companies Act 2013 (and subsequent amendments) mandates governance structures –e.g audit and nomination committees, independent directors, CEO/CFO accountability, and disclosures in the Board’s report (financial statements, risk management, CSR activities, etc.). The Securities and Exchange Board of India (SEBI) enforces governance through Listing Obligations and Disclosure Requirements (formerly Clause 49, now LODR 2015), requiring listed firms to make timely disclosures (shareholding patterns, related-party transactions, board composition, etc.), and to submit audited financials and governance reports. For example, following the Uday Kotak Committee (2017), SEBI mandated that the top 500 listed companies split the roles of Chairperson and CEO from April 2020 and that leading companies appoint at least one female independent director. SEBI has also introduced the Business Responsibility and Sustainability Report (BRSR) regime, requiring the 1,000 largest firms by market capitalization (twelve cement companies already qualify) to report. These rules increase corporate transparency by standardizing what information must be in public domain.

The Ministry of Corporate Affairs (MCA) also plays a governance role. In 2025, the MCA reiterated that good governance (with transparent disclosure) is vital to prevent fraud and maintain market confidence MCA guidelines (e.g Voluntary Guidelines on Corporate Governance, 2010/2013) and committees (Narayana Murthy 2003, Kumar Mangalam Birla 1999, etc.) have similarly stressed accountability and stakeholder fairness. Key provisions of the Companies Act – such as mandatory board meetings, audit committee oversight, and penalties for non-compliance – underpin these goals.

Keeping in view of the requirement of transparency and disclosure, Regulators play a critical role in enforcing transparency standards in the cement sector. However, no sector specific reporting for Risk and Governance was observed. As noted, SEBI’s Listing Regulations (LODR) set many of the disclosure requirements. These include mandatory filings of quarterly and annual results, directors’ reports with management discussion, details of related-party transactions, and prompt event disclosures. SEBI has tightened rules over time: for example, CFO and CEO are required to



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certify the truthfulness of accounts, audit committees must pre-approve large related-party deals (omnibus approval), and major shareholdings must be publicly declared. In 2019, SEBI mandated for at least one woman director sit on the boards of the top 1,000 listed companies (covering most large cement firms). These changes directly increase transparency and accountability.

Companies Act 2013 (enforced by MCA) underpins many governance norms. It requires companies above certain thresholds to form audit, nomination & remuneration, and CSR committees; it mandates detailed Board's Reports (listing risks, performance, internal controls, CSR activities, etc.); and it prescribes fiduciary duties and penalties for directors. In recent years, MCA has also signaled stricter enforcement: for instance, a 2025 MCA statement stressed that corporate governance (fairness, transparency) is critical to prevent fraud and maintain market confidence.

Overall, the regulatory environment for Indian cement companies now strongly emphasizes transparency. Alongside SEBI/MCA rules, industry bodies (e.g. CII) have issued voluntary governance guidelines stressing integrity and openness. Credit-rating agencies also consider governance quality in their assessments of cement firms. In sum, both academic evidence and industry practice indicate that regulators have steadily tightened the governance framework (in line with Kotak Committee and other reforms), which has raised transparency standards across sectors including cement. Regulatory reforms of the last decade (post-2010) have clearly pushed firms toward greater disclosure. The requirement to publish CSR activities, environmental impact, risk management frameworks, and improved RPT disclosures all enhance transparency. The MCA itself has highlighted that legal safeguards in recent law revisions are designed to ensure fairness and transparency.

TABLE 1 : Risk Governance Model

RISK GOVERNANCE MODEL
BOARD OF DIRECTORS/CEO
(Strategic Oversight, Risk Appetite, ESG Alignment, CSR Guidance)
AUDIT COMMITTEE (RISK GOVERNANCE COMMITTEE
(Independent oversight, Policy approval, monitoring and review)
ENTERPRISE RISK MANAGEMENT (ERM)
(All types of Risk e.g logistics, financial, safety, climate, compliance etc.)
BUSINESS UNITS /PLANT OPERATIONS
(Risk reporting, training , implementation, monitoring outcome)
INTERNAL AUDIT
(Continuous audit of risk base and detail review, input / reporting)

CARO (Companies Auditor's Report Order) 2020, issued under the Companies Act, 2013, mandates specific reporting requirements for Statutory auditors of certain companies in India. This reporting includes assessing the internal audit department's adequacy, the qualifications and competency of

internal auditors, and their reporting structure.

Here's a breakdown of CARO 2020's relevance to internal audit:

1. Evaluation of Internal Audit System:

- CARO 2020 Clause 14 specifically requires auditors to report on the “existence of an internal audit system commensurate with the size and nature of the business”.
- This means auditors must assess whether the company has an internal audit function, and if so, whether it is appropriate for the company's operations, complexity, and geographical spread.
- Auditors need to evaluate the adequacy of the internal audit department, considering factors like staffing, expertise, and resources.
- The qualifications and competency of the internal auditors (whether in-house or outsourced) are also assessed to ensure they possess the necessary skills and independence.
- The reporting structure of the internal audit function is another key area of evaluation, ensuring it is independent and reports to the board or audit committee.

- **Applicability**

All Listed Companies:

Any company listed on a stock exchange in India must appoint an internal auditor.

- **Unlisted Public Companies:**

Unlisted public companies meeting specific criteria are required to appoint an internal auditor. These criteria include:

- Turnover of ₹200 crore or more during the preceding financial year.
- Paid-up share capital of ₹50 crore or more.
- Outstanding loans or borrowings from banks or financial institutions exceeding ₹100 crore at any point during the preceding financial year.
- Outstanding deposits exceeding ₹25 crore at any point during the preceding financial year.

- **Private Companies:**

Certain private companies must also appoint an internal auditor based on turnover, loans/ borrowings, or deposits, as per the criteria mentioned above.



GUIDANCE NOTE ON RISK BASED INTERNAL AUDIT OF CEMENT INDUSTRY

- **Producer Companies:**

Producer companies are also required to conduct internal audits.

In essence, Section 138 ensures that companies, especially those with significant financial activity or those listed on stock exchanges, have a robust internal audit function to safeguard their operations and financial health.

- **Statutory & Non-statutory –Internal Audits**

In view of the above provisions, the Companies falling under above clauses, are bound by the statute/s to carryout Internal Audit function. However, benefits derived from Internal Audit, many a times outweigh the costs incurred. Hence, Companies not even bound by any legislature to conduct Internal Audit mandatorily, also appoint Internal Auditors for safeguarding Company Assets and reap benefits from auditing. These are called non-statutory internal audit.

- **Purpose and Objectives of Internal Audit**

Corporates exist to create value or benefit to their owners, other stakeholders (not only stockholders), customers, and clients.



The Global body, IIA (Institute of Internal Auditors) defined internal Audit as “It is an independent, objective assurance and consulting activity designed to add value and improve an organisation’s operations. It helps an organisation accomplish its objectives by bringing a **systematic, disciplined approach to evaluate and improve effectiveness of risk management, control and governance process.**”

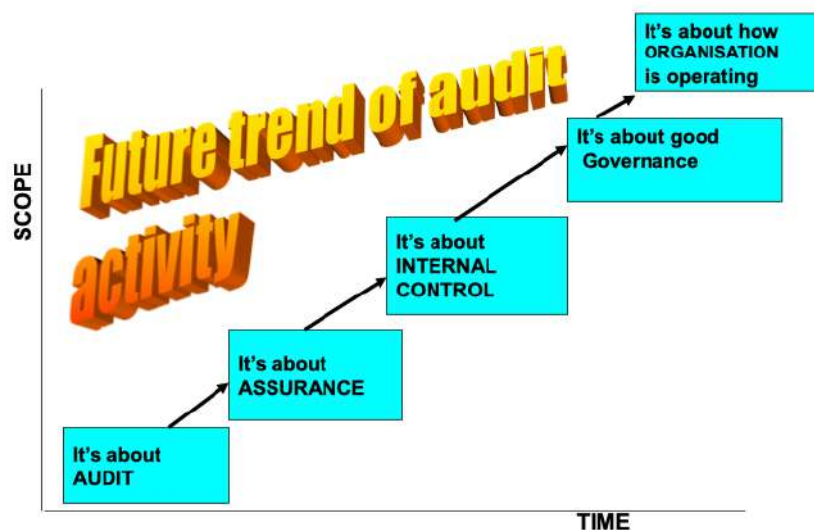
In view of the above, we can summarize the Objectives of Internal Audit as follows.

The basic purpose of the Internal Audit activity is to examine adequacy of controls related to each

of the ‘Operational System/Activities’ to pre-empt possibilities of any leakage which results in ‘loss’ in monetary terms as well as ‘mitigation of risk’ prevalent to the concerned area of activity. Moreover, to ensure beyond ‘risk and control’, the Internal Audit function is to create ‘value add’ w.r.t the prevalent System/ Processes by way of searching for cost savings and/or areas of potential savings, process improvement, improvement of workflow structure etc. One Rupee saved is more than equals to one Rupee earned. The purposes of Internal Audit also includes –

- Safeguarding Assets
- Ensuring compliance against different statutes
- Detection and prevention of Fraud and inaccuracy
- Promoting an urge for organisational improvement
- Supporting timely and flawless decision making process
- Ensuring embedding of risk management culture in the organisational activities and processes
- And, last but not the least ‘promoting good Governance’

Future of Audit/Assurance Function: Beyond Compliance



Three Lines of Defense (LoD)

The “Three Lines of Defense” (3LOD) is a risk management framework that divides responsibilities for risk management across three groups: operational management, risk management and compliance, and internal audit. This framework aims to create a system of checks and balances to ensure risks are effectively managed throughout an organization.



1. First Line of Defense:

Risks are the outcome of Organisational activities. This line consists of operational management and staff who are directly involved in carrying out the organization's activities and generating risks. They are responsible for day-to-day risk management, implementing controls, and ensuring that risks are identified and addressed within their respective areas of operation.

2. Second Line of Defense:

This line provides oversight and support to the first line. It includes functions like risk management, compliance, and other control functions. They develop policies, procedures, and risk management frameworks, monitor the first line's performance, and escalate issues as needed.

3. Third Line of Defense:

This line provides independent assurance to the organization's leadership and stakeholders. It is typically comprised of internal audit, which independently assesses the effectiveness of the first and second lines of defense. They provide objective evaluations and recommendations for improvement.

Key aspects of the 3LOD framework:

- **Clearly defined roles and responsibilities:**

Each line of defense has defined roles and responsibilities, ensuring clarity and accountability.

- **Collaboration and communication:**

Effective communication and collaboration between the three lines are crucial for successful risk management.

- **Continuous improvement:**

The framework encourages continuous improvement of risk management practices based on the feedback and findings of the third line.

By implementing the 3LOD model, organizations can enhance their risk management capabilities, improve operational efficiency, and strengthen their overall governance framework.

With gradual encroachment of AI in business arena, the same can *strengthen* each line of defense:

First Line – Smarter Risk-Aware Operations

- AI can embed real-time risk detection in day-to-day processes.
- Example: Transaction monitoring in finance to flag unusual activity instantly.

Second Line – Enhanced Risk and Compliance Monitoring

- AI can analyse large datasets to detect emerging risks or compliance breaches.



Third Line – Continuous Auditing and Assurance

- AI can enable continuous monitoring and risk-based auditing.

Internal Audit (IA) Standards issued by ICMAI and other bodies

At the very outset, it must be noted clearly that IA Standards are not mandatory, they are recommendatory in nature. As a result, for the benefit of respective professional bodies issued Standards on Internal Audit to facilitate the specific considerations to be kept in mind while performing the Internal Audit function. A comparison of the Internal Audit Standards issued by the two professional bodies as per broad nomenclature are given hereunder to understand the focus conveyed.

SIA Issued by ICMAI:

Category-I: Standards on General Principles of Internal Audit

- IAAS-1: Objectives , Authority and Charter
- IAAS-2: Internal Audit Engagement
- IAAS- 3: Independence, Integrity and Objectivity
- IAAS- 4: Proficiency and due professional care
- IAAS- 5: Using the work of an expert
- IAAS- 6: Quality assurance and continuous improvement
- IAAS-7: Communication and confidentiality
- IAAS-8: Risk Based Internal Audit
- IAAS- 9: Technology driven Internal Audit
- IAAS- 10: Enhancing Governance through Internal Audit
- IAAS- 11: Internal Audit of Cost Records

Category-II: Standards on Principles related to Internal Audit Process

- IAAS-21: Internal Audit Planning
- IAAS-22: Internal Audit Sampling
- IAAS-23: Analysis and Evaluation
- IAAS-24: Internal Audit Evidence
- IAAS-25: Internal Audit Documentation
- IAAS-26: Disclosure and Reporting
- IAAS-27: Monitoring Progress

Importance of Internal Audit

Internal audit is fundamentally concerned with evaluating an organization's management of risk. Risk Management and Internal Control are two sides of the same coin, as risk management focuses on the identification of threats and opportunities, and controls are designed to effectively counter threats and take advantage of opportunities. Successful organizations seek to integrate risk management and internal control into all activities, through a framework of risk identification, risk assessment and risk response.



GUIDANCE NOTE ON RISK BASED INTERNAL AUDIT OF CEMENT INDUSTRY

Any Industry is dominated by four ‘M’s viz. Man, Machine, Materials and Money; Cement Industry is also no exception in this regard. The aforesaid four basic inputs coupled with Outputs create Operational Systems/Processes /Activities for the Industry. Each such Operational System is again agglomeration of many sub-systems /activities.

Other than statutory obligation, Internal Audit helps to accomplish the following organizational objectives.

- Provide independent assurance on effectiveness of risk management, governance, and internal control processes within the Organization.
- Identify deficiencies of Processes and Operational inefficiencies which results in cost reduction, increase in profitability and value for shareholders.
- Internal audit strengthens the organization’s ability to achieve its objectives by ensuring compliance, improving internal controls, and safeguarding against fraud and other risks.
- It also protects Company’s assets from mishandling, misappropriation.

Qualification and minimum requirements for Internal Auditors

- Companies Act 2013 u/s 138(1), specifically provides an opportunity to Cost Accountants/ Firm of Cost Accountants, who can function as an Internal Auditor, if otherwise not been found disqualified.
- The Cost Auditor is supposed to comment on adequacy of Internal Audit under Cost Accounting Record Rules 1968, hence he can’t be appointed as Internal Auditor for the said period.
- The section prescribed that Companies shall be required to conduct internal audit of functions and activities by internal auditor appointed by the company. Manner of conducting internal audit shall be prescribed by the Central Government.
- The provisions of clause 138 do not prohibit appointment of inhouse employee as Internal Auditor.
- Further, the provisions also empower the Board of relevant company to appoint any professional (even other than a CA or CWA) as internal auditor, if it so decides.

Reporting relationships

The reporting relationship of internal auditors is a key element of ensuring their independence and objectivity. It typically follows a dual reporting structure:

- a. Functional Reporting
- b. Administrative Reporting
1. Functional Reporting Line (to the Audit Committee / Board of Directors)



- Internal auditors functionally report to the Audit Committee or Board of Directors (or a similar oversight body).
 - This ensures independence from management and allows auditors to freely report findings without fear of retaliation.
 - Responsibilities of the functional line include:
 - Approving the internal audit charter, plan, and budget
 - Reviewing audit results and significant findings
 - Hiring and evaluating the Chief Audit Executive (CAE)
 - Ensuring audit independence
2. Administrative Reporting Line (to Senior Management / CEO / CFO)
- Internal auditors administratively report to a member of senior management, often the CEO or CFO.
 - This line handles day-to-day logistics, such as:
 - Budget administration
 - Human resources and payroll
 - Office and IT support

The ‘Audit Charter’ approved by the Board, need to include the above reporting relationships for clarity and effectiveness of the function.

Team Building and Training of Internal Auditors

Building an effective internal audit team and providing ongoing training to team members is essential to ensure **quality of audit**, **professionalism**, and **compliance** with regulatory and internal standards.

1. Team Building of Internal Auditors

a. Composition of the Audit Team

- Chief Audit Executive (CAE): Leads the function, sets strategic direction, and reports to the Audit Committee.
- Senior/Internal Auditors: Conduct risk assessments, lead engagements, and supervise junior staff.
- Specialists (IT, forensic, compliance): Handle complex areas requiring technical expertise.

b. Key Considerations in Team Formation

- Multidisciplinary Team : To cope-up with audit areas where Engineering (Captive



GUIDANCE NOTE ON RISK BASED INTERNAL AUDIT OF CEMENT INDUSTRY

Power Plant) , Accounting (Profitability of Plant) , Compliance (ESG matters) , Legal (Dealership Agreement) skills are required; multidisciplinary team is the best possible solution.

- Diverse skillsets: Financial, operational, compliance, and IT audit knowledge.
- Experience mix: Blend of experienced auditors and fresh talent to promote innovation and continuity.
- Independence and ethics: Team members should be free from conflicts of interest and uphold high ethical standards.

c. Recruitment Criteria

- Qualifications such as **CA, CMA , CS , CPA, CIA, CISA** depending on domain.
- Strong analytical, communication, and problem-solving skills.
- Knowledge of risk management, governance, and industry-specific regulations.

2. Training of Internal Auditors

a. Initial (Induction) Training

- Organizational structure and policies.
- Departmental objectives and functions.
- Internal audit charter, standards (e.g., IIA Standards).
- Understanding of entity Risk, Risk Management and monitoring skill.
- Risk-based audit planning and procedures.
- Use of audit tools and software.

b. Continuous Professional Development (CPD)

- Technical skills: IFRS, tax updates, IT systems, data analytics.
- Soft skills: Communication, negotiation, interviewing techniques.
- Regulatory updates: Compliance with Companies Act, SEBI regulations, etc.
- Specialized areas: Cybersecurity, ESG audits, fraud detection.

c. Training Methods

- Workshops & Seminars (internal and external)
- Certifications (CIA, CISA, ACCA, etc.)
- E-learning modules
- On-the-job mentoring



d. Performance Evaluation & Feedback

- Periodic appraisal of auditor performance.
- Identification of skill gaps and personalized development plans.
- 360-degree feedback and peer reviews.

3. Benefits of Strong Team Building and Training

- Enhances audit quality and effectiveness.
- Promotes compliance with international standards.
- Builds resilience and adaptability to emerging risks.
- Exposure to multilocal and multiple complex audit areas.
- Supports career growth and reduces attrition.

Types of Internal Audits

• Management Audit

A management audit is an independent review, analysis, and assessment of the competencies and capabilities of a company's management in carrying out the corporate objectives. The purpose of a management audit is not to appraise individual executive performance but to evaluate the management team in its effectiveness to work in the interests of all the stakeholders, maintain good relations with the employees, and uphold reputational standards.

There is no formal management audit committee for the board of directors. The board members assess the performance of individual executives by using quantitative information like organic sales, EBIT margins, segment margins, operating cash flows, and EPS and unquantifiable or intangible elements like efforts toward acquisition integration, etc.

A management audit is an assessment of how well an organization's management team is applying its strategies and resources. A management audit evaluates whether the management team is working in the interests of shareholders, employees, and the company's reputation. The independent consultants will be hired by the board of directors to conduct the management audit.

Area of Management audit is beyond conventional audit; it reviews all aspects of management. It is an audit of the overall performance of management. It covers planning, organizing, coordination, control, etc. Management audit detects and diagnoses the problem and suggests various means to avoid and solve the problems. Management audits are often conducted before mergers, restructurings, bankruptcies, and succession planning; they can identify weaknesses in a company's management.

Objectives of Management Audit-

- It helps Management in setting sound and effective targets
- It suggests management in getting desired results and revealing any defects and irregularities



GUIDANCE NOTE ON RISK BASED INTERNAL AUDIT OF CEMENT INDUSTRY

in the process of management

- Management Audit helps the management in the effective discharge of their duties
- It helps in the coordination of various Departments
- It facilitates the training of personnel and marketing strategies
- It also helps in comparing inputs with outputs
- It ensures strong relations with outsiders
- It also helps in ensuring that the organization has the most efficient internal organization

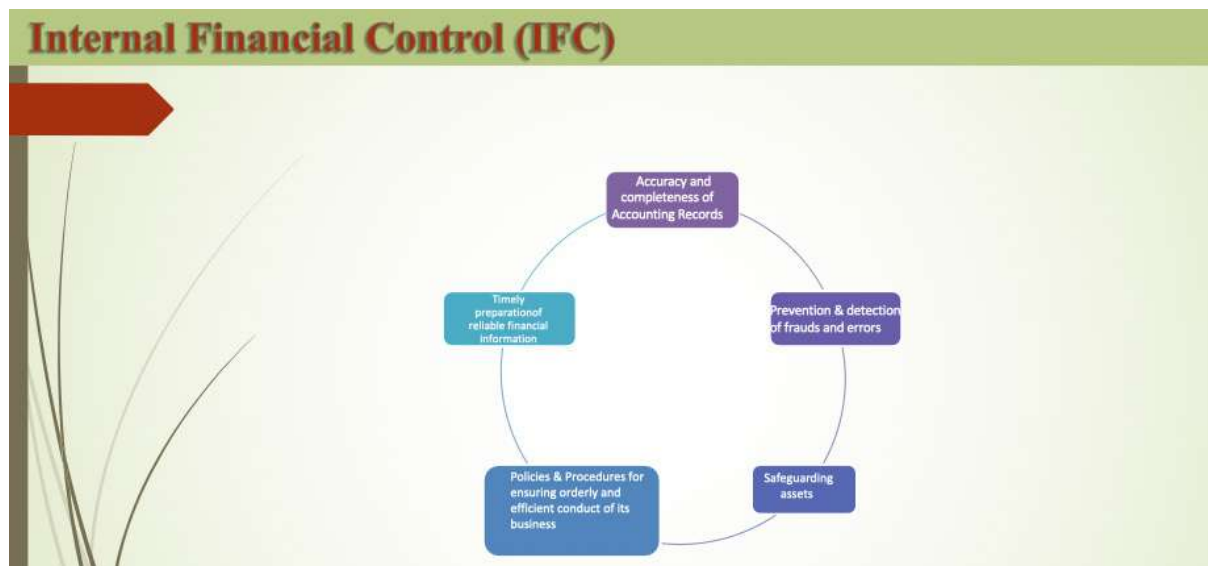
- **Compliance Audit**

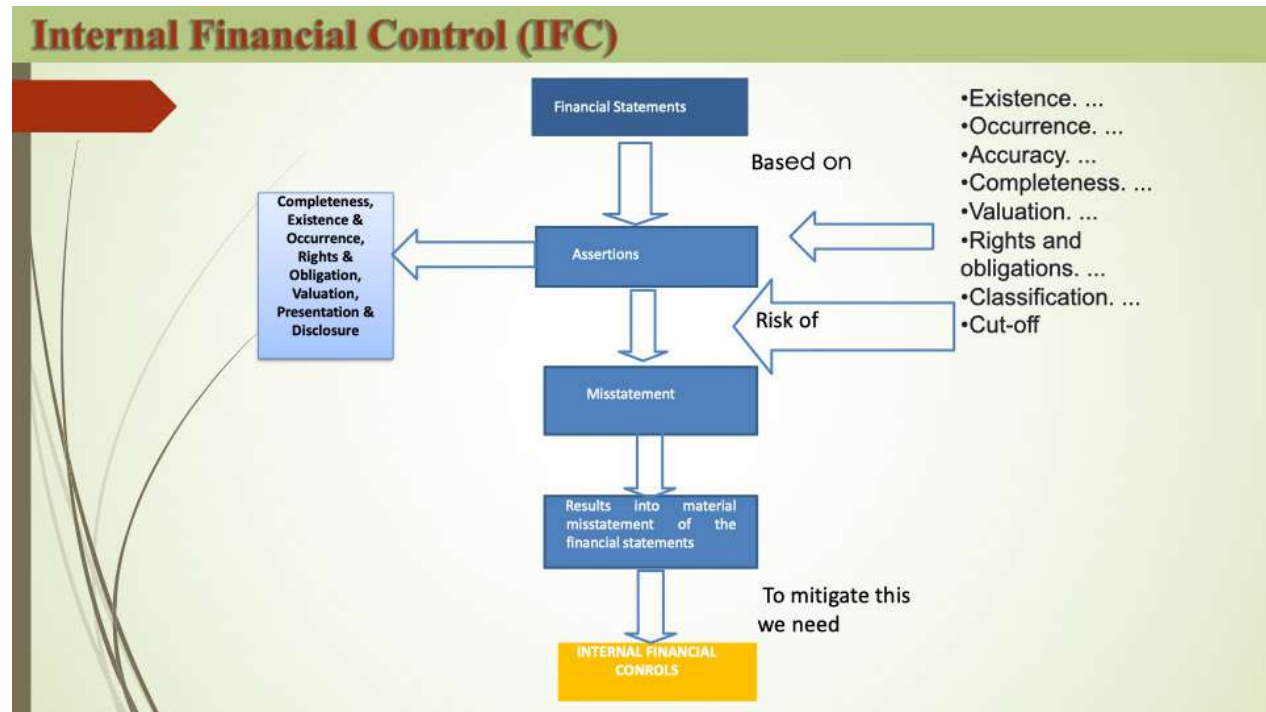
Compliance audit is an assessment as to whether the provisions of the applicable laws, rules and regulations made there under and various orders and instructions issued by the competent authority are being complied with.

- **Internal Financial Control**

Objective -

The objectives are indicated below:





A case study in the area of Inventory Management -

Internal Financial Control(IFC) Over Inventory Management					
Identification of Risk of Material Misstatement ("What Could Go Wrong")		Identification of Risk of Material Misstatement ("What Could Go Wrong")		Work paper Reference	Findings and Observations
Risk NO.	Risk Description	Control No.	Control(s)		Remarks
1	Inventory stated in the general ledger does not reconcile to the inventory records and/or the reconciliation contains invalid items.	1	Management reviews and approves the reconciliation of the inventory records to the general ledger and any reconciling items are reviewed and addressed on a timely basis. AND By virtue of SAP Configuration, it automatically reconciles the sub-ledger of inventory with main inventory ledger. It is reviewed by the Management on Timely basis	WP5	Inventory General Ledger and Sub Ledger
2	Inventory is received and not recorded in the inventory system.	2	Inventory and trade payables entries are automatically recorded by the ERP system upon matching the purchase order and GRN and Invoice	WP 1	Doc. Are same as mentioned in Risk 1 of Procurement & Payables



GUIDANCE NOTE ON RISK BASED INTERNAL AUDIT OF CEMENT INDUSTRY

Internal Financial Control(IFC) Over Inventory Management

3	Costs of sales are: - Recorded when no sale exists - Not recorded when sales exist - Recorded at the incorrect amount - Recorded in the incorrect period - Incorrectly classified.	1. Recorded when no sales exists/ Not recorded when sale exists Dispatch of Goods does not take place till the time delivery challan as generated from system is accompanied with Invoice is checked at the gate and further Loading of material happens only after Delivery order is given at the factory godown. There is Weightment slip attached which ensures material is loaded . 2. Recorded at incorrect Amount The Sales Invoice is generated based on SO created and hence the rate is derived from the same. 3. Incorrectly Classified The accounting is mapped based on the product and SO further classification of sales is done at the time of financial preparation after review by the accounts head	WP6	Sales Order linked with Invoice, Delivery order and gate outward entry check done for sample
4	Inventory has been sold that is removed from the accounts at incorrect amounts.	On a periodic basis, accounting personnel calculate the inventory cost under the costing method utilised by the entity. Prior to recording the journal entry, management reviews the calculation, methodology, significant assumptions used, supporting documentation, and the journal entry for accuracy and proper account classification AND Cost of sales is recorded and inventory is relieved automatically by the ERP system upon matching the customer sales order, shipping documents, and the invoice generated, completing a 3-way match.	WP 1	Doc. Are same as mentioned in Risk 1 of Procurement & Payables
5	Physical inventory counts are not performed on a periodic basis, potentially resulting in inaccurate inventory records.	Physical inventory is counted periodically and discrepancies are investigated and corrected within the inventory records. Inventory records based on the physical inventory are reconciled to the general ledger with any differences being recorded as a book to physical inventory adjustment.	WP 2	Physical Verification Report

Internal Financial Control(IFC) Over Inventory Management

6	Physical inventory counts: - Count inventory that does not exist - Do not include counts of all inventory - Do not include consideration of movement of inventory during the physical inventory - Are not valued at the appropriate cost - Book to physical adjustments Are not recorded or recorded at the incorrect amount.	Physical inventory is counted periodically, and discrepancies are investigated and corrected within the inventory records. Inventory records based on the physical inventory are reconciled to the general ledger, with any differences being recorded as a book-to-physical inventory adjustment.	WP 2	Physical Verification Report
7	Inventory held by a third party that has been sent to a job worker has not been removed from inventory.	On a periodic basis, the reports provided by the third party to the entity, either directly or by confirmation, are reviewed and reconciled to internal records and used by the entity to relieve inventory and record cost of sales.	WP 3	Third Party Report
8	Inventory may be recorded at the incorrect cost under the entity's costing method.	On a periodic basis, accounting personnel calculate the inventory cost under the costing method utilised by the entity. Prior to recording the journal entry, management reviews the calculation, methodology, significant assumptions used, supporting documentation, and the journal entry for accuracy and proper account classification.	WP7	RM Valuation
9	Inventory may be recorded at an amount that exceeds the lower of cost or net realisable value (NRV) as the significant assumptions [specify assumptions] utilised in the lower of cost or NRV analysis are inappropriate, do not have a sufficient basis, or do not have sufficient support.	Management reviews and approves the cost v/s NRV evaluation prepared by finance personnel and the resulting journal entry.	WP 4	FG Valuation
10	The adjustment for lower of cost or NRV is recorded in the incorrect accounting period.	Management reviews and approves the cost v/s NRV evaluation prepared by finance personnel and the resulting journal entry.	WP 4	FG Valuation

Internal Financial Control(IFC) Over Inventory Management

11	The adjustment for lower of cost or NRV stated in the general ledger does not reconcile to the calculation and/or contains mathematical errors.	11	Management reviews and approves the cost v/s NRV evaluation prepared by finance personnel and the resulting journal entry.	WP 4	FG Valuation	
12	In evaluating the adjustments for obsolete, slow moving, or excess inventory: - Management's method for determining the E&O (excess and obsolete) adjustments is inappropriate or has not been applied consistently. - The estimates are based on assumptions that are unreasonable, lack sufficient basis, or lack sufficient support.	12	A Report is send in respect of Obsolete, Slow Moving or Excess Inventory which has been not used for past 90 days is send to Commercial Head of the Unit	WP8	Inventory Ageing Report as generated and reported collected	
13	Obsolete, slow moving, or excess inventory exists but no adjustment is recorded against inventory and as a component of cost of sales.	13	Management reviews and approves the excess and obsolete adjustment calculation prepared by finance personnel and resulting journal entry.		NA	
14	Obsolete, slow moving, or excess inventory does not exist but an adjustment is recorded against inventory and as a component of cost of sales.	14	Management reviews and approves the excess and obsolete adjustment calculation prepared by finance personnel and resulting journal entry.		NA	
15	The calculations for obsolete, slow-moving, or excess inventory and related adjustments are based on inaccurate inventory usage/movement data.	15	Management reviews and approves the excess and obsolete adjustment calculation prepared by finance personnel and resulting journal entry.		NA	

Internal Financial Control(IFC) Over Inventory Management

16	The adjustment for obsolete, slow moving, or excess inventory is recorded at the incorrect amount, in the incorrect general ledger account, or in the incorrect accounting period	16	Management reviews and approves the excess and obsolete adjustment calculation prepared by finance personnel and resulting journal entry.		NA	
17	The adjustment for obsolete, slow-moving, or excess inventory stated in the general ledger does not reconcile to the calculation and/or contains mathematical errors.	17	Management reviews and approves the excess and obsolete adjustment calculation prepared by finance personnel and resulting journal entry.		NA	
18	Inventory may be removed from inventory records and recorded as a cost of sales when it has not actually been consumed.	18	Consumption entry is reversed on return of unused materials from the User Department.	WP 8	Reversal Entry Passed in respect of Unused Material returned from the User Department	
19	Inventory held by a third party and not yet sold is improperly removed from inventory and recorded as cost of sales.	19	On a periodic basis, the reports provided by the third party to the entity, either directly or by confirmation, are reviewed and reconciled to internal records and used by the entity to reduce inventory and record cost of sales.	WP 3	Third Party Report	
20	The entity uses inappropriate standard costs in valuing its inventory, including incorrectly calculating the allocation of labour and overhead.	20	Management reviews the new standard cost analysis and supporting documentation and approves changes to standard costs, including labour and overhead allocation assumptions, before the changes are made to the inventory	WP 4	MIS Report	
21	Intercompany profits are Not Eliminated at incorrect amount	21	Intercompany sales are analysed at period end to calculate the amount of intercompany profit in inventory to be eliminated. Finance Personnel prepare the JE, Supporting documents for intercompany profit to be eliminated. Management reviews and approves the JE before it is recorded		Not Tested	



ESG Review

Cement industry faces multiple risk from environment , society and governance front . Due to typical nature of manufacturing ; high generation temperature during clinkerization , high CO2 emission, felling of trees while mining , dust due to granular raw materials used causing crop failure etc. The **Internal Audit (IA) team** can play a critical role in supporting an organization's Environmental, Social, and Governance (ESG) efforts by providing **independent assurance**, risk assessment, and process improvement recommendations. Here's a breakdown of the **key roles and responsibilities** of internal audit in an ESG review:

1. Assess ESG Risk Management Framework

- Evaluate whether ESG risks (climate change, labour practices, data privacy, etc.) are identified, assessed, and managed appropriately.
- Review the integration of ESG risks into the enterprise risk management (ERM) framework.
- Integration of ERM and BRSR (Business Responsibility and Sustainability Reporting)

2. Verify ESG Reporting and Disclosures

- Review the accuracy, completeness, and consistency of ESG data and metrics reported internally or externally (e.g., sustainability reports, regulatory filings).
- Test controls over ESG data collection, aggregation, and reporting systems to ensure reliability.

3. Evaluate ESG Governance and Oversight

- Assess the adequacy of the governance structure for ESG (e.g., roles of the board, ESG committees, and senior management).
- Review policies and procedures governing ESG activities and reporting.

4. Audit ESG-Related Processes and Controls

- Conduct audits of ESG-specific processes such as:
- Carbon footprint measurement
- Diversity and inclusion initiatives
- Supply chain ethics and sustainability
- Health and safety practices
- Ensure these processes align with stated ESG goals and regulations.



5. Benchmarking and Best Practices

- Compare ESG practices against industry standards or peers.
- Recommend improvements based on best practices or evolving regulatory expectations (e.g., CSRD, SEC climate disclosure rules).

6. Advisory Support (While Maintaining Independence)

- Help in developing ESG frameworks or control environments (without taking ownership).
- Offer guidance during ESG implementation, especially if the organization is in early stages.

7. Ensure Regulatory and Standards Compliance

- Review compliance with relevant ESG frameworks and standards (e.g., GRI, SASB, TCFD, ISSB).
- Confirm adherence to legal and regulatory requirements in jurisdictions where the company operates.

8. Continuous Monitoring and Improvement

- Use data analytics to monitor ESG KPIs in real time.
- Provide ongoing assurance on ESG maturity and performance improvement

Technology/IT Audit

A **Technology / IT Audit by Internal Audit** is a systematic evaluation of an organization's information technology (IT) systems, processes, and controls. It's conducted by the internal audit function to assess:

- **Effectiveness** of IT operations
- **Security and integrity** of systems and data
- **Compliance** with internal policies and external regulations
- **Risk management** practices
- **Efficiency** and cost-effectiveness of IT investments

Objectives of a Technology / IT Audit:

☐ Evaluation of IT Governance

1. Are IT roles and responsibilities clearly defined?
2. Is IT aligned with business goals?

☐ Assess IT General Controls (ITGC)



3. Access controls (who can access what?)
4. Change management processes
5. Backup and recovery procedures
6. Physical and logical security
- ☐ **Review of Application Controls**
 7. Input, processing, and output controls within key business applications (e.g., ERP systems)
- ☐ **Assess Cybersecurity**
 8. Network and endpoint protection
 9. Incident response readiness
 10. Awareness and training
- ☐ **Evaluate Data Management**
 11. Data integrity, confidentiality, and availability
 12. Data privacy compliance (e.g., GDPR, HIPAA)
- ☐ **Examine Business Continuity and Disaster Recovery**
 13. Are recovery plans documented, tested, and up to date?
- ☐ **Review Third-Party and Cloud Services**
 14. Are vendor risks assessed and managed?
 15. Are SLAs and security measures adequate?
- ☐ **Ensure Regulatory Compliance**
 16. SOX etc. depending on industry

Methodology / Approach:

1. Planning

1. Understand business and IT environment
2. Define scope and objectives
3. Identify key stakeholders and systems

2. Risk Assessment

1. Identify and assess IT risks



2. Prioritize based on likelihood and impact

3. Fieldwork

1. Review documentation
2. Conduct interviews
3. Perform control testing (manual or automated)
4. Use tools like ACL, IDEA, or Power BI for data analysis

4. Reporting

1. Communicate findings: observations, risks, and root causes
2. Recommend corrective actions
3. Assign risk ratings (High/Medium/Low)

5. Follow-Up

Verify implementation of agreed-upon actions

Performance Audit

Performance audit is an independent, objective and reliable examination of whether. systems, operations, programmes, activities of the organizations are functioning in accordance with the principles of economy, efficiency and in effective manner.

A business performance analysis includes company performance metrics and goals. Depending on the scope and focus of the analysis, these may be more or less comprehensive. Here are some specific metrics or goals a company might consider during a performance analysis:

- parameters against which performance to be measured.
- past parameters and measuring yardstick.
- ensuring no change in parameters and yardstick.
- measurement of actual delivery.
- assumptions used for both micro and macro conditions with impact thereon.
- adjustment at base level for the actuals at different point of time.
- process of monitoring and review of parameters and actuals against the same.
- equal period or timeframe for evaluation and period of appraisal.
- ‘root cause’ analysis for deviations from expected performance.
- feedback to employees on business performance improvement.



Process Review

A Process Review is the systematic examination of a business process to assess its efficiency, effectiveness, control environment, and alignment with organizational goals. It aims to identify inefficiencies, redundancies, risks, and opportunities for improvement.

Objectives of a Process Review

- Understand the existing process flow and purpose
- Evaluate process performance (time, cost, accuracy)
- Assess the adequacy of internal controls
- Ensure compliance with policies, laws, and regulations
- Identify risks, bottlenecks, and pain points
- Recommend improvements

Operational Audit



The aforesaid diagram indicates ‘active’ and ‘passive’ approach in all types of ‘audit assignments’ and especially for ‘operational Audit’ for a paradigm shift to ‘beyond compliance’. As evident from above, the active zone of ‘operational audit’ is to prevent “wasteful activities” with a view ‘to reduce revenue leakages and cost’. This in turn having a positive impact on business performance.

Operational Audit” Objective:

‘Operational Audit ‘objective has been coined here after the name of connoisseur of TQM (Total



Quality Management), W.E. Deming. To define the objective the word ‘DEMING’ is used, where each of the word stands for a definitive objective accomplishment.

D – Detailed understanding for existing process to suggest improvement
E – Eliminate Waste, Duplication of work
M – Merge Operations/Processes to reduce Turn Around Time
I – Improve /Increase Quality, volume, Revenue
N – New Methods, Techniques, Devices for better result/throughput
G – Govern Man, Machine, Methods and Money

To carry out the heightened expectations of ‘stakeholders’ on their shoulder, Auditors can no longer spend their time looking down at financial controls and compliances rather to spend much more time in operation Reviews.

Gone are days of ‘pushing the pencil’; ‘brain power’ is taking place of ‘brawn power’. To support the accomplishment of aforesaid objective, the audit process to lend appropriate support. Process provides a methodology for intelligently and efficiently integrating People, Tools, Procedures and Technology for the best results/ outcome.

Case Study

In a large cement plant, number of Transporters are deployed to distribute cement in various part of the country. Company, requisitions vehicle of different capacities (Mt.) as per Dealer Orders to fulfil their requirement. Accordingly, the Transporters place Vehicles at the Plant Gate and report to Gate Security. Through Company’s Logistic Data Management System (DMS), Vehicle arrivals are intimated to Despatch section (Invoicing) and Loading Department (physical loading of vehicles and tallying with Invoice the volume to be loaded and actual load). The Vehicles provided permission to enter inside the Plant i.e ‘Gate In’. Since cement is sold on weight basis, both ‘Tare’ and Loaded Vehicle (after loading) being weighed inside the Plant Weighbridges. The time at every point with respect to each Vehicle is recorded till ‘Gate Out’. The Management Audit Team carried out an Operational Review to reduce Vehicle Turn Around Time (TAT) from ‘Gate In’ to ‘Gate Out’ , which seems to be found very high.

This implicates strain on logistic for arranging Vehicles for evacuation of material from ‘Packing Centre’ as well as timely availability for end Customer. On the other hand ‘truckers’ are also looser due to high TAT, as number of trips gets reduced impacting capping of their revenue. The Team collected the actual data from DMS. You being part of Management Audit Team, prepare your findings.

Data Analysis and outcome:

Vehicles Post ‘Gate In’, reports at Packing Centre Loading Section and the datum collected for the



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same movement. The Vehicles engaged for delivery in the core command area i.e within the vicinity of 250 Km. radius from Plant. Tare weight of Vehicle being recorded therein and provided with a 'Load Slip' with time clocked.

The said 'Load Slip' is provided to Loaders and Tally Checker for Loading. On loading completion, the slip with signature of Checker handover to Vehicle Driver, who surrenders it at the time of 'Gate Out' to Security at Gate. Datum also collected for every step of Vehicle movement and operations carried out. The time clocked is as follows:

Time between " Loading In " to " Loading Out "			
(Hours)	No. of Trips	p. c	Cum. %
Upto 1	4917	15.7	15.7
1 – 2	12143	38.8	54.5
2 – 3	7859	25.2	79.7
> 3	6338	20.3	100.0
Total	31257	100	

Loading operation of about 55% Vehicles were completed within 2 Hours of 'Loading In'. '**Time and Motion Study**' conducted for actual time taken in loading; a maximum of 45 minutes for the highest capacity of Vehicle i.e 60 Mt. was noted. In view of the same, scope for further time reduction in loading operation exists. The prevalent average rate of Rs. 200 per MT/Kilometre applicable for Core Command Area , TAT improvement of at least 20% of vehicles through proper monitoring in each of the stages i.e between 'Reporting' to 'Loading Out' will result in a savings* of **Rs. 4.2 Crores** (on 50 % sharing basis with Transporter).

*Rs. 200 x20%x50% x300 Km. average for 7000 trips (approx.)

Advantages and Disadvantages of 'Operational Audit'

- o Going through the operational audit process provides a company with objective opinions. These opinions often generate quicker production by lowering TAT (Turn Around Time), process inefficiencies, the location of areas of delay/lapses, cost rationalization/reduction.
- o Move towards operational excellence.

The mental fear of 'resistance to change' is the only disadvantage in organizational culture.

The following are the important steps:

- i. Defining the scope of the audit work.
- ii. Obtaining the knowledge of the business, processes and formulating the audit program.
- iii. Evaluation of the accounting and internal control system existing in the auditee enterprise.
- iv. Determining the nature, timing and extent of audit procedures keeping in mind the audit



risk and materiality vs involvement.

- v. Adequate documentation is also necessary, i.e. preparation of audit note book and working papers.
- vi. Formulation of opinion.
- vii. Issuance of audit report.

- Special Audit, specific assignment-based Audit

Internal Audit / Management Audit Teams are often requested by Management to carry out Special Assignments, Investigation. The Scope of such audits are typically guided by the Management. Purposive documentation, interviewing techniques are resorted to for such specific assignments.

- Concurrent audit

Concurrent audit is a systematic examination of financial transactions on a regular basis to ensure accuracy, authenticity, compliance with procedures and guidelines.

- Risk Review as precursor for Risk Based Internal Audit

Audit teams of most of the entities predominantly follow audit procedures to complete AAP (Annual Audit Plan) by bifurcating into time horizon (e.g quarterly coverage) with prioritization, to cover at least the high-risk areas (high risk areas are first priority) during the plan period based on adequate manpower scheduling. This methodology suffers from the following inadequacies:

- RBIA (Risk Based Internal Audit) Plan prepared at the commencement of the year/period may not be entirely harmonized with complete risk profile of the entity, signaling presence of unattended risks.
- Inadequacy in capturing dynamic risk profiles due to the absence of continuous risk review and mitigation programs

Inadequacy in the flexibility of functioning of the Audit Team to report concerns emanated while conducting audit of an already committed area.

- Obligation of team members to deliver on a time bound manner, may severally impact the review quality and risk identification as well as their mitigation process.
- Absence of dynamism in coverage of high-risk areas (which ceaselessly changes during audit period) under the RBIA Annual Plan, may effectively keep major concerns out of audit purview for a considerable period (may be for a year or more).
- Absence of critical appraisal of Risk management process to assess their robustness and adaptability under changed dynamics.
- Customary periodical reporting not been able to address real time risk issues to Management/ Audit Committee as well the steps taken by Management for mitigation.



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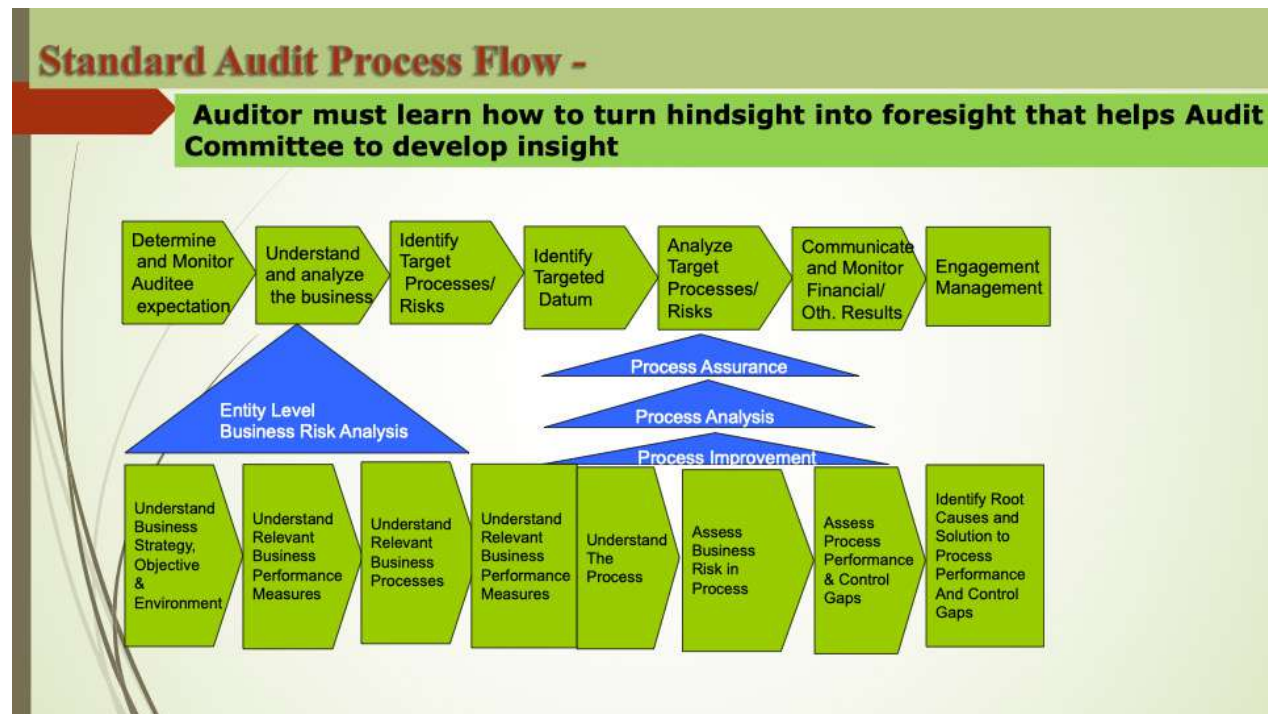
- Better oversee and governance function of the Audit Committees may be affected due to non-appraisal of prevalent risk by audit team
- Investigation

Investigation is a special purpose audit. The scope is defined by the appointing authority. The difference between the two are highlighted hereunder.

Audit	Investigation
Audit is mainly for compliance purposes	Investigation is for specific purposes
Audit is generally for a period/year	Investigation can comprise many years
Process followed for Audit generally laid down in different legislations	Investigation process generally depends on the Investigator
Audit objective is as stipulated under the required legislation	Investigation objective/purpose depends on the appointing authority
Report distribution depends on the Organization structure	Investigation report must be issued to the concerned appointer
Audit Report format is stipulated under the Governing Acts	Any format to address the issue can be considered
Audit can resort to test checking even	Investigation must be detailed and thorough
True and fair view for Accounts and operational improvement, compliance, process gaps, control effectiveness	Fact finding activity
Broad based and general in nature	Investigation is narrow and specific

Internal Audit Process

Audit process includes Planning, Execution and Reporting. The Report includes Recommendation for improvement with respect to area of Audit. The below referred Process Flow, helps accomplishment of Audit objectives.



Internal Audit Reports

Account given or opinion formally expressed after investigation or consideration or collation of information” (**The Concise Oxford Dictionary**). Report is the communication of Auditor’s view point /expression of opinion to the appointing authority/Users of audit information on conclusion of an audit assignment/Review backed by proper analysis of data/events. Such assignment could be periodical, Operational (Review of operations) and/or event based. A key thing to keep in mind, right through Report writing process is that a report written to be read, by someone else i.e ‘intended audience ‘. The audience includes -

- Immediate Auditee
- Head Of Department/Function
- Reviewing Authority at HO (if any)
- Top Management of the entity
- Statutory Auditor
- Audit Committee

How to write a good report for different levels of the Organization

- o There is no RIGHT way to express or WRITE REPORT
- o Try to express facts, not impress



GUIDANCE NOTE ON RISK BASED INTERNAL AUDIT OF CEMENT INDUSTRY

- o WRITING effectively is a skill and art, which can be LEARNT
- o Successful Audit Reports do not pull any punches or blindside recipients. A tactful approach can lead to a satisfying, constructive outcome for all parties involved.
- o One can catch more flies with Honey than with Vinegar

Some tips for good Report writing –

- Wear the cap of auditee
- Write for your audience
- Do not present problems, be part of solution
- Stay away from Jargons (Do not write “CTR to be addressed to Regulator for KYC /AML Compliance”) rather write Cash Transaction Report (CTR) to be addressed to Regulator for ‘Know Your Customer (KYC) / Anti Money Laundering (AML) Compliance
- Issues/points/Bullets must be in seriatim of importance
- Clear and concise uses of short sentences and simple words (not verbose)
- Appropriate Caption representing the issue
- Present each issue in separate bullet point
- Only relevant paragraphs under the same bullet (max.3 - 5 lines for each observation/bullet)
- Contents of Internal Audit Report (A sample Report in Annexure)
- Presentation to Audit Committee and/or Boards (**A sample Report in Annexure**)



Chapter 2:

UNDERSTANDING RISK MANAGEMENT

Definition of Risk

Lexically the term 'Risk' being defined as a chance or possibility of danger, loss, injury or other adverse consequences. This clearly indicates the term is associated with negativity impact to bring down the Organization from the present level. Cloud of uncertainty is the concern for a corporate life in fulfilling set out goals. With respect to an 'unbiased coin', the chance of turning 'Head (Observe)' or 'Tail (Reverse)' is equal, similar as to 'success (achievement of objectives)' and 'failure (non-achievement of objectives)'. In this background, the word 'Risk' is of phenomenal importance.

Understanding Risk Management

Risk Management is the process of identifying, assessing, and controlling threats to an organization's capital, earnings, operations, or reputation. These threats, or "risks," can stem from a wide variety of sources including financial uncertainty, legal liabilities, strategic management errors, accidents, and natural disasters.

Key Elements of Risk Management:

1. Risk Identification
 1. Recognizing potential risks that could negatively impact the organization or project.
 2. Examples include cyber threats, financial losses, project delays, or regulatory non-compliance.
2. Risk Assessment (Analysis & Evaluation)
 1. Analyzing the likelihood and potential impact of each identified risk.
 2. Evaluating which risks are acceptable and which need mitigation.
3. Risk Mitigation or Treatment
 1. Developing strategies to reduce or eliminate the impact of risks.
 2. Common strategies include avoiding, reducing, transferring (e.g., via insurance), or accepting the risk.
4. Monitoring and Review
 1. Continuously monitoring the risk environment and the effectiveness of risk controls.
 2. Adjusting strategies as necessary when conditions change.
5. Communication and Reporting



1. Keeping stakeholders informed about risk levels and responses.
2. Ensuring decision-makers understand the risk landscape

Objectives of Risk Management

Risk management refers to the identification, assessment, and prioritization of risks followed by coordinated efforts of (4 Ms) i.e to Measure (impact), Minimize (negativity), Monitor (efforts), and Manage (control) the probability or impact of unfortunate events, if any. Sources of uncertainty is the concern in fulfilling set out organizational goals. Study of Risk Management has grown depending upon the hurdles faced by industry at different point of time, which may derail the organisational objectives. Risk Management enables a robust, quantitative, and economic understanding of risks whose impact is communicated throughout the organization's levels (Paula et al., 2018). Such a portfolio approach considers risk interrelations and the significant benefits that can be achieved when they are evaluated and monitored together at a superior Organizational level (Jabbour & Abdel-Kader, 2015). Harry et al. (2005) points out that risk management is a continuous process where the sources of uncertainties are systematically identified, their impact assessed and quantified and their effect and likelihood managed to produce an acceptable balance between the risks and opportunities for the concerned industry (Harry FB et. al 2005).

Importance of Risk Management in Cement Industry

Studies and their importance with respect to Cement sector in Indian context increased with progress of time in view of enhanced business complexity. The cement industry is a capital-intensive and highly competitive sector and vulnerable to multiple risks. Identification of risk, assessment, and prioritizing the same in the cement industry, providing a framework for effective risk management dealt in the initial studies. Post Bhopal gas disaster (1984), awareness on hazardous processes and industry specific alert mechanism got prominence, which particularly important for sustainable operations in the Cement sector. However, clearly laid down risk philosophy or standard criteria with respect to measurable risk for different industries (including Cement) and locational (plant) pointers for such a vast diverse country was to be there. A set of guiding criteria or formulation of a framework after evaluating every risk in relation to 'operational hazards of cement industry' is one of the needs of the hour as felt by the researchers (An evolution of Risk assessment framework for industrial accidents in India, Sengupta et. al 2016, Gupta 2006). Risk Management helps in informed 'Decision Making' by providing timely and proper insights, which transforms 'hindsight' into 'foresight' for developing 'insight'.

Due to typical nature of the Cement industry, risk management needs to differ from other industries. The typical nature of Cement industry is articulated through -

1. High-energy consumption: At Kiln to produce Clinker, 1850 Degree to 1900 Degree Centigrade temperature is required, no other industry except Steel melting require such high temperature. As a result, energy efficiency improvement is one of the prime considerations for cost effectiveness and competitive edge among industry participants. (Energy Efficiency in the Cement Industry by International Energy Agency, 2019)



2. **Complex supply chain:** Supply chain risk management in the Cement industry involves identifying, assessing, and mitigating risks associated with the supply of raw materials, production, and distribution of cement. Cement Grinding Units are situated near to market, hence, Raw Material (Clinker) requires bulk transportation from distant places (Composite Units) and produced Cement requires both bulk and lower volume distribution channels to cater the specific Customer requirements. Moreover, seasonality of demand (higher variance in comparison to other industries), requiring adaptive supply chain strategies. (Supply Chain Risk Management in the Cement Industry by Journal of Business Logistics, 2018)
3. **Geological risks:** Cement production requires specific geological formations of limestone for Clinker (mother raw material for Cement), unlike other industries that can use alternative materials. Accordingly, higher reliance is given on quarrying operations, making it more susceptible to geological risks. Longer lead times for limestone extraction and subsequent crushing, making it more challenging to respond to supply chain disruptions. Since depletion of natural resources and possible environmental impact for quarrying, making it essential to manage geological risks sustainably. (Geological Risk Management in Cement Production” by Journal of Geological Research 2020).
4. **Environmental and regulatory risks:** Cement production process emits pollutants like particulate matter, NO_x, and SO₂, contributing to air pollution. (Occupational Health Hazards in the Cement Industry by World Health Organization, WHO 2018) and negative health effects. Due to significant requirement of water resources for cement production and draining the pollutant water without treatment in the rivers, canals and ponds; substantial damage to flora, fauna and water borne animals is the consequence. Such hazardous waste, requiring proper disposal and management to prevent environmental harm. (Environmental Protection Agency Report 2020). Since, Cement production is a significant source of greenhouse gas emissions, also contributing to climate change. (Intergovernmental Panel on Climate Change 2019). This study assesses the health risks and environmental impacts of cement production in Nigeria. The researchers collected air and water samples from three cement factories and analysed them for pollutants. They also conducted a health risk assessment using the Hazard Quotient. (Health Risk and Environmental Assessment of Cement Production, Olukanni, D. O., Akinyemi, O. O., and Oyebanji, O. O, 2021)
5. **High capital outlay:** Capital cost for a plant differs substantially due to installed capacity of the plant and its location. Rise in capex cost trend being noticed across the globe. Present capital cost works out to 100 to 200 Dollar per Mt. depending on capacity. Such high cost unless equated by expected return, tantamount to competitive rivalry construing as entry barriers (Porter 1979) and (Capital Expenditure in the Cement Industry” by Global Cement and Lime Magazine (2019). Appuhami (2008) revealed that capital expenditure has an important impact on working capital management also.
6. **Seasonality of demand:** In a vast country like India rainy season and impact of the same varies substantially in different parts of the Country. The rainfall (in cm.) also varies and dampens the spirit of construction activities. Seasonality relates to inventory holding, since it is mostly thought to cater customer at any point of his requirement. It was found that inventory



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management and return on revenue have a correlation (Impact of Inventory Management on Operating Profit: Evidence from India ,Khurshid Ali et. al 2022) as analysed whether inventory management has any effect on the net profits of the company.

Presence of multiplicity of investors both Indian and multinational, escalated the issue of competitive edge to be sustainable in industry (simultaneous risk and opportunity). The everlasting prominence of governance and risk continues to be critical, in dealing with matters like protection of investors and cost rationalization in the journey of sustenance. A proper risk management process can help enterprises to grow by enhancing competitive advantage (Blanco-Mesa, Journal of Risk and Financial Management; Oct. 2020). In this VUCA (Volatile Uncertain Complex and Ambiguous) world, to survive and grow is a critical aspect. Multiple regional players, capacity expansion by competition in multiple geographies, cut throat pricing by competition, governmental restriction on lime stone mining, high cost and supply uncertainties of fuel, predominant usage of coal in Kiln causing CO₂ emission and environmental issues (Deloitte study on Sustainability 2023) , growing digitalization and Cyber security (PWC 2024 Digital Trust Insight), safe work place, high number of contractual deployments in Plants and compliance with respect to such deployments etc.(EY study 2022 and DLA Piper study 2023) enhances the requirement of appropriate ‘risk management and governance’ process for the Indian cement sector. To address this situation, establishing appropriate Governance Strategies required for ‘Risk Assessment’ (Identify, assess, and prioritize risks), Implementation of robust internal control and monitoring systems, Regulatory compliances and Engagement with Stakeholders (Investors, Customers, Communities, Employees etc.).

Regulatory Framework relating to Risk Management and Governance

- o Committees (Kumar Mangalam Birla 1999-2000, Narayana Murthy 2003, etc.) on Corporate Governance have stressed accountability and fairness towards stakeholders
- o MCA guidelines (e.g. Voluntary Guidelines on Corporate Governance, 2010/2013)
- o Companies Act 2013 stipulates : Board Composition and independence; Roles and responsibilities of Directors; Audit Committees and Risk Management ; CSR ; Financial Disclosure and Reporting on Risk Management Policy, Related Party Transactions , Shareholder Rights etc.
- o Adoption of Indian Accounting Standard , replacing Generally Accepted Accounting Principles (2016) converged with IFRS (International Financial Reporting Standards) to enhance transparency, comparability and reliability in financial reporting
- o Uday Kotak Committee (2017), SEBI mandated that the top 500 listed companies split the roles of Chairperson and CEO from April 2020 and that leading companies appoint at least one female independent director
- o SEBI has also introduced the Business Responsibility and Sustainability Report (BRSR) , requiring the 1,000 largest firms by market capitalization (twelve cement companies already qualify) to report (FY 2022 -23).



SEBI (LODR) Regulations, 2015

The SEBI (Listing Obligations and Disclosure Requirements) Regulations, 2015, commonly referred to as SEBI (LODR) Regulations, were introduced by the Securities and Exchange Board of India (SEBI) to consolidate and streamline the listing and disclosure obligations of listed companies across various stock exchanges in India, to ensure transparency, fair disclosure, and corporate governance in listed entities, while protecting investors' interests and maintaining market integrity.

Applicability:

Applies to all entities listed on recognized stock exchanges in India, including:

- Equity shares
- Non-convertible debt securities
- Specified securities
- Indian depository receipts (IDRs), etc.

Corporate Governance Norms:

Applies to listed companies with:

- Paid-up equity share capital $\geq$ ₹10 crore and
- Net worth $\geq$ ₹25 crore

Key requirements:

- Composition of the Board of Directors
- Formation of mandatory committees (Audit, Nomination & Remuneration, Stakeholders Relationship, etc.)
- Roles of Independent Directors

Disclosure Requirements:

- Periodic disclosures: Quarterly, half-yearly, and annual financial results
- Event-based disclosures: Information likely to affect stock prices (e.g., M&A, dividend declarations, board changes)
- Disclosures must be prompt, accurate, and clear

Compliance Officer:

Each listed entity must appoint a qualified company secretary as the compliance officer to oversee compliance with the regulations.



Timely Submission of Reports:

Companies must submit:

- Corporate governance reports
- Shareholding patterns
- Financial results
- Annual reports

Amendments:

SEBI frequently updates the LODR Regulations to strengthen governance and enhance disclosure norms. Key amendments have focused on:

- Strengthening related party transaction norms
- ESG disclosures (Business Responsibility and Sustainability Report - BRSR)
- Delisting processes
- Improved oversight of independent Directors
- The Companies Act, 2013

The **Companies Act, 2013** is the primary legislation governing companies in India. It introduced significant reforms to enhance **corporate governance**, accountability, and transparency in Indian companies. Below are the **key provisions on governance** under the Act :

1. Board of Directors (Section 149-172)

Composition:

- Minimum of 3 directors for public companies, 2 for private companies.
- At least **one-Woman Director** for certain classes of companies (Section 149).
- At least **one resident director** (who stays in India for at least 182 days/year).

Independent Directors:

- Listed companies must have at least **one-third** of the board as independent directors (Section 149(4)).
- Independent directors should not have any material or pecuniary relationship with the company.

Duties of Directors:

- Defined under **Section 166** — directors must act in good faith, in the best interests of the company, and avoid conflict of interest.



2. **Audit Committee (Section 177)**
 - Mandatory for listed and specified public companies.
 - Must include a majority of **independent directors**.
 - Oversees financial reporting, internal audit, and auditor performance.
3. **Nomination and Remuneration Committee (Section 178)**
 - Formed by listed and specified public companies.
 - Recommends appointment/removal and remuneration of directors and senior management.
 - Ensures transparency in board appointments.
4. **Stakeholders Relationship Committee (Section 178)**
 - Required for listed companies with a large number of shareholders.
 - Addresses grievances of shareholders, debenture holders, and other security holders.
5. **Board Meetings and Disclosures**
 - **Section 173:** Minimum 4 board meetings per year, with a gap of no more than 120 days between meetings.
 - **Section 184:** Directors must disclose interest in any company, firm, body corporate, or association.
 - **Section 134:** Directors' Responsibility Statement included in Board's Report, stating compliance with laws and internal controls.
6. **Internal Audit (Section 138)**
 - Applicable to certain classes of companies.
 - Companies must appoint internal auditors to evaluate risk management and internal controls.
7. **Secretarial Audit (Section 204)**
 - Mandatory for listed companies and certain public companies.
 - Conducted by a practicing company secretary to ensure compliance with legal and procedural requirements.
8. **Corporate Social Responsibility (CSR) (Section 135)**
 - Applicable to companies with:
Net worth $\geq$ ₹500 crore,
Turnover $\geq$ ₹1000 crore, or
Net profit $\geq$ ₹5 crore.
 - Must spend at least **2% of average net profits** of past 3 years on CSR activities.



9. Vigil Mechanism (Whistle-blower Policy) (Section 177(9))

- Mandated for listed and certain public companies.
- Enables directors and employees to report genuine concerns.

10. Rotation of Auditors (Section 139)

- Listed and specified companies must rotate their auditors after a maximum term (individual: 5 years, firm: 10 years).
- CPSE Guidelines on Corporate Governance

The DPE Guidelines on Corporate Governance for CPSEs were originally issued in June 2007 and revised periodically, most notably in 2010 and later aligned with the Companies Act, 2013 and SEBI (LODR), 2015 where applicable.

Applicability:

- Mandatory for all CPSEs classified as Schedule A, B, C, and D companies
- Listed CPSEs must comply with SEBI (LODR), 2015 in addition to DPE guidelines

Key Provisions of CPSE Corporate Governance Rules:

1. Board Composition

- At least 50% Independent Directors on the Board if the Chairman is Executive
- At least 1/3rd Independent Directors if Chairman is Non-Executive
- Inclusion of functional directors, Government nominee directors, and independent directors

2. Audit Committee

- Mandatory formation of an Audit Committee of the Board
- Minimum 3 directors, with majority being Independent Directors
- Headed by an Independent Director
- To review financial statements, internal audit, risk management, etc.

3. Remuneration Committee

- For deciding on performance-linked incentives, ESOPs, and senior executive pay

4. Code of Conduct and Ethics

- CPSEs must adopt a Code of Business Conduct and Ethics for Board members and senior management
- Must be posted on the company's website

5. Risk Management
 - Must develop a formal risk management policy
 - The Board must regularly review risk exposure and mitigation measures
6. Subsidiaries Governance
 - Oversight and governance structure for subsidiary companies to align with parent CPSE
 - At least one Independent Director of CPSE should be on the Board of its material unlisted subsidiary
7. Performance Evaluation
 - The performance of Board, Chairman, Functional Directors, and Independent Directors must be reviewed annually
 - The DPE developed performance evaluation criteria for this purpose
8. Whistle-blower Mechanism
 - Establish an effective whistle-blower mechanism for reporting unethical practices or violations
9. Disclosure and Transparency
 - Timely disclosure of:
 - Financial performance
 - Board meeting details
 - Audit reports
 - Compliance reports
 - Annual Reports must include a separate section on Corporate Governance
 - Business Responsibility and Sustainability Reporting and Risk Management

Business Responsibility and Sustainability Reporting (BRSR) is a framework under which the top 1000 listed companies (by market capitalization) are mandated to disclose their Environmental, Social and Governance (ESG) performance in a quantitative and standardized format from FY 2022–23 onwards.

BRSR disclosure focuses on Environmental, Social, and Governance (ESG) factors and their impact on the company's sustainability and business responsibility. CSR Reporting is a sub-set of BRSR, while the Risk Management disclosure under Corporate Governance section focuses on the company's overall risk management framework including financial, operational, strategic, and other risks.



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The term 'Risk' being defined as a chance or possibility of danger, loss, injury or other adverse consequences. This clearly indicates the term is associated with negativity impact to bring down the Organization from the present level. Uncertainty is the concern in fulfilling set out organizational goals. With respect to an 'unbiased coin', the chance of turning 'Head (Observe)' or 'Tail (Reverse)' is equal, similar as to 'success (achievement of objectives)' and 'failure (non- achievement of objectives)'.

- Risk is the possibility that an event will occur and adversely affect the achievement of objectives
- Events that may have a positive impact represent natural offsets or opportunities.

Achieving strategic milestones by managing multitudes of Risk relating to sustainability and business, is a mammoth challenge. The sector is facing myriad of issues from strategic and non-strategic sources.

❑ Systematic Risks

- o Economic slowdown
- o Market Risk Multiple regional players, cut throat pricing by competition
- o Governmental restriction on Lime Stone mining
- o Fuel price volatility

❑ Un-systematic Risks

- o Operating Risks related to high generation of temperature (1850 to 2900 degree c) during Clinkerisation, usage of hazardous materials etc.
- o Regulatory Risks including occupational health, safety compliance
- o Environmental and Social Risks due to significant environmental and social impacts, including greenhouse gas emissions, water usage, and community displacement.
- o Supply Chain Disruptions on account of local disruptions

Operating Risks: Cement production involves high-temperature (1850 to 2900 degree centigrade) for Clinker production, material movement by heavy machinery and usage of hazardous materials, making it a high-risk operation. (Energy Efficiency in the Cement Industry by International Energy Agency, 2019)

Market Volatility: Cement demand is closely related to construction and infrastructure development, seasonality, which can be affected by economic slowdowns, policy changes, and highly competitive market scenario.

Regulatory Risks: The cement industry is subject to various regulations e.g Mining Limestone, high contractual deployment, safety standards etc., which can impact operations and profitability. (Occupational Health Hazards in the Cement Industry by World Health Organization, World Health Organization 2018).



Supply Chain Disruptions: The cement industry relies on a complex supply chain, multimodal transportation arrangements for movement of materials, transportation, and logistics, which can be disrupted by various local and national factors and pose supply constraints. (Supply Chain Risk Management in the Cement Industry by Journal of Business Logistics, 2018).

Environmental and Social Risks: Cement production has significant environmental and social impacts, including greenhouse gas emissions, water usage, and community displacement. (Intergovernmental Panel on Climate Change 2019), (Environmental Protection Agency Report 2020).

Geological risks: Cement production requires specific geological formations of limestone for Clinker (mother raw material for Cement), not like other industries that can use alternative materials. Accordingly, higher reliance is given on quarrying operations, making it more susceptible to geological risks. (Geological Risk Management in Cement Production” by Journal of Geological Research 2020).

The unique nature of risk calls for a robust risk management framework, which can help Cement Companies to identify, assess, and mitigate such risks.

Harry et al. (2005), point out that risk management is a continuous process where the sources of uncertainties are systematically identified, their impact assessed and quantified and their effect and likelihood managed to produce an acceptable balance between the risks and opportunities for the concerned industry. Due to typical nature of the cement industry, the portfolio of Risk is unique in nature and also the resultant governance. Industry reports indicates dearth of ‘accuracy and transparency in reporting’ is a concern in many entities, which in turn affects ‘Sustainability and Governance’. In the words of Mr. Marc Benioff ‘ The business of businesses is no longer just business, its sustainability.’

Literature Review

The literature review carried out for the purpose can be divided into two parts:

- a. Academic publications
- b. Company disclosures in Annual Reports, Industry specific Research Reports etc.

As one of the most pollutants (causing environmental degradation), emitter of CO₂ and generator of high temperature (resulting Climate change); the ESG compliance and beyond compliance), needs utmost attention. ESG disclosures have increased significantly to fulfil stakeholder requirements and create greater accountability (Eccles et al., 2014; Tamimi & Sebastianelli, 2017) and can strengthen business sustainability and performance (Hadiqa Ahmad et al 2023). Globally GRI (Global Reporting Initiative) a comprehensive framework on sustainability reporting , Industry-specific standards for sustainability disclosure by Sustainability Accounting Standards Board (SASB), ISO 26000: Guidance on social responsibility and sustainability, ISO 14001: Environmental management system standard are in place to address the related issues. In comparison to other standards, BRS Reporting having limited exposure, since the same is applicable on listed Indian entities only.



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The extant literature and industry practices in India indicates fragmented approach towards sustainability and its disclosure. As for example , CSR and ESG disclosures are subset of Business Responsibility and Sustainability Report but disclosed to stakeholders separately. Similarly, Risk Management to encompass all risks , which are probable impediments of business success , are also reported separately under ‘Risk Management and Corporate Governance section’.

BRSR includes ESG performance of the entity. ESG refers to a set of criteria used to evaluate a company’s operations and its impact on environmental, responsibility towards society, and governance practices followed. ESG factors are increasingly being considered by investors, stakeholders, and regulators as important non-financial metrics that can impact a company’s long-term sustainability and success.

CSR, on the other hand, refers to a company’s efforts (both regulatory and voluntary) to improve social, environmental, and economic impacts of its operations. CSR initiatives are often seen as a way for companies to demonstrate their commitment to being responsible corporate citizens, which forming part of governance mechanism. CSR, on the one hand is a voluntary act, on the other hand a regulatory compliance issue.

BRSR includes performance on ESG parameters of an entity. The inclusive structure of the three (ESG, BRSR, CSR) reflects true governance viz. Raksha (Protection), which includes Environment and Society; Vriddhi (Enhancement) i.e growth of business and upliftment of society; Palana (Maintenance) of good practices and principles towards good governance; and lastly Yogakshema (Safeguard) of business and social interest. The moral Compass of Corporate Governance stands on these three pillars, as Mahatma Gandhi mentioned “*Businessmen are Trustees*”. Good Corporate Governance is a philosophical issue and matter of attitude, which gets more significance in this VUCA (Volatile, Uncertain, Complex, and Ambiguous) scenario.

The inherent Risk in the three i.e ESG , CSR and BRS (Business Responsibility and Sustainability) are mitigated through actions taken by the entities. However, these are non-financial Risk having financial impact. The objective of Risk Management is to Reduce uncertainty, increasing adaptability to improve overall performance and sustainability. Reviewed literature indicates overlap in reporting between ESG, CSR BRSR and Risk Management and at times non-reporting of applicable risk in one of the required disclosure. Since such reporting gaps relates to governance status of an entity, creates the ground for integrated reporting and disclosure.

Since Cement industry is considered as highest emitter of CO₂ and also generates high temperature in manufacturing processes causing climate change, maintaining Environmental (E) balance is of paramount importance. Stakeholders interest pinning not only on entity financial performance, also on its role in preserving environment and social relationship. Appropriate and timely disclosure of happenings, decisions taken are expected by Stakeholders and Regulators. Good governance practices build investor confidence and results in enhancing reputation.

Presence of multiplicity of investors both Indian and multinational, escalated the issue of competitive edge to be sustainable in industry (simultaneous risk and opportunity). The everlasting prominence

of governance and risk continues to be critical, in dealing with matters like protection of investors and cost rationalization in the journey of sustenance. A proper risk management process can help enterprises to grow by enhancing competitive advantage (Blanco-Mesa, 2020).

Theoretical Underpinning from academic literature (Already included in Chapter 1)

Underpinning of non-academic literature

BRSR (Business Responsibility and Sustainability Report) is a reporting framework (SEBI Circular dated May 13, 2020 on BRSR framework, which requires listed companies to disclose their performance on ESG parameters, including CSR) that requires listed companies to disclose their performance on ESG parameters in a quantitative and standardised format from FY 2022-23 onwards. Since BRSR includes both ESG and CSR-related information, a more comprehensive view of a company's sustainability performance against the risk identified can help to meet stakeholder expectations. The obligated entities were initially encouraged to adopt the BRSR framework voluntarily in FY 2021–22. The history of BRSR development captured hereunder:

Year	Steps Taken
2009	MCA issued Voluntary Guideline on Corporate Social Responsibility (CSR)
2011	MCA issued National Voluntary Guideline (NVG) on Social Environmental & Economic responsibilities of business with a reporting framework
2012	SEBI mandated top 100 listed Companies by market capitalization to file Business Responsibility Reports (BR
2016	The requirement of filing BRRs extended to top 500 listed companies by market capitalization
2017	A SEBI Circular advised that integrated reporting may be adopted on a voluntary basis from FY 2018 by the top 500 companies which are required to prepare BRR
2019	The updated NVGs are released as ‘ The National Guidelines for Responsible Business Conduct’
2019	SEBI extended the BRR requirement to the top 1000 listed companies by market capitalization from FY 2020
2021	The Business Responsibility and Sustainability Reporting (BRSR) framework introduced for the top 1000 listed companies by market capitalization to report voluntarily with mandatory reporting from FY 2023
2023	SEBI introduced BRSR Core, which applies to top 150 listed companies by market capitalization from FY 2024

The BRSR framework seeks disclosures against nine principles of the “National Guidelines on Responsible Business Conduct” (NGRBCs), issued by the Ministry of Corporate Affairs (MCA) in 2019. Each principle includes indicators that are categorized as essential and leadership. It is



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mandatory for obligated entities to report on the essential indicators, whereas reporting is voluntary for the leadership indicators. The principles laid down are as follows:

PRINCIPLE 1 Businesses should conduct and govern themselves with integrity, and in a manner that is Ethical, Transparent and Accountable.

PRINCIPLE 2 Businesses should provide goods and services in a manner that is sustainable and safe

PRINCIPLE 3 Businesses should respect and promote the well-being of all employees, including those in their value chains

PRINCIPLE 4: Businesses should respect the interests of and be responsive to all its stakeholders

PRINCIPLE 5 Businesses should respect and promote human rights

PRINCIPLE 6 Businesses should respect and make efforts to protect and restore the environment

PRINCIPLE 7 Businesses, when engaging in influencing public and regulatory policy, should do so in a manner that is responsible and transparent

PRINCIPLE 8 Businesses should promote inclusive growth and equitable development

PRINCIPLE 9 Businesses should engage with and provide value to their consumers in a responsible manner

Analytical views

The study being made for the leading Cement Companies e.g ACC, Ambuja, Prism, Birla Corporation, Sagar, Dalmia Bharat, RAMCO, ITD and Heidelberg (all within top 1000 entities as per Market capitalization). Both BRSR and RM Reporting forming part of compliance but the same literally to go ‘beyond compliance’ for the sake of ‘good governance’. To handle the complexities of the Indian capital markets ‘The Securities and Exchange Board of India (SEBI)’ was established on April 12, 1992, in accordance with the Securities and Exchange Board of India Act, 1992. Prior to SEBI’s establishment, the capital markets in India were regulated by the Controller of Capital Issues (CCI), which was set up in 1947. It was the endeavor of the government to develop a matured capital market for the benefit of both Indian and foreign investors by way of controlling regulations to protect investor interest.

Types of Risk as disclosed in BRSR by the nine (9) leading Cement Companies totaling twenty (20) are summarized hereunder in Annexure -I. Number of risks reported by a Company are indicated in Annexure -II, which detailed in Annex- III.



Annexure - I

Risk Description as reported in BRSR	By No. of Companies
Occupational Health and Safety	9
Waste management and circular economy	8
Climate Change Risk & Global Warming	8
Emission and Air Quality Management	7
Human capital and labour relations	8
Customer Relationship Management	6
Community engagement & Human Rights	9
Sustainable Supply Chain Management	7
Governance & Ethics	4
Diversity and inclusion Opportunity	4
Water Conservation & Management, Biodiversity	5
Innovation and sustainable products	3
Talent Management	3
Information Technology & Cyber Security	3
Risk Management	2
Capital	1
Project Management	1
Economic Slowdown	2
Quality control	1
Regulatory & Statutory Compliance	1
Total	92

Annexure - II

Sl.No.	Entity	No. of BR Identified
1	Dalmia Bharat	2
2	RAMCO	4
3	Sagar	6
4	Heidelberg	4
5	ITD	11
6	ACC	16
7	AMBUJA	16
8	BIRLA CORP	13
9	PRISM	20
	Total	92



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Annexure - III

Sl.	Risk	Dalmia Bharat	RAMCO	Sagar	Heidelberg	ITD	ACC	AMBUJA	Birla Corporation	Prism
1	E	Climate Change Risk	GHG Emission and Global Warming Risk	Climate Change Risk			Climate and Energy Risk & Opportunity	Climate and Energy Risk & Opportunity	Energy and GHG Emissions Risk & Opportunity	Energy and GHG emissions Risk
2	E								Climate Change Opportunity	
3	E	Health And Safety Risk		Health and Safety Risk	Occupational Health and Safety Opportunity & Risk	Occupational, Health and Safety Performance Opportunity	Occupational health and safety Risk & opportunity	Occupational health and safety Risk & opportunity	Occupational health and safety Risk	Occupation health & safety Risk
4	E			Global regulation on curbing GHG Emission Risk	Emissions management Risk		Air Quality Risk	Air Quality Risk	Air Quality Risk	Air Quality Risk
5	E		Circular Economy Opportunity	Waste Management and Circular Economy Opportunity	Green Power Opportunity	Water, Waste & Hazardous Materials Management	Circular economy Opportunity	Circular economy Opportunity	Circular economy Opportunity	Waste management and circular economy Risk
6	E			Water and Effluent Management Opportunity			Biodiversity Risk & Opportunity	Biodiversity Risk & Opportunity		Biodiversity Risk
7	E		Energy Management Opportunity and Risk							
8	S		Sustainable Supply Chain Management						Materials management	Transport and logistics Opportunity
9	S					Retention of Skilled	Human Capital Development Opportunity	Human Capital Development Opportunity	Labour management Risk & Opportunity	Labour relations Risk
10	S					Shortage of Qualified Manpower and high attrition rate of workers			Talent management Risk & Opportunity	Talent attraction and retention Risk
11	S						Diversity and inclusion Opportunity	Diversity and inclusion	Diversity and inclusion Opportunity	Diversity and inclusion Opportunity
12	S								Community engagement Opportunity	
13	S								Customer centricity Opportunity	Regulatory and statutory compliance Risk
14	S						Water Management Risk & Opportunity	Water Management Risk & Opportunity	Water Conservation Risk and Opportunity	Water conservation Risk
15	S					Customer Experience & Satisfaction Opportunity	Customer Relationship Management Opportunity	Customer Relationship Management Opportunity		Customer relations Opportunity
16	S					Impact of Economic Slowdown Risk	Sustainable supply chain Risk & Opportunity	Sustainable supply chain Risk & Opportunity	Transport and Logistics Opportunity	Innovation and sustainable products Opportunity
17	S					Quality Control				Customer health and safety Risk
18	S									Economic business performance Opportunity
19	S									Indirect economic impacts Opportunity
20	S									Supplier sustainability Risk
21	S				Community development Opportunity	Social engagement & Impact Opportunity	Human Rights Risk & Opportunity	Human Rights Risk & Opportunity		Human rights Risk
22	S						Sustainable Construction	Sustainable Construction		
23							Community Relations Opportunity	Community Relations Opportunity		Community engagement Opportunity
24	G					Cyber security Risk	Information Technology and Data privacy Risk & Opportunity	Information Technology and Data privacy Risk & Opportunity		
25	G			Governance and ethics Opportunity			Corporate Governance and business ethics Opportunity	Corporate Governance and business ethics Opportunity		Value and ethics Risk
26	G					Project Execution: On-time Delivery Opportunity	Risk Management	Risk Management Opportunity		
27						Capital Risk				

Heidelberg	AMBUJA	ACC	PRISM	SAGAR	DALMIA	RAMCO
Credit Risk	Cyber Security	Maintaining Market Share	Energy Cost & Availability Risk	Consolidation and intense competition	Cyber Security	Operations and Maintenance risk
Liquidity Risk	Employee Health and Safety	Comply with New Regulations	Cybersecurity Risk	Region dependency	Employee Health and Safety	Raw material risk
Market Risk	Macro Economic Risk	Fuel and Raw Material Security	Raw Material Availability Risk	Market volatility	Micro Economic Risks	Logistics risk
Interest Rate Risk	Regulatory and Legal Risk	Cybersecurity	Commodity Price Risk	Treasury management	Regulatory & Legal	Finance risk
Foreign Currency Risk	Managing Relationship with Stakeholders	Health & Safety	Economic Risk	Health and safety	Relationship with Stakeholders	Information Technology risk
	Talent Management	Climate Risk	Climate Change	Fuel procurement	Talent Management	Human Resource risk
	Geopolitical contestation of strategic resources	Natural Resources	Environment Risk	Brand positioning	Geopolitical contestation of strategic resources	Competition risk
	Extreme Weather	Energy Security	Credit Risk	Succession planning	Extreme weather	Commodity price risk
		Project execution	Regulatory	Supply chain – logistics cost		
			Health & Safety	Asset management		
			HR Risk	Climate change		
			Digital Advancement	Compliance Risk		
5	8	9	12	12	8	8

Analysis of the above data, raises certain valid questions. For most of the entities ‘Governance and Ethics’ is not a challenge and ‘Risk Management’ also taken a backseat, only two entities reported ‘Risk Management’ as challenge. However, in the ‘Risk Management’ disclosure made by the herein referred and reviewed entities disclosed multiple ‘Business Risk’. It is noted that ACC and Ambuja reported the same issues in toto for BRSR reporting purposes despite their ‘Risk’ disclosure in Corporate Governance section of published Annual Report are different (companies under same



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Promoter Group). Even when back dated technology is a concern and adoption of Information Technology emerging as an opportunity, only three entities felt concern for the same. Occupational health and safety take the centre stage, highest concern by all the entities barring for one.

More than 75% of the entities referred here, considers Environment (E) impacts as the core of 'Business Responsibility and Sustainability', which includes (a) 'Waste management and circular economy, (b) Climate change Risk and global warming, (c) Water Conservation & Management, (d) Biodiversity' etc. For the purpose of analytical review, the details furnished by entities considered as per the spirit of the description not the words used. For most of the Companies, the 'Risk' as captured in BRSR are more (figures in bracket given in the below table taken from BRSR) than that furnished in Corporate Governance section 'Risk' disclosure (furnished below from the risk disclosure as captured in Annual Reports). It is also noticed that few entities in their management discussion included operational mitigation process, however, the same not forming part in 'Risk Management' disclosure.

One may argue, that the Business Responsibility and Sustainability Reporting (BRSR) disclosure and the Risk Management section under Corporate Governance are two separate reporting requirements, but are they not intersecting when it comes to risk disclosure. While agreeing to the BRSR disclosure, which focuses on Environmental, Social, and Governance (ESG) factors and their impact on the company's sustainability and business responsibility, the Risk Management section under Corporate Governance, focuses on the company's overall risk management framework, including financial, operational, strategic, and other risks; however, 'financial implications of the risk and opportunity' also to be mentioned in BRSR. In view of the above, harmonization of the risk disclosure across both sections i.e integration of ESG considerations into enterprise risk management need to be reckoned as 'best practice'.

Conclusion

In general, it might be said all organizations aspire to being responsible but few would claim to be truly sustainable" (IFAC, 2006,). Effective governance provides the framework for identifying, assessing, and mitigating risks, ensuring that an organization operates within established boundaries and minimizes potential harm. COSO (Committee Of Sponsoring Organizations) ERM is a subset of the governance process, as it provides a framework for identifying, assessing, and managing risks that could impact an organization's ability to achieve its objectives. Governance process also ensures that BRSR reporting process is accurate, reliable and consistent. Standardized Governance Framework is crucial for India's corporate landscape, since the common platform can map sustainability efforts consistently on identical and replicable way, allowing stakeholders to assess and compare performance effectively. Transparency and accuracy in reporting enhances investor confidence over the entity's activities and relates with governance practices of the concerned entity. Since presence of standardized reporting in many countries influenced the growth (Park et al, 2021).

Sustainability is one of the key element of Risk Management and Governance as also envisaged by COSO. Various COSO Reports indicate the importance of sustainability as a consideration for the



Risk Management process. As for example -

- o COSO Framework 2013 mentions ‘sustainability’ as a consideration in the risk assessment process
- o COSO Framework 2017 includes “sustainability and environmental risks” as examples of strategic risks that organizations should consider
- o COSO’s 2019 Report: “Embracing Enterprise Risk Management: Practical Advice from the Experts”: highlights the importance of considering sustainability-related risks in an organization’s ERM process
- o COSO’s 2020 Report: “Risk Oversight: A Guide for Board of Directors”: emphasizes the need for boards to consider sustainability-related risks as part of their risk oversight responsibilities

In view of the differences highlighted, the identification and reporting of Risk requires uniform approach and integration, which will add value and build confidence among users of such information.

the US Sustainability Accounting rules Board (SASB) rules were introduced. This has helped companies enhance their transparency regarding sustainability and ESG factors. While SASB standards were initially voluntary, many U.S. companies have recognized that robust ESG reporting could improve their reputation, attract socially responsible investors, and mitigate risks associated with ESG issues. Similarly, In Europe, the EU Non-Financial Reporting Directive (NFRD) has been a catalyst for ESG reporting. The implementation of Directive 2014/95/EU (also known as the “Non-financial Reporting Directive”) on the disclosure of non-financial and diversity information put the EU on a clear path towards increased corporate transparency and accountability on social and environmental issues. The Commission stated its intention to evaluate the NFRD as part of the strategy to improve the foundations for sustainable investment on December 11, 2019, in its announcement on the European Green Deal.



Chapter 3:

INTERNAL AUDIT OF RISK MANAGEMENT

Background

An **internal audit of risk management** is an independent, objective evaluation of an organization's risk management processes. The goal is to assess how effectively risks are identified, assessed, managed, monitored, and reported—ensuring alignment with the organization's objectives and regulatory requirements.

Purpose of an Internal Audit of Risk Management

The role of internal audit in risk management is critical for ensuring that an organization's risks are effectively and properly identified, assessed, and managed. Here's a comprehensive explanation of its role:

Role of Internal Audit in Risk Management

1. Independent Assurance

Internal audit provides independent and objective assurance to the board and senior management that:

- Risks are being effectively identified and assessed.
- Risk management processes are working as intended.
- Controls to manage key risks are adequate and functioning properly.
- Adequate steps are taken to mitigate the risk through appropriate laying down of controls.

2. Evaluation of Risk Management Framework

Internal audit evaluates the design and effectiveness of the organization's risk management framework. This includes:

- Reviewing policies and procedures related to risk management.
- Assessing the organization's risk appetite and tolerance.
- Ensuring alignment with strategic objectives.

3. Monitoring and Reporting

Internal Auditors continuously monitor:

- Emerging risks.
- The effectiveness of risk mitigation strategies.



- Compliance with internal controls and regulatory requirements.
- Report findings to senior management and the audit committee to enable informed decision-making.

4. Advisory and Improvement Role

While remaining independent, internal audit can also play an advisory role by:

- Suggesting improvements to risk management processes.
- Helping management better understand risk exposures.
- Sharing best practices and tools for risk assessment.
- Evaluate the design and operating effectiveness of the risk management framework.
- Ensure compliance with regulatory and policy requirements.
- Identify gaps and recommend improvements in the risk management process.
- Provide assurance to senior management and the board.

5. Integration of business processes with Enterprise Risk Management (ERM)

Internal audit supports the integration of risk management into business processes. This includes:

- Assessing the risk culture.
- Ensuring risk considerations are embedded in strategic planning, operations, and decision-making.

6. Testing and Validating Controls

Internal auditors test whether controls are:

- Adequate to mitigate key risks.
- Operating effectively in practice.
- They also check for control gaps or weaknesses that could expose the organization to higher risk.

7. Compliance and Regulatory Risk Oversight

Internal audit ensures the organization complies with:

- Legal and regulatory requirements.
- Internal policies and procedures.
- They identify compliance risks and recommend actions to manage them.



Key Components Audited

1. Governance and Culture

1. Is there a defined risk management policy?
2. Are roles and responsibilities clearly assigned (Board, Risk Committee, CRO)?
3. Is there a risk-aware culture within the organization?

2. Risk Identification

1. Are risks identified across departments (strategic, financial, operational, compliance, reputational)?
2. Are emerging risks considered?

3. Risk Assessment

1. Are risks assessed for likelihood and impact?
2. Is a consistent risk rating system used?

4. Risk Response

1. Are mitigation strategies in place (avoid, reduce, share, accept)?
2. Are controls properly designed and implemented?
3. Monitoring & Reporting
4. Are KRIs (Key Risk Indicators) tracked regularly?
5. Is there timely reporting to management and the board?
6. Are risk registers up to date?
7. Whether residual risks are identified and monitored?

5. Integration with Strategic Planning

1. Is risk management embedded in decision-making processes?
2. Are project and change risks considered?

6. Information Systems & Technology

1. Is there adequate risk management software or tools in use?
2. Are data security and cybersecurity risks managed?

Audit Approach

Like any other Audit processes , audit of risk management also follows similar steps to make it purposive and result oriented.



Planning

- Micro and Macro level Risk and impact on the Organization.
- Understand organizational objectives and risk appetite.
- Review existing risk management framework and prior audits, if any.

Fieldwork

- Data collection to assess risks and implications.
- Conduct interviews with risk owners.
- Review documentation (risk registers, policies, meeting minutes).
- Test controls and processes.

Reporting

- SWOT Analysis and outcome.
- Provide actionable recommendations.

Follow-Up

Ensure agreed actions are implemented within a reasonable timeframe and measure effectiveness post implementation.



Chapter 4:

RISK MANAGEMENT AND RISK MITIGATION IN CEMENT ENTITIES

Introduction

The structure of corporate governance and traditional risk management systems are problems that face firms and their boards (Ingley & Van Der Walt, 2008). Effective risk management is a central factor in corporate governance and is associated with the efficiency of boards that are responsible for risk management implementation. A new idea for effective risk management is Enterprise Risk Management (ERM), which aims to manage risk within an enterprise while taking its objectives into account. Following the 2008 financial crisis, ERM has been advocated by consultants and regulators and has become a popular business strategy (Fraser & Simkins, 2010). Risk is exposure to lose or the variability of results and has a major impact on an organisation (Abdel-Khalik, 2013). So, firms must manage risk appetite and potential outcomes to maximise profits and minimise risk (Nickel, Saldanha-da- Gama, & Ziegler, 2012). Berinato (2004) pointed out that “Balancing risk is becoming the only effective way to manage a corporation in a complex world.” Both risk and uncertainty involve randomness (Rakes, Deane, & Rees, 2012). ERM is a process that businesses can apply across their spheres of operation to identify potential risks and provide counter measures to manage those risks to preserve value for all stakeholders within the organisation.

The Enterprise Risk Management (ERM) process has heterogeneously developed across the globe, although it represents a leading paradigm, supporting organizations to identify, evaluate, and manage risks at the enterprise level. (Enterprise Risk Management: A Literature Review and Agenda for Future Research : Gabriel Anton * and Anca Elena Afloarei Nucu ; 14 November 2020). The Authors also echoed (Ref.Business Risk in Selected Companies in Indian Cement Industry during the Post- liberalization Era: A Study: Debasish Sur, Dr kaushik chakraborty, Sumit Maji) and expressed that a detailed literature review on ERM is rare. They identified four published reviews on ERM, by Bromiley et al. (2015), Wu et al. (2015), Tworek (2016), and Liff and Wahlstrom (2018).

Entities are also worried about their capability to predict both negative and positive outcomes that result from many kinds of risks. Brinato (2004) specified that:” complementary risk is attractive the simply actual means to manage a firm in a multifaceted world.”

Fraser et al. (2010) survey of Risk Managers found ““... virtually all literature is silent on how to deal with the myriad cultural, logistical, historical challenges that exist and are unique to all organizations the silos together... The impact of corporate culture (‘Tone at the top’) on ERM implementation and practices is not well addressed in literature.” (ERM Review, Critique and Research Directions by Philip Bromiley, Michael McShane, Anil Nair, Elzotbek Rustambekov)

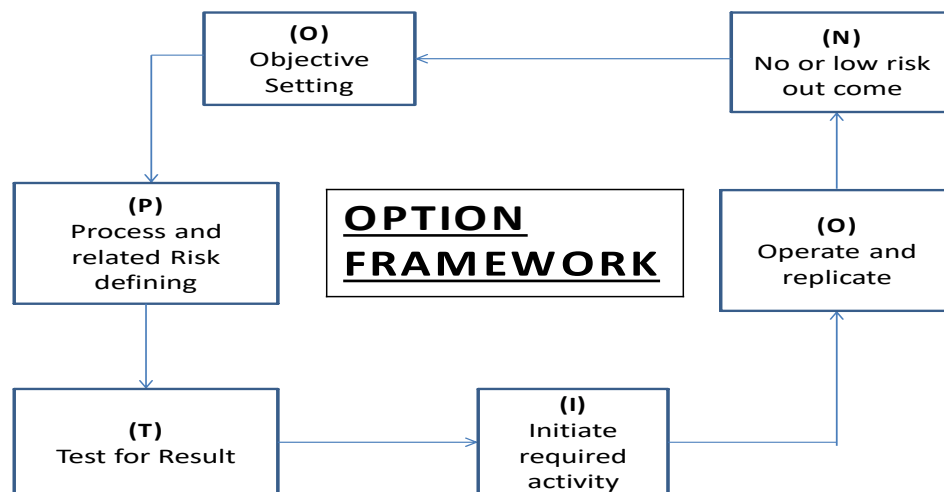
In a nutshell , Risk management is a

- systematic process
- to identify, evaluate and address risks pro-actively
- continuously
- before such risks can impact negatively
- on the organization’s achievement of objectives

Need for Risk Management

- ☐ Risk management creates and protects value
- ☐ Risk management is an integral part of all organizational processes
- ☐ Risk management is part of decision making
- ☐ Risk management explicitly addresses uncertainty
- ☐ Risk management is systematic, structured and timely intervention
- ☐ Risk management facilitates continual improvement of the organization

Risk Management Framework



Guiding Principles for Risk Management Framework

1. Leadership & Governance (‘tone at the top’ and ‘tone from the top’)
 - Board Oversight: Boards and Audit Committees to oversee enterprise-wide risk.
 - Risk Culture: Encourage safety, compliance, and sustainability from the top down.
 - Unit/Activity Level Risk Champions: Assign roles for day-to-day risk vigilance.



2. Integration with Business Strategy

- **Strategic Alignment:** Link risk appetite and key risk indicators (KRIs) with business objectives like capacity expansion, raw material sourcing, or energy diversification.
- **Capital Expenditure Risk Evaluation:** Integrate risk review in capital expenditure decisions, including new plant setups or acquisitions, capacity ramp-up etc.

3. Operational Risk Identification

- **Process & Equipment Risks:** Identify risks from kiln failures, clinker quality issues, power interruptions, and equipment downtime.
- **Supply Chain & Logistics:** Consider disruptions in raw material supply (limestone, gypsum, coal), fuel price volatility, and transportation risks.
- **Safety, Health, & Environment (SHE):** Enforce strict SHE standards to prevent workplace accidents and manage environmental risk

4. Environmental & Sustainability Risks

- **Carbon & Emission Regulations:** Assess risk from evolving environmental laws and carbon pricing mechanisms.
- **Water Usage & Waste Management:** Identify ecological risks from quarrying, water consumption, or poor waste practices.
- **ESG Compliance:** Embed sustainability and social responsibility into the risk register.

5. Financial & Market Risk

- **Commodity Price Volatility:** Monitor input costs (coal, pet coke, power, Coal Based Methene etc.) and foreign exchange fluctuations for imported materials.
- **Demand Cycles and seasonality:** Track cyclicity in real estate, infrastructure, and construction sectors which drive cement demand.
- **Credit Risk:** Evaluate the financial health of large customers (real estate developers, government contractors).

6. Regulatory & Compliance Risk

- **Land Acquisition & Mining Leases:** Risk related to approvals and renewals of mining rights.
- **Statutory Compliance:** Ensure alignment with Companies Act, SEBI LODR, Factories Act, Pollution Control Boards, etc.
- **Litigation Risk:** Address potential disputes from environmental violations or contractor issues.



7. Technology & Digital Risk

- **Process Automation Risks:** Mitigate risks from digitized kilns, SCADA systems, and smart quality controls.
- **Cybersecurity:** Protect operational and financial systems from cyber threats.
- **Data Integrity:** Ensure accurate and timely reporting of production, emission, and financial data.

8. Risk Monitoring & Reporting

- **Early Warning Systems:** Use predictive maintenance tools and risk dashboards for proactive management.
- **Audit & Control Loops:** Internal audits to assess control effectiveness across plants and functions.
- **Periodic Risk Reviews:** Regular plant-level and corporate risk assessments with actionable insights.

9. Continuous Improvement

- **Incident Review Mechanism:** Learn from safety incidents, environmental breaches, or compliance failures.
- **Risk Metrics:** Develop and track KPIs/KRIs like LTIFR (Lost Time Injury Frequency Rate), emission levels, downtime ratios, Mean Time Between Failures (MTBF) etc.
- **Training & Awareness:** Regular workshops for operational and managerial staff on risk identification and response, implementation of mitigation plans etc.

10. Stakeholder Engagement & Transparency

- **Stakeholder Risk Communication:** Disclose material risks in annual reports, ESG disclosures, and investor presentations, BRSR disclosures.
- **Community Risk Impact:** Engage local communities near plants regarding blasting, dust, traffic, and livelihood concerns.
- **Sustainability Reporting:** Align with GRI, IR, or BRSR frameworks for consistent risk disclosures

Risk Management Structure and Team

The team to include members having knowledge about specific subject e.g ESG, Compliance requirements, Engineering, Finance, Accounting, Costing, Budgeting etc.



1. Board of Directors / Risk Committee Responsibilities:

- Ultimate oversight and accountability for enterprise-wide risk.
- Approve risk policy and framework.
- Set the organization's risk appetite.
- Review top risks and mitigation status quarterly.
- Oversee compliance with statutory and ESG obligations.

2. Executive Risk Management Committee (ERMC) Responsibilities:

- Translate board-level strategy into risk action plans.
- Prioritize strategic and cross-functional risks (e.g., regulatory, market, ESG).
- Allocate risk budgets and resources.
- Review business continuity and crisis response.

3. Chief Risk Officer (CRO) / Head of Risk Responsibilities:

- Design and implement the risk management framework.
- Maintain the Entity risk register.
- Coordinate risk assessments across functions.
- Develop key risk indicators (KRIs) and dashboards.
- Suggest risk appetite.

4. Risk Management Function / Department Responsibilities:

- Conduct enterprise and operational risk assessments (ERAs and ORAs).
- Evaluate mitigation plans and residual risk.
- Liaise with plant-level teams.
- Train employees on risk awareness.
- Manage risk reporting and documentation.

5. Internal Audit Function Responsibilities:

- Independently assess risk control effectiveness.
- Evaluate adherence to risk framework and risk-based internal controls.
- Conduct audits and highlight process gaps, fraud risks, and compliance lapses.



Risk Culture

The Enterprise Risk Management (ERM) process has heterogeneously developed across the globe, although it represents a leading paradigm, supporting organizations to identify, evaluate, and manage risks at the enterprise level (Gabriel Anton & Nucu, 2020). Even within the sector, risk and impacts are not identical, varies entity-wise. Fraser et. al (2010) survey of Risk Managers found “... virtually all literature is silent on how to deal with the myriad cultural, logistical, historical challenges that exist and are unique to all organizations...” (Philip Bromiley et.al 2015).

Risk culture refers to the set of shared attitudes, values, beliefs, and behavior within an organization that shape how individuals and groups perceive, manage, and respond to risk. Appropriate Risk Culture helps organizations to prevent crises. Weak risk culture has been a factor in major corporate failures (e.g., Enron, Lehman Brothers etc.). It also supports compliance by encouraging adherence to regulations and ethical standards. Risk culture enhances decision-making ability and builds resilience.

Key Elements of Risk Culture

- o Leadership Commitment -Tone from the top is critical. Leaders must model appropriate risk-taking and ethical behavior.
- o Accountability -Clear roles and responsibilities for risk management at every level of the organization.
- o Transparency and Communication - Open channels for reporting risks without fear of retaliation and encourage debate, discussion within the group.
- o Incentives and Rewards -Alignment of compensation and performance metrics with risk-aware behaviour.
- o Risk Awareness -Employees understand the risks related to their work and how to escalate issues.
- o Learning and Adaptation - Continuous improvement through learning from past failures and near-misses.

Bayesian Approach towards Dynamic Risk Assessment and Management (DRAM)

In risk analysis, Bayesian methods having more adaptability and flexibility power than traditional methods. Risk is the outcome of uncertainty, which is itself resulted from lack of information and resultant understanding, knowledge or experience. (Muriana & Vizzini, 2017) Due to varied usage of the term ‘risk’ with the passage of time, the definition also undergone changes, while keeping the core of ‘risk’ intact. Risk is measured in terms of “likelihood and consequence”. Osborne (2012) has indicated that, ‘risks can be occurred because of peoples own business activities’. Risk can also occur because of outside forces like regulations, Porter Forces (5 F), the actions of others or can be Environmental- Social-Governance (ESG) issues. Hence, dynamic risk management includes both ‘micro’ and ‘macro’ elements pertaining to specified industry, which helps management in



accomplishment of its objectives. The dynamic factors may be of the nature of ‘stable dynamic’, where the possible change not to happen at a very fast pace. As for example, information security provides stability against cyber insecurity. On the contrary ‘acute dynamic factors’ takes place rapidly, may cause even change of the company’s risk profile, mitigation strategy and risk appetite. Understanding the dynamic scenario and identification of the risk, is that magical wand which pulls out hidden risk areas from apparently no-risk arena and converts potentially (or common understanding of high risk) high risk areas into no-risk areas by continuous monitoring process. In other words, this will help the management in turning their hindsight into foresight through development of further insight.

Business and Strategic Risks are identified against each ‘Operational area’ following the Bayes Theorem. Every ‘Operational area’ consists of one or more business processes. DRA (Dynamic Risk Assessment) is carried out based on business data and external business environment. Such assessment leads to change of risk grade and consequential mitigation plan. The continuous assessment and monitoring, for which mitigation action being carried out creates a fresh risk matrix at every point of time depending upon the implementation of mitigation plan.

Dynamic Risk Assessment & Management (DRAM) is a continuous process where the sources of uncertainties are systematically identified, their impact assessed and quantified and their effect and likelihood managed to produce an acceptable balance between the risks and opportunities for the concerned industry. (Harry et al., 2005)

The ‘risk’ is associated with dynamism, it undergoes change in every moment whenever the underlying conditions changed. Accordingly, the steps as risk identified, likelihood and consequences also undergo changes, measures for mitigation and such conditions are termed as DRAM (Dynamic Risk Assessment and Management). For a successful DRAM, real time availability of data, assessment of data and obtaining the outcome, probable impact of the same on Company’s business and emerging risk, likelihood of occurrence of the risk event, updating mitigation plan required for the emerging risk and lastly actual outcome of the change in risk matrices to be carried out as a continuous process.

To capture the Dynamic Risk Events (DRE) by applying the Bayes Theorem, with all the major possible Business and Strategic risks faced by a co. The theorem propagated by Thomas Bayes English statistician, philosopher and presbyterian minister. The theory was published posthumously in 1763. Bayes’ Theorem is used for updating the probability of a hypothesis based on newer evidences every time. Such evidences include, Datum (Organizational and outside), macro forces and related evidences, business understanding etc.

DRAM is a continuous process of evidence collection, datum and ever watchful to business environment. The continuous process ensures, risk matrix is relevant and updated with the real life scenario. It also ensures a ‘risk culture’ within the Organization and awareness to handle the scenario without any knee jerk action. Today’s complex business conditions is the ideal ground for continuous appraisal of relevant information and pro-active decision-making process to win over competition.



- Annual Risk Identification
- Dynamic Risk Identification process

Risk Prioritization

Risk prioritization is associated with mitigation plan, 'Risk Appetite' and Organization culture. The most impactful risks need to be addressed first, since mitigation involves cost. Cost of mitigation should not be more than benefits derived and/or derivable, since risk having a negative impact on the organization. The prioritization depends on the appetite, because some risks having lower or lesser impact may be carried by the organization due to higher appetite. Some organizations are 'risk averse' while others encourage high risk takers. Organization culture having a deciding factor in prioritization of risk also. Highly aggressive organizations may decide to take higher risk and hence they may not prioritize one particular risk, while another risk averse organization may jump into mitigating the same risk at the earliest and hence prioritize the same.

Risk Response

Risk owners/Champions are supposed to respond against each of the risk including the emerging ones. The response may include their prioritization plan, mitigation strategy, transfer of risk strategy and/or decision of carrying the same. A long-term and short-term view should reflect in the response so that resource requirement and allocation for mitigation can be planned accordingly. A vague or evasive response is not desirable, since the same may cause harm to reach organizational goal. A valid and valuable response can be acted upon for better results in risk prioritization and resource allocation well in time i.e. before the risk poses any danger for the organization.



Chapter 5:

INTERNAL AND EXTERNAL RISKS IDENTIFICATION -CEMENT SECTOR

Risk management refers to the identification, assessment, and prioritization of risks followed by coordinated efforts of (4 Ms) i.e to Measure (impact), Minimize (negativity), Monitor (efforts), and Manage (control) the probability or impact of unfortunate events, if any.

Measure

Minimize

Monitor

Manage

Sources of uncertainty is the concern in fulfilling set out organizational goals. Study of Risk Management has grown depending upon the hurdles faced by the industry at different point of time, which may derail the organizational objectives. Risk Management enables a robust, quantitative, and economic understanding of risks whose impact is communicated throughout the organization's levels (Paula et al., 2018). Such a portfolio approach considers risk interrelations and the significant benefits that can be achieved when they are evaluated and monitored together at a superior Organizational level (Jabbour & Abdel-Kader, 2015). Harry et al. (2005) points out that risk management is a continuous process where the sources of uncertainties are systematically identified, their impact assessed and quantified and their effect and likelihood managed to produce an acceptable balance between the risks and opportunities for the concerned industry.

Studies and their importance with respect to Cement sector in Indian context increased with progress of time in view of enhanced business complexity. The cement industry is a capital-intensive and highly competitive sector and vulnerable to multiple risks. Identification of risk, assessment, and prioritizing the same in the cement industry, providing a framework for effective risk management dealt in the initial studies. Post Bhopal gas disaster (1984), awareness on hazardous processes and industry specific alert mechanism got prominence, which particularly important for sustainable operations in the Cement sector. However, clearly laid down risk philosophy or standard criteria with respect to measurable risk for different industries (including Cement) and locational (plant) pointers for such a vast diverse country was to be there. A set of guiding criteria or formulation of a framework after evaluating every risk in relation to 'operational hazards of cement industry' is one of the needs of the hour as felt by the researchers (An evolution of Risk assessment framework for industrial accidents in India, Sengupta et. al 2016, Gupta 2006). Risk Management helps in informed 'Decision Making' by providing timely and proper insights, which transforms 'hindsight' into 'foresight' for developing 'insight'.

Due to typical nature of the Cement industry, risk and risk management activities differ from other industries. The typical nature of Cement industry is articulated through –



1. High-energy consumption: At Kiln to produce Clinker, 1850 Degree to 1900 Degree Centigrade temperature is required, no other industry except Steel melting require such high temperature. As a result, energy efficiency improvement is one of the prime considerations for cost effectiveness and competitive edge among industry participants. (Energy Efficiency in the Cement Industry by \International Energy Agency, 2019)
2. Complex supply chain: Supply chain risk management in the Cement industry involves identifying, assessing, and mitigating risks associated with the supply of raw materials, production, and distribution of cement. Cement Grinding Units are situated near to market; hence, Raw Material (Clinker) requires bulk transportation from distant places (Composite Units) and produced Cement requires both bulk and lower volume distribution channels to cater the specific Customer requirements. Moreover, seasonality of demand (higher variance in comparison to other industries), requiring adaptive supply chain strategies. (Supply Chain Risk Management in the Cement Industry by Journal of Business Logistics, 2018)
3. Geological risks: Cement production requires specific geological formations of limestone for Clinker (mother raw material for Cement), unlike other industries that can use alternative materials. Accordingly, higher reliance is given on quarrying operations, making it more susceptible to geological risks. Longer lead times for limestone extraction and subsequent crushing, making it more challenging to respond to supply chain disruptions. Since depletion of natural resources and possible environmental impact for quarrying, making it essential to manage geological risks sustainably. (Geological Risk Management in Cement Production” by Journal of Geological Research 2020).
4. Environmental and regulatory risks: Cement production process emits pollutants like particulate matter, NO_x, and SO₂, contributing to air pollution. (Occupational Health Hazards in the Cement Industry by World Health Organization, WHO 2018) and negative health effects. Due to significant requirement of water resources for cement production and draining the pollutant water without treatment in the rivers, canals and ponds; substantial damage to flora, fauna and water borne animals is the consequence. Such hazardous waste, requiring proper disposal and management to prevent environmental harm. (Environmental Protection Agency Report 2020). Since, Cement production is a significant source of greenhouse gas emissions, also contributing to climate change. (Intergovernmental Panel on Climate Change 2019). This study assesses the health risks and environmental impacts of cement production in Nigeria. The researchers collected air and water samples from three cement factories and analysed them for pollutants. They also conducted a health risk assessment using the Hazard Quotient. (Health Risk and Environmental Assessment of Cement Production, Olukanni, D. O., Akinyemi, O. O., and Oyebanji, O. O, 2021)
5. High capital outlay: Capital cost for a plant differs substantially due to installed capacity of the plant and its location. Rise in capex cost trend being noticed across the globe. Present capital cost works out to 100 to 200 Dollar per Mt. depending on capacity. Such high cost unless



GUIDANCE NOTE ON RISK BASED INTERNAL AUDIT OF CEMENT INDUSTRY

equated by expected return, tantamount to competitive rivalry construing as entry barriers (Porter 1979) and (Capital Expenditure in the Cement Industry” by Global Cement and Lime Magazine (2019). Appuhami (2008) revealed that capital expenditure has an important impact on working capital management also.

6. Seasonality of demand: In a vast country like India rainy season and impact of the same varies substantially in different parts of the Country. The rainfall (in cm.) also varies and dampens the spirit of construction activities. Seasonality relates to inventory holding, since it is mostly thought to cater customer at any point of his requirement. It was found that inventory management and return on revenue have a correlation (Impact of Inventory Management on Operating Profit: Evidence from India, Khurshid Ali et. al 2022) as analyzed whether inventory management has any effect on the net profits of the company.

Contemporary literature also includes other types of Risks applicable across different Sectors including Cement.

TABLE: Other Risks

Types of risk	Authors	Definitions
Credit risk	Greuning and Bratanovic (2009)	- the probability that a borrower will fail to pay dues
Liquidity risk	Gup and Kolari (2005)	- defined as the hazard to earnings to meet its responsibilities to creditors and the wants of debtors by changing assets into cash swiftly with least loss, being able to borrow moneys when wanted, and having funds accessible to execute gainful securities transaction deeds
Market Risk	Saunders et al. (2006)	- refers market risk as the chance of change in consumer attitude to product of the company
Foreign exchange risk	Raghavan (2003)	- defines as the risk to payment obligations in currency of a different country
Operational risk	Njogo, (2012)	- referred as the hazard of straight or unforeseen loss resulting from insufficient or unsuccessful internal processes, persons and schemes or from outside events
Interest Rate Risk	Gleason (2000)	- refers the possible adverse effect on the net interest revenue and is the exposure of an organizations financial situation to the changes in interest rates.

Presence of multiplicity of investors both Indian and multinational, escalated the issue of competitive edge to be sustainable in industry (simultaneous risk and opportunity). The everlasting prominence of governance and risk continues to be critical, in dealing with matters like protection of investors



and cost rationalization in the journey of sustenance. A proper risk management process can help enterprises to grow by enhancing competitive advantage (Blanco-Mesa, Journal of Risk and Financial Management; Oct. 2020). In this VUCA (Volatile Uncertain Complex and Ambiguous) world, to survive and grow is a critical aspect. Multiple regional players, capacity expansion by competition in multiple geographies, cut throat pricing by competition, governmental restriction on lime stone mining, high cost and supply uncertainties of fuel, predominant usage of coal in Kiln causing CO₂ emission and environmental issues (Deloitte study on Sustainability 2023), growing digitalization and Cyber security (PWC 2024 Digital Trust Insight), safe work place, high number of contractual deployments in Plants and compliance with respect to such deployments etc. (EY study 2022 and DLA Piper study 2023) enhances the requirement of appropriate ‘risk management and governance’ process for the Indian cement sector. To address this situation, establishing appropriate Governance Strategies required for ‘Risk Assessment’ (Identify, assess, and prioritize risks), Implementation of robust internal control and monitoring systems, Regulatory compliances and Engagement with Stakeholders (Investors, Customers, Communities, Employees etc.).

RISK BASED AUDIT PLAN

Planning Process

The cement industry plays a critical role in global infrastructure development but operates within a high-risk, resource-intensive, and environmentally sensitive context. The industry faces increasing scrutiny over its environmental footprint, energy-intensive processes, complex supply chains, and regulatory obligations. As a result, strategic governance and robust risk management have become crucial to ensure operational resilience, regulatory compliance, and sustainable growth. In this VUCA world, study of risk management intertwined with governance practices is essential for better sustainability of the sector.

Due to typical nature of the Cement industry, risk and risk management activities differ from other industries. Typical nature of Cement Industry is articulated through-

High-energy consumption: At Kiln to produce Clinker, 1850 Degree to 1900 Degree Centigrade temperature is required. (International Energy Agency, 2019)

Complex supply chain: Supply chain risk management in the Cement industry involves identifying, assessing, and mitigating risks associated with the supply of raw materials, production, and distribution of cement. (Supply Chain Risk Management, 2018)

Geological risks: Cement production requires specific geological formations of limestone for Clinker (mother raw material for Cement). Depletion of natural resources and possible environmental impact for quarrying, making it essential to manage geological risks. (Geological Risk Management in Cement Production 2020).

Environmental and regulatory risks: Cement production process emits pollutants like NO_x, and SO₂, contributing to air pollution. (WHO 2018) and negative health effects. Since, Cement



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production is a significant source of greenhouse gas emissions, also contributing to climate change. (Intergovernmental Panel on Climate Change 2019), (Olukanni, D. O., Akinyemi, O. O., and Oyebanji, O. O, 2021)

High capital outlay: Capital cost for a plant differs substantially due to installed capacity of the plant and its location (100 to 200 Dollar per Mt) (Global Cement and Lime Magazine ,2019); Appuhami (2008).

Seasonality of demand: Seasonality relates to inventory holding, it was observed that inventory management and return on revenue have a correlation (Khurshid Ali et. al 2022).

Other types of Risks applicable across different Sectors including Cement is given in Page 64.

Risk Based Planning Document for Cement Sector

Other than the above general identification of Risk of the Sector, Unit specific risks also may have negative (in fact, the word risk many a times associated with negative connotation) impact on the entity, e.g . Overcapacity, local Govt. infrastructure, local unemployment etc.

As referred in other sections , Bayesian Dynamic Risk , Audit area planning and marshalling of resources based on Risk Review and outcome are the applicable ones for the planning of Cement Sector Audit.

RBIA Planning Document Appended in Annex.

SN.	Risk Time Frame	Category	Sub. Category	Risk	Rating (Scale: 1- 5) (1:Low.5 Critical)		Risk Rating (L X I)	Risk Mitigation Action Plan
	Short/ Long Term (ST/LT)			Description	Impact (I)	Likelihood (L)		
A	B	Category	D	E	F	G	H	I
1	LT	Medium	Strategic	Lack of stability and clarity in policies of the Govt towards the industry and business	3	3	9	Environmental Laws, Vehicle Loading capacity regulations, Mining Laws are some of the factors impacts business. Company through Cement Manufacturers' Association (CMA) makes representations to the govt. for fair, logical and transparent policy and regulatory framework.
2	LT	Medium	Strategic	Increasing Regulation putting pressure on Compliance	3	3	9	Legal Team keeps oversight on legal compliance and provides necessary guidance to address regulatory issues.
3	LT	Medium	Strategic	To meet increasingly tougher ESG norms	4	2	8	Occupational health, Safety, Environmental sustainability compliance norms are increasingly being made more stringent. The management prepares plans for adherence to the same. Implementation of such plans are regularly monitored.

SN.	Risk Time Frame	Category	Sub. Category	Risk	Rating (Scale: 1- 5) (1:Low.5 Critical)		Risk Rating (L X I)	Risk Mitigation Action Plan
	Short/ Long Term (ST/LT)			Description	Impact (I)	Likelihood (L)		
A	B	Category	D	E	F	G	H	I
4	ST	Low	Strategic	Adaption of new technology by competitors resulting in cost disadvantage to u	2	2	4	Cement manufacturing technology is more or less identical, hence adoption of new technology by competitors having no impact on business except in case of our vintage plants. The management keeps developing plans to upgrade the technology/efficiency of such plants to the extent feasible. Further, with the fast growth strategy undertaken by the company over the last few years, the share of vintage plants to the overall capacity is coming down.
5	LT	Low	Strategic	Lack of new product Brand development resulting in over-dependence on single/few product Brands	3	2	6	SLM Team always looks for new opportunities in brand creation for optimisation of the pricing of the products and to meet specific requirements of the Customer.
6	LT	Medium	Sales and Marketing	Sale of cement in the markets by non- local players at cheap rates can impact the prices	3	3	9	Initiatives such as brand building, creation and maintenance of strong dealer network, promotion schemes, superior quality offering and customer servicing etc. undertaken to ensure that the impact of competition from non-regular brands is minimal.
7	ST	Medium	Strategic	Lack of sourcing flexibility and over dependence on practically single supplier for each key RMs, limited capacity and moderated quality Lime Stones of own mines	4	2	8	Most of the RMs are sourced from more than one source at the Unit / Plant level. Such risk exists mainly for high grade limestone procurement at one Plant. To mitigate such risk, the company is planning to acquire high grade limestone mine through e-auction.
8	ST	Medium	Strategic	Cyclical nature of the industry, which impacts demand in certain periods such as monsoon and festival holidays	3	3	9	Special promo plans are launched by the sales team to mitigate the seasonal slackness in demand as much as possible
9	ST	Low	Procurement	Inability to secure tie-ups for long term contracts for sourcing of critical raw materials	3	2	6	About 29000 Vendors are in business (active) with us for more than 10 Years. Alternate sources developed for each raw material, where long term contracts not feasible.
10	ST	Low	Procurement	External / Internal instability or disturbance may affect raw material ingress into the site	3	1	3	CSR Team and business leaders are in touch with neighbouring villagers and relationship is very cordial till date, as such disturbances are unlikely.



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SN.	Risk Time Frame	Category	Sub. Category	Risk	Rating (Scale: 1- 5) (1:Low.5 Critical)		Risk Rating (L X I)	Risk Mitigation Action Plan
	Short/ Long Term (ST/LT)			Description	Impact (I)	Likelihood (L)		
A	B	Category	D	E	F	G	H	I
11	ST	High	Procurement	Inflation in the prices of key raw materials and fuel, which may not be passed on to the customers if the market conditions are not congenial	4	3	12	Fuel, Fly Ash, key RMs price are market driven and may rise significantly. The company continues to evaluate options such as alternate products/ sources/ modes of transportation/ long term linkages/ securing captive mines to mitigate the impact as much as possible.
12	ST	High	Procurement	Depleting availability of critical raw materials	4	3	12	Lime Stone , Coal queries life is limited and hence Company's endeavour to search / acquire new mining leases , participation in bidding process for limestone, coal auctions etc. To mitigate the gap in Lime Stone quality, high grade Lime Stones are procured and mixed with own mined Lime Stone.
13	ST	Medium	Procurement	Suppliers not able to meet commitments resulting in stock outs and emergency purchases at higher prices	3	3	9	After placing of Orders, regular follow-ups are made to ensure timely delivery by Vendors.
14	ST	Low	Financial	Fluctuations risk on Foreign currency exposures	2	2	4	Effective monitoring are in place w.r.t same. Short term exposures are mostly hedged.
15	ST	Medium	Procurement	Inconsistent / inferior raw material quality resulting in output quality issues/excess consumption and cost increase	4	2	8	Stringent quality control process exists at all the production facilities . Any deviations are approved by appropriate authority with applicable price reduction w.r.t Supplier.
16	ST	Medium	Procurement	Inadequate storage for critical raw materials	4	2	8	Storage space review carried out periodically w.r.t requirement. Due to seasonality, at time high volume opted for and managed by keeping/ storing at multiple locations. However, appropriate steps are taken to pre-empt possibility of mix-up and quality deterioration.
17	ST	Medium	Procurement	Incidence of fraudulent activities in the procurement process	3	3	9	No reportable issue during the Year. DOA/Approval mechanism is very stringent to pre-empt any such possibility. POs are released by appropriate authorities only as per DOA. Increasingly, key activities of procurement are being automated, such as e-auction, to mitigate the risk.

SN.	Risk Time Frame	Category	Sub. Category	Risk	Rating (Scale: 1- 5) (1:Low.5 Critical)		Risk Rating (L X I)	Risk Mitigation Action Plan
	Short/ Long Term (ST/LT)			Description	Impact (I)	Likelihood (L)		
A	B	Category	D	E	F	G	H	I
18	ST	Low	Procurement	Improper requirement specification mentioned in the Purchase contract	3	2	6	Process of review by designated officials before release of PO in place.
19	ST	Low	Procurement	Contract risks - clarity, adequacy, legal enforceability of terms	3	2	6	Critical Contracts are reviewed by Legal cell before final agreement.
20	ST	Low	Procurement	Weak third party / contractor management resulting in sub-optimal service delivery / project execution	3	2	6	Purchases done with parties only after evaluating their credentials to minimise counter party risk. Terms and conditions are well defined in contracts and performance monitored by the indenting Dept. Job certification carried out post evaluation. Performance Bank Guarantees obtained to cover against any sub optimal performance.
21	LT	Low	Procurement	Inadequate monitoring of demand-supply scenario resulting in sub-optimal buying	3	2	6	Regular monitoring carried out for market demand and accordingly Production Plan and in sync Procurement Plan prepared.
22	LT	High	Logistics	Non availability of railway rakes in sufficient quantities impacting despatches and sales and/or leading to higher freight costs	3	4	12	Changed market scenario, Rake non availability sometimes disarray the logistic plan to cater sales planned. However, within the cost budgeted alternate modes are selected for despatches. Liaison activities are undertaken with Railways for increasing rake allotments.
23	ST	Medium	Logistics	Inappropriate infrastructure for outbound logistics in terms of availability of proper types of vehicles and management of the fleet resulting in reduced despatches and/or increased freight costs	3	3	9	Sufficient number of Transporters are registered with Company to carry the incremental loads. Tracking of movement of Vehicles is done. Online auction of freights are considered. A comprehensive technology based system is being put in place for digitisation of the entire process.



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SN.	Risk Time Frame	Category	Sub. Category	Risk	Rating (Scale: 1- 5) (1:Low.5 Critical)		Risk Rating (L X I)	Risk Mitigation Action Plan
	Short/ Long Term (ST/LT)			Description	Impact (I)	Likelihood (L)		
A	B	Category	D	E	F	G	H	I
24	ST	High	Logistics	Increase in freight cost due to fuel price hike and cartelization of local transporters	4	4	16	Petrol /Diesel price hike is a non-controllable factor. Still, the management endeavours to minimise its impact through negotiation with the transporter and adoption of measures for optimisation of Logistic costs such as lead distance, reverse logistics, direct dispatches etc. However, cost hike recovered as and when pass on possible through FG as per market condition. To pre-empt possibility of cartelization, benchmarking is done with ideal per ton per km costs and with peers near the location. Also, new transporters are enrolled.
25	ST	Medium	Logistics	Transit risks involved in transportation of raw material and finished products e.g. theft, pilferage, accidents, acts of God etc	3	3	9	Transit losses are recovered from Transporters. Insurance claims preferred against Railways for short receipts as per Co. SOP.
26	ST	Low	Logistics	Over dependence on single/few logistics providers	4	1	4	Multiple Transporters are engaged. Prudent allocation strategy undertaken as per capacity of Transporters.
27	ST	Low	Logistics	Inability of the logistics provider to comply and adhere to regulations on products in transit	3	2	6	Logistic Contracts made transporters responsible for necessary compliance in course of transit. Company follows-up with Transporter for the same.
28	ST	Medium	Logistics	Inadequate monitoring of contract conditions and penalties on our part	4	2	8	Contract condition and performance against the same being monitored on regular basis. Budgetary controls and internal/management audits cover these aspects to review compliance.
29	ST	Low	Logistics	Inadequate/limited storage capacity for finished products at various transit points	4	1	4	Adequacy of depots is reviewed on a regular basis and additional depots are hired as and when required.
30	LT	Low	Operational	Inability to meet product quality standards set for the products on consistent basis	4	1	4	QC approved BIS Compliant final product quality is bagged and despatched. Stringent quality control process exists to ensure that the quality of the cement is in line with the specified standards. Customer complaints ,if any, are taken note for resolution purposes.

SN.	Risk Time Frame	Category	Sub. Category	Risk	Rating (Scale: 1- 5) (1:Low.5 Critical)		Risk Rating (L X I)	Risk Mitigation Action Plan
	Short/ Long Term (ST/LT)			Description	Impact (I)	Likelihood (L)		
A	B	Category	D	E	F	G	H	I
31	ST	Medium	Operational	Lack of stand-by equipment for critical production areas	4	2	8	Spares stock for critical equipment are maintained. Preventive, routine maintenance to enhance the equipment life in place.
32	ST	Medium	Operational	Poor management of critical spare parts for quick handling of breakdowns	4	2	8	Requirement of Insurance spares are assessed on a regular basis and the same are procured in accordance with the requirement.
33	ST	Low	Operational	Inadequate process improvement and technical services support	3	2	6	Every Plant is having a process improvement and technical assistance team for requisite support.
34	ST	Medium	Operational	Impact of Covid pandemic on continuity of operation	4	2	8	All locations having pandemic control team, which ensures pandemic related protocols. The management drives all personnel working in the plants to get vaccination done as per govt. prescribed rules. Covid control measures such as maintenance of safe distance, wearing of masks and sanitisation are followed. The impact of Covid on demand for the products however cannot be mitigated fully in case of lockdowns/ restrictions.
35	LT	Low	Operational	Occupational Safety and Health (OHS) risks in working environment for Own employees in running units	5	1	5	OHS is given the highest priority. A comprehensive framework exists to manage OHS. Experts are hired on a regular basis to provide guidance and review the practices being followed. Detailed SOPs have been prepared. Regular trainings are held on OHS. Safety teams of respective locations arrange Tool talk, safety meetings etc. to make a safer workplace.
36	ST	Low	Operational	Equipment performing below rated Capacity resulting in production bottleneck/loss	4	1	4	Plant performance is monitored by the management on a daily basis and immediate actions are taken on any indication of sub optimal performance of any plant.



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SN.	Risk Time Frame	Category	Sub. Category	Risk	Rating (Scale: 1- 5) (1:Low.5 Critical)		Risk Rating (L X I)	Risk Mitigation Action Plan
	Short/ Long Term (ST/LT)			Description	Impact (I)	Likelihood (L)		
A	B	Category	D	E	F	G	H	I
37	ST	Medium	Operational	Equipment performing below planned Availability resulting in production bottleneck	4	2	8	Extended period of annual /periodical shut-down poses threat to sales plan. However, annual shutdowns are planned meticulously in advance and adequate measures are taken to mitigate such risks. Continuous monitoring and preventive maintenance is undertaken to minimise unplanned shutdown. Feasibility of enhanced use of analytics/Artificial Intelligence to further bring down unplanned shut downs is being explored.
38	ST	Low	Operational	Non synchronization of Sales mix with current production capacity mix	4	1	4	Brand specific facility ramp-up at Plants in place.
39	ST	Medium	Operational	Presence of slow moving / non-moving inventory affecting operations and financial health	4	2	8	Task force for slow and non-moving inventory liquidation already in place. Blockage done in the system for spares procurement having existing stock, pre-ordering review by dedicated resource also in place.
40	ST	Low	Operational	Equipment and structures have exceeded their useful life and no plan /delay for replacement	5	1	5	By proper maintenance and replacement of critical Spares life of assets increased. Plant maintenance team always reviews usage and condition of Equipment and capex is planned well in advance of the required replacement.
41	ST	Low	Operational	Absence of properly trained personnel for operating critical equipment	4	1	4	Regular training imparted to Operators responsible for running critical equipment.
42	ST	Low	Operational	Fluctuations in power supply might cause damage to critical equipment	4	1	4	Appropriate Equipment/ Stabilizer are installed at the Plants to arrest fluctuation and protect critical Equipment
43	LT	Medium	Operational	Lack of reliable alternative power supply arrangement	3	3	9	Planning of availability of power vis v vis the requirement is undertaken considering eventualities of temporary power outages. DG sets are being procured for power back up where necessary.
44	ST	Medium	Operational	Wilful non-compliance with SOP /preventive maintenance plan for short-term production requirements	4	2	8	Maintenance activity rescheduled and Notification in SAP ERP Maintenance Module raised for the same.

SN.	Risk Time Frame	Category	Sub. Category	Risk	Rating (Scale: 1- 5) (1:Low.5 Critical)		Risk Rating (L X I)	Risk Mitigation Action Plan
	Short/ Long Term (ST/LT)			Description	Impact (I)	Likelihood (L)		
A	B	Category	D	E	F	G	H	I
45	ST	Medium	Operational	Inadequate / inappropriate quality assessment of Third Party procured Lime Stone Quality	4	2	8	Comprehensive process laid down for testing of the quality of lime stone procured from third parties. Payment to vendors is linked to the quality of limestone supplied.
46	ST	Low	Operational	In-process quality checks do not exist / not followed thus passing defects through final stage	4	1	4	Quality check for Raw Mix , specially Lime Stone Factor. (LSF) and Clinker tested critically . Cement samples are also collected at hourly rest.
47	ST	Low	Operational	Poorly trained contract labour in operations and maintenance work	3	2	6	Skilled resources as well as un-skilled resources are deployed through Contractors. Necessary up-skilling activities carried out at Plant level to make the person ready to take-up the Job.
48	ST	Low	Operational	Lack of proper supervision of contract work resulting in less confidence in product quantities and quality and safety requirements	4	1	4	Contractor deployed Supervisor as per agreement with Company , Company employee Supervisors also reviews the Job Progress and Quality performance regularly.
49	LT	Low	Operational	Corrosive nature of Materials and environment affecting plant performance	4	1	4	Preventive and break-down maintenance activities carried out at intervals to pre-empt any possibility of non-performance of Plant.
50	ST	Low	Operational	Inadequate focus on incident investigations and implementation of recommendations	5	1	5	Incident reporting and 'root cause analysis' carried out by Safety Officers and actions initiated.
51	LT	Medium	Operational	Projects executed in piecemeal manner where peripheral aspects of expansion are not considered adequately resulting in inadequacies in procurement, logistics, distribution and HR	5	2	10	Large projects are handled by dedicated Team with representation from CPD, Logistic, HR etc. to make holistic review of the Project. Cross functional team is involved in the monitoring and supervision of such projects.
52	LT	Low	Operational	Poorly designed and practiced Disaster Recovery Plan and Crisis response plan	5	1	5	DRP and CRP is in place and reviewed from time to time by experts in IT Team.



GUIDANCE NOTE ON RISK BASED INTERNAL AUDIT OF CEMENT INDUSTRY

SN.	Risk Time Frame	Category	Sub. Category	Risk	Rating (Scale: 1- 5) (1:Low.5 Critical)		Risk Rating (L X I)	Risk Mitigation Action Plan
	Short/ Long Term (ST/LT)			Description	Impact (I)	Likelihood (L)		
A	B	Category	D	E	F	G	H	I
53	ST	Low	Financial	Vendor Invoice Management system not in place to ensure all payments made are accurate and justifiable.	3	2	6	Controls exist in SAP to mitigate the risk of incorrect payments. Comprehensive process with controls have been laid down and followed for processing of vendor invoices and their payments.
54	ST	Low	Operational	Quality of materials / spares purchase below standards effecting operations	4	1	4	QC Dept. assess the Quality of all supplies and based on their clearance, acceptance takes place.
55	LT	High	Sales and Marketing	High competitive intensity in the markets may impact volumes and price in existing markets and slow down the ramp up of the new greenfield plant coming up in Maharashtra	4	3	12	Various steps are being taken to mitigate these risks including investment in Brand Building, improving dealer network and improved customer relationships through various innovative programs. Towards this end, higher use of technology is being pursued to establish better connect with the market participants including channel network and influencers.
56	LT	Medium	Sales and Marketing	Sales and Marketing strategy poorly defined / not adequate to meet the business requirements	4	2	8	A comprehensive framework for planning and review exists to ensure that the sales and marketing strategies conform to the business plans. Sales volume, realisations and profitability measures are in place and part of marketing strategy.
57	LT	Medium	Sales and Marketing	Inadequate branding of the products leading to price dilutions of the products	4	2	8	A dedicated Marketing team is in place for brand strategy and management. Bi annual brand track studies are conducted to assess the brand positioning in the market vis a vis the competitors. Leading ad agency is appointed for branding activities.
58	LT	Low	Sales and Marketing	Inadequate product and market research and development	3	2	6	Market research is carried out on a periodic basis to get feedback on the brands, products and price levels in the market.
59	ST	Low	Sales and Marketing	Lack of proper packaging policy for effective brand promotion	3	2	6	Market Support and Branding is a separate vertical headed by a senior person. Packaging, product release, launching of new Brand etc. are done following detailed analysis and deliberations.

SN.	Risk Time Frame	Category	Sub. Category	Risk	Rating (Scale: 1- 5) (1:Low.5 Critical)		Risk Rating (L X I)	Risk Mitigation Action Plan
	Short/ Long Term (ST/LT)			Description	Impact (I)	Likelihood (L)		
A	B	Category	D	E	F	G	H	I
60	ST	Medium	Sales and Marketing	Inability to track counterfeit products in the market	3	3	9	Sales force and Logistic Team regularly visits Depots, Stockist premises and retail outlets. Samples are collected w.r.t Product complaint , if any, to understand originality of our Brand/ Product.
61	ST	Medium	Sales and Marketing	Inability to track competitor's strategy and marketing plans	4	2	8	Market information are collected through Marketing & Sales Team and counter strategies planned and implemented by the sales team. These are discussed in detail with the senior management in monthly sales meeting. Daily Sales and Operations review meetings are held by the CEO and functional heads, in which any key events in the markets are deliberated.
62	ST	Medium	Sales and Marketing	Inadequate credit control over receivables	3	3	9	Customer Credit Policy with revision approved by CFO and MD. Credit controls are in-built in the system and process of approval exists for any deviation. Outstanding are also reviewed by the senior management on a monthly basis.
63	LT	Medium	Sales and Marketing	Poor relationship / communication with Channel partners (distributors/ retailers)	5	2	10	Company is having CRM Section and Sales & Marketing Team through regular visit and communication establishes /enhance the relationship. A platform has been created to engage with the dealers. Any issue can be highlighted there or in the Toll Free number or the web site. Bi-annually, brand perceptions surveys are held in which dealers feedbacks are also taken, including with regard to service related issues.
64	LT	Low	Legal & Regulatory	Inadequate awareness of local laws & required compliance	2	3	6	Legal Dept. provides guidance on all local level and National/International regulation to make every business Unit/Company compliant.
65	LT	Low	Legal & Regulatory	Lack of proper policy and infrastructure to prevent violation/ abuse of Intellectual Property Rights	2	2	4	All Brand Rights, IPs are registered to protect from any infringement.
66	LT	Medium	Financial	Higher / Increasing working capital requirements than the industry norms / benchmarks	2	3	6	Based on project and business requirement, effective working capital management in place.



GUIDANCE NOTE ON RISK BASED INTERNAL AUDIT OF CEMENT INDUSTRY

SN.	Risk Time Frame	Category	Sub. Category	Risk	Rating (Scale: 1- 5) (1:Low.5 Critical)		Risk Rating (L X I)	Risk Mitigation Action Plan
	Short/ Long Term (ST/LT)			Description	Impact (I)	Likelihood (L)		
A	B	Category	D	E	F	G	H	I
67	LT	High	Projects	Risk of delay/cost overruns of projects /expansions	4	4	16	Project evaluation and critical aspects are assessed. Systems and software are deployed for measurement of the progress of the project against the targets. While the projects are physically managed by the on- site team, the Project team at corporate office keeps and oversight and does monitoring and supervision of the project. Progress of activities are tracked on a regular basis by the senior management and remedial measures are taken for any deviation.
68	ST	Medium	Financial	The Company has significant amount of contingent liabilities. In the event that these contingent liabilities materialize, our financial condition may be adversely affected.	4	2	8	Strategies with regard to the management of litigations are evolved in conjunction with legal counsel and actions are taken accordingly. The pending matters are reviewed and monitored on a regular basis and suitable measures are taken as and when necessary. Also, representations are made to the government authorities to settle the cases, where deemed appropriate.
69	ST	Low	Financial	Default in debt obligations	5	1	5	The borrowings made other than for working capital are generally for long tenure. This provides sufficient time to the company to repay the borrowings out of internal accrual. Further as a policy, the company maintains adequate liquidity which provides cushion as regards meeting repayment obligations in the event of any shortfall in generation of cash flows from operations. While borrowing, special care is taken to ensure that the financial covenants set out in the loan documents are achievable in terms of financial projections.
70	ST	Medium	Financial	Rising interest costs on borrowings	3	3	9	Options of conversion to fixed cost borrowings are evaluated and exercised. Borrowings are reviewed on a regular basis for opportunities to refinance at lower borrowing costs.
71	ST	Medium	Financial	Costs incurred in excess of budget	3	3	9	Budgetary cost (standard) are compared against actuals. Variances tracked for explanation.

SN.	Risk Time Frame	Category	Sub. Category	Risk	Rating (Scale: 1- 5) (1:Low.5 Critical)		Risk Rating (L X I)	Risk Mitigation Action Plan
	Short/ Long Term (ST/LT)			Description	Impact (I)	Likelihood (L)		
A	B	Category	D	E	F	G	H	I
72	LT	Low	Financial	Inadequate compliance with applicable accounting standards / norms resulting in misrepresentation	4	1	4	Accounting policies and practices are discussed with all the units. Unit Accounts are reviewed by Corp. Accounts . Internal Financial Controls are reviewed by the management audit department on annual basis.
73	LT	Low	Financial	Inadequate knowledge of applicable tax laws governing the transactions resulting in non-compliance or sub-optimal tax planning	3	1	3	Taxation wing keeps an oversight over the tax compliance and ensures optimal tax planning. Tax compliance is also covered in the Tax Audit conducted by the auditors.
74	ST	Low	Procurement	Lack of monitoring mechanism for SLAs for service providers resulting in poor performance	3	2	6	SLAs are there for all major Services Company procures and performance is monitored against the same.
75	LT	Low	Financial	Inadequate legal review of contracts resulting in financial exposure	3	2	6	Critical sourcing contracts are reviewed and sign off by Legal cell.
76	LT	Low	People	Resource plans not in sync with business plans	2	2	4	Unit-wise HR Budget (count and cost) is in place and monitored periodically. Manpower Requisitions are approved in the backdrop of Budgetary sanction.
77	ST	Low	People	Non-clarity with respect to job definition and role / responsibilities	3	2	6	Job-wise roles expected i.e KRA rolled out
78	ST	Low	People	Lack of effective mechanism to track employee / labour satisfaction and engagement	3	2	6	Feedback of the employees taken at the time of appraisal
79	ST	Medium	People	Inability to benchmark remuneration and maintain parity with industry	3	3	9	Industry benchmark , job profile and locational aspects considered for remuneration
80	LT	Low	People	Rising Employee turnover	2	2	4	Exit interviews are conducted of the employees leaving the organisation and based on their feedback, remedial measures are taken by HR where considered necessary
81	ST	Low	People	Labour unrest	4	1	4	For cement, wage agreement agreed by Cement Manufacturers Association at industry level is followed. For Jute, long term wage agreement is signed with the workers to manage expectations.

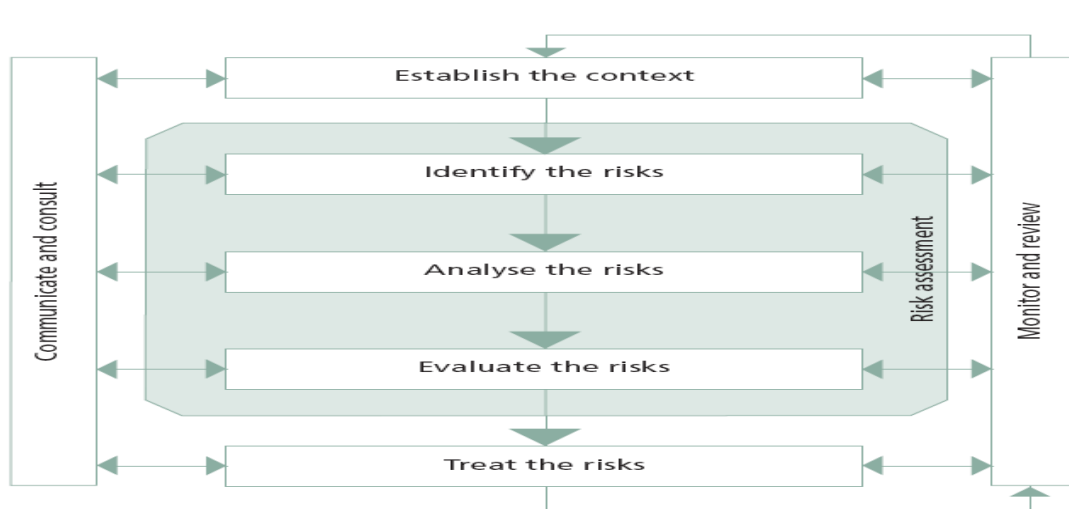


GUIDANCE NOTE ON RISK BASED INTERNAL AUDIT OF CEMENT INDUSTRY

SN.	Risk Time Frame	Category	Sub. Category	Risk	Rating (Scale: 1- 5) (1:Low.5 Critical)		Risk Rating (L X I)	Risk Mitigation Action Plan
	Short/ Long Term (ST/LT)			Description	Impact (I)	Likelihood (L)		
A	B	Category	D	E	F	G	H	I
82	ST	Low	People	Disguised employment - Job and Supply labour swapping	3	2	6	Attendance based Payments are monitored . KRONOS attendance considered for all 'entry' and 'exit' of workmen. Different agencies appointed for supply of labour and for piece meal contracts as far as practicable.
83	ST	Medium	People	Failure to adhere to various legislation related to employees	3	3	9	All units confirm compliance with laws and regulations. An application based system for legal compliance is in the process of being implemented.
84	ST	Low	IT	IT security	3	2	6	An effective cyber security control plan is being implemented with standard security policies and practices especially effective change control.
85	LT	Medium	IT	Inadequacy of IT system to support business requirements	3	3	9	a comprehensive framework is available to scale up the hardware, software and network with adequate risk mitigation measures. All IT projects are reviewed with the functional heads and the senior management on a monthly basis
86	LT	Low	IT	Non availability of data due to reasons such as Database failure, Hard disk crash, Data corruption, Network failure, Inflammation, Unauthorized access, Virus infection	4	1	4	Comprehensive back up and Disaster Recovery framework is in place to mitigate such risks.
87	LT	Low	Operational	Occupational Health and Safety (OHS) risks in working environment for third party contractual employees in running units	5	1	5	A comprehensive framework exists to manage OHS. There is a dedicated team to manage OHS. Experts are hired on regular basis to provide. Detailed standards, policies and SOPs have been prepared in regard to OHS. Regular trainings are held across the organisation on OHS. Safety teams of respective locations arrange Tool talk, safety meetings etc. to make a safer workplace.

SN.	Risk Time Frame	Category	Sub. Category	Risk	Rating (Scale: 1- 5) (1:Low.5 Critical)		Risk Rating (L X I)	Risk Mitigation Action Plan
	Short/ Long Term (ST/LT)			Description	Impact (I)	Likelihood (L)		
A	B	Category	D	E	F	G	H	I
88	LT	Low	Projects	Occupational Health and Safety (OHS) risks deployed at project units	5	1	5	OHS is given the highest priority by the management. A comprehensive framework exists to manage OHS. There is a dedicated team to manage OHS. Experts are hired on a regular basis to provide guidance and review the practices being followed at various locations. Detailed standards, policies and SOPs have been prepared in regard to OHS. Regular trainings are held across the organisation on OHS. Safety teams of respective locations arrange Tool talk, safety meetings etc. to make a safer workplace.
89	LT	Medium	Projects	Occupational Health and Safety (OHS) risks in working environment -for third party contractual deployment Project Jobs	5	2	10	OHS is given the highest priority by the management. A comprehensive framework exists to manage OHS. There is a dedicated team to manage OHS. Experts are hired on a regular basis to provide guidance and review the practices being followed at various locations. Detailed standards, policies and SOPs have been prepared in regard to OHS. Regular trainings are held across the organisation on OHS. Safety teams of respective locations arrange Tool talk, safety meetings etc. to make a safer workplace.

Risk Management Methodology Followed -





Risk Management Process followed

- ☐ After considering Macro & Micro environment, we have identified all major risks for the Business
- ☐ Possibility of **occurrence** and **impact** measured, each in a scale of **1 to 5**.
- ☐ Possibility of occurrence multiplied by impact provide risk score (Min.1; Max 25)
- ☐ To reduce the impact, present mitigation steps are mentioned against each of the risks captured in ‘Risk Register’
- ☐ Risks and possible impacts are analyzed & assessed against timeline of Long or Short term (ST/LT)
- ☐ ‘Risk Owner Dept.’ are identified for initiation of necessary risk treatment
- ☐ A continuous review mechanism assisted by ‘Risk Based Review/monitoring’ put in place
- ☐ Identifying fresh risks, if any; effective mitigation of prevalent risks to reduce possibility & impact; and update the same in Risk Register maintained

Risk Register: Snapshot

Risk Category	Total Identified Risks = 89		
High (score 12-25)	06		
Medium (score 8- 11)	36		
Low (score 1-7)	47		
Impact Base			
Long Term	03	12	17
Short Term	03	24	30
Activity Based			
Strategic	00	05	02
Procurement	02	04	07
Logistics	02	03	03
Operational	00	09	16
Sales & Marketing	01	07	02
Legal & Regulatory	00	00	02
Financial	00	04	06
People	00	02	06
Information Technology	00	01	02

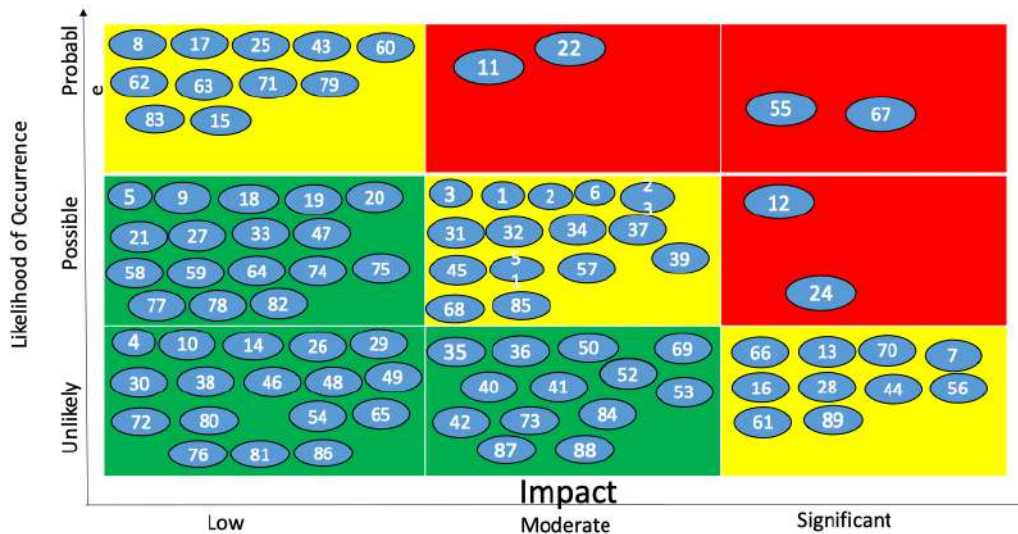
Description of Top Risks (6 No. as indicated above):

SN.	Risk Time Frame	Cat.	Sub. Cat.	Description	Likelihood	Impact	Rating	Risk Owner
11	ST	High	Procurement	Inflation in the prices of key raw materials and fuel, which may not be passed on to the customers ,if the market conditions are not congenial	4	3	12	Corp. Mgmt., SLM
12	ST	High	Procurement	Depleting availability of critical raw materials	4	3	12	CPD
22	LT	High	Logistics	Non availability of railway rakes in sufficient quantities impacting despatches and sales and/or leading to higher freight costs	3	4	12	SLM
24	ST	High	Logistics	Increase in freight cost due to fuel price hike and cartelization of local transporters	4	4	16	SLM
55	LT	High	Sales and Marketing	High competitive intensity in the markets may impact volumes and price in existing markets and slow down the ramp up of the new greenfield plant	4	3	12	SLM
67	LT	High	Projects	Risk of delay/cost overruns of projects/expansions	4	4	16	Projects, CPD



The Risk Map:

The 'Hit' Map



Depending on the above, the audit team can draw a RBIA (Risk Based Internal Audit) Plan. The possible pitfalls are –

Audit teams of most of the entities predominantly follow audit procedures to complete AAP (Annual Audit Plan) by bifurcating into time horizon (e.g quarterly coverage) with prioritization, to cover at least the high risk areas (as high risk areas are first priority) during the plan period based on adequate manpower scheduling. This AAP methodology suffers from the following inadequacies:

- RBIA (Risk Based Internal Audit) Plan prepared at the commencement of the year/period may not be entirely harmonized with complete risk profile of the entity, signaling presence of unattended risks.
- Inadequacy in capturing dynamic risk profiles due to the absence of continuous risk review and mitigation programs
- Inadequacy in the flexibility of functioning of the Audit Team to report concerns emanated while conducting audit of an already committed area.
- Obligation of team members to deliver on a time bound manner, may severely impact the review quality and risk identification as well as their mitigation process.
- Absence of dynamism in coverage of high risk areas (which ceaselessly changes during audit period) under the RBIA Annual Plan, may effectively keep major concerns out of audit purview for a considerable period (may be for a year or more).

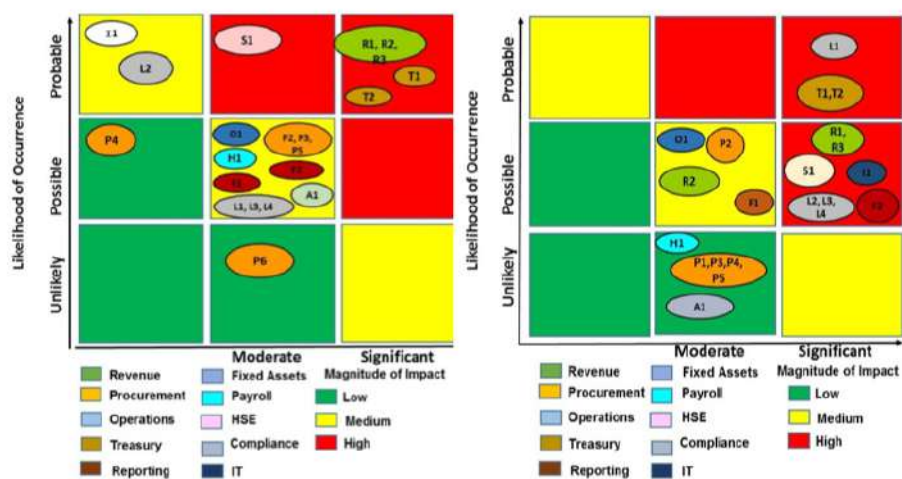
- Absence of critical appraisal of Risk management process to assess their robustness and adaptability under changed dynamics.
- Customary periodical reporting not been able to address real time risk issues to Management/ Audit Committee as well the steps taken by Management for mitigation.
- Better oversee and governance function of the Audit Committees may be affected due to non-appraisal of prevalent risk by audit team.

Dynamic Risk Assessment And Management (DRAM) Case Study

Business and Strategic Risk Basket	Audit Area
Dependency on few traditional markets for the entire volume	Revenue Cycle
Cyclical nature of industry attributing volatility to realization	Revenue Cycle
Environmental pollution and property damages/losses	Revenue Cycle Fixed Assets
Currency fluctuations	Treasury Cycle Revenue Cycle
Dependency on contractual workforce for commercial operations	Operating Cycle Treasury Cycle
Increase in operating costs due to fuel price hike	Operating Cycle
Regulatory risk and Compliance	Regulatory Cycle

Case Study for a Cement entity – Contd.

Pre and Post Review Risk Matrix -Shift





GUIDANCE NOTE ON RISK BASED INTERNAL AUDIT OF CEMENT INDUSTRY

Case Study for a Cement entity – Contd.

Ref.	Sr.	Business Process	Ref.	Sr.	Business Process
R = Revenue	R1	Business Development	R = Revenue	R1	Business Development
	R2	Order Management & Invoicing		R2	Order Management & Invoicing
	R3	Accounts Receivable & Collections		R3	Accounts Receivable & Collections
P = Payment	P1	Vendor Selection, Planning & Pricing	P = Payment	P1	Vendor Selection, Planning & Pricing
	P2	Purchase Ordering & Receipt		P2	Purchase Ordering & Receipt
	P3	Inventory Management		P3	Inventory Management
	P4	Accounts Payable & Payments		P4	Accounts Payable & Payments
	P5	Other Services and Expenses		P5	Other Services and Expenses
O = Operation	O1	Operating Expenses	O = Operation	O1	Operating Expenses
T = Treasury	T1	Loans (Secured & Unsecured)	T = Treasury	T1	Loans (Secured & Unsecured)
	T2	Investments		T2	Investments
F = Fin. Reporting	F1	Financial Reporting	F = Fin. Reporting	F1	Financial Reporting
	F2	Related Party/Inter group transactions		F2	Related Party/Inter group transactions
A = Assets	A1	Fixed Assets/CWIP	A = Assets	A1	Fixed Assets/CWIP
H = Human Resource	H1	HR and Payroll Process	H = Human Resource	H1	HR and Payroll Process
S = Safety	S1	Health, Safety & Environment (HSE)	S = Safety	S1	Health, Safety & Environment (HSE)
L = Legal	L1	Companies Act and SEBI Act	L = Legal	L1	Companies Act and SEBI Act
	L2	FEMA and allied Laws		L2	FEMA and allied Laws
	L3	Industrial and Labour relation		L3	Industrial and Labour relation
	L4	Other incidental /ancillary laws		L4	Other incidental /ancillary laws
I = Infotech	I1	Systems Controls	I = Infotech	I1	Systems Controls

Case Study for a Cement entity – Contd.: Changes in Risk status after each review

Sr. No.	Business Processes of the Entity	Assessment/Review during the Year		
		1 st	2 nd	3 rd
R1	Business Development	Medium	High	High
R2	Order Management and Invoicing	High	High	Medium
R3	Receivable & Collections	Medium	High	High
P1	Vendor Selection, Planning, Pricing	High	Medium	Low
P2	P.O and Receipts Logistics	High	Medium	Medium
P3	Inventory Management	Medium	Low	Low
P4	Accounts Payable & Payments	Medium	Medium	Low
P5	Other Service and Expenses	Medium	Low	Low
O1	Operating Expenses	High	Medium	Medium
T1	Loans (Secured & Unsecured)	High	High	High
T2	Investments	High	High	High
F1	Financial Reporting	Medium	Medium	Medium
F2	Related Party/Inter gr. transaction	Medium	Medium	High
A1	Fixed Assets/CWIP	High	Medium	Low
H1	HR and Payroll Process	Low	Medium	Low
S1	Health, Safety and Environment	High	High	High
L1	Companies Act and SEBI Act	High	Medium	High
L2	FEMA and allied Laws	High	Medium	Medium
L3	Industrial and Labour relation	High	Medium	Medium
L4	Other incidental /ancillary laws	Medium	Medium	Medium
I1	Application Control (Systems)	High	Medium	High

Case Study for a Cement entity – Contd.: Reason for reclassification

No.	Business Process of Entity	Reason for Change in Risk Classification
R1	Business Development	No growth in new business initiatives High spent on initiatives taken
R2	Order Management and Invoicing	Timely execution & avoidance of delay
R3	Receivable & Collections	High Receivables, poor collection initiative Cost of fund blockage increased
P1	Vendor Selection, Planning, Pricing	Prices benchmarked against market rates
P2	P.O and Receipts Logistics	Timely inventORIZATION after quality check Just in time inventory maintained
P3	Inventory Management	Adequate inventory in terms of Production Plan
P4	Accounts Payable & Payments	Accurate and timely release of payment
P5	Other Service and Expenses	Low involvement of fund
O1	Operating Expenses	Initiatives for expense curtailment
T1	Loans (Secured & Unsecured)	High borrowings with varied interest rate
T2	Investments	New business initiatives and huge fund deployment
F1	Financial Reporting	Adherence to Accounting Policies Adequate provisions for accounting events
F2	RP/Inter group transaction	Pending reconciliation between Group entities
A1	Fixed Assets/CWIP	Timely capitalization and booking depreciation
H1	HR and Payroll Process	Adequacy of checks and balances
S1	Health, Safety and Environment	Nature of industry –pollutant
L1	Companies Act and SEBI Act	New regulations and compliance requirement
L2	FEMA and allied Laws	Min. fund movement and ensured compliance
L3	Industrial and Labour relation	IR Regulations mostly complied with
L4	Other incidental/ancillary laws	Transactional compliance
I1	Application Control (Systems)	Inadequate access control Improper mapping of Delegation of Authority in ERP

The aforesaid discussion indicates ‘continuous assessment ‘of risk and resultant planning to cover the areas through internal audit. This continuous monitoring methodology leads to ‘Risk Based Audit’ in true sense.



Chapter 6:

INTERNAL AUDIT CHARTER

Need for Internal Audit Charter

Charter is the cornerstone for building a robust assurance function within an organization. It's the pivotal document that sets the philosophy / tone of the function and makes it operational in discharging its responsibilities. The Charter aims to institutionalize the duties, reporting lines and protocol of Assurance Team. The Charter provides the framework in which Audit/Assurance Team operates, its objectives, interface with businesses audited, overview of the procedures followed in Assurance function, and remedies to issues and challenges.

An equally important component of this Charter is Assurance Team's engagement with the Review Committee / Audit Committee to various aspects audited by the Team. The major pointers of Charter is captured hereunder.

Objectives

The primary objective is to serve as an oversight function that objectively evaluates and recommends improvements to the Company's internal control structure through a risk-based audit approach. Essentially, the broad objectives include building an IA structure which encompasses all levels of Controls, Governance, Business Process and risks as well as establishing transactional controls.

Vision and Mission Statement

To establish an audit and assurance function that is truly reflective of entity's Vision through action of robust audit practices powered by:

- Systematic planning and approach;
- Engagement and involvement with the auditees and various stakeholders; and
- Knowledgeable, proactive and world class resources.

Assurance Team provides "Control Assurance" to Management embedded with "Business Consulting" to enhance the performance of the organization and stakeholders' value.

Role of Audit and Assurance

- Assurance is an independent body that performs Internal Audit as per the internal audit plan and calendar agreed with the respective Management and/or Audit Committees.
- Assurance Team reports directly to the Audit Committee.
- This Charter represents the general authorization from Promoter Directors, Company Management and Audit Committees to conduct internal audits.



- The specific authorization to perform the scope of work is according to the Internal Audit Plan approved by the Audit Committee annually.
- The scope of work contained in this plan will be based on joint assessment by Assurance Team and Management of the inherent risks and the significance of these risks in terms of its likelihood and impact to the business. Internal audit coverage focuses on risks that are significant to the organization.
- A typical internal audit carried out by the Team is to ascertain the risks in achieving process objectives and assessing the appropriateness of management's response to address these risks.
- They may also carry out special reviews or investigation on request from Management or Audit Committee or Review Committee.

Role

- Assurance team will be primarily responsible for ensuring that all the audits are carried out as per the approved audit plan and special requests of the Management.
- Assurance team's functional review will be carried out by the oversight committee, namely, Review Committee.
- Team will execute the audit under the direction and supervision of the head of the audit function.
- An audit report summarizing the exceptions noticed during the course of audit review will be circulated as per the distribution list by the Audit Lead.
- Assurance will be responsive to the company's changing needs and will strive for continuous improvement and maintain integrity in carrying out their activities.
- A representative from Assurance will be present for Audit Committee meetings (including Management Audit Committee {MAC}) to discuss key findings and matters requiring attention of the Audit Committee.
- Assurance will not be responsible for implementation of the action plan agreed by the Management.
- Assurance will, suo moto, interact with the statutory auditors for matters requiring inputs from them or on request from the auditors or the Management. (All internal audit reports released by Assurance will be submitted to the statutory auditors by the Management only, unless formally requested by Management to release it from Assurance).
- Team members will ensure "Confidentiality" of data / record / information at all times and there is no sharing of information to internal or external parties without formal approval of Audit Lead and/or the Management.
- Assurance will appraise Management of non-availability of data / records / response and seek necessary guidance on way forward.



Responsibilities of Management

- Management will be responsible for risk management, and laying down business processes and internal control structure. Assurance Team shall only review these and can raise concerns or suggest improvements to the Management. They will not play Management role in designing, implementing, monitoring and evaluating the right procedures, controls or systems for the organization.
- Management shall make available all resources, people, systems, records, etc. to ensure smooth conduct of audit. Management shall not limit or restrict access to work papers, records and systems.
- Management shall be obligated to respond to inquiries and recommendations, formal and informal, in a timely and diligent manner.
- Management will provide periodic update on the implementation of action plan, which will be presented to the Audit Committee (including MAC) and Review Committee.
- Management shall be responsible for inviting the concerned Audit Lead /Head of Audit for the Audit Committee meetings.
- Team shall have uninhibited and complete access to all records, data, information, documents, systems and personnel for discharging its audit duties / objectives.
- Assurance shall have audit documentation tool to preserve the documents, records, information, etc. that were collected to support the reported conclusions and observations.
- Team shall be independent of the Management of entities audited and will have reporting line to the Audit Committee of each of these companies.
- Team will work closely with Management to identify and assess risk and control, which will assist them in the effective discharge of their responsibilities, while maintaining their independence.
- Team may time-to-time advise Management on existing and evolving corporate governance, risk management and compliance practices prevalent and may suit to the organization. Team shall not serve as a substitute for management control, since an adequate internal control structure should not necessitate the performance of any audit.
- Team will not review areas where they were responsible for the design or implantation of a process or system.
- Team shall not assume organizational responsibilities or authority outside the department, and not perform management functions, procedures, reviews or render organizational decisions. Similarly, the Internal Audit Department shall not in any way utilize its resources to relieve or subsidize other persons or functions in the Company.



- Team will keep abreast of relevant best practices and new developments affecting their work, and in matters affecting the organizations audited.

Scope and Coverage

The Team will perform a detailed Risk Assessment as a part of the Audit Planning process.

Assurance Team's role in terms of Risk Management is:

Giving reasonable assurance on the correctness of risk evaluation; Review the process of tracking and communicating risks;

Reviewing the process of treating key risks by the Management; Participating in discussions and advising on risk management matters, but not discharging any duties or functions of risk management.

Identification and reporting of fraud during the course of audit reviews will be done and the team will deploy the resources (internal or external) with requisite skillsets to conduct review of suspicious or fraudulent transactions either suo moto or on formal request from Management or an empowered Committee.

Assurance team will review and evaluate the fraud management framework established by Management of each group companies.

Audit Committee Meetings

- Audit Committee can be either:
 - Management Audit Committee; and
 - Board Audit Committee.

Management Audit Committee (MAC) meeting

- A MAC meeting is held prior to the Audit Committee for discussion with company's Management on key issues to be presented to the Board Audit Committee. A MAC meeting, therefore, has to be held quarterly.
- MAC also serves as a forum for the company's Management to provide their explanation or clarification on the audit observations that are being presented.
- A MAC can provide guidance to the audit team on any additional work to be performed or to overcome any issues or hassle while conducting the audit.
- MAC meetings will be attended by the Business Audit Lead and Group President. In addition, any team member may attend the meeting with approval from Group President.

Board Audit Committee (AC) meeting

- Review of internal audit and internal controls is one of the agenda items during the AC meeting.



GUIDANCE NOTE ON RISK BASED INTERNAL AUDIT OF CEMENT INDUSTRY

- Board Audit Committee meeting will be convened by the concerned business at least once in a quarter for which the Assurance team will be invited.
- Assurance will be represented at least by the Business Audit Lead and Group President.
- A summary of key observations and other audit related matters will be presented to the Audit Committee.

Review Committee

- Functional review of the performance for each month is carried out by the Review Committee.
- Review Committee provides guidance for handling any matters that has reached an impasse or can ask for special reviews to be conducted or can seek additional information on matters report
- Review Committee can co-opt or invite any additional member, if it deems necessary.
- Monthly operations report is submitted to the Review Committee members, which is discussed during the monthly meeting.
- Minutes of Review Committee meeting is circulated along with the actionable, the status of which is to be reported in the ensuring meeting.

Approvals, Acceptance and Amendment

Necessary approval for any addition, deletion and change to be approved by appropriate authority.



Chapter 7:

INTERNAL AUDIT PROCESS

Overview of Internal Audit Process

First and foremost point to understand any Process, is to know the Business and its all processes. Next the associated risk in connection with business activities and areas which require immediate attention to cover under a RBIA (Risk Based Internal Audit) post validation of Risk and related Score (as explained earlier). **Refer Page No. 29 for Diagram**

Steps of Internal Audit Process

The IA function can be of three types viz. Internal Team for Audit, Outsourced Internal Audit and a mix of both types. The essential steps, as mentioned hereunder equally applicable for any type Internal Auditing function.

- Planning

Planning can be divided into two distinct types viz. Audit Plan for the areas to be covered (based on RBIA or any other method e.g FOTP- Finger On The Pulse, where audit areas are dictated by Management as per their business understanding and requirement). To address the aforesaid requirement, Audit Teams make their own Schedule, Timeframe and resource marshalling.

- Opening Meeting

To know the concerned Job Holder/Process Owner, and to get an overview of the area of Audit, an initial interaction is necessary. This introductory meeting is held between Head of the function, Process Owner and its Team, and needless to say the “Audit Representatives including the Team Lead/Partner”. The initial interaction is very important for ‘Outsourced Audit’ to know each other, since human interactions are one of the most important parts of audit activities carried out. Such meeting is also important from the perspective of understanding the ‘pain points’ of Management and audit objective.

- Fieldwork

Depending upon the scope of audit area; data (electronic or otherwise), information etc. are collected from the Auditee. Audit Team Lead having a scope document and program to accomplish the audit objective. As instructed to the Team, they start analyzing the data and sometimes visit the place of activity to get hands on to corroborate with the primary findings from the data analytics. At site, the auditee team members are often asked to answer /explain the audit queries also. Such audit related activities are called field work.



- **Draft Reports**

Draft Observations are circulated with necessary supporting Document, analysis sheet to immediate auditee and functional head. Post submission of Draft Report, preferably a discussion needs to take place for more clarity and expected response from the auditee. Proposed Management feedback, at time also forms part of audit observation.

- **Management Response**

Based on outcome of draft report discussion, Management will provide point-wise response including the corrective actions for the Recommendations made by Auditor. The response to include time bound corrective measures with ownership of implementation process.

- **Closing Meeting**

‘All is well that ends well’, so goes the saying. The finalized version to be handed over to functional head and official sign-off to be taken on the copy of the Report. The same version to be provided to top Management -COO, CFO, MD for further action from their side. This meeting generally ends with a satisfactory note for all concerned.

Final Audit Report Preparation

What is a Report

“Account given or opinion formally expressed after investigation or consideration or collation of information” (**The Concise Oxford Dictionary**). Report is the communication of Auditor’s view point /expression of opinion to the appointing authority/Users of audit information on conclusion of an audit assignment/Review backed by proper analysis of data/events. Such assignment could be periodical, Operational (Review of operations) and/or event based. A key thing to keep in mind, right through Report writing process is that a report written to be read, by someone else i.e ‘intended audience’. The audience includes -

- Immediate Auditee
- Head Of Department/Function
- Reviewing Authority at HO (if any)
- Top Management of the entity
- Statutory Auditor
- Audit Committee



Since different managerial level gets the Report, the drafting needs utmost care for ease of understanding by respective chair.

- o Preparation of Audit Report is not writing a prose or poetry
- o There is no RIGHT way to express or WRITE REPORT
- o Try to express facts, not impress
- o WRITING effectively is a skill and art, which can be LEARNT
- o Successful Audit Reports do not pull any punches or blindside recipients. A tactful approach can lead to a satisfying, constructive outcome for all parties involved
- o One can catch more flies with Honey than with Vinegar

N.B : A Draft IA/MA Report appended in Annexure for better understanding of outcome



REPORT FORMAT

XYZ Ltd. Internal Audit Report	
Report No.	XYZ/IA Review/15-16/
Date	March 2016
Area	Order to Cash
Location	Chennai
Period Covered	APRIL 2017 TO SEPTEMBER 2017
Audit Team:	Signature:
1.	
2.	Name:
3.	Designation: Partner
	Membership number:
	Firm Regn. No.
	Date:
	Place:

Table of Contents:	
Particulars	Page Ref.
Background	
Scope and Objective	
Audit Coverage	
Rating Scale	
Root Cause	
Executive Summary	
Detailed Observations	

Brief background

- ☐ The Company is a Cement manufacturer and seller having multiple Grindingng and Clinker manufacturing facilities.

Local	Revenue Rs	Export	Revenue Rs
Clinker			
Cement			
Dealer Sale			
Sale to Govt. Projects			

*Sample basis only for presentation purpose

Scope and Objectives

Revenue Cycle:

- Understanding and verification of controls over Order to Cash cycle
- Process adequacy to provide reasonable assurance as
 - ✓ Policies and procedures are implemented and followed.
 - ✓ Controls in place are adequate and effective
- Compliance with respective statutory requirements.
- Testing & review of transactions on judgmental basis.

Objective:

- To ensure adequacy and effectiveness of controls
- Streamlining of process / process development
- Benchmarking amongst units and industry
- Suggest Improvement opportunities by way of cost reduction / opportunity for savings



GUIDANCE NOTE ON RISK BASED INTERNAL AUDIT OF CEMENT INDUSTRY

Audit Coverage

Revenue Cycle Process:

- Policies and Procedures
- Master data Maintenance
- Sales bidding process for contracts
- Customer Purchase Order (PO) data and agreements
- Resource Utilisation
- Invoicing process
- Credit Control Process
- Receivables Analysis
- Collection process
- Statutory Compliances where applicable

Rating Scale

Observation grading

Critical- High Risk (H)	1. High frequency and high magnitude value involvement of 10% or more for the area reviewed. 2. Control weakness requiring prompt immediate action to mitigate. 3. Regulatory non-compliances involving penalties/prosecutions. 4. Higher value improvement/opportunity loss/savings exist through improving operating efficiency.
Major + Medium Risk (M)	1. High magnitude, low frequency/High frequency, low magnitude ; value 5%-10% of area reviewed. 2. Moderate control weakness requiring near term focus for strengthening existing controls. 3. Medium opportunity for value improvement/opportunity loss/savings through effective operations. 4. Minor regulatory non-compliances.
Important- Low Risk (L)	1. Low frequency and low magnitude value upto 5% of area reviewed. 2. Minor control weaknesses. 3. Opportunities exist for enhancing existing controls. 4. Need to draw management attention.

Report Snapshot : 'Observations Grade' ; 'Control Areas' and 'Root cause'			
Area of Review	No. of Issues as per Observation Grade		
	High	Medium	Low
Order to Cash	3	4	1
	Control Areas in Question		
	 	 	   
	Root Cause		
	M P	M P E	P

Operational - 	A B B R E V I A T I O N S	ERP Configuration -- 
Financial - 		Statutory Non-compliance -- 
Compliance - 		Non existence of Process -- 
Human Resource - 		Process deviations -- 
		Absence of Monitoring -- 
		Liquidity -- 
		Resource under deployed -- 

Executive Summary								
Key Observations by Process								
Observations	RR	Risk Category				Root Cause		
								
1.Pending Recovery from Sales		✓	✓			✓	✓	
2.Credit Control needs to be bettered		✓	✓				✓	✓
3.Collection Process needs betterment		✓	✓				✓	✓
4.Need standard T&C for Customers		✓				✓		
5.Debtors Reconciliation needs improvement		✓	✓				✓	
6.Revenue recognition and tracking		✓	✓				✓	✓
7.Periodical scrutiny of unidentified receipts		✓	✓				✓	✓
TOTAL		7	6	-	-	2	6	4



GUIDANCE NOTE ON RISK BASED INTERNAL AUDIT OF CEMENT INDUSTRY

Detailed Observations									
TITLE: Pending recovery of Export Sales Rs 10 Cr	RR 	Risk Category O F				Root Cause P M			
OBSERVATION: Sales recovery pertaining to Invoice 'D / 016 / 14-15 dated 1 April 2014' amounting to Rs 10 Cr. pending since for more than 3 years.									
IMPLICATION: - Longstanding Accounts Receivable - Opportunity loss to earn interest Rs.XXX Lacs (approx.) @ 8% p.a.									
RECOMMENDATION: Necessary steps need to be initiated after considering recoverability of the amount									
Management Response: Responsibility Assigned To: Target Date:									

ANNEX- I AUDIT CHECKLIST

The check-list referred under this section can be used for testing controls (existence and effectiveness) in the relevant area of audit. However, the same can also be perused for audit and value additive purposes also with slight modification.

Production

Risk	List of Controls	Existing	Effective
Production Planning			
1. Untimely production as compared to the marketing requirements resulting in holding of inventory	Timely compilation of Production budget/plan for each of the product variety (e.g OPC, PPC, Non-Trade etc.)		
2. Excess/short production as compared to plan	Pre-defined authority level for review and modification in the production plan		
3. Loss of production due to non-consideration of sales forecast/raw materials availability	Periodic review of Production Plan vis-à-vis changes in Sales Plan or availability of raw materials & documentation thereof		
	Compilation & documentation of reason- wise analysis of actual consumption vis-à-vis standard consumption		
	Shift-wise production data logging in place		
Consumption standard/norms & actual consumption			
Excess production cost due to excess consumption of raw materials, ingredients, utilities or high process wastage	Compilation of documented consumption standards i.e BOM		
	Periodic comparison of actual capacity utilization		
	Review of periodicity of comparison of actual consumption and standard consumption and compilation of reason-wise variance analysis for deviation in consumption		
	Identification of controllable and non- controllable factors resulting in variation in the consumption norms and department's action plan to remedy the controllable factors		



GUIDANCE NOTE ON RISK BASED INTERNAL AUDIT OF CEMENT INDUSTRY

Risk	List of Controls	Existing	Effective
	Verification of overall material reconciliation highlighting total material consumed, standard input-output norms and actual		
Capacity Utilisation			
1. Opportunity loss due to inadequate capacity utilization	Periodic comparison of actual capacity utilization with the synchronized ‘sales plan’		
2. Excessive utilization of production capacity			
3. Interruption in production process			
Documentation & record maintenance:			
1. Inadequate documentation of prodn. data/results, may result in incorrect decision or non-availability of timely information	Compilation of Daily Production Report from DCS & its validation by the authorized personnel		
2. Ambiguous authority levels/ access for generation of production documentation resulting in unauthenticated generation of production data	Periodic review of conformance to the ISO requirement Pre-defined authority levels to generate, add, and modify production data in DCS/SAP		
Quality control and inspection report:			
1. Absence of standard quality control parameters resulting in sub-standard production/high re-work cost 2. Non-standardized Inspection Reports resulting in inconstancy in inspection of parameters	Standard Operating Procedures for quality control and inspection including in-built process controls		
	Review of QC norms periodically to ensure their validity		
	Adherence to the pre-determined sampling techniques & exception reports for the results deviating from the QC norms		
	Review of complaints received by the Production department pertaining to quality/quantity of cement sold in the market or lying at godown/s		
	Customer-complaints closed in time for amicable solution		

Risk	List of Controls	Existing	Effective
	Engagement of external agency for quality validation are approved and reports are reckoned to pre-empt possibility of quality non-conformity issues.		
	The process for re-working QC failed products exists after obtaining due approval from appropriate authority against QC failed product.		
	All products are bagged after the same being qualified for /passed by QC		
	Variations over standard Bag consumption is measured and monitored		
Review of process losses and recycling			
Excessive process losses or inadequate recycling of materials due to improper monitoring of process parameters	Process loss incurred during the period are compared with the standard		
	System exists of analyzing the reasons for abnormal process losses, if any and documentation of remedial action plan		
	Identification of quantity of material non-conforming to the specification and sent for recycling.		
	Preparation of comparative analysis of percentage increase or decrease in the recycling materials and reasons thereof		
Preventive & break-down maintenance:			
Non-adherence to the preventive maintenance schedule resulting in process bottleneck / plant shut down/ loss of production.	Compilation of preventive maintenance schedule & its adherence		
	Compilation of report on breakdown maintenance and opportunity loss of production are measured		
	Ascertainment of the impact of breakdown maintenance on the production schedule		



GUIDANCE NOTE ON RISK BASED INTERNAL AUDIT OF CEMENT INDUSTRY

Risk	List of Controls	Existing	Effective
MIS Reports			
1. Inadequate MIS reports resulting in unauthenticated/unreliable production details resulting in improper decision	Compilation of MIS reports from the source data & their approval by the authorized personnel		
2. Inconsistency in compilation of production reports due to non-standardized definition of periodicity			

Deployment of Workmen on Contractual basis

Risk	List of Controls	Existing	Effective
Deployment of Workmen on Contractual basis			
1. Unskilled labour engaged at the rate applicable for skilled labour;	Skill profiles of labourers are available/ maintained and Job		
2. Labour called without requirement for the same;	Requisitions raised against the specific skill requirement availability.		
3. Jobs to be done not approved by appropriate authority;	Requisitions are raised with job description indicating requirement (number .of heads) for manpower.		
4. Actual engagement not in tandem with requirement	Purchase/Service Orders are released against approved Requisitions.		
Selection of Contractors and their approval			
1. Non-standard P.O terms;	Standard order terms as to job nomenclature, payment terms etc. are maintained.		
2. Un-competitive rates;			
3. High Rates; 4.Delay due to non-availability of Contractor, who can handle the assignment	Contractors for a job is selected on competitive basis.		
	List of Contractors are maintained for jobs on offer and addition/deletions are considered on approval by appropriate authority.		

Risk	List of Controls	Existing	Effective
Labour identification and authentication			
1. Ghost Workmen; 2. Same workmen deployed by multiple Contractors	Each labour is traceable against identification/ employment number with photograph.		
	Periodical “parole” to identify dummy workmen is conducted by HR and Engaging Dept.		
	Change/transfer of workmen from one Contractor to another is traced and records updated accordingly.		
Wage agreements and adherence			
1. Un-competitive /high rates ; 2. Rates applicable are higher than prevalent local rates; 3. Non-update of labour rates for a long time	Systematic study as to rate contract fixation is carried out periodically and rates finalized accordingly.		
	Benchmarking with local rates for pricing/labour contract rate is carried out.		
	Effectiveness of fixed rate schedule verified periodically and it’s validated from time to time.		
	Labour rate agreements with Unions against specific skill/trade etc. are validated from time to time.		
Fulfilment of safety requirements			
1. Unsafe working environment ; 2. No formal training to safe work mode ; 3. Inadequate training and follow-up resulted in non-adherence to safety rules/ guidelines	Details of safety training to be imparted to Contract Workers with varied skill/ work engagement is documented.		
	Safety Dept. certifies the training completion of the workmen before allowing to work/job.		
	Adequacy of safety requirements are validated from time to time for ensuring compliance.		



GUIDANCE NOTE ON RISK BASED INTERNAL AUDIT OF CEMENT INDUSTRY

Risk	List of Controls	Existing	Effective
Engagement - Requirement vs. Actual			
1. High rates due to dependency on single Contractor; 2. Un- benchmarked rates; 3. Dismal 'work permit' mechanism; 4. Uncertified jobs paid for; 5. Booking for labour supply and turnkey engagement for the same workmen; 6. Uncontrolled entry-exit mechanism	List of multiple Contractors as per engagement in different Job area is available.		
	Rates applicable are benchmarked and applied for rate fixation/PO.		
	'Work permits' are issued with predetermined strength required for the job and maintained in seriatim.		
	Work permits on job completion are signed-off and jobs in Contractor Bills be traced therefrom.		
	Actual engagement is certified by the engaging Dept.		
	Same contractor workforce is not allowed to work under 'turnkey' as well 'labour supply' to pre-empt possibility of multiple booking against same attendance.		
	Lower or higher engagement against requirements or extra time required/ booked is compared and deviation with reasoning documented.		
	Gate Security certifies entry/exit of workmen or "time recorder "and the same tallied with billing/hours booked/ claimed.		
Bill Payment and booking			
1. Non-deduction for drawing Co. material; 2. Attendance record not verified causing excess payment; 3. Penalty not inflicted ; 4. Wrong passing of bills resulted in extra payment to Contractors; 5. Quality of jobs performed not reflected in certification as well payment;	Reconciliation of materials supplied to Contractors and passing on of appropriate impact against their billing is ensured before payment.		
	System as to verification of 'Attendance Record' of the labourers maintained by Contractors and reconciliation with time billed/ engaged, for actual booking and that paid by the Contractor exists.		

Risk	List of Controls	Existing	Effective
6. Performance guarantee/ BG/SD not applied on Contractors for poor quality of jobs	Penalty for non-fulfilment of contractual obligation i.e. delay, quality adherence etc. are duly accounted for.		
	Checks are carried out before making payment of bills as to :Rates, Attendance, Job, Quality etc.		
	All appropriate taxes are levied / deducted and deposited in time.		
	System of collecting Security Deposit or 'performance guarantee' or 'bank guarantee' to bind the contractor against quality issues exists.		
Legal compliances under labour laws			
1. Relevant licenses (by Company as well as Contractor) not obtained; 2. Failure in filing statutory returns; 3. Engagement over stipulated working hours ; 4. Breach of statues in engagement/ payment/Factories Act	System in place to ensure necessary Licenses under relevant laws prior to engagement is obtained by the Contractor.		
	All necessary returns are filed timely by the Company.		
	Engagement of labourers over stipulated hours are tracked.		
	Overtime work is regulated through adequate and timely supply of labour at the 'job area'		
	All Applicable statues e.g Minimum Wages, Factories Act etc. are followed and adhered to.		
Principal employer's liability			
1. Wage distribution not certified; 2. Workforce interest not protected by Principal Employer; Fines/ Penalties may be inflicted by appropriate authority	Lack of proof for payment to workmen		
	P.F, E.S.I (Employee State Insurance) and other statutory dues are monitored by HR/ Admin. to ensure timely deposit and protection of workforce interest.		



GUIDANCE NOTE ON RISK BASED INTERNAL AUDIT OF CEMENT INDUSTRY

Fixed Asset

Risk	Controls	Actual Control	
		Existing (B)	Effectiveness (C)
ASSETS MANAGEMENT POLICY/DOCUMENTATION/SOP			
Policy/SOP for fixed assets not available	Documented SOP’s for fixed assets		
CAPITAL BUDEGT & APPROVALS			
Capital Expenditure Policy not available	There is a Capital Expenditure Policy highlighting the procedures to be followed for estimation of Capex & pre-defined authority for sanction of the Capital Expenditure budget with value limits.		
Inaccurate estimation of capital expenditures	Estimation of capital expenditures/sanction approved.		
Technical & commercial feasibility studies not done	Technical & commercial feasibility studies are done before initiation of the specific Capex proposal.		
Unauthorised capital expenditure	The Capex is approved as per DOA.		
Excessive delays	There is an internal mechanism to ascertain tracking of capital proposals till raising of POs to identify excessive delays.		
FIXED ASSETS REGISTER			
Missing Assets	A register of all fixed assets (including fully depreciated assets) is maintained and updated.		
	There is adequate description of all assets to identify assets physically available.		
	The FA Register is periodically reconciled with the financial records.		
No Policy/SOP on physical verification	SOP is established and all procedures are complied with.		

Risk	Controls	Actual Control	
		Existing (B)	Effectiveness (C)
Company's assets physically not available	Physical verification of assets is carried out every year.		
	There is a set procedure for verification and confirmation of fixed assets lying with third parties.		
Discrepancies observed during physical verification not adjusted.	All discrepancies are adjusted after taking approval as per DOA within time.		
Title deeds not available	Physical verification of title-deeds is carried out periodically by officers not connected with assets accounting/assets administration.		
Assets not being used	Periodic verification of Assets not in use is being done.		
FIXED ASSET ADDITIONS			
Purchase of asset not authorised properly/ Non tracking of indent	Request for capital expenditure from user is received in standardized form. There is a separate identification number for each form.		
	Formal documented approval as per DOA		
	For every acquisition, Purchase order giving full details of fixed asset requirement.		
	Every P.O. authorised as per DOA		
	Actual transaction is as per P.O.		
Lack of audit trail in ERP	Availability of audit trail in ERP/ SAP for all transactions		
Unauthorised master record of asset	Master data (class, useful life, rate of depreciation) of new asset created subject to approval		
Asset capitalised at WIP stage	Capitalisation only on the basis of 'put to use certificate' by proper person (technical person) only after inspection		



GUIDANCE NOTE ON RISK BASED INTERNAL AUDIT OF CEMENT INDUSTRY

Risk	Controls	Actual Control	
		Existing (B)	Effectiveness (C)
Actual utilisation exceed the budgeted allocation	Approval as per DOA is obtained wherever actual utilisation exceed the budgeted allocation		
No clear and correct distinction between capital and revenue expenditure	There is clear and correct distinction drawn between capital and revenue expenditure		
Unduly delay in installation/commissioning/commencement of warranty	Reasons are documented for delay in installation/commissioning/commencement of warranty.		
VALUATION OF ASSETS			
Wrong valuation of assets	System to ensure that cost consist of purchase price, import duties (if any) , other non-refundable taxes & direct attributable cost for bringing the asset to its working condition for its intended use.		
	Self-generated asset consist of direct as well as allocable factory expenses allocated on systematic basis.		
Wrong valuation of assets	Fixed assets are revalued on adequate independent evidence.		
SALE OF ASSETS			
Possibility of sale of performing assets	Disposal request from user.		
Unauthorised sale	Approval as per DOA		
Items replaced, scrapped or sold not removed/written off.	Items replaced, scrapped or sold are removed / written off from the books?		
Profit or loss on sale of fixed assets	Profit or loss on sale of fixed assets is properly disclosed in the accounts		
MOVEMENT/TRANSFER OF ASSETS			
Loss of asset / non accountability of asset	The standard form filled by user as well as sending and receiving locations.		
	There is a system to track the assets transferred on a temporary basis.		

Risk	Controls	Actual Control	
		Existing (B)	Effectiveness (C)
Unauthorised transfer	Transfer of asset should be approved as per DOA.		
Transfer not recorded in books	Transfer is properly recorded in the books.		
IDENTIFICATION OF IDLE ASSETS			
No system to identify idle assets	Documented process in place to identify the idle assets		
	Identification always from user documenting the reason to classify asset as idle asset.		
WRITE OFF OF ASSETS			
Write off approval for shortage/missing asset is not obtained	Write off note for any shortage/missing asset is put up for approval as per DOA.		
CAPITAL WIP			
Delay in capitalisation leading to deferment of depreciation charge. Under statement of F.A./ depreciation	Capitalisation of asset within two days of its ready to use certificate obtained		
	Ageing analysis to find out old WIP & reasons for non- capitalisation		
	Projects scrapped is charged off.		
CAPITAL ADVANCE			
Advance is given to unauthorised vendor	Request from vendor for capital advance, which should be approved as per DOA		
	Analysis of vendor history before granting of any advance		
Non availability authentic documentary evidence	Signed agreement for purchase of fixed asset mentions all the terms including advance to be given		
	Analysis of unadjusted advances.		
Excess payment to capital creditor	System to check any balance in advance account before making any payments.		



GUIDANCE NOTE ON RISK BASED INTERNAL AUDIT OF CEMENT INDUSTRY

Risk	Controls	Actual Control	
		Existing (B)	Effectiveness (C)
SECURITY OF ASSETS			
Company's asset not properly Safeguarded	Controls to ensure Physical Safeguarding of Assets.		
Company's asset wrongly owned by third party	All invoices/registration cards (for motor vehicle)/title deeds(for land, building etc.) clearly specifies the TCL ownership.		
Encroachment of land	Adequate provisions to protect the asset from encroachment.		
TRACKING OF INTERNAL RATE OF RETURN			
Gaps between the projected NPV/IRR and actual asset performance	Analysis of asset performance against the projected NPV/IRR is being done.		
	Reasons for gaps between the projected NPV/IRR and actual asset performance are documented.		
STATUTORY-COMPLIANCES			
Non identification of Impairment to the asset	Documented & approved process in place for identification of Impairment & implementation of same		
	Periodical review of the assets for the impairment.		
Non-compliance with Companies Act	Depreciation is charged as per provisions of the Companies Act.		
No/under cover of insurance for Assets	Sum insured justifies the replacement value of Assets		

Inventory Management

Risk	List Of Controls	Existing	Effective
System Controls through ERP/ SAP			
1. Inaccurate inventory data base, 2. Unauthorized changes (a-d-c), 3. Undetected mistakes in Inventory Ledger, 4. Accumulation due to absence of ordering levels	For each category of inventory, procedures are implemented to ensure the reliability of items' classification and codification.		
	For each category of inventory, changes to item master files are authorized based on the appropriate documentation/DOA.		
	A regular review of all database modification is performed e.g exception reports are generated and authorized.		
	Access rights are set-up and maintained according to appropriate segregation of duties and reviewed periodically.		
	Inventory Ledger is periodically scrutinized and authenticated.		
	Ordering levels are popped-up from system and orders placed accordingly.		
	Open Orders are tracked to avoid untimely and unwanted inwardation.		
	Inventory levels with Min. /Max level is defined in system and exceptions are recorded/ reported.		
Maintenance of physical stock/inventory			
1. Stock mix-up , 2. Stock discrepancies not noticed and mitigated, 3. Uninsured stock, 4. Un-reconciled stock, 5. Un- updated stock position	All storage areas are locked/protected and regularly verified to avoid any mishap.		
	All items are visible/accessible for count, obsolete items and items with quality problems stored separately; storage ensures that two products cannot be mixed together i.e one item kept per place.		
	“Kardex” is maintained at the warehouse to indicate updated stock position.		
	Shelf life record is maintained for managing validity of the product usage.		



GUIDANCE NOTE ON RISK BASED INTERNAL AUDIT OF CEMENT INDUSTRY

Risk	List Of Controls	Existing	Effective
	Stocks are kept under insurance coverage and/or stock losses are realizable from the custodian.		
	Volume reconciliation for each type of stock is carried out and different categories of discrepancies are clearly identified (production/stock-take).		
Costing and accounting of Inventory			
1. Wrong absorption/ allocation of overheads,	Stock issues and transfers are tracked and approved based on appropriate supporting documents and according to DOA.		
2. Wrong inventory valuation,	Classification of spare parts between Fixed Assets and Inventory is reviewed for consistency with Co. accounting policy/INDAS 16.		
3. Cut-off process not followed,	Valuation of each type of inventory is reviewed for consistency with accounting standards.		
4. High level of obsolescence,	Allocation of costs when performing cost calculation is reviewed for completeness.		
5. Unreconciled and confirmed stock lying with 3P	Provisions are approved according to delegations of authority.		
	Write-off of obsolete parts are authorized on the basis of appropriate supporting documents (e.g obsolete inventory report) and according to DOA.		
	Cut-off process is in place to ensure that all movements are recorded at the date they occurred.		
	Methodology for calculating overhead in inventory is reviewed at least annually to ensure compliance with Company Policy.		
	Procedures are in place, including document accountability to control the receipt and transfer of inventory into, within, and out of the facility. Monthly cut-off procedures observed and coordinated with the finance/accounts to ensure all receipts and disbursements of inventory are properly recorded.		



Risk	List Of Controls	Existing	Effective
	Procedure for identification of obsolete inventory is in place and reported accordingly.		
	Confirmation obtained for stock on consignment/3P Locations.		
Others			
1. Damaged stock not identified, 2. Additional expenses with warranty period	Material received in damaged condition or short receipt considered with proper qualified discharge on CN and/or short/damage certificates obtained from Carrier.		
	Warranty/Guarantee against the items are maintained in database for appropriate action/claim.		



Process-wise Audit Programs - Annex - II

We are giving hereunder process-wise 'Audit Program' for each of the above.

1. Post Capitalization

This area is specifically important where further investments are made for revamping the Plant bagging operation, Grinding Unit (Including mining and/or Power Plant operation), capacity expansion etc.

POST CAPITALIZATION

INTERNAL AUDIT PROGRAMME

Capitalization of Assets

- Whether all projects are approved with pre-calculation (IRR/NPV/ Pay Back Period etc.) by Investment Management Committee/ Corporate Investment Management Committee.
- Whether all assets are capitalized after 'successful trial run', 'certification of put to use' by appropriate authority.
- Whether completed and under progress assets are separately tracked/identified.
- Whether AUC (Assets Under Construction) is reviewed periodically to set target/modified target for completion and 'put to use'.
- Whether Responsibility for the project and its completion are given to identified persons and progress being tracked.
- Whether Age analysis of AUC is carried out and reported.
- Whether system of obtaining financial closure of projects from appropriate authority exists.
- Whether All WBS (Work Break-down Sheets) is examined and related expenses being verified before declaring financial closure.
- Whether Control (system/ manual) exists to stop further expenditure after declaration of completion/ capitalization excepting that required for running and repairing /maintenance.
- Whether Asset number is allotted for each of the identifiable items for granularity with appropriate location identity/code.
- Whether Assets register corroborates immediately the date of 'put to use' for computation of depreciation against the identified asset number.



Measurement of results against projections

- Whether 'Projections' are compared with 'actual benefits' derived and shortfalls are analysed for corrective action, if any, on monthly basis.
- Whether 'Post calculation' of Internal Rate of Return, Pay-back period etc. is available for tracking the performance on monthly basis against the projected return conceived.
- Whether such 'post calculations' are approved and presented to MRC (the capital assets budget approving committee) for their perusal.
- Whether correct 'depreciation key'/classification is assigned for the asset.
- Whether Responsibility of 'depreciation key' allotment and asset booking is mapped and followed accordingly.
- Whether Shelved projects requires approval from the sanctioning authority.
- Whether Surplus materials are kept separately, evaluated periodically and considered for valuation.
- Whether savings against cost projection are factored while declaring financial closure.

2. Human Resource

Since market demand of Cement is seasonal and due to very nature of the product can't be stored for a reasonably long period, the Plant capacity monitoring is done based to near term requirement. The activities for Clinkerization, Bagging, Workshop i.e maintenance (Engineering, Plant in general) etc. mostly carried out through contractual deployments.

Review of Engagement of Contract Labour

1. Assessment of requirement and approval

- Whether skill profiles of labourers are available/ maintained and Job Requisitions raised against the specific skill required.
- Whether Requisitions are raised with job description indicating requirement (number of heads) for manpower.
- Whether appropriate authority approves Job Requisitions.
- Whether comparison for excess/ short engagement is traced, compared for deviations with reasoning.
- Whether Purchase/ Service Orders are released against approved Requisitions.

2. Selection of Contractors and approval process

1. Whether standard order terms as to job nomenclature, payment terms etc. are maintained.



2. Whether Contractors for a job is selected on competitive basis.
3. Whether Contractor empanelment is done w.r.t –
 - Financial strength
 - Past performance
 - Market credentials
 - Strength of workforce against each Contractor
4. Whether removal of the name of Contractor/s from Company's list of approved Contractors are Documented and authorized by appropriate authority.
3. *Labour identification and authentication*
 - Whether each labour is traceable against identification/ employment number with photograph.
 - Whether HR and the engaging Dept. conduct periodical “parole” to identify dummy workmen.
 - Whether inclusion/ deletion of workforce are immediately notified and monitored by HR Dept.
 - Whether transfer of workmen from one Contractor to another duly regulated.
4. *Wage agreements and adherence*
 - Whether systematic study as to rate contract (Minimum Wages as per statute) fixation is carried out periodically.
 - Whether benchmarking with local rates for pricing/labour contract rate is carried out.
 - Whether effectiveness of fixed rate schedule verified periodically and it's validated from time to time.
 - Whether labour rate agreements with Unions against specific skill/trade etc. are validated from time to time.
5. *Fulfilment of safety requirements*
 - Whether details of safety training to be imparted to Contract Workers with varied skill/ work engagement is documented.
 - Whether Safety Dept. certifies the training completion of the workmen before allowing to work/job.
 - Whether adequacy of safety requirements are validated from time to time for ensuring compliance.



6. *Engagement – requirement vs. actual*

- Whether multiple Contractors are engaged in the same Job/job area.
- Whether rates applicable are benchmarked and applied for rate fixation.
- Whether ‘work permits’ are issued with predetermined strength required for the job.
- Whether work permits on job completion are signed-off and jobs in Contractor Bills be traced therefrom.
- Whether actual engagement is certified by the engaging Dept.?
- Whether same contractor is allotted job under ‘turnkey’ as well ‘labour supply’.
- Whether lower or higher engagement against requirements or extra time required/ booked is compared and deviation with reasoning documented.
- Whether Gate Security certifies entry/ exit of workmen and the same tallied with billing.

7. *Bill payment and booking*

- Whether reconciliation of materials supplied to Contractors and passing on of appropriate impact against their billing is ensured before payment.
- Whether system as to verification of ‘Attendance Record’ of the labourers maintained by Contractors and reconciliation with time billed/ engaged, for actual booking and that paid by the Contractor exists.
- Whether penalty for non-fulfilment of contractual obligation i.e. delay, quality adherence etc. are duly accounted for.
- Whether checks are carried out before making payment of bills as to:
 - Rates specified in P.O
 - Certified attendance sheet
 - Job certification
 - Quality/performance guarantee
 - Deduction against materials not returned
- Whether system of collecting Security Deposit or ‘performance guarantee’ or ‘bank guarantee’ to bind the Contractor against any quality problem exists.
- Whether appropriate taxes e.g Works Contract, TDS etc. deducted accurately and deposited timely.



8. Legal compliances under labour laws

- Whether a proper system in place to ensure necessary Licenses under relevant laws prior to engagement, is obtained by the Contractor.
- Whether all necessary returns are filed timely by the Company.
- Whether engagement of labourers over stipulated hours are tracked.
- Whether Minimum Wages, Factories Act etc. are followed and adhered to.

9. Principal employers' liability

- Whether presence at the time of wage disbursements by contractor and certification of payment to labourers (Wage Register) by Company representative is done regularly.
- Whether P.F, E.S.I (Employee State Insurance) and other statutory dues are monitored by HR/ Admin. to ensure timely deposit and protection of workforce interest.
- Whether a check list of all relevant provisions are available for compliance by Company.

3. Stores (Engineering Stores)

Mining Equipment, Kiln, Bagging Plant etc. requires regular maintenance due to corrosive nature of the product. Moreover, to minimize the plant 'downtime' or in other words maximize plant 'uptime' spares are kept in stock to cater immediate requirement. Insurance spares, spares in 'bank stock' are maintained to control working capital requirement.

ENGINEERING STORES

1. Stock built-up and maintenance

- Whether the engineering items in stock consist of items/spares of present operational plants only?
- Whether spares relating to disposable/idle plants are taken out/ segregated of stock/ inventory immediately on identification?
- Is there a system of obtaining list from respective plant maintenance department to supplement materials requirement and stocking.
- Is there a regular process of identifying requirement envisaged versus actual drawal by Departments, simultaneously by Engineering Stores and requisitioning Departments.

2. Procurement policy of engineering items

- Whether valid Requisitions are mooted from respective departments and the same approved by Chief Engineer/ Stores in-charge?
- Whether stock position is reckoned for the purpose of approval of requisitions?



- Whether life class of every major running machine/ spares are defined and procurement/ replacement/ requirements for repair and maintenance chalked out accordingly?
 - Whether 'bank stock items' are regularly monitored?
 - Whether stocking norms are set for holding inventory and reviewed from time to time?
 - Whether Spares/ consumables are identifiable under 'required for maintenance including preventive maintenance' and 'break-down repairing'?
 - Whether spares/ parts are identifiable under VED (Vital, Essential, and Desirable) category, Insurance Spares and stock norms are set accordingly?
 - Whether previous maintenance cycle/consumption data, forms the basis of such categorization?
3. Vendor selection and ordering
- Whether there exists a process of Vendor listing and item-wise Vendors are listed for future ordering?
 - Whether materials are sourced from a single vendor?
 - Whether process of competitive bidding is followed for procurement of Engineering Stores / spares?
 - Whether for placing every new order, latest/ up-dated Price List of the Vendor is compared and rate agreed to?
 - Whether orders in ERP/SAP can be raised without following the PR (Purchase Requisition) route?
4. Maintenance of stock levels and ordering
- Whether stock levels (minimum, maximum, re-ordering) are defined for all items.
 - Whether 'bank stock' is maintained and reviewed periodically.
 - Whether lead time is fixed and known to indenting/Purchases Dept. and configured in SAP database?
 - Whether 'Lead time' specified and actual are compared for corrective/ reduction action?
5. Identification process of slow/non-moving items
- Whether slow and non-moving items are defined?
 - Is there a system of periodical flagging of such items to respective indenter?
 - Whether requirement for same items at other Units are explored?



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- Whether appropriate value adjustment mechanism deployed for slow/non-moving materials on identification?
6. In/out/return of engineering store items
- Whether all in/out movements of parts/spares from Factory is governed by duly approved Gate Passes?
 - Whether issue to Departments for their consumption immediately reflected/ recorded in stock of Engineering Stores?
 - Whether 'Gate Passes' are ERP/SAP module configured/ number controlled to identify non-return of material sent out?
 - Whether list of pending items is circulated and followed-up on regular basis?
 - Whether appropriate tax adjustment is carried out in case of non-return/ partial return and return after stipulated period?
7. Up-keep of Stores
- Whether guideline for physical ambience, rack height, storage and handling etc. are available and deployed?
 - Whether items are kept properly arranged to ensure easy identification, movement and counting while carrying out physical verification.
8. Physical verification and status of materials
- Is there a system of periodical verification of items/Spares kept at Engineering Stores?
 - Whether a documented process of assessing periodically the physical condition of materials exists?
 - Whether spares of machines which are presently in use are only kept at stock?
 - Whether stock discrepancies are adjusted in Books after due approval within a reasonable time?
9. Quality assessment and process of receipting
- Whether all materials are acknowledged after the same being complied with the requisite quality standard?
 - Is there a DOA fixed for approving deviations of quality?
 - Whether all quality deviations are brought to the knowledge of 'GM-Engineering' and approval/ cognisance also obtained.
 - Is there any defined procedure for return of 'quality failed' materials to suppliers? If so, tracking of such returns and resultant.



10. Accounting of Engineering store items

- Whether all issues are charged out and consumed immediately after issue from stores?
- Whether all discrepancies arising out of physical shortages are adjusted in Books immediately after the same being noticed?
- Material issued for project jobs are duly accounted for in time?
- Whether Spares etc. received with the Capital items on FOC basis are kept in store with proper identification and properly accounted?
- Whether all relevant costs are considered for valuation of inventory of Engineering Stores?

4. Inventory (Finished Goods)

In cement industry, there is hardly any scope of maintaining Finished Product (bagged or bulker supplies) inside the Plant. Logistic arrangement is made in such a way so that multiple handling in Plant can be avoided. Bagged product is directly loaded in Rail Wagons/Trucks from the Chute. The counting machines are also placed to validate the invoice /transfer quantity being loaded.

Raw materials (lime stone, coal etc.) are kept in stock to cater requirement during production run considering the pick demand. Requirement for clinker is maintained keeping in view of requirement at various Grinding Units. Excess Clinker produced can be sold to other manufacturers of Cement. However, prolonged storage of Clinker deteriorates quality and requires further operation to crush.

INVENTORY MANAGEMENT

1. *System Controls through SAP:*

- Whether for each category of inventory, procedures are implemented to ensure the reliability of items' classification and codification.
- Whether for each category of inventory, changes to item master files are authorized based on the appropriate documentation/DOA. A regular review of all database modification is performed (e.g use of exception reports).
- Whether user profiles and related access to the stock management application and its data files are defined by the application business owner taking into account segregation of duties. Access rights are set-up and maintained (periodical review) according to appropriate segregation of duties and to changes in personnel generic accounts are forbidden.



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- Whether integrity and completeness of data transferred into inventory ledger is checked i.e the interfaces between all applications/systems and legacy systems leading to entries being posted in inventory ledger are checked.
- Whether inventory levels with Min./ Max level is defined in system and exceptions are recorded/reported.
- Whether ordering levels are popped-up from system and orders placed accordingly.

2. *Maintenance of physical stock/ inventory:*

- Whether proper areas and access rights are defined for receiving, delivering and storing raw materials, finished goods and spare parts (including consignment stock). Especially goods are protected against damage, bad weather and theft; high value items/explosives are stored in locked/protected area.
- Whether Inventory is kept according to a precise warehouse map wherein all items are visible/ accessible for count, obsolete items and items with quality problems stored separately, storage ensures that two products cannot be mixed together i.e one item kept per place.
- Whether inventory control have the following segregation of function:
- Manufacturing and custodial responsibilities from accounting activities and segregation of supervising and verifying (compilation) the physical existence of inventory from individuals performing the actual count.
- Whether “Kardex” is maintained at the warehouse to indicate updated stock position.
- Whether all stocks are kept under insurance coverage or stock losses are realizable from the custodian.

3. *Costing and accounting of Inventory*

- Whether ‘Production’ performs volume reconciliation for each type of stock. Different categories of discrepancies are clearly identified (production/ stock- take). Someone not involved in the stock management reviews the reconciliation.
- Whether Stock issues and transfers are tracked and approved based on appropriate supporting documents and according to DOA.
- Whether classification of spare parts between Fixed Assets and Inventory is reviewed for consistency with Co. accounting policy.
- Whether valuation of each type of inventory is reviewed for consistency with accounting standards.



- Whether allocation of costs when performing cost calculation is reviewed for completeness.
- Whether provisions are approved according to delegations of authority.
- Whether Inventory provisions are estimated according to accounting guidelines, based on appropriate supporting documents and applied consistently from one year to another.
- Whether write-off of damaged bags (godown outside Plant premises) are authorized on the basis of appropriate supporting documents and DOA. The accounting Dept. is timely informed for booking.
- Whether cut-off process is in place to ensure that all movements are recorded at the date they occurred.
- Whether the methodology for calculating overhead in inventory is reviewed at least annually to ensure compliance with Company Policy.
- Whether procedures are in place, including document accountability to control the receipt and transfer of inventory into, within, and out of the facility. Monthly cut-off procedures observed and co-ordinated with the finance/ accounts to ensure all receipts and disbursements of inventory are properly recorded.
- Whether excess and obsolete inventory is identified and where appropriate, disposed of by scrap, returns to Vendor or other suitable means in a prompt and timely manner.
- Whether inventory on consignment or in possession of engineering or 3 Party /other personnel must be confirmed in writing annually by the customer, supplier.
- Whether reconciliation of the results of the annual physical inventory to the General Ledger, with appropriate adjusting accounting entries, must be performed prior to the annual fiscal closing.

Others

- Whether material received in damaged condition or short receipt considered with proper qualified discharge on CN and/ or short/ damage certificates obtained from Carrier.
- Whether shelf life of chemicals is maintained and usage /movement followed the discipline to pre-empt expiry.

5. Title Deeds

The mining rights, lease deeds, site plans and own roads with differentiator for Panchayat/ municipal road rights etc. to be preserved for protecting company's /entities interest on the property and fight legal battle, if any, against encroachment.



REVIEW OF TITLE DEEDS

Accounting and custodian of documents

- Whether lease period, renewal date etc. is captured in ERP/SAP database for follow-up and response?
- Whether custodian of physical copy of lease deeds/ agreements/ ownership title etc. is fixed and maintained properly.
- Whether proper accounting entries are passed for ensuring ownership of movable/ immovable assets in Books.
- Whether the lease/ownership title deed is properly executed and registered.
- Whether “Security Deposit” receipts are kept properly and refund/deposit etc. are captured properly in Books of Accounts as per stipulation of agreement.
- Whether lease with “buy back” option delved by Co. and pros and cons examined before exercising/ nullifying (not exercising) the same?
- Whether required amount has been remitted to the Authority or appropriate ‘stamp duties’ affixed on legal documents/title deeds.
- Whether the assets/leaseholds are in use for the purpose for which the same is acquired.
- Whether responsibility for acting on notices received regarding termination of lease etc. are fixed?
- Whether prior permission for laying pipeline, electric lines, and modifications etc. to leaseholds obtained from the concerned property under way-leave license?
- Whether prior consent in writing is taken before transfer/ assign/ sublet of land to any third party.
- Whether ‘search report’ for property acquired collected before striking the deal?
- Whether prior consent in writing is taken before mortgage of land as security.
- Whether rental enhancement over a stipulated period is tracked and considered as stipulated in the agreement.
- Whether “Register of Charges” includes all immovable with clear title in favour of the Company and subsidiary company.
- Whether facilities/ privileges/ obligations etc. as mentioned in the agreement is certified on possession?
- Whether authority to scrutiny/ verify property agreements/ Title deeds are laid down and acknowledgement obtained from the concerned before signing the agreement.



- Whether process of examining/ pointing lacuna in agreements and defective titles are in place?
- Whether performance against assets provided by state government/ local statutory bodies under long-term lease are tracked and reported?
- Whether list of solicitor, advocates are maintained along-with description of roles assigned against each of the “title deeds” for future references?
- Whether all agreements are renewed in time?

6. Safety, Health and Environment (SHE)

The primary concern of environment protection and safety in work place to be ensured through re-plantation and on/off job training, issuing regular guidance notes to plant workmen. Regular reporting parameters like ‘lost time injury’, ‘near miss’ etc. ensures monitoring and journey towards safe work place. Safety Officers, health centre etc. are placed to address SHE concerns.

Audit Scope & Objective SAFETY

PROCEDURE FOR SAFETY WORK PERMIT SYSTEM:

- Whether schedule for safety round in the plant is available with Safety Department and the same is adhered to.
- Review the procedure of verifying types of work permits issued at the time of safety round vis-a-vis on field compliance and documentation thereof.
- Whether work instructions for various types of jobs are available with the Department and a competent person is authorized to verify the same.
- Whether the entire factors have been covered in Work Permit to avoid probable accidents.
- Whether unsafe practices are brought to the notice of the process owner / stopped as and when identified.
- Whether there exists a formal process for reporting unsafe practices, as and when identified.
- Whether action taken report on identified unsafe practices is documented.

Safety training, education and awareness:

- Whether schedule for training (Employees + Contractors + Marketing Dept.) is available with the Safety department and the same is adhered.
- Whether works safety committee (as provided under Factories Act) has been set up to enhance the safety awareness among the direct / associated workforce.



- Whether there exists departmental safety committee, if so, its functioning is vetted by the safety dept. and the same is communicated to respective heads for improvement.
- Whether Visual display methods are followed to educate workforce.
- Whether clearly defined checklist is available with the department to distinguish between safe/ unsafe practices relating to their nature of job.

PROCEDURE FOR MANAGEMENT OF ACCIDENT, INCIDENT, NEAR MISS, EMERGENCY PLANNING AND PREPAREDNESS:

- Whether a clear instruction is passed on to security to ensure that all the employees/ contract persons wear safety shoes before entering into the company premises.
- Whether Root cause analysis of accidents and near miss accidents is carried out, so that corrective / preventive measures can be taken to avoid such incidents in future.
- Whether investigation report is prepared and the same is shared with respective department/ functional heads and also displayed on main notice board.
- Whether schedule for safety round in the plant is available with Safety Department and the same is adhered to.
- Whether laid down schedule for periodic check / inspection of the mechanical & electrical equipment from safety point of view is adhered to, and it is documented with major OFIs.
- Whether non-compliance of safety norms is taken care of and same is documented thereof.
- Whether regular follow-up is done for pending corrective actions by the respective departmental heads. No objection certificate by safety department is obtained in case of jobs for which corrective action is pending.
- Whether presence of Safety department representative / issue of safety work permit by competent person is mandatory at the time of major breakdown & startup of critical equipment etc.
- Whether on and off site emergency plans are available and awareness thereof
- Review the frequency of mock-drills etc.

Procedure for firefighting & prevention:

- Whether established fire identification & fighting system is in place with all the departments.
- Whether all the fire extinguishers are regularly checked and refilled / replaced on a periodical basis.
- Whether Works areas have been sub-divided into class of fire zone.



- Whether a schedule is prepared to carry out the mock drill for Firefighting system and the same is adhered to.
- Review the fire-alarm system and adequacy/healthiness.

Procedure for Selection, installation and maintenance of Fire & safety equipment

- Whether Plant modification jobs are carried out with due permission from safety department and non-adherence of the same is documented.

PROCUREMENT OF SAFETY-ITEMS PROCEDURES:

- Review the process of purchase requisitions related to procurement of safety equipment and Technical comparison done after receipt of quotations from vendors.
- In case of durable firefighting equipment whether department has a procedure of availing warranty / guarantee from the suppliers / manufacturers.

HEALTH

COMPLIANCE TO OHSAS

- Whether compliance to OHSAS requirements is adequate
- Periodic medical-checkup of employees including coverage (Company/ Contractor etc.), frequency and records thereof
- Special health checks for employees working in hazardous areas

WORKPLACE HYGIENE:

- Whether hygiene at workplace is adequate

HYGIENE OF EATABLES AND DRINKABLES:

- Whether quality & hygiene of served eatables, beverages and potable water is adequate with available checks

IN-PLANT CLINIC:

- Whether infrastructure is adequate for customer delight including first-aid and dealing minor emergencies

HEALTH PROGRAMS:

- Whether health programs are conducted for employees and families

ENVIRONMENT STORAGE AND HANDLING OF HAZARDOUS CHEMICALS:

- Whether storage and handling of hazardous chemicals practices are adequate and safe



HAZARDOUS SCRAP DISPOSAL:

- Whether monitoring and disposal of hazardous scrap is as per norms

DISPOSAL OF BIO-MEDICAL WASTES:

- Whether monitoring, disposal and reporting of bio-medical wastes is as per norms and adequate

STACK EMISSIONS:

- Whether monitoring and reporting practices are adequate

EFFLUENT DISPOSAL:

- Whether monitoring, disposal and reporting practices are adequate

ENVIRONMENT FRIENDLY MEASURES:

- Whether environment friendly measures such as plantation etc. are adequate

OTHERS

POLICIES:

- Compliance to SHE (Safety, Health and Environment) policy

IMPROVEMENT INITIATIVES:

- Review of initiatives such as Responsible Care for improvements

7. Fixed Assets

Plant, Equipment, Office Building, Road, Kiln, Vehicles etc. having life class beyond one year/ accounting period are recorded in 'Fixed Assets Register' (FAR). Granularity in assets registers with proper 'componentization' needs to be considered for appropriate accounting and partial replacement of assets in use due to wear and tear.

Audit Scope & Objectives

(A) ASSETS MANAGEMENT POLICY/DOCUMENTATION/SOP

Whether any documented policy/SOP for fixed assets management (e.g. asset creation, acquisition, transfer, retirement/disposal etc.) is available and followed consistently.

(B) CAPITAL BUDGET & APPROVALS

- Whether there is a Capital Expenditure Policy highlighting the procedures to be followed for estimation of Capex & pre-defined authority for sanction of the Capital Expenditure budget with value limits?
- Whether technical & commercial feasibility studies done before initiation of the specific Capex proposal.



- Whether there exists a pre-designed format for initiating capital proposal to include description of assets, justification for the expenditures, envisaged benefits, approval from authorized persons etc.
- Whether the capital proposals are supported with the adequate supporting documents such as, quotations, drawings/designs etc.
- Whether any amendments to CAPEX are approved as per DOA?
- Whether Budgets are uploaded in SAP database for tracking purposes?
- Whether internal mechanism for tracking of capital proposals till raising of POs to identify excessive delays are in place.
- Whether there exists a system of compiling pending list of Capex proposals to initiate necessary remedial measures

(C) FIXED ASSETS REGISTER

- Whether a register of all fixed assets (including fully depreciated assets) maintained and updated? Whether there is adequate description of all assets to identify physical assets?
- Whether the register periodically reconciled with the financial records?
- Whether assets are properly classified?

(D) PHYSICAL VERIFICATION

- Whether any documented policy/SOP on Physical Verification is available?
- If yes, whether the same is being followed consistently?
- Whether the fixed assets are verified at regular intervals by the management?
- Whether there is a set procedure for verification and confirmation of fixed assets lying with third parties?
- Whether any material discrepancy on such verification properly adjusted in the books after taking approvals as per DOA?
- Whether Physical verification of title-deeds is carried out periodically by officers not connected with assets accounting/assets administration?
- Whether all major fixed assets are in use at the end of the year?

(E) FIXED ASSET ADDITIONS

- Whether there is a documented approval for all fixed assets additions as per DOA?
- Whether Purchase order is made for every acquisition, giving full details of fixed asset requirement?
- Whether every P.O. is authorized as per DOA?



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- Whether actual transaction is as per approved P.O.?
- Whether Master data (class, useful life, rate of depreciation) of new asset created is correct?
- Whether Capitalization is done only on the basis of 'put to use certificate' by proper person (technical person) only after inspection?
- Whether actual utilization exceeds the budgeted allocation? Whether approval taken?
- Whether there is clear and correct distinction drawn between capital and revenue expenditure?
- Where there is unduly delay in installation/commissioning/commencement of warranty, inquire whether there are problems with the quality of goods supplied.
- Whether additions are supported by documents of title and other relevant records as required for transfer of property (For e.g. in case of vehicles, RC Book is to be obtained)

(F) VALUATION OF ASSETS

- Whether all the attributable costs relating to acquisition of fixed assets capitalized?
- Whether Self-generated asset consist of direct as well as allocable factory expenses allocated on systematic basis?
- Whether Borrowing costs are capitalized?
- Whether Capital and Revenue spent justifications are dealt with properly?
- Whether Tax Credits are appropriately dealt with in Asset valuation?
- Whether the additions list checked to ensure that no revenue items have been capitalized?
- Where fixed assets have been revalued, is there adequate independent evidence to support for revaluation amounts? Examine the basis of revaluation.

(G) SALE OF ASSETS

- Form for assets sale/disposal request with details of assets, reason for sale, reference to assets detailed record, location, written down value, sales value expected and mode of disposal, whether replacement required and cost thereof. Whether any request pending for more than one year?
- Whether procedure for disposal of spares rendered surplus due to concerned assets sold off, are in place.
- Whether sale-approval and evidencing process in place.



- Whether separate maintenance of disposed- off assets records and removal of same from the main asset register exists.
- Whether items replaced, scrapped or sold removed/written off from the books?
- Whether there is a procedure for floating of enquiries for sale of assets, billing, realization and final accounting.
- Whether the profit or loss on sale of fixed assets been properly disclosed in the accounts?

(H) MOVEMENT/TRANSFER OF ASSETS

- Whether sending as well as receiving locations in all cases fills a standard form?
- Process of authorization for inter-location/inter-plant transfer of assets exists?
- Whether the transfer of assets are approved as per DOA
- Whether transfers are properly recorded in the books.
- Whether there is a system to track the assets transferred on a temporary basis?

(I) IDENTIFICATION OF IDLE ASSETS

- Whether there is a documented process in place to identify the idle assets?
- Whether the request is always from the user documenting the reason to classify asset as idle asset.

(J) WRITE OFF OF ASSETS

- Whether write off note for any shortage/missing asset is put up for approval as per DOA?
- Whether there is a standard form for “Write off” request?
- Whether the same is properly adjusted in the books after taking approvals as per DOA?
- Whether any write off requests are pending for approval for more than one year?

(K) CAPITAL WIP

- Whether there is any delay in capitalization?
- Whether a list of items of capital work in progress not completed for a long time obtained with explanation?
- Whether there are any old WIP & reasons for non-capitalization.



(L) CAPITAL ADVANCE

- Whether Request from vendor for capital advance, which should be approved as per DOA
- Whether there are any unadjusted advances?

(M) INSURANCE OF ASSETS

- Whether procedure for insuring and adequacy of coverage covering all risks such as fire, flood, earthquake, malicious damage etc. exists.
- Whether justifiable Reasons for risks not covered.

(N) SECURITY OF ASSETS

- Controls to ensure Physical Safeguarding of Assets exists.
- Un-authorized use/movement of assets.
- Whether an examination of the ownership is done by verifying the title deeds or by obtaining direct confirmation from the custodian?

(O) TRACKING OF INTERNAL RATE OF RETURN

- Whether any analysis of asset performance against the projected NPV/IRR is being done?
- Whether there are gaps between the projected NPV/IRR and actual asset performance?

(P) STATUTORY-COMPLIANCES

- Whether there is any periodical review of the assets for the impairment?
- Whether accounting for impairment as per Accounting Standard is being followed?

8. Production

Production of Clinker (wherever applicable) and conversion to Cement, bagging (not applicable for sale in dumpers) activities are considered as production.

Area of Review: Production

- Whether Production budget/plan for each of the product variety is duly compiled on a timely basis?
- Whether there exists Pre-defined authority level for review and modification in the production plan?
- Whether Production Plan vis-à-vis changes in Sales Plan or availability of raw materials & documentation thereof is done on a periodic basis?
- Whether compilation & documentation of actual consumption vis-à-vis standard



consumption is done on a periodic basis?

- Whether review of periodicity of comparison of actual consumption and standard consumption is in place?
- Whether compilation of reason-wise variance analysis for deviation in consumption is done on a regular basis?
- Whether all controllable and non-controllable factors resulting in variation in the consumption norms identified?
- Whether department takes appropriate action plan to remedy the controllable factors?
- Whether material reconciliation highlighting total material consumed, standard input-output norms and actual verified?
- Whether variations over standard Bag consumption is measured and monitored?
- Whether Daily Production Report from DCS Compiled?
- whether the production report on a daily basis verified by the authorized personnel?
- Whether there exists pre-defined authority levels to generate, add, and modify production data in DCS/SAP?
- Whether there exists Standard Operating Procedures (SOP) for quality control and inspection?
- Whether there exists a system of review of Quality Control (QC) norms periodically to ensure their validity?
- Whether Adherence to the pre-determined sampling techniques & exception reports duly approved for the results deviating from the QC norms?
- Whether all complaints received by the Production department pertaining to quality/quantity are reviewed?
- Whether Customer-complaints closed in time for amicable solution?
- Whether Engagement of external agency for quality validation are approved and reports are reckoned to pre-empt possibility of quality non-conformity issues?
- Whether process for re-working QC failed products exists after obtaining due approval from appropriate authority against QC failed product?
- Whether all products are bagged after the same being qualified for /passed by QC?
- Whether the plant maintenance plan considered while development of production plans?
- Whether preventive maintenance schedule Compiled and duly adhered to?
- Whether breakdown maintenance and opportunity loss of production measured?



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- Whether impact of breakdown maintenance on the production schedule ascertained?
- Whether cost accounting system is maintained to accurately accumulate and identify manufacturing cost (i.e. by cost centre or product)?
- Whether cost accounting system is provide adequate information to analyse actual manufacturing cost, standard cost and other information needed to properly safeguard and value inventory?
- Whether appropriate assumptions are made to allocate fixed cost?
- Whether periodic comparisons of standard costs to actual manufacturing costs are performed, and any discrepancies resolved in a timely manner?
- Whether adjustment to the standard cost, for whatsoever reason, are approved by the appropriate authority, adequately documented and reflected in accounting?
- Whether the cost of by product is taken into consideration in arriving at cost of production?
- Whether the scrap accumulated is within the approved limit and timely reported?
- Whether approval from competent authority is taken before disposal of scrap accumulated?

9. Quality Control

Quality control at each of the stage indicates process adherence at each production activity as well as ensuring raw material (mix) is supportive to the grade of cement manufactured with desired applicable strength.

- Whether frequency of sample collection is adequate?
- Whether sample quantity collected is sufficient for inspection?
- Whether all samples are accompanied by “Sample testing request form” and entered in “Sample register”?
- Whether testing is carried out as per standard QC manual & relevant work instruction?
- Whether all purchase order contains quality norms and it is communicated to laboratory?
- Whether all test results are recorded by Laboratory in appropriate register for further scrutiny/analysis?
- Whether inspection reports are communicated to user department, Buyer/Purchases Dept.?



- In case abnormal result found whether it is re-analyzed after reasonable revision in sample size before issuing 'failed' report?
- In case of rejection, sampling frequency is increased / revised and maintained till the 'acceptance' of the product?
- Whether in case material is 'failed' during inspection the same is stored in a separate place & tagged clearly?
- Whether standard time limits for each type of test is defined, documented and adhered?
- Whether periodically samples are sent to external agencies to cross check the results?
- Whether all laboratory equipment calibration schedules is maintained and followed?
- Whether certificate of external agency is obtained about laboratory standards?
- Whether quality specifications required by customer is communicated in advance to production department for production planning?
- Whether customer's preferred specification is communicated to laboratory & such communication is available for verification?
- Whether quality related customer complaint resolution mechanism is available? Whether all quality related customer complaints are resolved in time and if not, it is escalated to higher authority?
- Whether all materials test certificates prepared by quality control laboratory are approved by Head - Laboratory?

10. Payroll

Attendance recording and payroll processing for permanent and contractual deployment (excluding job work) is very important w.r.t cost of cement and Net Cement Realization (NCR). In most of the organizations 'time recorder' machines are in use e.g bio-metric recorder, face reader etc. Time captured is downloaded for identification of absenteeism, short time booked (early exit), missing punch/recording etc. for appropriate action i.e leave deduction, approved early exit etc. for proper reflection in payroll. Appropriate statutory deductions needs to be mapped for payroll processing.

Audit Program – Payroll

- Whether information related to appointment/transfer/resignations given to the outsourced vendor have been duly checked and authorized and accurately captured.
- Whether only approved employee details are forwarded to Payroll processing/ outsourced vendor



GUIDANCE NOTE ON RISK BASED INTERNAL AUDIT OF CEMENT INDUSTRY

- Whether statutory deductions are made as per the minimum requirements set forth in law
- Whether all statutory deductions are made automatically through reviewed Salary Structure
- Whether differences in statutory deduction between last month & current month salary are scrutinized through variance report
- Whether all compensation related payments data are sent by HR Dept. and cross verified by Accounts
- Whether after updating by the outside vendor, the data is validated by accounts by scrutinizing the variance report
- Whether retirement benefits like superannuation, PF, gratuity computation is authorized by appropriate authorities
- Whether retirement benefits are given as per the Company's policy
- Payment statement is authorized by Manager-Accounts before payment is released
- Whether the amount disbursed matches with salary computed by outsourced vendor
- Whether salary is credited to the bank account of the employees as per list /sent by outside vendor and tallied with the net pay.
- Whether Manager Accounts checks the list and authorizes and releases the payment through E payment system
- Whether salary payment is released through two authorized signatories
- Whether the list of signatories does not have resigned/retired employees name
- Whether salary list has names, bank account number and net pay of the employees
- Whether internet access system is given to employees of outsourced vendor handling salary processing account
- Whether intrusion detection system is in place at outsourced vendor/in-house processing Team
- Whether back up of payroll data is taken on a daily basis by outsourced vendor /in- house Team and kept at different location
- Whether non-disclosure agreement has been signed by all employees of the outsourcing vendor handling client account
- Whether salary related complaints are resolved within 7 days in all cases
- Whether copy of appointment letters are sent by HR Dept. to Accounts dept. as well as the outsourced vendor.
- Whether Accounts Dept. checks the data and verifies it with uploaded data in SAP/ other ERP



- Whether date of joining is uploaded in SAP /ERP by HR department and is sent to the outsourced vendor as per the appointment letter based on which proportionate salary for the month is processed.
- Whether appointment letters are issued by authorized persons
- Whether details of final settlement such as gratuity, leave encashment given by personnel dept.
- Whether PF and SA calculation checked and all outstanding dues recovered from the final payment
- Whether the amount of final settlement duly authorized
- Whether information regarding separation of employee is sent to outsourced vendor for final settlement on a monthly basis
- Whether the SAP/ERP/System Data is updated for resigned employees immediately after last date
- Whether all Transfer related data is updated along with change in cost centre in SAP immediately on the date of new reporting
- Whether the information regarding transfer given to outsourced vendor immediately with effective date
- Whether transfer letters are issued by authorised persons
- Whether attendance details are captured correctly and on a timely basis
- Whether leave details are submitted in a proper format and is captured correctly
- Whether leave and out of office travel is updated on a monthly basis
- Whether balance leave is carried forward as per company policy
- Whether calculation of balance leave is done correctly and verified
- Whether all leave details including leave without pay is informed to the outsourced vendors on monthly basis
- Whether overtime rates fixed are as per law
- Whether all overtime sheets are approved by appropriate authority
- Whether calculation of perquisites of employees is done correctly and is verified
- Whether the calculation of bonus is done accurately and as per company policy
- Whether the calculation is verified by Accounts Dept.
- Whether the bonus amount is updated by the outsourced vendor accurately and paid with salary



GUIDANCE NOTE ON RISK BASED INTERNAL AUDIT OF CEMENT INDUSTRY

- Whether bonus is disbursed to all employees on time
- Whether the changes in compensation structure is informed to the outsourced vendor on time
- Whether the variance report is checked for the inclusion of amended salary structure by Accounts Dept.
- Whether changes in salary structure is approved as per DOA and updated in SAP by authorised person
- Whether all loans and advances given to employees are as per company policy
- Whether all loans and advances are approved as per DOA
- Whether loans and advances are accounted correctly in books immediately
- Whether deductions for loans and advances is intimated to the outsourced vendor
- Whether the deductions are verified by the Accounts Dept.
- Whether annual confirmation of outstanding loans and advances is taken before finalisation of accounts
- Whether TDS is calculated and deducted as per declaration submitted by employee
- Whether proofs of investment are submitted by the employees against the declaration
- Whether TDS is deducted for all employees on timely basis
- Whether the TDS deducted is deposited with the authorities on timely basis -before due dates
- Whether TDS return is filed on quarterly basis without default
- Whether TDS is correctly accounted in the books
- Whether all statutory deductions like PF, superannuation etc are authorised and deposited with authorities on time
- Whether penalty has been paid for short deduction of TDS
- Whether penalty has been paid for late deposit of TDS

11. Scrap

Reactor vessels, worn out Plant parts, factory and office equipment, Bags (failed) etc. are accumulated as 'scrap' for disposal.

Audit Area: Scrap

- Whether scrap generated at various departments is listed, physically verified by authorised person & approved by respective HOD?



- Whether scrap approved by HOD is referred to general store department through “Request for dumping at salvage yard” at proper interval (at least half yearly)?
- Whether all scrap is classified for general scrap, NPA, hazardous scrap requiring legal compliance for disposal before giving approval of dumping at salvage yard?
- Whether for Asset scrapped classified as NPA, respective department are advised to follow ‘procedure for disposal of NPA/ Assets scrapped’?
- Whether all hazardous scrap requiring legal compliance before disposal is stored at separate identified location?
- Whether dumping request is accepted/ rejected after appropriate verification?
- Whether scrap is finally classified as “Saleable scrap”, “Usable scrap” & “Non saleable scrap”?
- Whether all accepted ‘request for dumping scrap’ is entered in to scrap register and an identification number is assigned having running serial number?
- Whether concerned departments are permitted to dump scrap based on accepted & signed dumping request?
- Whether all dumping request is maintained in separate file at general stores & available for verification?
- Whether information for inviting competitive Bid/Offer for ‘saleable scrap’ is published in local newspaper and / or notified on Company notice board?
- Whether comparison statement of Bid/Offer is prepared for commercial evaluation & available for verification?
- Whether based on commercial evaluation contract is awarded to best buyer upon mutual agreement/ recommendation of the salvage committee members?
- Whether contractor is permitted to lift scrap from salvage yard upon deposit of specified security deposit as per contract?
- Whether loading of truck is done under strict supervision & instruction? Whether safety & security requirement is complied with?
- Whether after loading the scrap, the same is weighed and weighment slip is obtained?
- Whether based on weighment slip non-returnable gate pass & bill is generated through SAP system in quadruplicate?
- Whether Gate Pass & bill is handed over to customer only on receipt of payment from customer in the form of DD/Bankers cheque, Credit Balance confirmed by accounts department?



- Whether two copy of Gate pass & Bill is retained at General Stores in Master file?
- Whether one copy of bill is sent to accounts department for record?
- Whether 'Usable scrap' is issued to prospective user department based on approved "Request note"? Whether 'Request note' is approved by authorised person?
- Whether special request for issue of 'usable scrap' on non-chargeable basis for community / for an employee is considered only if such request note is approved by appropriate authority scheduled in DOA
- Whether std. Rate are fixed for 'domestic sale' I.e. sales to employees?
- Whether non-returnable gate pass for 'domestic sales' is issued only after payment is made by employee with accounts department?
- Whether all legal requirements for disposal of scrap materials are complied with?
- Whether safety related precautions are taken for storage of hazardous scrap items?
- Whether disposal process is commensurate for compliance of environmental norms?
- Whether item-wise quantitative details for scrap items are maintained on a regular basis by general stores department?
- Whether all incoming scrap materials is regularly recorded in 'spares stock register'?
- Whether all types outward of scrap items is properly recorded? (O/w type: Sale of "Saleable scrap", Disposal of "Non- Saleable scrap", Domestic sale of "Usable scrap", Free issue of "Usable scrap" to prospective user department, Free issue of "usable scrap" for community, Employee etc.)
- Whether process of physical stock verification of scrap at proper interval is in place? Deviations during physical verification, if any, properly recorded and approved?

12. Bagging

Major part of the cement manufactured is sold in bags. Different product variety i.e OPC, PPC etc. are sold having identity in bags. Moreover, cement is also differentiated as per market segment i.e Trade and Non-trade (due to difference in MRP). Hence, Bags for Trade and Non-trade segment in use is also different. Adherence to the metrological act (Weights and Measures) is of higher magnitude and hence calls for appropriate care while bagging the product. Customer compliant for short weighed bags are considered for penal action, on the contrary, 'give away' by way of extra material putting in bags is a loss. The electronic weighment system fitted with Packers requires regular calibration to avoid vulnerability in operation.



Audit Area: Bagging

- Whether entire production of Cement (excluding Bulker supplies) is bagged on the same day?
- Whether packing in HDPE /paper bags is planned as per production, marketing requirement, stock of empty bags?
- Whether month-wise/rake-wise/truck-wise/ target received from supply Chain Department?
- Whether all the HDPE/paper bags accepted as per Standard Quality norms for packing of Cement produced?
- Whether the packaging is done as per “Work Instruction for Cement bags Filling, Stitching and conveying”?
- Whether the “shift In-charge Daily Report” reflecting the previous day’s performance, problems, stoppage and breakdowns is prepared?
- Whether the above report is reviewed for various plant/machinery problems, and necessary action taken?
- Whether there is a supervisory review of the daily production /despatch?
- Whether monthly consumption report for HDPE /paper bags, thread, etc. is prepared and reconciled with volume of cement bagged?
- Whether inventory stock of packing materials in ERP/SAP is reviewed and indenting/follow up action is initiated whenever required?
- Whether minimum-maximum criteria for packing materials are defined?
- Whether Product Packaging plant arranges the unloading of bags as per the process of handling, storage, and preservation?
- Whether samples from the lot are drawn by ‘Product & Quality assurance’ as per advice from Materials?
- Whether information in relation to receipt of empty bags being maintained?
- Whether there is any process in place for ‘Bag Drop test’?
- Whether Quality of Cement checked while filling into bags?
- Whether filled bags after filling, closing and conveying are inspected as per ‘Quality Plan’?
- Whether all the rejected bags as per ‘Quality Plan’ are segregated?
- Whether all the bags carry the print appropriate for the category e.g Non-trade, Trade, OPC, PPC etc.in bold letter for clear identification before packing?



- Whether reason-wise analysis is compiled on a periodic basis for idle time?
- Whether weighment procedure followed for Cement bags and tolerance limits set for the same?
- Whether the access rights for setting weight is given to authorised person?
- Whether Counters are fixed for counting number of bags loaded on Truck, Rakes etc. and tallied with 'bagging report'?

13. Electrical Maintenance

Power lines (from captive Power Plant to Clinkerization/Grinding Units) require regular vigil to avoid any shutdown/disconnection. The maintenance of 'wheeling zone', power polls on 'Right Of Way' also requires specific maintenance on periodical basis. The consumption level checks, power bought from national grid/state grid and their maintenance also needs to be considered on regular basis.

Area: Electrical Maintenance

- Whether preventive Maintenance Plan is prepared for all critical equipment?
- Whether shutdown Maintenance Plan is prepared for equipment after preparing shutdown job list?
- Whether all maintenance plan cost (ABP) are compared with actual and corrective action taken for major deviations, if any?
- Whether for new equipment maintenance schedule is entered in ERP/SAP system?
- Whether revised maintenance schedule of old equipment has been entered in ERP/SAP system?
- Whether Shift Schedule for Department Electricians is prepared on monthly basis and communicated to Personnel Department and to all Electricians?
- Whether purchase of stores items are routed through PR, if stock is not available in stores and approved as per DOA?
- Whether all PO's relating to electrical spares including service orders are supported with PR and approved as per DOA?
- Whether site policies pertaining to work permit etc. is in place before carrying out the maintenance job?
- Whether electrical jobs are allocated to electricians as per knowledge, skill and competency levels.
- Whether equipment is energized after the completion of job and return?
- Whether 'MEN AT WORK' tag is put in the starter of the equipment in case of electrical isolation?



- Whether Breakdown is investigated by Assistant managers to assess the cause of failure and spares needed for replacement?
- Whether all Personal Protective Equipment (PPE) norms are compiled before starting electrical maintenance job?
- Whether job is executed as per the work instruction and check list?
- Whether job is supervised by company officials?
- Whether all safety guards are put back and area is cleaned after completion of job?
- Whether contract labour used for shut down /break down maintenance are adequately insured?
- Whether supervisors are signing off the notifications for closure?
- Whether after completion of job, work permit is returned for equipment energisation and trial?
- Whether check list are filled up after job completion?
- Whether equipment history card and log books is maintained in SAP for any major modification or any major spares used?
- Whether periodical review has been done for electrical maintenance activities.

14. Mechanical Maintenance

Maintenance activity includes regular activities to increase uptime of Plant. The gang can visit places in Plant, rotary kilns, bagging zone, mining area, Chute in despatch yard etc. as routine regular checking points to 'Look, Listen and Feel' the Plant operations. Planned maintenance activity also includes annual shut down. Breakdown maintenance at times requires critical attention and outside specialists services are also called for.

Maintenance Activity

- Whether Look, Listen & Feel (LLF) schedule/check list and lubrication schedule/check list for preventive maintenance is in place?
- Whether job list for preventive maintenance from pending job list, Previous Look, Listen & Feel (LLF) report, Condition based monitoring system (CBMS) reports and circulated to plant Manager?
- Whether Shut down maintenance plan is prepared and approval obtained from Plant Head.
- Whether root cause analysis for failure is carried out on regular basis?
- Whether repair/maintenance parameters to efficiency in place? (Mean Time To Repair, Mean Time Between Failures, Mean Time To Fail etc. are budgeted and compared periodically)



- Whether proper Planning for minimum time to repair is in place?
- Whether procurement of material for maintenance job is supported by PR and subsequently routed through PO, if not available in stock and approval as per DOA?
- Whether communication/Arrangement of specialise vendor for special break down jobs are made after obtaining approval as per DOA?
- Whether work is carried out only after obtaining valid work permit?
- Whether Checking the site and authorising work permit with Task Hazardous Analysis (THA) is in place?
- Whether equipment is energised after the completion of job and return of valid work permit?
- Whether contract labour used for shut down /break down maintenance are adequately insured?
- Whether Equipment History Card and log books is maintained?

15. Warehousing: storage and sale (C & F)

Cements produced are not stored in the Plant site and hence demand assessment and production planning is of vital importance. To ensure timely 'on demand' availability at 'market place', storage facility is built by hiring godown and supervised through outsourced agency i.e. C & F. Handling rate is fixed for unloading and loading of bags at godown. Overall stock movement (inwardation) and invoicing (sales despatch) is monitored by the Company. Godown rental and handling cost are the elements of spent to ensure regular supply.

Audit Area: Warehousing

- Whether Vehicle requisitions are made as per warehousing/despatch plan.
- Whether warehouse locations selected are mapped in Company electronic database.
- Whether Rental Agreements with Landlord entered into with specific area and facilities.
- Whether photograph for the facility is captured and available for validation.
- Whether appropriate authority level is fixed for rental amount and period of occupancy.
- Whether vetting by legal dept. is mandatorily carried out.
- Whether capacity for the area occupied is calculated and known to despatch Dept. for maximum utilization.
- Whether warehouse is maintained properly i.e moisture free, water leakage free etc.
- Whether Bags are kept properly to ensure count and tallying with book balance.



- Whether every variety with trade and non-trade identification is kept separately in warehouse.
- Whether all sales affected are against 'Sales Bill' only.
- Whether all inwardation is updated immediately for accuracy in stock at hand.
- Whether transfer between one Warehouse to another takes place and system captures the movement to ensure accuracy in stock position.
- Whether 'cut and torn (C & T)' bags are identified and physical kept separately with identification in system database.
- Whether damaged cement (solidify) kept separately and marked in Inventory.
- Whether regular validation for C & T is carried out by Company officials for initiating appropriate disposal action.
- Whether handling Bills are validated by Warehouse personal and parallel checking of system data for receipt/invoicing/return etc.
- Whether time for Order and execution is maintained with time lag therefor.
- Whether 'short weight' bags are identified on random basis?
- Whether 'height of bags kept', distance from Wall, and keep walk-way between two rows to facilitate count etc. is maintained.
- Whether MRP compared between Bill and actual stock, while effecting despatch/sale.
- Whether FIFO process followed for physical movement.
- Where the Warehouse is responsible for collection, if so, timeliness of deposit of Cheques /Return instrument collection etc. to be monitored for appropriate trigger of action.
- Whether warehouse agreement includes responsibility for stock loss/damage due to breaking of Walls etc.
- Whether volume is measured for each location to influence decision on continuation of the facility.
- Whether Bills are timely booked for liability.

16. Despatch/Transportation

Transportation is one of the major costs of cement industry. Mostly, to cater local demand; cement grinding Units are located near to consumption areas/market. Outward logistics is very important w.r.t response to market demand (timely availability of product) and pricing (basically from competition). Inland movements are carried out through Rail and road transports based on cost involved, volume and distance.



Audit Area: Dispatch

Dispatch Planning:

- Review the procedures followed for finalizing Dispatch Plan.
- Ensure that Dispatch Plan is finalized according to the market condition (demand and competition) requirements at various locations and considering the production schedule.
- Ascertain other factors considered while finalizing Dispatch Plan (tax implications etc.).
- Verify authority levels for finalization of Dispatch Plans & their adherence.
- Study the system followed for communication of dispatch Plan to the Works and its follow-up.
- Verify whether changes in dispatch plans are authorized and are promptly conveyed to the Works.

Dispatch Arrangement at the Works:

- Identify the system of receiving dispatch Plans/instructions at the works and their documentation.
- Review actual dispatches in comparison with budgeted dispatches.
- Check dispatch of goods through non-regular modes (Road shifted to Rake or vice versa) of transports & reasons thereof.
- Ensure that dispatch schedules are given to the transporters /railway authority well in advance according to the Dispatch Plan.
- Check whether placement of trucks is as per the required schedule.
- Whether movements of goods have been affected due to non-availability of trucks/rakes.
- Check monthly bills of the transporter and identify instances, where clubbing of DO (Delivery Orders) two or more trips are made to the same place on the same day and reasons thereof.

Secondary Transport:

- Identify the system of finalizing secondary transport contracts, selection of transporters/mode of transport and controls over the same.
- Ensure that documented authority levels for finalization/selection of transporters and mode of transport exist and are properly adhered to.

Transportation Budgets:

- Compare the budget for transportation/freight cost (transport mode-wise) with actual



transportation expenses and review variances, if any.

- Ascertain periodicity of comparison of Transportation Budgets & initiation of remedial measures.

Transport Contracts:

- Whether quotations are called for from various transporters for fixation of rates.
- Ensure that a proper agreement duly vetted by the Legal department is entered into with the transporters & renewed on time.
- Whether the agreements are comprehensive in all respects including common carrier liability.
- Whether the transport rate is based on per Mt. load per Km. basis.
- Check whether freight charges and transit time from all the relevant locations across the country are defined in the agreement and delivery is made within the normal time mentioned in the contract. Abnormal delays to have approval mechanism.
- Ensure transshipments and diversions are properly authorized after considering cost/expense reimbursement.
- Ensure that, acknowledgement copies confirming receipt of materials are submitted by the transporters within specified time limit.
- Ensure that, security deposits are collected from all the transporters.
- Transit losses are recovered from Transporters at appropriate local cement rates.

Bill Passing Procedure:

- Authority level for processing transport bills is fixed and certified by competent authority.
- Compare contracted rates and actual rates charged by the transporters and proof of receipt of goods by the receiving location/intended receiver.
- Ensure shortages and damages are checked and the same are duly deducted from the transporter bills.
- Review of time lag in receipt and payment of bills and reasons for excess time, if any.
- Whether liabilities are acknowledged immediately with the transportation.
- In respect of freight borne by customers, whether the same is recovered immediately.



Other Areas:

- Examine the Company policy pertaining to transit insurance cover and its adherence.
- Whether transporters performance is evaluated periodically with respect to the timely delivery of consignment and the amount of shortages and damages in transit.
- Whether periodic review is undertaken for the pending dispatches with reasons therefor.

17. Sales Promotion and Marketing Schemes

Both direct and indirect way, the Company used to create market for the product/brand. Mason meets, Builder meet etc. are organized to create awareness of the Brand. Hoarding, Banner, Display, Wall Painting, Shop Painting, Dumper/Truck/Vehicles with Company logo and name/brand etc. are commonly used methods for product/brand awareness. Radio, Television time slots are also taken to reach locally/nationally.

In cement market, dedicated Dealership is a rarity. To attract Dealers towards Companies Products; per bag incentives are allowed. Moreover, special incentives, Gold /Silver coin schemes (Diwali/ Puja etc.), foreign trips etc. are announced based on off-take volumes in different markets.

Area of Review: Sales Promotion and Marketing

- Whether appointment of Dealers /Stockists is made based on selection criterion e.g experience, market reach, financial strength etc. laid down by Company.
- Whether agreement entered into with dealers/stockiests etc. specifically mentions rights and liabilities including payment to be made to Company from sales through retail outlets.
- Whether appropriate Security Deposits are obtained from Dealers /Stockiest before initiation of trade.
- Whether validation of Customer Master is carried out at regular intervals.
- Customer categorization between trade sector and non-trade are made to apply appropriate pricing.
- Whether price revisions are made/captured timely to apply on deliveries/despaches at appropriate rate/s for realization of correct value.
- Whether appropriate inco terms are captured for ensuring billing accuracy.
- Whether 'Credit Notes' for cash discount (prompt payment) are considered separately based on actual payment made against the relevant Invoice.



- Whether target based volume discount, regional discount, trade discount, scheme discount (construction week, Diwali bumper etc.) are dealt separately for each market/ dealer / stockist etc.
- Whether 'credit limit' is appropriately fixed and monitored.
- Whether collections are monitored Dealer-wise and reversals for bouncing instruments are passed immediately for giving ensuring accuracy in outstanding balance and denial of prompt payment incentive.
- Whether evaluation of dealers is taken place periodically to assess potential to cater, off-take during relevant period, growth, payment habit etc. and ranked accordingly.

18. Procurement

Engineering Spares, Fuel (Coal, Diesel etc.), Additives, and Chemicals etc. are major items procured. Purchases Department controls the procurement activities including Vendor selection, price negotiation, Purchase Order release etc. to avail best obtainable price.

- Whether requirement of material/ goods/ services is identified based on purchase requisition (PR) from user department for all purchases? (except small value purchases up to Rs. 5000/-)
- Whether all dept. covered under release strategy is generating PR.
- Whether general stock items purchase requirement is identified based on previous consumption trend?
- Whether all PR are duly approved / released by functional head as per release strategy?
- Whether all PR are scrutinised for accuracy of material code, quantity, cost centre, expected delivery date, specification, source of supply, services required etc. by Purchase Dept.?
- Whether availability of stock & buffer stock requirement for requisitioned items are checked before creating RFQ (Request For Quote)/ purchase enquiry?
- Whether Purchase inquiry / Request for quotation is mandatorily made PR?(except where Annual Rate Contract is available)
- Whether vendor applications evaluation is made against pre-set norms and deviations, if any, are duly approved?
- Whether all technical quotation/bids are first sent to user depts. for evaluation?
- Whether comparison statement of all quotation/ bid is prepared for scrutiny of tender & available for verification?
- Whether final purchase approval is done as per DOA (Delegation Of Authority)?



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- Whether all PO contains applicable 'acceptance criteria' as stipulated in Quality standard.
- Whether GIN (Goods Inward Note) is prepared for all material supplied by supplier & received at Stores?
- Whether material is inspected by user, in case of technical items, before acceptance of delivery?
- In case of rejection whether material is sent back to supplier & rejection note is forwarded to purchase dept. to avoid wrong payment?
- Whether contract is vetted by legal department to scrutinise legal aspects?
- Whether penalty clause in case of non/under supply of contracted quantity exists in contract?
- Whether Vendor Enlistment Forms are scrutinized for requisite Tax and Compliance matters.
- Whether before importing any kind of fuel, indigenous/domestic availability is rechecked?
- Whether internal efficiency of procurement is measured by PR to PO cycle time & it is within target cycle time?



What is a Risk Control Matrix (RCM)?

RCM is a structured tool that **links risks to controls** in a clear, tabular format. A well-designed **Risk Control Matrix (RCM)** is like the backbone of a strong internal control system. It forces clarity: what can go wrong, why it matters, and what exactly the organisation is doing to prevent it. It captures four essential elements:

1. The process/activity
2. The specific risk (what could go wrong?)
3. The control designed to mitigate that risk
4. The assessment of control effectiveness

Under RBIA the high risk areas draw immediate attention, post review of risk based on a continuous basis. The Risk Based Audit checklists are perused for conducting audit and the RCMs of some of the important areas are mentioned hereunder.

Production Management

Process	Risk	Control	Control Owner	Control Frequency
Production Management	Inaccurate production reporting	Daily Production Report compiled from DCS	Production Manager	Daily
	Unauthorized modification of production data	Pre-defined authority levels established in DCS/SAP	IT Department	Ongoing
	Quality non-compliance	Adherence to pre-defined sampling techniques and QC norms	Quality Control Department	Daily
	Delayed response to quality complaints	Established process for reviewing and closing customer complaints	Production Manager	As needed
	Uncommunicated customer requirements	Advance communication of customer's specifications to production	Production Manager	Ongoing
	Inadequate oversight of production issues	Supervisory review of daily production and dispatch	Production Supervisor	Daily
	Discrepancies in bagged cement quantities	Monthly reconciliation of consumption reports	Inventory Control Team	Monthly



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Process	Risk	Control	Control Owner	Control Frequency
	Supplier performance issues affecting production	Periodic evaluation of dealer performance and ranking	Procurement Department	Quarterly
	Excess inventory leading to quality deterioration	Regular review of clinker production and storage practices	Production Manager	Monthly

Fixed Assets

Process	Risk	Control	Control Owner	Control Frequency
Capitalization of Assets	Projects not approved before initiation	Ensure projects are approved by the Investment Management Committee with pre-calculation metrics	Investment Management Committee	Per project
	Assets capitalized without trial run	Certification of successful trial run by appropriate authority	Asset Management Team	Per asset
	Financial closure not obtained	System for obtaining financial closure must be documented	Finance Department	Per project
Measurement of Results	Discrepancies between projections and actual benefits	Monthly comparison of projections against actual results; corrective actions documented	Performance Tracking Team	Monthly
	Incorrect depreciation key/ classification	Correct depreciation keys assigned and verified during asset capitalization	Accounting Department	Per asset
Capitalization of Assets	Inaccurate projections or shortfalls	Monthly analysis of projections vs. actual benefits and corrective action if needed	Finance Department	Monthly
	Poor tracking of performance	Internal Rate of Return and Pay-back period calculations tracked monthly	Finance Department	Monthly

Contract Labour deployment

Process	Risk	Control	Control Owner	Control Frequency
Engagement of Contract Labour	Insufficient skill profiles	Maintain skill profiles and raise job requisitions against specific skills required	HR Department	Ongoing
	Inadequate safety training	Document safety training details and certification completion by Safety Dept	Safety Department	Per engagement
	Non-compliance with safety requirements	Regular validation of safety compliance through documented assessments	Safety Department	Periodic
	Regulatory non-compliance	Checklist for compliance with statutory dues (P.F, E.S.I) monitored by HR/Admin	HR/Admin	Monthly

Engineering Stores

Process	Risk	Control	Control Owner	Control Frequency
Stores (Engineering Stores)	Poor organization of inventory	Guidelines for storage and handling in place, with items arranged for easy identification	Engineering Stores Manager	Ongoing
	Mismanagement of materials	Periodical physical verification checks and documented assessments for materials' conditions	Engineering Stores Manager	Quarterly
	Stock discrepancies	Ensure quick adjustments of stock discrepancies in books with necessary approvals	Finance/Accounting	As needed
Quality assessment and receipting	Receipt of substandard materials	Acknowledgment of materials only after compliance with quality standards	Quality Assurance	Per receipt
Inventory Management	Inconsistent inventory classification	Procedures for reliable classification and codification enforced through SAP	Inventory Management	Ongoing
	Incomplete cost allocation	Regular review of inventory cost allocation against accounting standards	Finance Department	Annually



GUIDANCE NOTE ON RISK BASED INTERNAL AUDIT OF CEMENT INDUSTRY

Process	Risk	Control	Control Owner	Control Frequency
Stores (Engineering Stores)	Inaccurate cut-off processes	Cut-off procedures ensuring all movements are recorded timely	Accounting	Monthly
	Control deficiencies in inventory transfers	Procedures for documenting receipt and transfer of inventory implemented	Inventory Management	Ongoing
	Improper recording of inventory activities	Monthly coordination with finance/ accounts for accurate recording of inventory transactions	Inventory Management/ Finance	Monthly
	Inadequate materials management	Systematic process for identifying requirements and adjusting stock discrepancies	Engineering Stores Management	Ongoing
	Quality issues with procured materials	Quality checks and acknowledgments for all received materials	Quality Control Department	Per delivery

Administration

Process	Risk	Control	Control Owner	Control Frequency
Administration Roles	Undefined roles/ responsibilities in administration	Assign clear roles and responsibilities	Administration Committee	Annually
Policies and Procedures Manual	Lack of guiding documents could lead to inconsistent practices	Develop and maintain a policies and procedures manual	Management	Biannually
Monitoring Activities	Inadequate monitoring could allow issues to go unnoticed	Implement policies for regular monitoring	Compliance Officer	Quarterly
Awareness of Policies	Members may not adhere to policies if unaware	Conduct regular training and updates on policies	Training Coordinator	Annually
Management Committee Meetings	Infrequent meetings can result in poor decision-making	Schedule meetings at prescribed intervals	Management Committee Chair	Monthly

Process	Risk	Control	Control Owner	Control Frequency
Distribution of Annual Report	Members may be uninformed about activities and outcomes	Ensure timely distribution of the annual report	Secretary	Annually
Access to Member Information	Unauthorized access could lead to privacy breaches	Restrict access to sensitive member information	IT Department	As needed
Articulation of Management Decisions	Poor communication can lead to misunderstandings	Establish clear communication protocols for management decisions	Management Committee	Ongoing
Functional Reporting Hierarchy	Lack of structure may lead to confusion and inefficiency	Define and communicate the reporting structure	HR Department	Annually
Administrative Lapses	Unaddressed lapses can escalate into larger problems	Establish a mechanism for reporting and resolving lapses	Administration Committee	Immediately
Backup of Computer Files	Data loss from system failure or disaster	Schedule regular backups and store them offsite	IT Department	Weekly / Monthly
Monitoring of Correspondence	Unmonitored correspondence may lead to miscommunication	Implement a system for monitoring inward and outward correspondence	Compliance Officer	Regular



RBIA Report (Value Addition through Audit)

Assignment: A Cement Manufacturer is worried about operating cost and (Financial Risk) requested the Auditor to review the operation and provide feedback with an expectation of deriving cost benefits.

Post review of operation, the Audit Team submitted the following Report for implementation.

Title : Job and positions need to be re-looked for cost rationalization and process improvement purposes

- Through M/s. Glory Trading Co., total **89** workmen under **8** approved 'job descriptions' were deployed for bagging **1404675 Mt. (2021-22: 1356661 Mt.)** of cement. Bulk sale of cement also carried out from the Unit (**2021-22: 79287 Mt. and 2022-23: 34093 Mt.**).

'Job description' includes (a) Loader, (b) Packer Operator, (c) Belt Attendant, (d) Tally Checker, (e) Silo Attendant, (f) Shift Supervisor, (g) House Keeping Workmen, (h) Electrician/Instrument Technician.

Packer Operators

- At present **2 Packers** with 32 Sprout are operating at the Unit with a **daily production capacity of 9600 Mt. (@ 4800 Mt. /Packer)**. Out of the 8 'job Descriptions' (described in (a) to (h) above), direct engagement (a to e) and support roles (f to h) are identified. Accordingly, **75** positions are attached with direct operation and **14** with support roles including supervisors, Electrician/Instrument Technician and House-keeping. 'House-keeping' deployments are for General Shift (6.00 am to 6.00 pm for 4-5 person & balance from 9.00 am to 6 pm).
- **Packer Operator** job description includes the following responsibilities to be discharged by each of the Operator. Daily deployment schedule is of **18 Operators (3/Shift/Packer) in three Shifts for the two Packing Machines**. Job descriptions of Operators are-
 - Bag feeding in nozzles by two operator i.e one each at each discharge end of double discharge facility.
 - Rotation-wise off is taken by the workmen to ensure continuity of discharge operation.
 - The aforesaid modus of on and off/rest is mutually settled by the gang.
 - Dust cleaning of inside portion of Packers through air pressure Unit/twice per Shift.
- We are given to understand that shift (eight hours) hours includes periodical breaks fixed amongst workmen by maintaining required dispatch target/speed of operation. Since all the four dischargers (2 packers) are on the same floor, by further rationalization of deployment (from prevalent **6 /shift to 5/shift**), possibility of cost reduction of **Rs. 1.2 Lacs p.a/shift** (Rate-Rs. 320/-per day of 8 hours excluding other benefits like uniform/PF etc.) need to be explored. **There are number of alternates of manning by 5 operators in a shift.** However, we are

appending below two such alternates (many more logical permutations and combinations are possible) to **reduce manpower to 5/shift**.

- Our proposition indicates uninterrupted production with 5 workmen (instead of 6 per shift) by maintaining the prevalent off/rest time mutually agreed upon amongst workmen. It is pertinent to mention here that recesses not being planned / projected at the start and last lap of the eight hour shift as per prevalent system.

	Proposition : I				
	Discharge Facility				
Time	A	B	C	D	Rest
6.00				4	5
6.30	1	2	3		4
7.00				5	3
7.30			4		2
8.00	2	3			1
8.30				1	5
9.00			5		4
9.30					3
10.00	3	4			2
10.30				2	1
11.00			1		5
11.30					4
12.00	4	5			3
12.30			2	3	2
1.00		1			1
1.30					5

	Proposition : II				
	Discharge Facility				
Time	A	B	C	D	Rest
6.00				4	5
6.20	1	2	3		4
6.40				5	3
7.00			4		2
7.20	2	3			1
7.40				1	5
8.00			5		4
8.20					3
8.40	3	4			2
9.00				2	1
9.20			1		5
9.40					4
10.00	4	5			3
10.20				3	2
10.40			2		1
11.00					5
11.20	5	1			4
11.40				4	3
12.00			3		2
12.20					1
12.40	1	2			5
1.00				5	4
1.20		3	4		3
1.40					2



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Silo Attender

- One Silo attender per shift (total 3 nos.) has been deployed to look after the routine operation of silo, removal of lumps, to check normal leakage etc.
- Detail of dispatch of Loose cement captured from Invoice data for 15 months as given under:-

2021-22			2022-23			
Period	Vehicles (No.)	Qty. (MT)	Period	Vehicles (No.)	Qty. (MT)	Increase/ (Decrease)
Apr.-Sept.'22	798	43246	Apr.-Sept.'23	454	24563	-344
Oct.-Mar'22	690	36040	Oct.'-Mar'23	****		
Total	1488	79286		454	24563	-344

- It is clearly evident from the above on comparing the corresponding period, number of vehicles of loose cement (bulk loading) dispatch has declined by 43% (i.e. from 798 vehicles to 454 vehicles). It is not out of place to mention, anticipation of additional despatches and/or others for which extra 'silo attender' was requisitioned suffers from accuracy or turned ineffective.
- In view of the same, deployment decision of 'silo attender' requires a re-look.

House-Keeping(HK)

- Eight house-keeping labour has been deployed for cleaning the area of vehicle bay (covered area), elevator pit, both silo with surrounding area, belt floor, vibrating & packer floor bin.
- As discussed, from October," A "Shift has been called off due to lower dispatch order. Shift "B" & "C" is continuous for meeting the dispatch requirement.
- Requirement of housekeeping is connected with dispatch, requirement of HK labour needs to be reviewed for further rationalization.
- To assess utilization of Packers, shift-wise daily dispatch for both 2021-22 and 2022-23 being reproduced hereunder. Out of the three shifts (A, B and C); despatches were lowest in 'A' shift for 300 days and 317 days respectively in 2021-22 and 2022-23. Prevalent shift timings are 6 a.m to 2 p.m, 2 p.m to 10 p.m and 10 p.m to 6 a.m. It is pertinent to mention here that shift-wise/daily dispatch swings are very high. However, keeping in view of order inflow and time requirement for despatch; possibility to be explored to discontinuance of 'A' shift or, resorting to changing shift timings from 10 a.m to 6 p.m and 6 p.m to 2 a.m for operating with two shifts need to be explored for achieving a savings of Rs.10 Lacs p.a (Minimum)
- As evident from above, plant operating about **60%** of available capacity of 4800 Mt. per Packer Unit in both the years. **It is pertinent to mention here that plant mainly operating**



between 40%-60% of the capacity.

- Further, it is observed that in A shift, packer 1 operated 50% & below for 339 & 327 days & Packer 2 for 328 & 324 days in FY 21-22 & 22-23 respectively. By enhancing the utilization p.c. of one packer alternatively, one packer can be kept idle with rationalization of direct manpower grades **(a to e as defined above). Savings to the tune of Rs.20 Lacs p.a.** can be achieved. Moreover, the proposed arrangement barring manpower reduction will provide more flexibility in operation by way of changeover time reduction, Equipment life and avoidance of Break-down through intermittent shut downs of Packers, reduction of TAT (Turn Around Time) of Vehicles, reduction in electricity and ancillary cost due to lower operating time of Packers etc. etc.

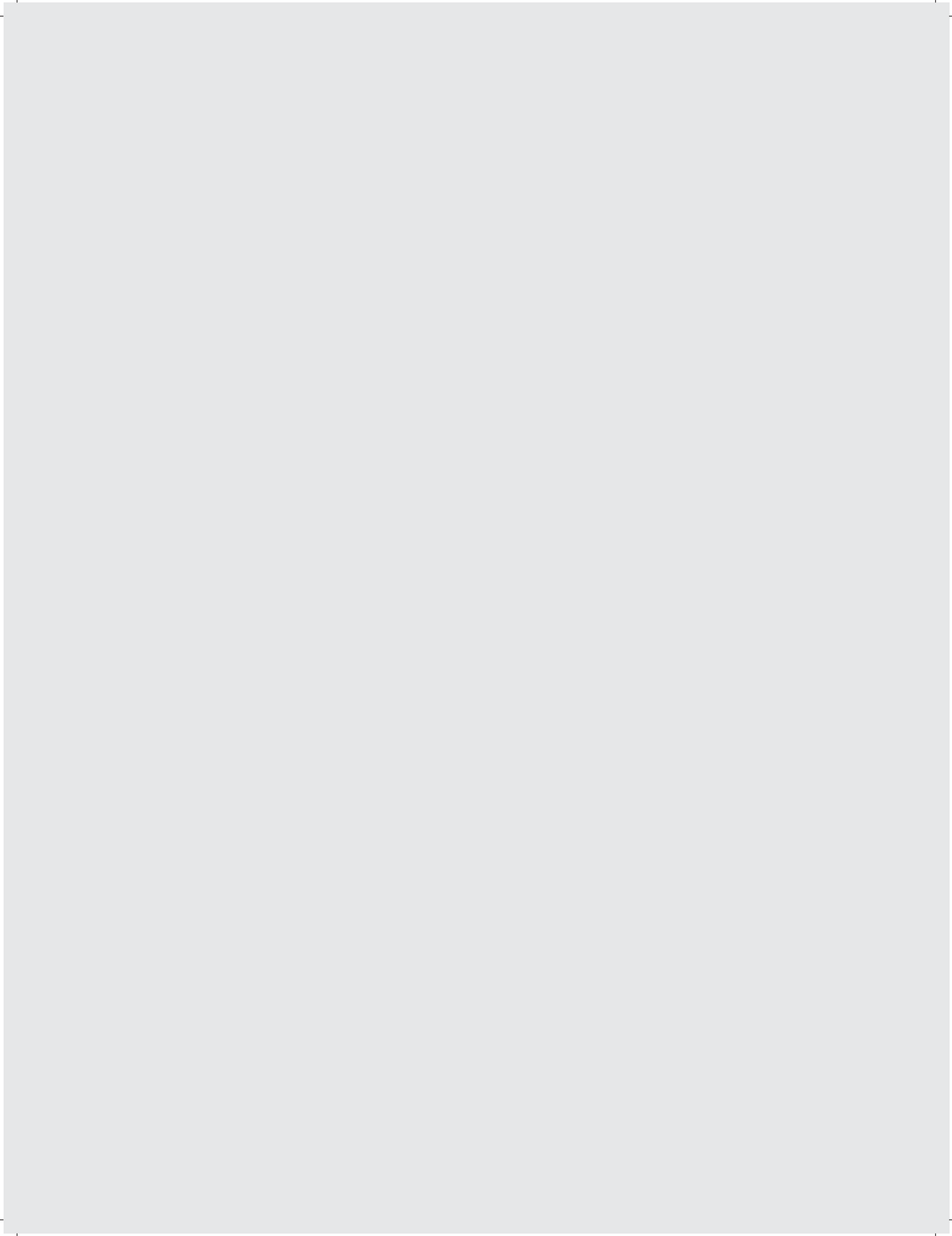
Recommendation

- Suggested manpower/ position abolition need to be carried out with a view to more efficient working and cost reduction.

Note : The Report can be inserted in the chosen Reporting Format. The same indicates the presentation and depth of Observations.



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